pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Amendment, Major**	Application No.	**PA0001627 - A4**
Facility Type	**Industrial**	APS ID	**1071115**
Major / Minor	**Major**	Authorization ID	**1409997**

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

Applicant and Facility Information

Applicant Name	**Cheswick Plant Environmental Redevelopment Group LLC**	Facility Name	**Cheswick Plant**
Applicant Address	12601 Plantside Drive	Facility Address	151 Porter Street
	Louisville, KY 40299-6386		Springdale, PA 15144-1452
Applicant Contact	Norman Divers	Facility Contact	Sam Miller
Applicant Phone	(502) 245-1353	Facility Phone	(502) 377-5787
Client ID	369107	Site ID	245779
SIC Code	4911	Municipality	Springdale Borough
SIC Description	Trans. & Utilities - Electric Services	County	Allegheny
Date Application Received	September 8, 2022	EPA Waived?	No
Date Application Accepted		If No, Reason	Major Facility

Purpose of Application: Amendment request for this NPDES permit to reflect plant shutdown and ongoing decommissioning

Summary of Review

On September 8, 2022, the Department received an application for a major amendment to this NPDES permit. The request encompassed essentially a recognition of the change of the Cheswick Plant to a permanently shut down status. A site walkdown was conducted on October 28, 2022 to review changes at the site pursuant to processing this amendment request. The amendment application had the following specific requests:

1. Change in the classification of the permit from a Major IW Facility $\geq$ 250 MGD discharge to a Minor IW Facility.
2. Removal of IMP 103 as a monitoring point with effluent limitations.
3. Removal of Outfall 004 as a discharge point.
4. Removal of monitoring parameters from Outfall 003, including Total Residual Chlorine (TRC), Influent Temperature, Discharge Temperature and Heat Rejection Rate.

The Cheswick Plant is owned by Kentucky based Charah Solutions, Inc. through its subsidiary, Charah Environmental Redevelopment Group, LLC and its project/site specific subsidiary Cheswick Plant Environmental Redevelopment Group, LLC (CPERG). The former site owners operated this coal fired steam electric generating station until its shutdown on or before March 31, 2022. The current owner is charged with decommissioning, remediation and repurposing of this site.

The permittee had made contact with the Department prior to their September amendment application submittal to inquire about item 1 above. In response, the Department consulted with the U.S. Environmental Protection Agency (EPA) in their Region 3 office in August 2022. After several communications, EPA tentatively agreed to the rerating, with formalization deferred until the draft permit comment period.

Approve	Deny	Signatures	Date
X		John L Duryea, Jr., P.E. / Environmental Engineer	December 13, 2022
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	December 19, 2022

Summary of Review

A prior amendment, effective February 1, 2022, split off portions of the then larger permitted facility including two areas near Rural Ridge, Indiana Township, specifically the Monarch Mine Dewatering Plant and the Cheswick Ash Disposal Site (a.k.a. Lefever Landfill). Under this prior action, the reduced **PA0001627 – A2**, permit boundary continues to include the Cheswick Ash Handling Site on the opposite side of Pittsburgh Street and the prior electrical power generating station. The two areas removed from PA0001627 are now permitted under NPDES permit **PA0255777**. The areas remaining under PA0001627 now only include permitted areas near Cheswick and Springdale in Allegheny County, PA.

There remain five active WQM Part II permits associated with CPERG's Cheswick Plant which include:

467I021 (Cheswick site),
0272216 (Bottom Ash Water Recycle System or BAWRS),
0277206 (Coal Pile Runoff and Miscellaneous Station Waste Basins),
0206202 (Flue Gas Desulfurization (FGD) wastewater treatment and emission control systems) and
0213200 (Mobile Water Treatment System)

All of these permits were transferred to CPERG earlier this year.

Permit History of the Cheswick Site

The Cheswick Generating Station was a coal fired steam electric power plant built for Duquesne Light Company (DLC) circa 1970. It had a turbine/generator upgrade around the time of installing the BAWRS and was rated circa 570 MW. It is located along the northern shore of the Allegheny River in Springdale Borough. This site also contains the prior site of the former Colfax Power Station (Colfax). At the time of construction of Cheswick, Colfax was operating units 3 and 4 with combined output capacity of 156 MW. WQM Part II permits (or equivalent) at that time included two issued from the Allegheny County Health Department, **466M067**, issued June 19, 1967 and **467I021**, issued April 17, 1968.

The Department began issuing permits circa 1970 and initially issued two associated with this site, **0270201** and **0270205**. The former was approved and established an Emergency Ash Pond at Cheswick. The latter was originally issued February 16, 1971 and covered the Monarch Mine Dewatering Plant and other coal combustion residuals disposal schemes including injection of flyash into the Harwick Mine complex, portions of which closed just prior to this timeframe. It was determined that the bottom ash and other combustion byproducts were not conducive to mine injection. In response, two offsite disposal landfill locations were covered under **0270205** including Kissick Ash Disposal Site (still owned by DLC) and Lefever landfill. Both of these initial WQM permits have since been terminated.

Since the Cheswick plant startup, a number of WQM permits and amendments have been issued. Most of these represent modifications to the Cheswick site or in the surrounding areas to provide various means to capture, store or dispose of flyash and other byproducts of coal combustion.

