pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Renewal**	Application No.	**PA0216097**
Facility Type	**Industrial**	APS ID	**968193**
Major / Minor	**Minor**	Authorization ID	**1229196**

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

Applicant and Facility Information

Applicant Name	**Johnstown Recovery System LLC**	Facility Name	**Johnstown Recovery Systems**
Applicant Address	100 Iron Street	Facility Address	100 Iron Street
	Johnstown, PA 15906-2610		Johnstown, PA 15906-2610
Applicant Contact	Chris Perry	Facility Contact	Tom McDougall
Applicant Phone	(757) 544-3863	Facility Phone	(252) 287-9124
Client ID	343025	Site ID	461025
SIC Code	3462	Municipality	Johnstown City
SIC Description	Manufacturing - Iron and Steel Forgings	County	Cambria
Date Application Received	May 11, 2018	EPA Waived?	Yes
Date Application Accepted	May 9, 2019	If No, Reason	

Purpose of Application: Renewal and Transfer of an NPDES Permit

Summary of Review

The Department received a renewal NPDES application from Standard Forged Products, Inc. (SFP), currently headquartered in McKees Rocks, Pennsylvania, for their Johnstown Plant on March 29, 2011. SFP, a subsidiary of Trinity Industries, based in Dallas, Texas, then ran this Johnstown steel forging and fabrication plant, which was previously part of a much larger facility, originally developed in 1852 by the Cambria Iron Company. Originally this facility was nestled between Johnstown and Cambria City, on the banks of the Conemaugh River and surrounded by iron ore deposits. With easy access to coal and a rail line, the site was ideal for iron and, later, steel making. This facility continued to thrive and was later owned and operated by a series of companies, including the Cambria Steel Company (1898 – 1916), the Midvale Steel & Ordinance Company (1916 – 1923), and the Bethlehem Steel Company (1923 through the early 1990's) which later became Bethlehem Steel Corp. (BSC). This site was effectively sold off by BSC in portions over an extended period of time from the early 1990's until the company's eventual bankruptcy was completed, and the company dissolved in 2003.

The portion of the prior BSC facilities under the control of SFP in 2011 was purchased by the Johnstown Axle Works (JAW) from BSC in late 1988. The focus of this portion of the former BSC site, at that time, was the manufacture of railcar axles, and railcar and/or truck assembly. This site was subsequently sold by JAW and acquired by SFP. SFP was in control of this property by the end of 1991. In response to a Department Notice of Violation (NOV) issued on December 26, 1991, SFP applied for and the Department eventually issued NPDES permit (**PA0216097**) as a split off portion of the prior BSC NPDES permit (**PA0002992**), effective December 1, 1995. NPDES permit renewals were issued effective May 1, 2001 and again on October 1, 2006, starting the most recent 5-year permit term that expired on September 30, 2011 which is now administratively extended.

Approve	Deny	Signatures	Date
X		John L Duryea, Jr., P.E. / Environmental Engineer	May 8, 2024
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	May 10, 2024

Summary of Review

Under SFP ownership, their portion of the former BSC site was operated for much of the 1990's; however, the prior renewal Fact Sheet documents that site operations were interrupted for most of the early 2000's. During this most recent, renewed permit term, starting in 2006, a number of changes were incorporated. It was recognized that **Outfall 309** is actually shared with another successor of BSC which is now known as Tecumseh Redevelopment Inc. (Tecumseh). The SFP contribution to this outfall was non-contact cooling water (NCCW) monitored at an Internal Monitoring Point (IMP) 399. However, two stormwater (SW) outfalls were added to the permit in this most recent renewal from the prior BSC permit, **Outfalls 308** and **311**. After about an 18-month period of operation circa 2005 – 2007, the steel fabrication plant was permanently idled and the site later sold in 2013 by SFP and its parent, Trinity Industries, to Cambria Industrial Development, LLC. (CID). Figure 1 shows a satellite image of the site with an outline of the CID owned portion (red outline), included in the transfer request documentation.

Figure 1: Cambria Industrial Development's portion of the former Bethlehem Steel Site (2015)

As can be seen in Figure 1, the CID portion of the site is set back from the river. As with SFP, CID shared with Tecumseh the former BSC's Outfall 309. As with the newly redesignated stormwater Outfalls 308 and 311, these outfalls are also shared with Tecumseh. However, Outfall 311 is also shared with the Johnstown Redevelopment Authority's General Permit,

Summary of Review

PAR206145 and with the adjacent JWF Industries' site. All of JRS' site's discharges are to the Conemaugh River which is defined under 40 PA Chapter 93 as a Warm Water Fishery (WWF). A site plan was also submitted by CID in their transfer and updated renewal application received by the Department on May 12, 2015. This site plan is included as Figure 2 below:

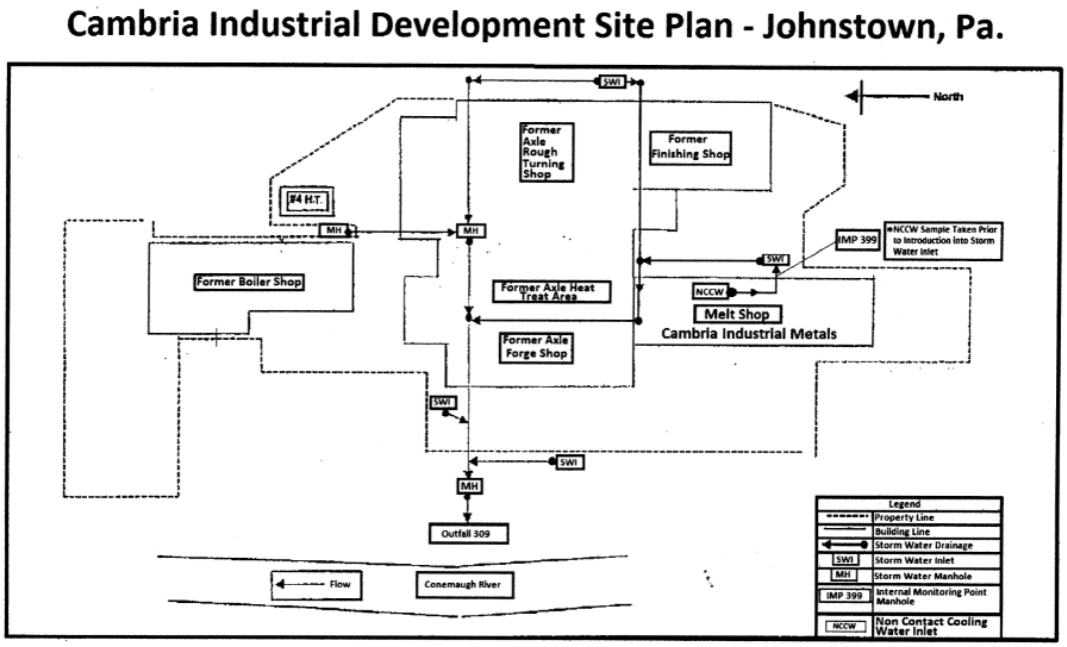

Figure 2: Cambria Industrial Development Site Plan (2015)

Outlined in Figure 2 are the process uses of the former BSC and SFP railcar axle fabrication operations, now idled. This figure also shows the site's stormwater collection system with its stormwater inlets and the facility's NCCW infrastructure with its discharge through **IMP 399** in the "Melt Shop", located in an area previously housing a BSC rotary furnace, metal billet storage and the adjacent areas used for axle and truck assembly. As noted in their March 2, 2016 letter to the Department, Cambria Industrial Metals, Inc. (CIM) was an independent lessee tenant of CID. In 2015, the CID "Melt Shop" was the location of a 4-ton induction furnace. By 2016, this furnace was reported to have been reconfigured to recycle water without discharge, but by this date, the furnace had also been idled. Attached to the 2016 letter was an updated site plan, shown in Figure 3:

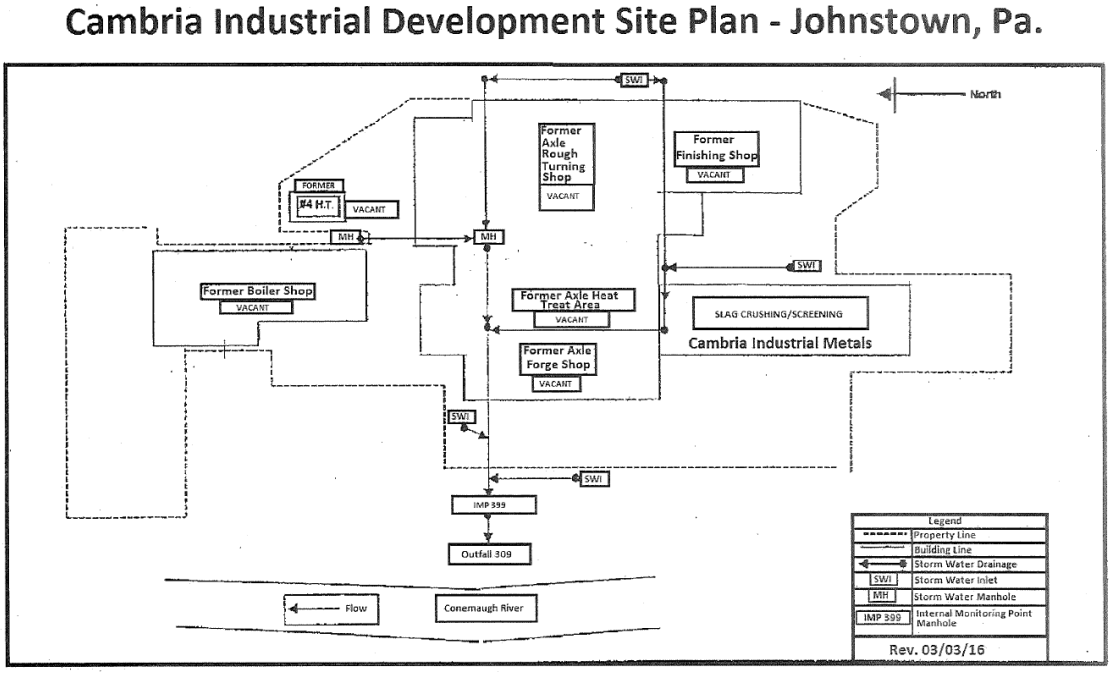

Figure 3: Cambria industrial Development Site Plan (2016)

Summary of Review

Note that by comparing the two figures it is evident that CIM had by 2016 discontinued the use of the "Melt Shop" and had repurposed this area for trucking in slag, crushing and screening it for resale. Satellite images from this period also show stockpiles of materials stored outside. At some time between 2016 and 2018, CIM appears to have moved their main operations to a location north of the town of Boswell in Somerset County. On May 11, 2018, the Department received an application to transfer this NPDES permit from CID to Johnstown Recovery Systems LLC (JRS) as both the applicant and as the new site name.