WQM Part II permit, **0272216**, was issued on August 9, 1973 by the Department, covering an upgrade to the industrial wastewater treatment facilities for the Cheswick Steam Electric Station, most notably, the addition of more than a 1.3 million-gallon, rubber lined, recycle basin to store flyash slucing water. This and other measures were intended as part of the BAWRS with specific measures designed to better deal with the bottom ash produced in this coal fired power station.

The original application for permit **0277206** was dated April 5, 1977 to cover site modifications and discharges not covered up to that date under existing permits. Specifically mentioned in the submittal were the additions of the Coal Pile Runoff Basin and two Miscellaneous Station Waste Basins, and associated water treatment measures. These were added to the existing Traveling Screen Wash water and Blowdown Sample discharges which although screened, were otherwise untreated.

On March 23, 2000, DLC sent a letter to the Department requesting that these permits be split off of a yet larger amalgam of sites and/or transferred to facilitate the sale of portions, including Cheswick, to Orion Power Midwest. A facsimile message received by the Department on April 28, 2000 confirmed closure of this sale. Consequently, new permits were created and/or transferred in this time frame. An analogous request by GenOn for parsing of permits was received, negotiated and executed earlier this year (2022).

WQM permits still active, associated with Cheswick and included in GenOn's transfer request include **467I021** (Cheswick site), **0272216** (BAWRS), **0277206** (Coal Pile Runoff and Miscellaneous Station Waste Basins), **0206202** (FGD wastewater treatment and emission control systems) and **0213200** (mobile water treatment system.

Summary of Review

The original NPDES permit, post-2000 split, was issued by the Department on August 9, 2007. Since that time, this permit was amended twice, including another permit split, and transferred four times before the amendment request that is the subject of this Fact Sheet. Note that for NPDES permits, only changes during a 5-year permit term are sequentially numbered. The subsequent permit history is detailed in the following table.

Table 1: Amendments and Transfers of NPDES Permit PA0001627 since 2000.

Permit	Date Issued	Original Permittee	New Permittee	Comments
PA0001627	Aug. 9, 2007	Orion Power Midwest, L.P.	N/A	Original Issue
PA0001627-A1	Feb. 6, 2009	Orion Power Midwest, L.P.	N/A	Incorporates a Consent Order and Adjudication settlement agreement.
PA0001627-A2	May 25, 2011	Orion Power Midwest, L.P.	GenOn Power Midwest, L.P.	Transfer only
PA0001627	July 19, 2018	GenOn Power Midwest, LP	NRG Power Midwest LP	Permit Renewal and Transfer
PA0001627-A1	Jan. 15, 2020	NRG Power Midwest LP	GenOn Power Midwest, LP	Transfer only
PA0001627-A2	Jan. 14, 2022	GenOn Power Midwest, LP	GenOn Power Midwest, LP	Amendment splitting off areas near Rural Ridge, PA
PA0001627-A3	June 14, 2022	GenOn Power Midwest, LP	Cheswick Plant Environmental Redevelopment Group LLC	Transfer of ownership from operating to a remediation company
PA0001627-A4	Pending	Cheswick Plant Environmental Redevelopment Group LLC	Cheswick Plant Environmental Redevelopment Group LLC	Amendment to downgrade to a minor permit for the shutdown plant

The specific requests for changes to this permit via amendment were reviewed with Charah Solutions personnel and contractors onsite on October 28, 2022.

During this site walkdown, Department personnel confirmed that the flammable gas supply pipeline to the boiler had been cut and capped. Therefore, the boiler cannot be started without reversing this modification. Also, the boiler has reportedly been altered to ensure that any water making its way inadvertently through the feedwater system (or otherwise) will immediately drain back out. Since the boiler cannot be filled with water nor can it be fired; the power plant is no longer operational. Therefore, monitoring of influent and discharge temperatures and calculated heat rates at Outfall 003 are now unnecessary and can be removed from the permit.

The specific chemical addition skid for the addition of chlorine bleach has also been removed. Site processes no longer use chlorination nor chlorinated supply water. Therefore, monitoring of Total Residual Chlorine (TRC) at any IMP and Outfall 003 is no longer necessary and can be removed from the permit along with associated Part C conditions.

The blowdown piping line to the blowdown tank and, subsequently, to Internal Monitoring Point (IMP) 103 has been removed. Therefore, flow to and monitoring at IMP 103 is unnecessary, and all monitoring at IMP 103 can be removed from the permit.

The plant's intake structure was included in the walkdown. The main river water pumps remain, but the electrical breakers have been reportedly "racked out". Other service water equipment still had electrical supply service, and some were reportedly being used intermittently to support site remediation activities. Therefore, although the potential for intake of river water is greatly reduced, it appears to be premature to consider the intake structure inoperative. Consequently, the complete removal of Outfall 004 which effectively discharges from the intake structure will be deferred at this time. However, the Part C condition related to intake structures will be deleted. It was noted that monitoring at this outfall is limited to reporting output flow and

Summary of Review

therefore retaining the outfall should not impose an undue burden on the permittee. The total discharge flow at Outfall 004 is now limited to the remaining operational pumps' recirculation flows and any potential leakage at the intake structure.

Note that any water used onsite plus most stormwater flowing on the site or captured in the various remaining treatment ponds or systems will eventually be discharged at Outfall 003. In the initial meeting before the walkdown, Charah supplied a flow chart which is included as Figure 1 below:

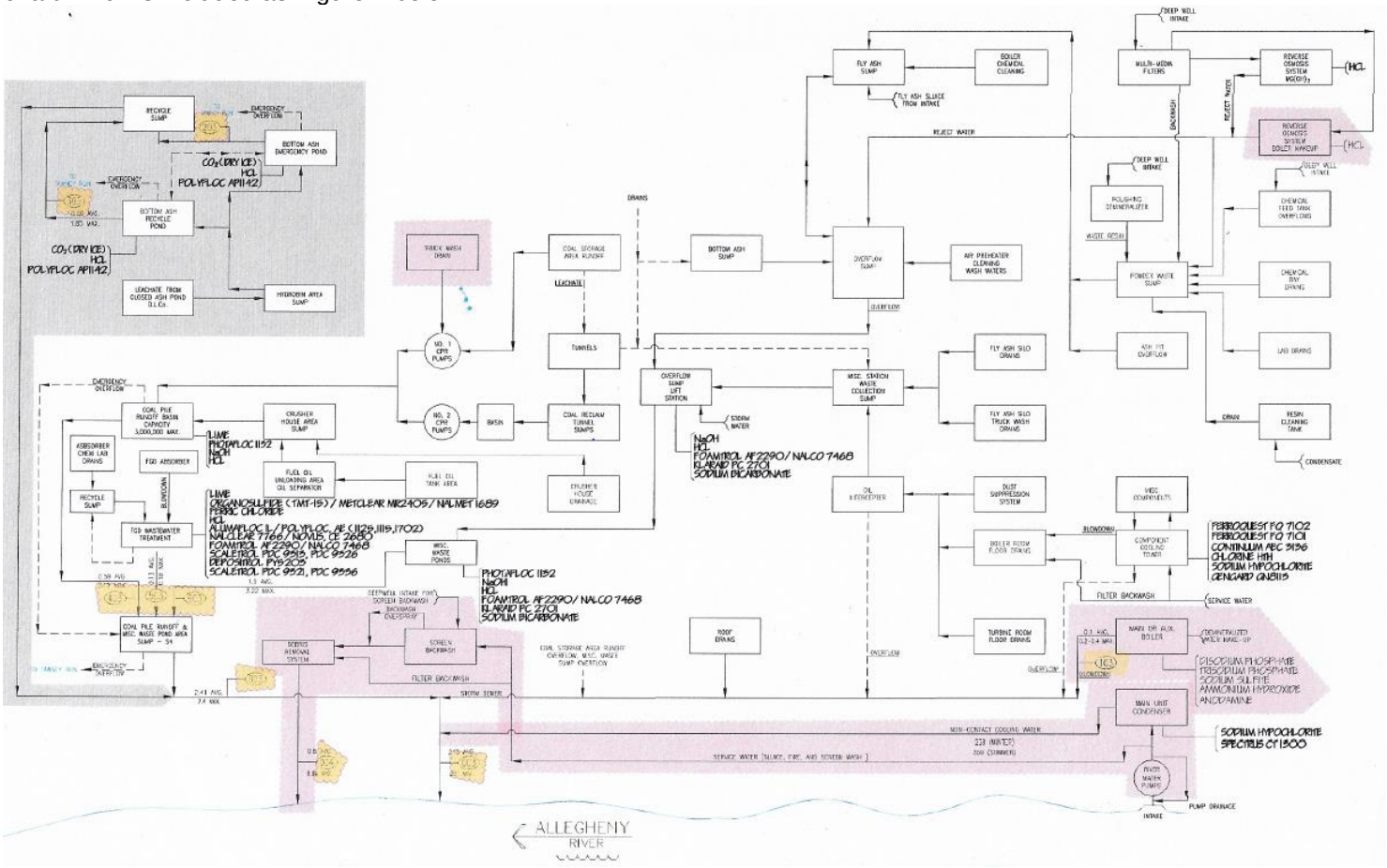

Figure 1: Cheswick Plant Flow Diagram Markup Showing Remove/Disabled Systems

Figure 1 shows all of the systems that are included in the current NPDES permit PA0001627 after implementation of amendment A2. In Figure 1, systems colored in pink have been removed or disabled prior to the October 28, 2022 Department's site inspection. All IMPs and outfalls with monitoring in the NPDES permit are shown in yellow and the functional portions of the site, north of Pittsburgh Street, are shown in grey. Included in the disabled systems are all of the flow paths to Outfall 004. The figure also shows that IMP 803 aggregates all the remaining IMPs in the permit that are still active after the removal of IMP 103 and the non-contact cooling water from the condenser. What may be less obvious is the fact that most storm water captured onsite will flow through IMP 603., then through IMP 803 before discharge at Outfall 003. This makes the current plant measurements at IMP 603, 803 and discharge flows at Outfall 003 practically redundant under most conditions apart from during or soon after large precipitation events.

As an action taken under this amendment, IMP 103 will be changed to inactive in PA0001627. The discharge flow at Outfall 004 will be reduced to averaging effectively < 0.01 MGD. The discharge at Outfall 003 will be reduced to < 1 MGD. The discharge flows of all remaining constituent IMPs (203, 303, 403, 503, 603 and 803) will be reduced consistent with the DMR reports after May 2022, recognizing that April and into May 2022 represents a transition from the prior, operational period.