The Department was unable to contact the applicant, but the consultant supplied clarifying information that the site with coverage going forward is a subset of the prior CID site. The reduced extent of the JRS site is shown in Figure 4 below:

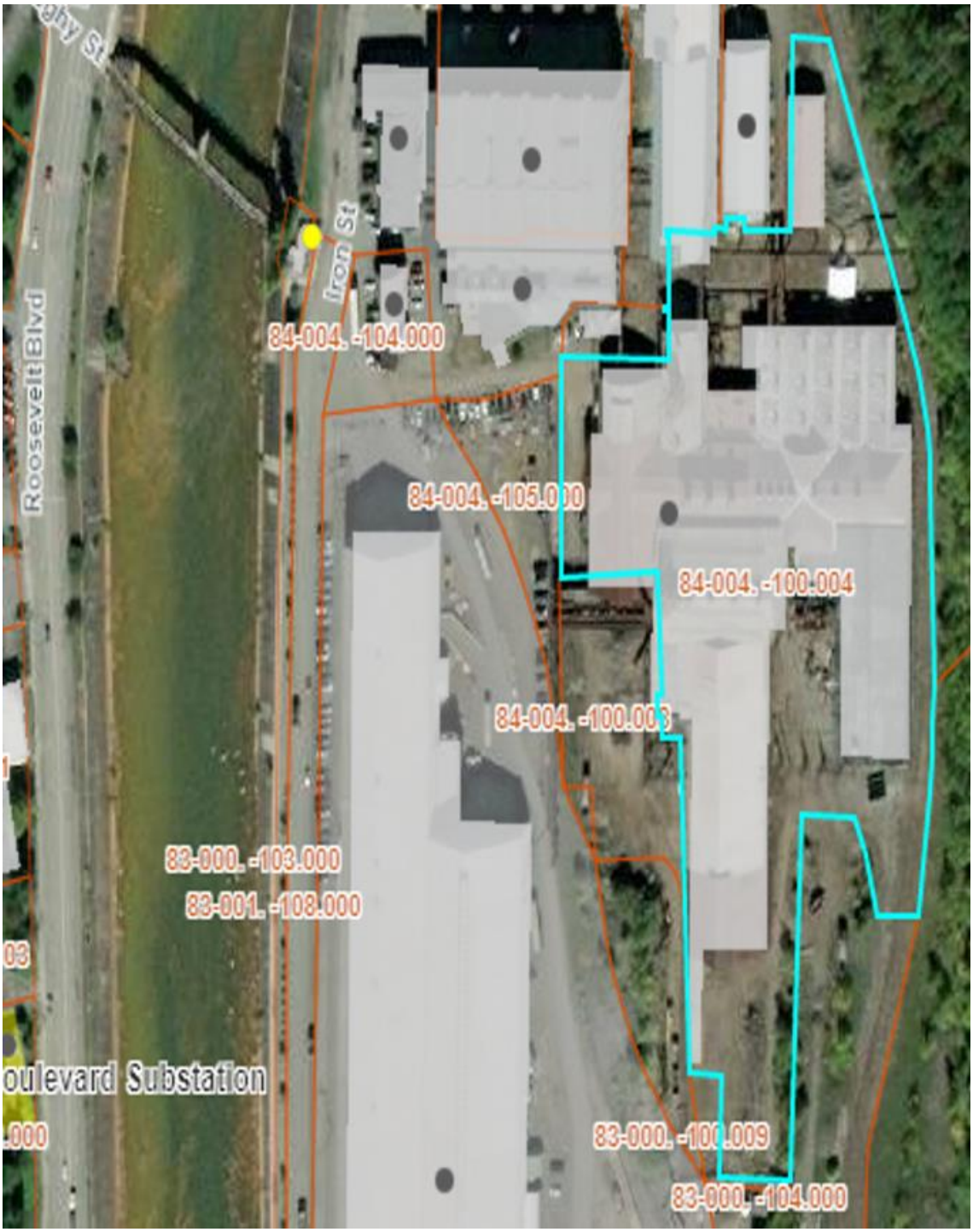

Figure 4: Johnstown Recovery Systems LLC Site

Summary of Review

This reduced site has now shed the former BSC boiler shop and adjacent buildings, retained by CID which it now leases out as warehouse space. The JRS portion is now reported as less than 7 acres and focused on the former rail car axle shop. It has discharged essentially stormwater from its outfalls with few, if any, issues meeting permit limitations for several years. In 2022, this motivation for permit renewal was essentially based on the consultant's desire to retain open the possibility of reuse of this site in the future for some purpose that requires an NPDES permit, perhaps similar to its steel working origins or perhaps associated with its more recent blast furnace slag processing.

In late 2023, the Department was able to contact a representative of the new owner, associated with Smith Industries, Inc. The representative shared that they have two "slag mining permits", **11060301** and **11940301**. The Department's Bureau of Active Mines office in Ebensburg added that both of these permits have associated NPDES permits that cover discharges from the site related to mining and processing iron and steel making slag from this site. On February 22, 2024, this same Smith Industries contact requested that the Department simply renew this permit for another 5-year term, allowing the owner time to decide on the future purpose for their site. Given these existing NPDES discharge permits for slag processing, this permit will also focus on the former steel making/forging activities which were the purpose for this permit earlier this century.

With this in mind, this permit renewal will be for discharges of stormwater runoff associated with industrial activities with an eye to the prior onsite steel making, forging and heat treating and also associated with more recent slag processing of trucked in slag rather than the materials mined at this site which are covered in other permits. With this more historical approach, a composite view of the BSC building uses and contemporary satellite image are presented below as Figure 5.