Note that a renewal application for this permit is due on or before February 1, 2023 which is 180 days before the current permit's expiration date of July 31, 2023. Sampling results, submitted with that application, will be modeled which could result in further reduction of monitoring and effluent limitations given the change in facility status and use. To test this theory an informal model was run; however, no modeling will be documented in support of this amendment application.

Summary of Review

Post plant electrical power production operations, sources of ongoing revenue include from sales of marketable equipment, scrap materials and from sales of remaining coal piles onsite. Eventually this will be exhausted and give way to sales of coal bearing materials to "waste coal" burning facilities. At the time of the site inspection on October 28, 2022, the near term plans onsite were to remediate asbestos bearing materials and, subsequently, to demolish the remaining structures, some via the use of explosives. This event is currently planned to occur during the spring of 2023. Completion of this milestone will bring a significant increase in available scrap materials to process onsite.

The permittee has complied with Act 14 notifications.

It is recommended to publish a draft permit to solicit public comment prior to final Department action on this amendment request.

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.

Compliance History

Tables 2 – 9 are included below with the most recent year of electronic discharge monitoring report(s) (eDMR) data. This data will be used to determine an estimate of the average and maximum daily flow rates expected at the permittee's outfalls. Only data after May 2022 will be used, specifically June – August 2022 data. The highest values in this range are made bold in the tables below.

Table 2: DMR Data for Outfall 003 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly	0.5	0.7	**0.8**	0.8	6.9	167.4	90.7	144.5	36.4	50.1	73.4	72.9
Flow (MGD) Daily Maximum	0.5	0.8	**0.8**	0.9	185.3	185.4	203.4	194.2	193.9	194.0	240.5	240.8
pH (S.U.) Instantaneous Minimum	7.4	7.2	7.1	7.1	6.6	6.8	6.3	6.8	6.6	6.7	6.8	7.0
pH (S.U.) Instantaneous Maximum	7.8	7.7	7.4	7.5	7.3	7.1	6.9	7.2	6.7	7.1	7.4	7.6
TRC (mg/L) Instantaneous Maximum	0.2	0.2	0.2	0.1	0.1	< 0.1	< 0.1	< 0.1	0.1	< 0.1	0.2	0.1
Temperature (ºF) Average Monthly	72.1	74.7	76.0	63.3	53.0	65.3	44.4	55.1	44.9	61.7	76.2	85.1
Temperature (ºF) Industrial Influent Average Monthly	73.7	74.0	69.2	61.6	52.7	43.0	42.5	38.8	52.6	55.8	66.7	74.3
Temperature (ºF) Daily Maximum	77.5	78.7	80.4	71.1	57.6	78.1	62.4	74.9	65.2	80.6	93.8	100.4
Temperature (ºF) Industrial Influent Daily Maximum	77.6	77.5	75.6	68.5	62.7	59.6	58.8	61.8	62.5	70.7	71.5	80.4
Heat Rejection Rate (MBTUs/hr) Average Monthly	0.3	0.2	2	0.5	0.1	1406	657	1278	218	338	500	622
Heat Rejection Rate (MBTUs/hr) Daily Maximum	0.6	0.3	3	1	2	2137	1978	2443	1752	1928	2138	2376
Total Dissolved Solids (lbs/day) Average Monthly	800	1052	2921	800	744	178628	181062	192937	35763	68025	125426	79614

Total Dissolved Solids (lbs/day) Daily Maximum	989	1148	8640	887	892	216380	268784	247024	142116	200627	260750	317294
Total Dissolved Solids (mg/L) Average Monthly	184	184	469	126	116	116	137	125	110	111	137	139
Total Dissolved Solids (mg/L) Daily Maximum	228	218	1400	148	132	140	174	160	126	130	164	158
Nitrate-Nitrite (lbs/day) Average Monthly	2	2	3	< 6	< 7	1193	1205	1420	249	307	397	348
Nitrate-Nitrite (lbs/day) Daily Maximum	3	3	4	< 15	< 16	1267	1798	1728	989	802	1003	1386
Nitrate-Nitrite (mg/L) Average Monthly	0.43	0.43	0.50	< 0.96	< 1.13	0.77	0.95	0.92	0.69	0.49	0.40	0.56
Nitrate-Nitrite (mg/L) Daily Maximum	0.60	0.50	0.57	< 2.50	< 2.50	0.82	1.11	1.12	0.76	0.57	0.50	0.81
Total Arsenic (lbs/day) Average Monthly	< 0.004	< 0.006	< 0.006	< 0.006	< 0.006	< 2	< 1	< 2	< 0.4	< 1	< 1	< 1
Total Arsenic (lbs/day) Daily Maximum	< 0.004	< 0.006	< 0.007	< 0.007	< 0.007	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Total Arsenic (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Arsenic (mg/L) Daily Maximum	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	0.001	< 0.001	0.001	< 0.001
Total Boron (lbs/day) Average Monthly	1.0	0.7	< 0.9	< 0.7	< 0.8	< 305.9	< 322.0	< 505	< 27	< 32	< 47	< 171
Total Boron (lbs/day) Daily Maximum	2.8	1.1	2.4	2.0	2.3	757.1	633.3	741	108	< 81	< 100	683
Total Boron (mg/L) Average Monthly	0.2	0.1	< 0.1	< 0.1	< 0.1	< 0.2	< 0.2	< 0.33	< 0.08	< 0.21	< 0.09	< 0.19
Total Boron (mg/L) Daily Maximum	0.7	0.2	0.4	0.3	0.3	0.5	0.4	0.48	0.14	0.86	0.22	0.34
Total Lead (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Lead (mg/L) Daily Maximum	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Total Mercury (lbs/day) Average Monthly	< 0.0001	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.04	< 0.03	< 0.04	< 0.01	< 0.02	< 0.02	< 0.01
Total Mercury (lbs/day) Daily Maximum	< 0.0001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.05	< 0.05

Total Mercury (mg/L) Average Monthly	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025
Total Mercury (mg/L) Daily Maximum	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025	< 0.000025
Total Selenium (lbs/day) Average Monthly	< 0.009	< 0.01	< 0.01	< 0.01	< 0.01	< 3	< 2	< 3	< 1	< 1	< 2	< 1
Total Selenium (lbs/day) Daily Maximum	< 0.009	< 0.01	< 0.01	< 0.01	< 0.01	< 3	< 3	< 3	< 3	< 3	< 4	< 4
Total Selenium (mg/L) Average Monthly	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Total Selenium (mg/L) Daily Maximum	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Total Silver (mg/L) Average Monthly	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Total Silver (mg/L) Daily Maximum	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Sulfate (lbs/day) Average Monthly	279	409	333	< 328	< 321	48150	59032	58460	10337	16033	37423	27349
Sulfate (lbs/day) Daily Maximum	324	422	412	< 584	< 642	55022	90521	77504	41090	42391	75818	109045
Sulfate (mg/L) Average Monthly	64.3	71.6	52.3	< 52.5	< 49.8	31.2	43.0	37.9	30.7	24.9	39.6	43.6
Sulfate (mg/L) Daily Maximum	74.6	85.1	64.1	< 100.0	< 100.0	35.6	58.6	50.2	33.6	29.2	51.3	54.3
Chloride (lbs/day) Average Monthly	117	126	123	< 131	< 171	32048	35907	31294	6952	9110	15680	10230
Chloride (lbs/day) Daily Maximum	163	134	159	< 292	< 321	40635	56383	41840	27651	25078	31892	40766
Chloride (mg/L) Average Monthly	27.0	22.0	19.3	< 21.2	< 26.4	20.7	25.9	20.3	19.1	16.8	17.0	18.1
Chloride (mg/L) Daily Maximum	37.5	24.1	24.8	< 50.0	< 50.0	26.3	34.8	27.1	21.2	23.4	17.7	20.3
Bromide (lbs/day) Average Monthly	< 0.9	< 1	< 1	< 13	< 17	< 309	< 243	< 309	< 78	< 127	< 189	< 101
Bromide (lbs/day) Daily Maximum	0.9	< 1	< 1	< 58	< 64	< 309	< 339	< 309	< 309	< 324	< 401	< 402
Bromide (mg/L) Average Monthly	< 0.2	< 0.2	< 0.2	< 2.2	< 2.7	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromide (mg/L) Daily Maximum	0.2	< 0.2	< 0.2	< 10.0	< 10.0	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2

Table 3: DMR Data for Outfall 004 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly					0.02	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Flow (MGD) Daily Maximum					0.6	0.75	0.75	0.75	0.75	0.75	0.75	0.75

Table 4: DMR Data for Outfall 103 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly						0.186	0.141	0.136	0.121	0.148	0.147	0.161
Flow (MGD) Daily Maximum						0.201	0.201	0.201	0.121	0.201	0.173	0.201
pH (S.U.) Instantaneous Minimum						8.3	8.0	8.5	8.7	8.5	8.6	8.6
pH (S.U.) Instantaneous Maximum						8.7	8.9	8.8	8.7	8.7	8.7	8.7
TSS (mg/L) Average Monthly						< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TSS (mg/L) Daily Maximum						< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Oil and Grease (mg/L) Average Quarterly						< 5.0			< 5.0			< 5.0
Oil and Grease (mg/L) Daily Maximum						< 5.0			< 5.0			< 5.0

Table 5: DMR Data for Outfall 303 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly						0.039		0.016	0.021	0.010		
Flow (MGD) Daily Maximum						0.630		0.495	0.470	0.293		
pH (S.U.) Instantaneous Minimum						7.9		7.9	7.9	8.1		
pH (S.U.) Instantaneous Maximum						8.0		7.9	7.9	8.1		

TSS (mg/L) Average Monthly						< 3.5		9.0	5.5	< 2.0		
TSS (mg/L) Daily Maximum						6.0		9.0	5.5	< 2.0		
Oil and Grease (mg/L) Average Quarterly						< 5.0			< 5.0			
Oil and Grease (mg/L) Daily Maximum						< 5.0			< 5.0			

Table 6: DMR Data for Outfall 403 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly	**0.079**	0.053	0.075	0.187	0.026	0.001	0.107		0.007	0.394	0.148	0.218
Flow (MGD) Daily Maximum	**0.204**	0.094	0.093	0.429	0.033	0.002	0.166		0.010	0.748	0.292	0.393
pH (S.U.) Instantaneous Minimum	7.3	8.3	GG	6.4	8.4	8.1	8.1		6.4	7.7	7.7	8.5
pH (S.U.) Instantaneous Maximum	8.8	8.3	GG	7.3	8.4	8.1	8.7		6.4	7.7	7.7	8.5
TSS (mg/L) Instantaneous Maximum	10.0	15.0	GG	14.6	5.0	2.0	4.2		< 1.0	5.2	12.6	5.2