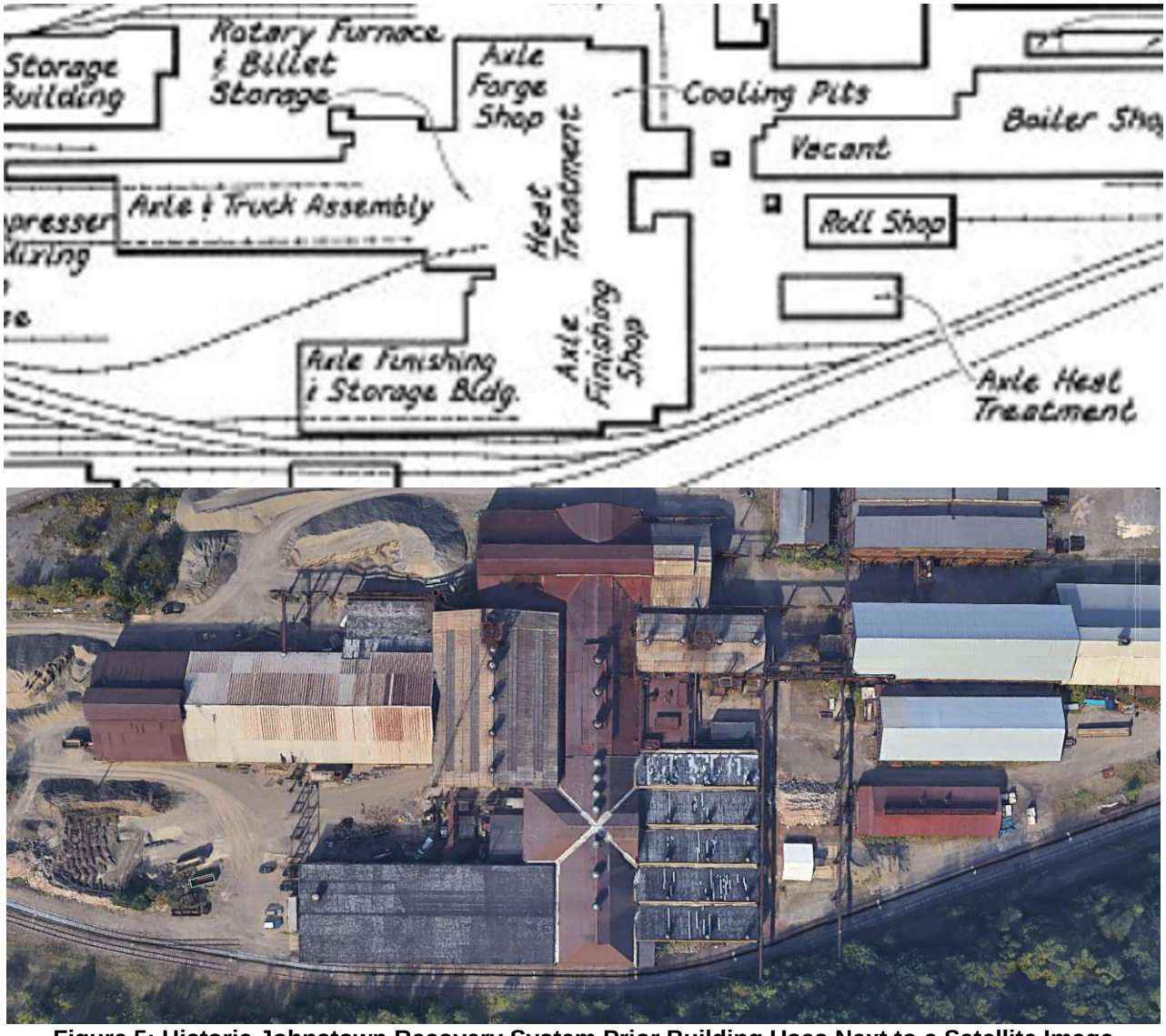

Figure 5: Historic Johnstown Recovery System Prior Building Uses Next to a Satellite Image

Summary of Review

Note that the image in Figure 5 is rotated approximately 90 Degrees clockwise from the image in Figure 4. The latter with north being toward the right of the image, the main rail lines east of the site at the bottom, and the Conemaugh River toward the west (top). Viewing the historic uses and the satellite images together in Figures 4 and 5 reveals that the "Boiler Shop" and "Roll Shop" at the far right side of the Figure 4 images have been sold off, but the "Axle Heat Treatment" building was retained, as were the prior "Axle Forge Shop, "Cooling Pits," "Heat Treatment" areas and the "Axle Finishing Shop" in the central structure. Also retained are the "Rotary Furnace & Billet Storage", the "Axle & Truck Assembly" areas; as well as, the "Axle Finishing & Storage Building." Other buildings have been largely removed. Under the Department's "NPDES General Permit (GP) for Discharges of Stormwater Associated with Industrial Activity Notice of Intent (NOI) Instructions" (3800-PM-BCW0083a, Rev. 2/2023 (PAG-03), these types of activities are covered under PAG-03, **Appendix B**, Primary Metals. Also visible in the more recent satellite image portion of Figure 5 are open areas being used for mining or unloading, sorting and storing aggregate and sand.

Of course, any process discharges from the earlier forging and/or hot steel forming and cooling operations have now ceased. Recent electronic discharge monitoring reports (eDMR) bear this out with the last recorded discharge measured at IMP 399, previously non-contact cooling water from an electric induction furnace, was in June 2020. No discharge has been reported since in eDMRs submitted since then. Therefore, monitoring will be focused on the two storm water discharges to confirm that these are free of pollutants. Discharge samples are collected at the previous BSC **Outfalls 308 and 311**, both of these outfalls are shared with other nearby operations using other parcels of these former BSC sites, as illustrated in Figure 6:

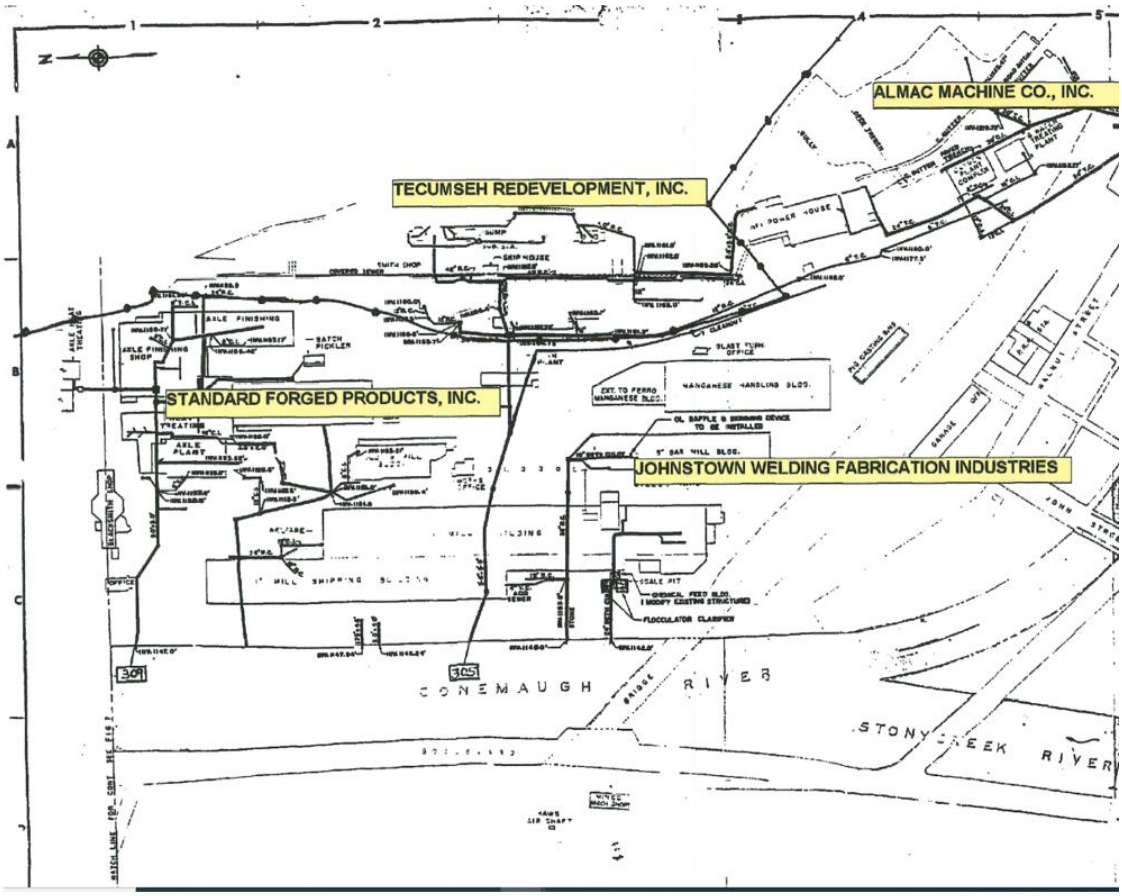

Figure 6: Former BSC Owned Sites, and Owners Circa 2011

The more recent use of this site is by the site's tenant, CIM. In their letter, dated March 2, 2016, CID noted, "The SIC code that appears most appropriate is 3295 ('…establishments primarily crushing slag …')." Under the PAG-03 Instructions, this SIC code is covered under **Appendix N**.

The permittee has complied with Act 14 notifications.

It is recommended to publish a draft of this NPDES renewal permit for public comment.

Summary of Review
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.	IMP 399 to Outfall 309	Design Flow (MGD)	0.432
Latitude	40º 20' 10.22"	Longitude	-78º 55' 29.37"
Quad Name	1614	Quad Code	Johnstown
Wastewater Description:	Prior NCCW, Shared Outfall with Tecumseh.		
Receiving Waters	Conemaugh River (WWF)	Stream Code	43832
NHD Com ID	123720455	RMI	52.0 miles
Drainage Area	659 sq. miles	Yield (cfs/mi^2)	0.0968
Q_{7-10} Flow (cfs)	63.8	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1145	Slope (ft/ft)	
Watershed No.	18-D	Chapter 93 Class.	WWF
Existing Use	Aquatic Life	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Siltation, TSS, Turbidity, Aluminum, Iron, Manganese and Low pH		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status	Final	Name	Kiskiminetas-Conemaugh River Watersheds TMDL
Nearest Downstream Public Water Supply Intake	Buffalo Township Municipal Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2553
PWS RMI	29.4	Distance from Outfall (mi)	79.8

Changes Since Last Permit Issuance: The discharge of non-contact cooling water from the electric induction furnace has ceased, parts have been removed, and the prior process rendered inoperative. The last eDMRs that recorded a discharge flow at IMP 399 were in mid-2020. No discharge has been reported since that time.

Other Comments: This discharge, having ceased, will be changed to inactive and the IMP 399 removed from the renewal permit.

Figure 7: Pictures of the Manhole Sampling Point of JRS IMP 399

Discharge, Receiving Waters and Water Supply Information

Outfall No.	308	Design Flow (MGD)	0
Latitude	40º 20' 6.97"	Longitude	-78º 55' 29.76"
Quad Name	1614	Quad Code	Johnstown
Wastewater Description:	Stormwater, Shared Outfall with Tecumseh and JWF Industries		
Receiving Waters	Conemaugh River (WWF)	Stream Code	43832
NHD Com ID	123720455	RMI	52.1 miles
Drainage Area	659 sq. miles	Yield (cfs/mi^2)	0.0968
Q_{7-10} Flow (cfs)	63.8	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1145	Slope (ft/ft)	
Watershed No.	18-D	Chapter 93 Class.	WWF
Existing Use	Aquatic Life	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Impaired		
Cause(s) of Impairment	Metals, Siltation, TSS, Turbidity, Aluminum, Iron, Manganese and Low pH		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status	Final	Name	Kiskiminetas-Conemaugh River Watersheds TMDL
Nearest Downstream Public Water Supply Intake	Buffalo Township Municipal Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2553
PWS RMI	29.4	Distance from Outfall (mi)	79.9

Changes Since Last Permit Issuance: None

Other Comments: The relative positions of JRS' outfalls are shown in Figure 8, below:

Figure 8: Annotated Satellite Image with Yellow Pins at Outfalls 308, 309 and 311

Other Comments:

Discharge, Receiving Waters and Water Supply Information

Outfall No.	311	Design Flow (MGD)	0
Latitude	40º 20' 15.09"	Longitude	-78º 55' 28.59"
Quad Name	1614	Quad Code	Johnstown
Wastewater Description:	Stormwater, Shared Outfall with Tecumseh and Johnstown Redevelopment Authority.		
Receiving Waters	Conemaugh River (WWF)	Stream Code	43832
NHD Com ID	123720455	RMI	51.9 miles
Drainage Area	659 sq. miles	Yield (cfs/mi^2)	0.0968
Q_{7-10} Flow (cfs)	63.8	Q_{7-10} Basis	USGS StreamStats
Elevation (ft)	1145	Slope (ft/ft)	
Watershed No.	18-D	Chapter 93 Class.	WWF
Existing Use	Aquatic Life	Existing Use Qualifier	None
Exceptions to Use	None	Exceptions to Criteria	None
Assessment Status	Not Assessed		
Cause(s) of Impairment	Metals, Siltation, TSS, Turbidity, Aluminum, Iron, Manganese and Low pH		
Source(s) of Impairment	Acid Mine Drainage		
TMDL Status	Final	Name	Kiskiminetas-Conemaugh River Watersheds TMDL
Nearest Downstream Public Water Supply Intake	Buffalo Township Municipal Authority		
PWS Waters	Allegheny River	Flow at Intake (cfs)	2553
PWS RMI	29.4 miles	Distance from Outfall (mi)	79.7

Changes Since Last Permit Issuance: None

Other Comments: A picture, taken during an inspection of JRS' site Outfall 311 is shown in Figure 9, below:

Outfall 311

Figure 9: Picture of JRS Outfall 311

Compliance History

Table 1: DMR Data for Outfall 308 (from September 1, 2020 to August 31, 2021)

Parameter	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20
Flow (MGD) Average Monthly	0.001	0.004	0.001	0.001	0.01	0.003		0.001	0.002	0.07	0.003	0.003
Flow (MGD) Daily Maximum	0.001	0.004	0.001	0.001	0.01	0.003		0.001	0.002	0.07	0.003	0.003
Nitrate-Nitrite (mg/L) Average Monthly	0.30	0.88	0.57	0.84	0.68	0.44		0.92	0.57	0.10	0.64	0.55
Nitrate-Nitrite (mg/L) Daily Maximum	0.30	0.88	0.57	0.84	0.68	0.44		0.92	0.57	0.10	0.64	0.55

Table 2: DMR Data for Outfall 311 (from September 1, 2020 to August 31, 2021)

Parameter	AUG-21	JUL-21	JUN-21	MAY-21	APR-21	MAR-21	FEB-21	JAN-21	DEC-20	NOV-20	OCT-20	SEP-20
Flow (MGD) Average Monthly	0.004	0.01	0.001	0.001	0.003	0.004		0.001	0.001	0.007	0.006	0.006
Flow (MGD) Daily Maximum	0.004	0.01	0.001	0.001	0.003	0.004		0.001	0.001	0.007	0.006	0.006
Nitrate-Nitrite (mg/L) Average Monthly	0.53	0.95	0.38	0.23	0.35	0.53		0.44	0.19	0.15	0.43	0.47
Nitrate-Nitrite (mg/L) Daily Maximum	0.53	0.95	0.38	0.23	0.35	0.53		0.44	0.19	0.15	0.43	0.47

Development of Effluent Limitations

Outfall No. 308, 309, 311 **Design Flow (MGD)** 0
Latitude 40º 20' 10" **Longitude** -78º 55' 28"
Wastewater Description: Stormwater, and a prior discharge of NCCW

Technology-Based Limitations

There are no Federal Effluent Limit Guidelines (ELGs) for the discharge of NCCW, stormwater or groundwater for the prior SFP, CDI or postulated JRS or Smith Industries' products. In the absence of regulations or ELGs the Department is required to develop effluent limitations based on Best Professional Judgement (BPJ).

As noted above, no process discharges have existed since before mid-2020 at **Outfall 309**, through IMP 399. The stormwater discharges at this Outfall are believed to be from property now owned by Tecumseh. Therefore, no monitoring at IMP 399 or Outfall 309 will be included in this permit renewal. If, however, the owner plans to restart the prior steel fabrication facility for any purpose, a permit amendment will be required. A Part C condition will be added to require notice and submission of an NPDES permit amendment application at least 180 days prior to restarting use of these facilities to allow time for the Department to update the NPDES permit in this regard.

Outfalls 308 and 311, although also believed to be shared, discharge stormwater from the JRS site and are monitored at the discharge infrastructure by the owner's consultants. The following technology-based limitations apply, subject to water quality analysis and BPJ where applicable:

Stormwater Technology Limits

Outfalls 308 and 311 will be subject to PAG-03 General Stormwater Permit conditions as a minimum requirement because the outfalls discharge stormwater associated with industrial activity. The applicable SIC code for the site's earlier permits was 3462 and the corresponding appendix of the PAG-03 that would apply to the facility is Appendix B. The reporting requirements applicable to stormwater discharges are shown in Table 3 below. Along with the monitoring requirements, sector specific BMPs that are included in Appendix B of the PAG-03 will also be included in Part C of the Draft Permit.