Table 7: DMR Data for Outfall 503 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly	**0.02**	0.01	0.01		0.005	0.01	0.01	0.02		0.004	0.00	0.02
Flow (MGD) Daily Maximum	**0.06**	0.03	0.05		0.04	0.08	0.07	0.08		0.06	0.02	0.09
pH (S.U.) Instantaneous Minimum	7.8	8.4	8.5		8.3	8.3	8.5	8.1		8.4	GG	8.5
pH (S.U.) Instantaneous Maximum	8.9	8.6	8.9		8.3	8.5	8.7	8.9		8.4	GG	8.6
TSS (mg/L) Average Monthly	< 2.0	< 1.2	< 4.1		1.0	7.3	< 2.2	< 2.1		1.0	GG	4.7
TSS (mg/L) Daily Maximum	3.8	1.4	7.2		1.0	17.4	3.4	5.0		1.0	GG	6.6

Total Dissolved Solids (lbs/day) Average Monthly	3646	2135	3486		3429	20416	5832	5990		4779	GG	4320
Total Dissolved Solids (lbs/day) Daily Maximum	5880	2435	3953		3429	20416	10008	8715		4779	GG	7031
Total Dissolved Solids (mg/L) Average Monthly	14560	12800	12425		25700	24133	29800	21475		19100	GG	23700
Total Dissolved Solids (mg/L) Daily Maximum	15500	14600	15800		25700	30600	30400	30400		19100	GG	28100
Oil and Grease (mg/L) Average Monthly	< 5.0	< 5.1	< 5.0		< 5.1	< 5.0	< 5.1	< 5.1		< 5.0	GG	< 5.1
Oil and Grease (mg/L) Daily Maximum	< 5.0	< 5.1	< 5.0		< 5.1	< 5.0	< 5.2	< 5.1		< 5.0	GG	< 5.1
Nitrate-Nitrite (lbs/day) Average Monthly	4	3	3		9	48	15	13		16	GG	< 0.4
Nitrate-Nitrite (lbs/day) Daily Maximum	6	4	4		9	48	25	18		16	GG	< 1
Nitrate-Nitrite (mg/L) Average Monthly	15.4	16.9	10.1		69.7	58.4	73.2	47.3		64.6	GG	< 2.5
Nitrate-Nitrite (mg/L) Daily Maximum	19.0	22.3	14.7		69.7	71.6	77.6	66.5		64.6	GG	< 2.5
Total Aluminum (mg/L) Average Monthly	< 0.1	< 0.1	< 0.1		0.2	< 0.1	< 0.4	< 0.1		< 0.1	GG	< 0.1
Total Aluminum (mg/L) Daily Maximum	< 0.1	< 0.1	0.1		0.2	< 0.1	< 1.0	0.2		< 0.1	GG	< 0.1
Total Arsenic (lbs/day) Average Monthly	0.0007	0.0006	0.001		0.0005	0.004	< 0.002	0.0009		0.001	GG	0.001
Total Arsenic (lbs/day) Daily Maximum	0.001	0.0007	0.001		0.0005	0.004	< 0.003	0.001		0.001	GG	0.001
Total Arsenic (mg/L) Average Monthly	0.003	0.004	0.004		0.004	0.005	< 0.008	0.003		0.005	GG	0.005
Total Arsenic (mg/L) Daily Maximum	0.003	0.004	0.005		0.004	0.006	< 0.01	0.005		0.005	GG	0.005
Total Beryllium (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	< 0.004	< 0.001		< 0.001	GG	< 0.001
Total Beryllium (mg/L) Daily Maximum	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	< 0.01	< 0.001		< 0.001	GG	< 0.001
Total Boron (lbs/day) Average Monthly	51	36	55		70	428	138.0	109.9		108.6	GG	75.8

Total Boron (lbs/day) Daily Maximum	87	38	62		70	428	241.0	181.1		108.6	GG	110.3
Total Boron (mg/L) Average Monthly	203	214	195		526	531	704.0	383.0		434.0	GG	468.0
Total Boron (mg/L) Daily Maximum	217	227	248		526	658	721.0	724.0		434.0	GG	495.0
Total Cadmium (mg/L) Average Monthly	< 0.002	< 0.002	< 0.002		0.002	< 0.002	< 0.008	< 0.002		< 0.002	GG	< 0.002
Total Cadmium (mg/L) Daily Maximum	< 0.002	< 0.002	< 0.002		0.002	0.002	< 0.02	0.002		< 0.002	GG	< 0.002
Total Chromium (III) (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01		0.02	0.02	< 0.05	< 0.01		< 0.01	GG	0.02
Total Chromium (III) (mg/L) Daily Maximum	0.01	< 0.01	0.01		0.02	0.02	< 0.10	< 0.02		< 0.01	GG	0.02
Total Copper (mg/L) Average Monthly	< 0.01	< 0.01	< 0.01		< 0.01	< 0.01	< 0.04	< 0.01		< 0.01	GG	< 0.01
Total Copper (mg/L) Daily Maximum	< 0.01	< 0.01	< 0.01		< 0.01	< 0.01	< 0.1	< 0.01		< 0.01	GG	< 0.01
Dissolved Iron (mg/L) Average Monthly	< 0.12	< 0.06	< 0.12		0.07	< 0.05	< 0.05	< 0.05		< 0.05	GG	< 0.05
Dissolved Iron (mg/L) Daily Maximum	0.33	0.06	0.19		0.07	< 0.05	< 0.05	< 0.05		< 0.05	GG	< 0.05
Total Iron (mg/L) Average Monthly	< 0.12	< 0.05	< 0.12		0.38	< 0.12	< 0.20	< 0.05		0.05	GG	< 0.05
Total Iron (mg/L) Daily Maximum	0.32	0.05	0.19		0.38	0.18	< 0.5	0.06		0.05	GG	< 0.05
Total Lead (mg/L) Average Monthly	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	< 0.004	< 0.001		< 0.001	GG	< 0.001
Total Lead (mg/L) Daily Maximum	< 0.001	< 0.001	< 0.001		< 0.001	< 0.001	< 0.01	< 0.001		< 0.001	GG	< 0.001
Total Manganese (mg/L) Average Monthly	1.02	0.16	4.21		22.7	10.48	15.3	12.52		5.0	GG	0.17
Total Manganese (mg/L) Daily Maximum	4.68	0.25	7.54		22.7	20.0	17.5	38.2		5.0	GG	0.18
Total Mercury (lbs/day) Average Monthly	< 0.00002	< 0.00001	< 0.00003		0.00002	< 0.00006	< 0.00001	< 0.000009		0.00001	GG	0.00001
Total Mercury (lbs/day) Daily Maximum	0.00004	0.00001	0.00004		0.00002	0.00006	0.00003	0.00001		0.00001	GG	0.00002

Total Mercury (mg/L) Average Monthly	< 0.00009	< 0.0001	< 0.0001		0.0001	< 0.00008	< 0.00007	< 0.00003		0.00003	GG	0.00005
Total Mercury (mg/L) Daily Maximum	0.000153	0.0001	0.0001		0.000122	0.00010 1	0.00009 61	0.00005		0.00003	GG	0.00007
Total Nickel (mg/L) Average Monthly	< 0.01	< 0.01	< 0.02		0.01	< 0.01	< 0.04	< 0.02		< 0.01	GG	< 0.01
Total Nickel (mg/L) Daily Maximum	< 0.01	< 0.01	0.02		0.01	0.01	< 0.1	0.06		< 0.01	GG	< 0.01
Total Selenium (lbs/day) Average Monthly	0.01	0.01	0.03		0.05	0.4	0.1	0.08		0.1	GG	0.04
Total Selenium (lbs/day) Daily Maximum	0.02	0.02	0.03		0.05	0.4	0.2	0.1		0.1	GG	0.07
Total Selenium (mg/L) Average Monthly	0.057	0.083	0.108		0.338	0.431	0.374	0.274		0.579	GG	0.259
Total Selenium (mg/L) Daily Maximum	0.071	0.093	0.118		0.338	0.573	0.708	0.360		0.579	GG	0.262
Dissolved Selenium (mg/L) Average Monthly	0.058	0.080	0.105		0.337	0.432	0.214	0.298		0.568	GG	0.588
Dissolved Selenium (mg/L) Daily Maximum	0.070	0.087	0.112		0.337	0.600	0.340	0.397		0.568	GG	0.595
Total Silver (mg/L) Average Monthly	< 0.005	< 0.005	< 0.005		< 0.005	< 0.005	< 0.02	< 0.005		< 0.005	GG	< 0.005
Total Silver (mg/L) Daily Maximum	< 0.005	< 0.005	< 0.005		< 0.005	< 0.005	< 0.05	< 0.005		< 0.005	GG	< 0.005
Sulfate (lbs/day) Average Monthly	630	446	590		643	4864	1326	1822		1121	GG	998
Sulfate (lbs/day) Daily Maximum	1047	524	666		643	4864	2138	2431		1121	GG	1539
Sulfate (mg/L) Average Monthly	2494	2675	2100		4820	5093	7100	6675		4480	GG	5815
Sulfate (mg/L) Daily Maximum	2810	3140	2660		4820	7290	7730	9580		4480	GG	6150
Total Zinc (mg/L) Average Monthly	< 0.01	< 0.02	< 0.01		< 0.01	< 0.01	< 0.04	< 0.01		< 0.01	GG	< 0.01
Total Zinc (mg/L) Daily Maximum	< 0.01	0.02	< 0.01		< 0.01	< 0.01	< 0.1	< 0.01		< 0.01	GG	< 0.01
Chloride (lbs/day) Average Monthly	1216	854	1043		2175	10675	3000	2289		2627	GG	1600
Chloride (lbs/day) Daily Maximum	1902	1043	1426		2175	10675	5137	3507		2627	GG	2552

Chloride (mg/L) Average Monthly	4828	5120	3840		16300	13177	15233	8195		10500	GG	8990
Chloride (mg/L) Daily Maximum	5490	6250	5700		16300	17400	16000	11000		10500	GG	10200
Bromide (lbs/day) Average Monthly	15	10	12		24	111	29	23		26	GG	16
Bromide (lbs/day) Daily Maximum	26	11	17		24	111	50	34		26	GG	26
Bromide (mg/L) Average Monthly	57.8	57.3	44.6		179	133.8	149	83.4		105	GG	92
Bromide (mg/L) Daily Maximum	66.8	67.2	66.4		179	172	160	116		105	GG	102