Table 3: PAG-03 Appendix (B) Monitoring Requirements

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab
Total Aluminum	Monitor and Report	1/6 Months	Grab
Total Iron	Monitor and Report	1/6 Months	Grab
Total Zinc	Monitor and Report	1/6 Months	Grab
Total Copper	Monitor and Report	1/6 Months	Grab
Total Lead	Monitor and Report	1/6 Months	Grab
Total Nitrogen (1)	Monitor and Report	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1/6 Months	Grab
Oil and Grease	Monitor and Report	1/6 Months	Grab

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

For General Permit monitoring, although no effluent limitations are promulgated, benchmarks are provided for TSS (100 mg/L) and Oil & Grease (30 mg/L). Note that benchmarks are not permit limits and exceeding these does not constitute a permit violation; however, if consecutive, repetitive exceedances occur at the same outfall, a Corrective Action Plan is required by permit conditions.

In addition, to cover the more recent onsite activities of trucking in blast furnace and other steel making slag, reworking, grading and/or repackaging these materials for sale as aggregate, a SIC code of 3295 would be appropriate, as previously noted, which corresponds to Appendix N of the General Permit (PAG-03).

The reporting requirements applicable to stormwater discharges for this Appendix are shown in Table 4 below. Along with the monitoring requirements, sector specific BMPs that are included in Appendix N of the PAG-03 will also be included in Part C of the Draft Permit. In addition, a benchmark value for pH of <9.0 S.U. applies, as well.

Table 4: PAG-03 Appendix (N) Monitoring Requirements

Parameter	Max Daily Concentration	Measurement Frequency	Sample Type
pH	Monitor and Report	1/6 Months	Grab
Total Suspended Solids (TSS)	Monitor and Report	1/6 Months	Grab
Total Aluminum	Monitor and Report	1/6 Months	Grab
Total Iron	Monitor and Report	1/6 Months	Grab
Total Nitrogen (1)	Monitor and Report	1/6 Months	Calculation
Total Phosphorus	Monitor and Report	1/6 Months	Grab

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

Water Quality-Based Limitations (WQBELs)

Stormwater WQBELs

Water quality analyses are typically performed under low-flow (Q_{7-10}) conditions. Stormwater discharges occur at variable rates and frequencies but not however during Q_{7-10} conditions. Since the discharges from Outfalls 308 and 311 are composed entirely of stormwater, a formal water quality analysis cannot be accurately conducted. Accordingly, WQBELs based on water quality analyses are not proposed.

Total Maximum Daily Loads (TMDL)

Wastewater discharges from the JRS site are located within the Kiskiminetas-Conemaugh Watershed which is subject to a TMDL developed by the U.S. Environmental Protection Agency (EPA) and their contractor TetraTech. The TMDL was finalized on January 29, 2010 and establishes waste load allocations for the discharge of metals, aluminum, iron and manganese within this watershed. Section 303(d) of the Clean Water Act and U.S. EPA's Water Quality Planning and Management Regulations (codified at Title 40 of the *Code of Federal Regulations* Part 130) require states to develop a TMDL for impaired water bodies.

A TMDL establishes the amount of a pollutant that a water body can assimilate without exceeding the water quality criteria for that pollutant. TMDLs provide the scientific basis for a state to establish water quality-based controls to reduce pollution from both point and non-point sources in order to restore and maintain the quality of the state's water resources (USEPA 1991a). Stream reaches within the Kiskiminetas-Conemaugh River Watersheds are included in the state's Section 303(d) list because of various impairments, including metals, aluminum, iron and manganese. The TMDL includes consideration for each river segment and tributary within the target watershed and its impairment sources. Stream data is then used to calculate minimum pollutant reductions that are necessary to attain water quality criteria levels. Target concentrations published in the TMDL were based on established water quality criteria of 0.750 $^{mg}/_{L}$ total recoverable aluminum, 1.5 $^{mg}/_{L}$ total recoverable iron based on a 30-day average and 1.0 $^{mg}/_{L}$ total recoverable manganese. The reduction needed to meet the minimum water quality standards is then allocated among each known point and non-point pollutant source in the form of a watershed allocation using a stream's assimilative capacity. TMDLs prescribe allocations that minimally achieve water quality criteria (i.e., 100 percent use of a stream's assimilative capacity).

Aluminum: The specific water quality criterion for aluminum is expressed as an acute risk with a maximum daily limit in 25 Pa. Code Chapter 93. Discharges of aluminum may only be authorized to the extent that they will not cause or contribute to any violation of the water quality standards. Therefore, the water quality criterion for aluminum (0.75 mg/L) is imposed as a maximum daily effluent limit (MDL). Whenever the most stringent criterion is selected for the MDL, the Department should also impose an average monthly limit (AML) and instantaneous maximum limit (IMAX) if applicable. The imposition of an AML that is more stringent than the MDL is typically not appropriate because the water quality concerns have already been fully addressed by setting the MDL equal to the most stringent applicable criterion. Therefore, where the MDL is set at the value of the most stringent applicable criterion, the AML should be set equal to the MDL. Accordingly, TMDL aluminum limits are proposed for this outfall.

Iron: The specific water quality criterion for iron is expressed as a 30-day average of 1.5 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of aquatic life and is associated with chronic exposure. There are no other criteria for total iron. Since the duration of the total iron criterion coincides with the 30-day duration of the AML, the 30-day average criterion for total iron is set equal to the AML. In addition, because the total iron criterion is associated with chronic exposure, the MDL (representing acute exposure) and the IMAX may be made less stringent according to established procedures described in Section III.C.3.h on Page 13 of the Water Quality Toxics Management Strategy (Doc. # 361-0100-003). These procedures state that a MDL and IMAX may be set at 2 times and 2.5 times the AML, respectively, or there is the option to use multipliers from EPA's Technical Support Document for Water Quality-based Toxics Control, if data are available to support the use of alternative multipliers. Accordingly, TMDL iron limits are proposed for this outfall.