Table 8: DMR Data for Outfall 603 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly	0.47	0.69	**0.75**	0.71	0.78	0.66	0.60	0.45	0.34	0.26	0.15	0.26
Flow (MGD) Daily Maximum	0.52	**0.79**	0.78	0.79	0.81	0.84	0.67	0.59	0.63	0.48	0.43	0.87
pH (S.U.) Instantaneous Minimum	6.6	7.2	7.0	6.7	6.6	6.4	6.4	6.9	6.4	6.8	6.5	6.4
pH (S.U.) Instantaneous Maximum	7.8	7.8	7.3	7.8	7.1	8.8	8.7	8.7	6.6	7.8	8.0	7.5
TSS (mg/L) Average Monthly	< 6.1	< 9.3	< 3.0	< 5.1	< 19.8	4.8	13.8	10.9	11.6	7.7	8.9	9.0
TSS (mg/L) Daily Maximum	17.0	27.0	4.0	9.5	78.0	6.5	37.5	18.5	17.0	12.0	10.5	13.0
Oil and Grease (mg/L) Average Quarterly			< 5.0			< 5.0			< 5.0			< 5.0
Oil and Grease (mg/L) Daily Maximum			< 5.0			< 5.0			< 5.0			< 5.0

Table 9: DMR Data for Outfall 803 (from September 1, 2021 to August 31, 2022)

Parameter	AUG-22	JUL-22	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21
Flow (MGD) Average Monthly	0.52	0.69	**0.77**	0.77	0.78	0.71	0.65	0.48	0.35	0.29	0.17	0.32
Flow (MGD) Daily Maximum	0.52	**0.79**	0.78	0.90	0.82	0.85	0.81	0.61	0.64	0.54	0.43	0.89
pH (S.U.) Instantaneous Minimum	8.0	7.2	7.2	6.8	6.8	6.5	6.4	6.8	6.4	6.9	6.9	6.5
pH (S.U.) Instantaneous Maximum	9.0	7.7	8.1	7.6	8.8	8.7	8.6	8.7	6.7	8.1	7.5	8.8

Compliance History

No Effluent Limitation exceedances or permit violations were noted within the year of data shown above.

For the purposes of this permit going forward with the former Cheswick Generating Station permanently shut down, but not yet removed, Table 2 shows the active remaining outfalls and the documented average and daily maximum flow rates; as well as, the estimated maximum flow rates. Note that IMP 103 has been removed. IMPs 203 and 303 were effectively discontinued previously by GenOn but remain in the permit. As noted above, surface storm water flows are expected generally to be captured and measured at IMP 603 but will then also be measured again at downstream measurements for IMP 803 and when discharged at Outfall 003.

Table 2: Nominal Maximum Flows of NPDES Permit PA0001627 Monitoring Since Shutdown

Table Number	IMP/Outfall	Max. Average Monthly Flow (MGD)	Peak Daily Maximum Flow (MGD)	Nominal Flow Est. (MGD)
2	003	0.8	0.8	< 1.0
3	004	None Reported	None Reported	< 0.01
4	103	None Reported	None Reported	Inactive (0)
Not Shown	203	None Reported	None Reported	< 0.1
5	303	None Reported	None Reported	< 0.1
6	403	0.079	0.204	< 0.2
7	503	0.02	0.06	< 0.1
8	603	0.75	0.79	< 1.0
9	803	0.77	0.79	< 1.0

As noted above, the estimates of flow at the various IMP and active outfalls in this permit are shown in Table 2 above. The majority of the site's discharges since shutdown and going forward are expected to be stormwater which may be exposed to previously deposited industrial waste or waste waters onsite.

An inquiry was made to CPERG in December 2022 seeking an explanation of the seemingly elevated flow rates still evident at IMP 603, 803 and Outfall 003. On December 5, 2022, the explanation, excerpted below was received:

> The Cheswick Generating Station ceased operation at the end of March 2022 and in April began the decommissioning/demolition process. As a result, the overall amount of water discharged by the facility decreased drastically. At outfall 603 specifically, the two main contributors to flow are stormwater from the plant that is pumped to the misc. waste ponds and service water inputs that were used for daily plant operations. Since the plant is now in the decommissioning/demolition phase, the service water pumps were used intermittently to assist decommissioning operations but were not running daily. This caused a reduction in flow at 603. At this point in the decommissioning operations, it is believed the service water pumps will be shut down, meaning the only remaining contributor to outfall 603 will be stormwater. This outfall will continue to see discharge on monthly DMRs as long as the stormwater sumps are still running, but it is expected that discharge will remain significantly below 1 MGD.

As can be seen in Tables 2, 8 and 9 above the trend of the flows for IMPs 603, 803 and Outfall 003 are diminishing. As noted earlier, a scoping run was made of the Departments' Toxic Management Spreadsheet, specifically for Boron in the effluent discharged at Outfall 003 at the lower rate (1 MGD). Even at the instantaneous maximum concentration, no Reasonable Potential exists of challenging the Water Quality Standard for Boron in the receiving river. However, no changes to the prior effluent limitations are recommended in this amendment for Outfall 003.