Manganese: The specific water quality criterion for manganese is expressed as an acute or maximum daily of 1.0 mg/L in 25 Pa. Code § 93.7(a). The criterion is based on the protection of human health and is associated with chronic exposure associated with a potable water supply (PWS). Since no duration is given in Chapter 93 for the manganese criterion, a duration of 30 days is used based on the water quality criteria duration for Threshold Human Health (THH) criteria given in Section III.C.3.a., Table 3 on Page 9 of DEP's Water Quality Toxics Management Strategy. The 30-day duration for THH criteria coincides with the 30-day duration of an AML, which is why the manganese criterion is set equal to the AML for a "permitting at criteria" scenario. Because the manganese criterion is interpreted as having chronic exposure, the manganese MDL and IMAX may be made less stringent according to procedures established in Section III.C.2.h. of the Water Quality Toxics Management Strategy (AML multipliers of 2.0 and 2.5 for the MDL and IMAX respectively). Accordingly, TMDL manganese limits are proposed for this outfall.

All new or revised NPDES permits discharging into the Kiskiminetas-Conemaugh River Watersheds have to be consistent with the TMDL Waste Load Allocation based on 40 CFR 122.44(d)(1)(vii)(B). The Department reviewed the TMDL and the predecessor permits for this facility were assigned a portion of an applicable prior WLA. Since no information on parsing of the WLA among the shared dischargers at JRS' outfalls is available, the TMDL endpoints will be imposed. The concentration values may be used as Effluent Limitations in the JRS permit. Refer to Table 5 below, for a summary of the TMDL effluent concentration limitations which will be applied to this facility.

Table 5: Summary of the TMDL Criteria and Applicable Effluent Limitations

Parameter	Monthly Average ($^{mg}/_{L}$)	Daily Maximum ($^{mg}/_{L}$)
Aluminum	0.75	0.75
Iron	1.5	3.0
Manganese	1.0	2.0

Anti-Backsliding

Section 402(o) of the Clean Water Act (CWA), enacted in the Water Quality Act of 1987, establishes anti-backsliding rules governing two situations. The first situation occurs when a permittee seeks to revise a Technology-Based effluent limitation based on BPJ to reflect a subsequently promulgated effluent guideline which is less stringent. The second situation addressed by Section 402(o) arises when a permittee seeks relaxation of an effluent limitation which is based upon a State treatment standard or water quality standard.

Previous limits can be used pursuant to EPA's anti-backsliding regulation 40 CFR 122.44 (l) Reissued permits. (1) Except as provided in paragraph (l)(2) of this section when a permit is renewed or reissued. Interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit (unless the circumstances on which the previous permit was based have materially and substantially changed since the time the permit was issued and would constitute cause for permit modification or revocation and reissuance under §122.62). (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. These prior effluent limits are shown in Table 6 below:

Table 6: Current Outfalls 308 and 311 Effluent Limitations

Parameter	Mass / Loading ($^{lb}/_{day}$)		Concentration / Quality ($^{mg}/_{L}$)				Units
	Monthly Average	Daily Maximum	Instant Minimum	Monthly Average	Daily Maximum	Instant Max	
Flow	Report	Report	---	---	---	---	MGD
Nitrate-Nitrite as N	---	---	---	Report	Report	---	$^{mg}/_{L}$

Proposed Effluent Limitations and Monitoring Requirements

Since sampling had previously been established at these outfalls to monitor the effectiveness of the site's implemented BMPs, this same level of monitoring will be continued and at the same, twice per month frequency. Given the history of this site and the requirements of the Kiskiminetas-Conemaugh River Watershed's TMDL, the associated pollutants are considered to have a reasonable potential of being discharged from this facility. The associated monitoring of these TMDL pollutants and the associated TMDL endpoints will be imposed as effluent limitations with monitoring at the same frequencies as previously imposed.

The proposed effluent monitoring requirements for Outfalls 308 and 311 are displayed in Table 7 below, these include the most stringent values from the above effluent limitation development. Since the monitoring has been twice per month, this frequency was maintained in the renewal.

Table 7: Permit Effluent Limits and Monitoring Requirements for Outfalls 308 and 311

Parameter	Mass (pounds)		Concentration (mg/L)			Monitoring Requirements
	Average Monthly	Daily Maximum	Average Monthly	Daily Maximum	Instant Maximum	
Flow (MGD)	Report	Report	—	—	—	Estimate; 2/month
Nitrate+Nitrite -Nitrogen	—	—	Report	Report	—	Grab sample; 2/month
Total Suspended Solids	—	—	Report	Report	—	Grab sample; 2/month
Oil and Grease	—	—	Report	Report	—	Grab sample; 2/month
Total Aluminum	—	—	0.75	0.75	—	Grab sample; 2/month
Total Iron	—	—	1.5	3.0	—	Grab sample; 2/month
Total Manganese	—	—	1.0	2.0	—	Grab sample; 2/month
Total Zinc	—	—	Report	Report	—	Grab sample; 2/month
Total Copper	—	—	Report	Report	—	Grab sample; 2/month
Total Lead	—	—	Report	Report	—	Grab sample; 2/month
Total Nitrogen (1)	—	—	Report	Report	—	Calculation
Total Phosphorus	—	—	Report	Report	—	Grab sample; 2/month
pH (S.U.)	Within the range of 6.0 to 9.0					Grab sample; 2/month

(1) Total Nitrogen is the sum of Total Kjeldahl-N (TKN) plus Nitrite-Nitrate as N (NO_2+NO_3-N), where TKN and NO_2+NO_3-N are measured in the same sample.

Tools and References Used to Develop Permit	
☐	WQM for Windows Model
☐	Toxics Management Spreadsheet
☐	TRC Model Spreadsheet
☐	Temperature Model Spreadsheet
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 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, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 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, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: SOP for Clean Water Program, New and Reissuance IW and Industrial Stormwater, Individual NPDES Permit Applications, BPNPSM-PMT-001.
☐	Other: