pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southwest Regional Office
CLEAN WATER PROGRAM

Application Type	**Amendment, Major**	Application No.	**PA0001627 - A2**
Facility Type	**Industrial**	APS ID	**1023874**
Major / Minor	**Major**	Authorization ID	**1328123**

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

Applicant and Facility Information

Applicant Name	**GenOn Power Midwest LP**	Facility Name	**Cheswick Generating Station**
Applicant Address	PO Box 65	Facility Address	151 Porter Street
	Cheswick, PA 15024-0065		Springdale, PA 15144-1452
Applicant Contact	Kevin Panzino / Stephen M. Frank	Facility Contact	William P. McGraw
Applicant Phone	(724) 275-1401 / (724) 249-3610	Facility Phone	(724) 275-1595
Client ID	141195	Site ID	245779
SIC Code	4911	Municipality	Springdale Borough
SIC Description	Trans. & Utilities - Electric Services	County	Allegheny
Date Application Received	September 15, 2020	EPA Waived?	No
Date Application Accepted	June 8, 2021	If No, Reason	Major Facility
Purpose of Application	Major Amendment per client request to split off the Monarch Mine Dewatering Plant and the Cheswick Ash Disposal Site into a separate NPDES permit		

Summary of Review

On September 15, 2020, the Department received an application for a major amendment from GenOn Power Midwest LP (GenOn) and their consultant, Aptim Environmental & Infrastructure, LLC to amend the Cheswick Generating Station (Cheswick) NPDES permit, splitting off portions of the permitted facility into new NPDES permits. As originally proposed these new permits would have separated off the Cheswick Ash Handling Site on the opposite side of Pittsburgh Street from the adjacent station, and two areas in Indiana Township near Rural Ridge, including the Monarch Mine Dewatering Plant (MMDP) and the Cheswick Ash Disposal Site (aka Lefever Landfill). After several communications, GenOn revised their request, via email on June 8, 2021, to split the permitted areas into just two NPDES permits, including the amended PA0001627 with all permitted areas near Springdale, PA and the new permit (PA0255777) including all the previously permitted areas under PA0001627 that are located in Indiana Township, Allegheny County.

The changes then become a straight-forward extraction of the prior **Outfalls 002, 005, 010 and 011** from **PA0001627 – A1**, as these then are being transferred to the new NPDES permit **PA0255777**. The Department proposes that this new permit and the new amendment, **PA0001627 – A2** both be administratively treated as amendments with respective portions from PA0001627 – A1 and have the same permit expiration date, matching that of the predecessor permit amendment. These two successor permits should be issued as final simultaneously. That said, the pathways up to that point of final issuance will inevitably differ, perhaps significantly.

The association of the remaining half dozen Water Quality Management (WQM) Part II permits associated with Cheswick is also straight-forward. WQM permits still active, associated with GenOn's Cheswick Station include **467I021** (Cheswick site), **0270205** (MMDP), **0272216** (Bottom Ash Water Recycle System), **0277206** (Coal Pile Runoff and Miscellaneous Station Waste Basins), **0206202** (Flue Gas Desulfurization wastewater treatment and emission control systems) and **0213200**

Approve	Deny	Signatures	Date
X		John L Duryea, Jr., P.E. / Environmental Engineer	October 28, 2021
X		Michael E. Fifth, P.E. / Environmental Engineer Manager	November 2, 2021

Summary of Review

(mobile water treatment system). Of these, WQM **0270205** would be entirely associated with the new permit **PA0255777**. All others will remain with the Cheswick Station. To address Department needs, a new WQM Part II permit, **0221205** was created on August 4, 2021 to cover the treatment approaches and designs of the facilities covered under PA0255777. Following issuance of these new permits, GenOn has agreed that WQM 0270205 is no longer required and can be terminated.

In addition to the NPDES permit split noted above, GenOn also requested a few other changes in this amendment, essentially two. These include incorporation of agreements under the April 10, 2020, "Stipulation of Partial Settlement" (Environmental Hearing Board (EHB) Docket No. 2018-088-R) which involves changes to the NPDES permit, Part A footnotes "(4)" and "(6)". The other requested change was GenOn's request to move enforcement of the WQBEL for Total Boron to Outfall 003 rather than at IMP 503. An extract from the amendment application submittal with these requests is included as Attachment A.

Regarding the first item, GenOn requests to incorporate legal settlement and EHB agreed adjustments to Part A footnote language. This negotiated Part A footnote language change anticipates possible US EPA changes to 40 CFR 423 which includes ELGs for Steam Electric Power Generating Stations, including Cheswick. Since the November 3, 2015 revisions to these Federal statutes, there has been applicable court litigation and a subsequent reconsideration of the rule. However, it is harmless to incorporate GenOn's requested court mandated changes and so they have been incorporated verbatim:

- Footnote (4): ". . . In the event U.S. Environmental Protection Agency (EPA) publishes notice of the rescission, revocation, or modification of the Effluent Limitation Guidelines (ELGs) at 40 C.F.R. § 423.13(k) prior to December 31, 2023, the permittee may submit to DEP an application for a major amendment to this permit to revise the effluent limitations and/or schedule of compliance."

- Footnote (6): ". . . In the event EPA publishes notice of the rescission, revocation, or modification of the ELGs at 40 C.F.R. § 423.13(g) prior to December 31, 2023, the permittee may submit to DEP an application for major amendment to this permit to revise the effluent limitations and/or schedule of compliance."

The more significant of the GenOn requested additional changes in Attachment A is to the point of enforcement for the Total Boron effluent limit which became effective from **PA0001627 – A1** on August 1, 2021. In consideration of GenOn's request, the Department communicated via email on July 22, 2021, sharing its position that agreement with this request was only possible under the provisions of 40 CFR 125.3(f). This provision is unusual in that it is regulation that applies to relief on effluent limitations that are designed to meet Water Quality Standards but is included in a section of the code that applies to Technology-based treatment requirements. As shared in the Department email, application of this regulation requires that the permittee agree with three points included below:

> (1) The technology-based treatment requirements applicable to the discharge are not sufficient to achieve the standards;
>
> (2) The discharger agrees to waive any opportunity to request a variance under section 301 (c), (g) or (h) of the Act [now 33 U.S.C. § 1311]; and
>
> (3) The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.

Setting aside the included arguments and other points, with these agreements documented in Attachment B, the Department notes that GenOn has agreed to or complied with the Department's requests above and therefore supports the move of the point of compliance included in Attachment A. Accordingly, the boron compliance point is being moved from IMP 503 to the discharge point at Outfall 003 in the amended permit. The last of the correspondence that led up to the Department's agreement to this change is included as Attachment B. In this letter, as noted, GenOn responds to, supports and effectively agrees with the three responses required to apply 40 CFR 125.3(f).

Summary of Review

On June 9, 2021, GenOn Holdings, LLC, GenOn's parent company, announced that the 565MW Cheswick Generating Station would retire by September 15, 2021. The public announcement is included as Attachment C. On July 14, 2021, the Department received a GenOn email that explained that because of a new order from the regional transmission organization, PJM, the planned shutdown of Cheswick will be delayed until April 1, 2022.

On July 14, 2021, GenOn provided notification to the Department via email that it would not be renewing its NPDES permit and therefore will not complete the 316(a) variance studies that had been under way. Accordingly, any renewal of this permit under GenOn or subsequent transferees will not be eligible for a 316(a) Thermal Variance. However, for the remainder of this permit term the temperature related effluent limitations are unaltered from the current permit.

On October 13, 2020, the US Environmental Protection Agency (EPA) published a final rule documenting reconsideration of the changes made to 40 CFR 423 which were previously finalized in 2015. The 2020 final rule became fully enforceable on December 14, 2020. This 2020 rule modified promulgated Federal Effluent Limitation Guidelines (ELGs) for bottom ash transport and flue gas desulphurization wastewaters and related enforcement dates. It also established a new subcategory for electric generating units which are "permanently ceasing the combustion of coal by [the end of] 2028".

GenOn was required to make some choice under the 2015 regulations and prior litigation related to this NPDES permit; as well as, the newly promulgated 2020 regulations. GenOn documented their choice in their letter, dated September 16, 2020 and included as Attachment D. Another letter, attached to GenOn's letter, effectively approves the closure of the Cheswick Generating Station by the area's electrical grid manager. Also in the letter, GenOn documents their decision, for regulatory purposes, to retire this unit and cease power operations by December 31, 2028 under 40 CFR 423.13(g)(2)(i), 423.13(k)(2)(ii) and 423.19(f). However, GenOn also reiterated their intention to deactivate Cheswick by April 1, 2022. Therefore, the footnotes and application of the December 31, 2023 compliance date in the current, renewed permit will be unaltered in this amendment as that date is now beyond GenOn's target shutdown date.

The applicant complied with Act 14.

Amendment publication for public comment is recommended.

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.

Attachments

Attachment A: Extracted portion from NPDES Permit Amendment submittal, Kevin P. Panzino, Plant Manager, GenOn Power Midwest LP, Cheswick Power Station, dated September 11, 2020, "NPDES Amendment and Applications Related to Separation of NPDES Permit PA0001627. GenOn Power Midwest LP, Cheswick Generating Station".

Attachment B: Letter from Kevin P. Panzino, Plant Manager, GenOn Power Midwest LP, Cheswick Generating Station, dated September 21, 2021, "National Pollutant Discharge Elimination System Permit No. PA0001627, IMP-503 Toxicity Reduction Evaluation and Boron Technology Demonstration.

Attachment C: Letter from Daniel McDevitt, General Counsel, GenOn Holdings, LLC, dated June 9, 2021, "GenOn Holdings, LLC Announces Retirement of Three Coal-Fired Power Plants".

Attachment D: Letter from Josh Simon, Plant Manager, GenOn, Cheswick Generating Station, dated September 16, 2021, "ELG Notice of Planned Participation, GenOn Power Midwest LP, Cheswick Generating Station, Permit No. PA0001627".

ATTACHMENT A:

Excerpt from Kevin Panzino, Plant Manager, Letter dated September 11, 2020, "NPDES Amendment and Applications Related to Separation of NPDES Permit PA0001627. GenOn Power Midwest LP, Cheswick Generating Station", (includes requested changes in this permit amendment)

GenOn Power Midwest LP
Cheswick Generating Station
PO Box 65
Cheswick, PA 15024

September 11, 2020

Via OnBase Upload and Email

Michael E. Fifth, P.E.
Environmental Engineer Manager
Clean Water Program
Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

RE: **NPDES Amendment and Applications Related to Separation of NPDES Permit PA0001627, GenOn Power Midwest LP Cheswick Generating Station**

Dear Mr. Fifth:

As discussed previously, GenOn Power Midwest LP is requesting that the current NPDES Permit No. PA0001627 for the Cheswick Generating Station and associated properties and facilities be separated into four permits based on geographical location. The separation request is configured in the following four packages that make up this submission:

- **NPDES Application for Permit Amendment—Cheswick Generating Station.** This amendment removes all facilities and outfalls lying outside the plant proper boundary. Existing Outfalls 003 and 004 will remain in the resulting permit. Two modifications unrelated to property separation are included in this amendment request: 1) incorporation of Effluent Limitation Guideline (ELG) footnotes as agreed upon in the recent Stipulation of Settlement and Dismissal of Appeal (EHB Docket No. 2018-088-R) and 2) incorporation of updated Toxics Reduction Evaluation (TRE) provisions under Part C, Section II of the existing NPDES Permit for total Boron. With this, GenOn is requesting that the boron Water Quality Based Effluent Limit at the plant proper be re-evaluated for application at Outfall 003 rather than Internal Monitoring Point 503, consistent with USEPA NPDES regulations and guidance. In conjunction with this modification, NPDES permit conditions may be modified to ensure a minimum continuous flow at Outfall 003. As requested by the Department, GenOn is in the process of preparing a comprehensive technology demonstration as a follow-on to the Phase I TRE Report.

- **NPDES Application for Individual Permit to Discharge Industrial Wastewater—Cheswick Former Ash Handling Site.** This permit application incorporates properties immediately north of the Station on the opposite side of Pittsburgh Street. Existing internal monitoring points (IMPs)

203 and 303 are captured under this permit; these IMPs will be eliminated with closure of the Former Ash Ponds in 2021. No modification of permit limits or conditions associated with IMPs 203 and 303 are being made; however, GenOn recognizes that the IMPs may be renamed.

- **NPDES Application for Individual Permit to Discharge Industrial Wastewater—Monarch Mine Dewatering Plant.** This permit application incorporates the Monarch Mine Dewatering Plant property and thus captures existing Outfalls 002 and 005. No modification of permit limits or conditions associated with Outfalls 002 and 005 are being made; however, GenOn recognizes that the outfalls may be renamed.

- **NPDES Application for Individual Permit to Discharge Industrial Stormwater—Cheswick Ash Disposal Site (aka Lefever Landfill).** This permit application incorporates noncontact stormwater from the ash disposal site and properties surrounding the Cheswick Ash Disposal Site and thus captures existing Outfalls 010 and 011. No modification of permit limits or conditions associated with Outfalls 010 and 011 are being made; however, GenOn recognizes that the outfalls may be renamed.

With the exception of the Cheswick Generating permit, as part of this permit separation, no changes are being requested for permit limits or conditions associated with the above-referenced properties and outfalls. As such, GenOn requests that all respective conditions in the existing permit remain effective, as well as the effective expiration of authorization, that is, July 31, 2023. Information submitted in support of our current NPDES Permit effective in August 2018, was not attached, but can be provided if requested.

Should you have any questions or require additional information for your review, please contact Steve Frank at 724-249-3610 or via email at Stephen.Frank@genon.com, or Bill McGraw at 724-275-1595 or via email at William.McGraw@genon.com.

Respectfully submitted,

Kevin P. Panzino

Kevin P. Panzino
Plant Manager

cc: Maria Schumack, PADEP-Central Office (via email)
Bill McGraw, Cheswick Station (via email)
Steve Frank, GenOn (via email)

3800-PM-BCW0027b
Application
GenOn Power Midwest LP – Cheswick Generating Station

Attachment 1
Amendment Information - Continued
NPDES Application for Permit Amendment – PA0001627

Two modifications unrelated to property separation are included in this amendment request, as outlined below:

1. **Incorporation of Effluent Limit Guideline (ELG) Implementation Schedule.**
   As agreed upon in the April 10, 2020 Stipulation of Partial Settlement (EHB Docket No. 2018-088-R) between the Department, GenOn, and the Appellants (Three Rivers Waterkeeper and Sierra Club), GenOn requests that the last two sentences of Footnotes (4) and (6) on Page 20 of the 2018 NPDES permit be deleted and the following sentences be included in their place:

   - Footnote (4): ". . . In the event U.S. Environmental Protection Agency (EPA) publishes notice of the rescission, revocation, or modification of the Effluent Limitation Guidelines (ELGs) at 40 C.F.R. § 423.13(k) prior to December 31, 2023, the permittee may submit to DEP an application for a major amendment to this permit to revise the effluent limitations and/or schedule of compliance."

   - Footnote (6): ". . . In the event EPA publishes notice of the rescission, revocation, or modification of the ELGs at 40 C.F.R. § 423.13(g) prior to December 31, 2023, the permittee may submit to DEP an application for major amendment to this permit to revise the effluent limitations and/or schedule of compliance."

2. **Incorporation of Updated Toxics Reduction Evaluation Provisions under Part C, Section II of the Existing NPDES Permit for Total Boron.**
   As requested by the Department, GenOn is preparing a comprehensive demonstration as a follow-on to the Phase I Toxics Reduction Evaluation (TRE) Report, which concluded that boron WQBELs be applied at Outfall 003 rather than at Internal Monitoring Point 503, consistent with USEPA NPDES regulations and guidance. Information from this demonstration is being submitted to the Department under separate cover. GenOn requests that the modified permit for the Cheswick Generating Station reflect the most current resolutions related to the TRE project.

ATTACHMENT B:

Letter from Kevin P. Panzino, Plant Manager, GenOn Power Midwest LP, Cheswick Generating Station, dated September 21, 2021, "National Pollutant Discharge Elimination System Permit No. PA0001627, IMP-503 Toxicity Reduction Evaluation and Boron Technology Demonstration.

GenOn Power Midwest LP
Cheswick Generating Station
PO Box 65
Cheswick, PA 15024

VIA EMAIL

September 21, 2020

Mr. Michael E. Fifth, P.E.
Environmental Engineer Manager
Clean Water Program
Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

GenOn Power Midwest LP
Cheswick Generating Station
NPDES Permit No. PA0001627
IMP-503 Toxicity Reduction Evaluation and Boron Technology Demonstration

Dear Mr. Fifth:

GenOn Power Midwest LP (GenOn), as owner and operator of the Cheswick Generating Station in Springdale, Allegheny County, Pennsylvania, submitted a Phase I Toxics Reduction Evaluation (TRE) Report to the Department on January 28, 2020 relative to boron at Internal Monitoring Point 503 (IMP-503) corresponding to the Station's permitted discharge from the FGD Wastewater Treatment System. The recommendation from the TRE outlined a suggested transition of the boron Water Quality Based Effluent Limit (WQBEL) from IMP-503 to Outfall 003, along with acknowledgement that discharges from IMP-503 would always be subject to mixing with circulating water flows (i.e., once-through cooling water) at Outfall 003 under a minimum of one-pump operations. This would necessitate a change in the Station's process logic and would guarantee that a minimum of 115 million gallons per day (MGD) of circulating water flows would always be present during periods of IMP-503 discharge.

The Department's review of the TRE Report resulted in comments being provided via email, dated July 22, 2020. Within the comments, reference was made to a citation from 40 CFR 125.3(f)[1], which *allows a discharger to use dilution and other "non-treatment" techniques on a case-by-case basis provided the discharger meets three requirements, including the submission of an alternatives analysis that demonstrates that dilution is the preferred environmental and economic method to achieve water quality standards*. Further, this regulatory citation for the use of "non-treatment" techniques details the three requirements as follows:

(1) The technology-based treatment requirements applicable to the discharge are not sufficient to achieve the standards;

[1] GenOn's voluntarily submission of this letter shall not be construed as a waiver of GenOn's right to contest the applicability of 40 CFR 125.3(f) in this context. Contrary to the Department's position, the regulation applies to technology-based effluent limit ("TBELs"). The final boron limits at IMP-503 are WQBELs, not TBELs. Furthermore, GenOn is not proposing to use dilution as a non-treatment technique to meet a TBEL.

(2) The discharger agrees to waive any opportunity to request a variance under Section 301 (c), (g), or (h) of the Act [now 33 U.S.C. §1311]; and
(3) The discharger demonstrates that such a technique is the preferred environmental and economic method to achieve the standards after consideration of alternatives such as advanced waste treatment, recycle and reuse, land disposal, changes in operating methods, and other available methods.

With regard to Item (1)

As described in the December 2017 NPDES Permit Fact Sheet developed for Cheswick's NPDES Permit, Outfall 003 is the primary outfall at the facility, receiving once-through non-contact cooling water, uncontaminated stormwater, and flow from IMPs 103 and 803, which receives flow from IMPs 203, 303, 403, 503 and 603. The once through non-contact cooling water discharge pipe enters approximately midway into a constructed basin adjacent to the Allegheny River, which has an overflow weir at the downstream end. The compliance sampling point for Outfall 003 is downstream of the combined internal outfalls.

The only Technology Based Effluent Limit (TBEL) applicable to Outfall 003 was for once-through cooling water and was for Total Residual Chlorine. TBELs for all other waste streams discharging via Outfall 003 were implemented at the respective IMPs before combining at Outfall 003. Federal Steam Electric Effluent Limitation Guidelines (ELGs) for FGD wastewater at IMP-503 were considered as part of the permit renewal.

TBELs were developed at IMP-503 based on Best Professional Judgement (BPJ) by the Department. The BPJ limits in the current permit were developed based on the performance of existing FGD wastewater treatment facilities and the expected performance of the proposed facility based on the expected influent and effluent quality submitted with the NPDES Amendment and Water Quality Management Part II applications. TBELs for the following pollutants were included in the last permit issuance:

- Total Beryllium
- Total Copper
- Total Lead
- Total Mercury
- Total Silver

The Best Available Technology Economically Available (BAT) limits for FGD wastewater are contained in 40 CFR §423.13(g) and have recently been revised and will become effective soon. The pollutants with BAT limits for FGD wastewater are now dependent upon multiple subcategories and may include:

- Total Arsenic
- Total Mercury
- Total Selenium
- Nitrate/nitrite as N
- Bromide (Voluntary Incentives Program [VIP])
- TDS (VIP)

Therefore, a TBEL or BAT Limit for boron has not been proposed or developed by the Department or EPA based upon our review. However, FGD wastewater at the Cheswick Generating Station does receive treatment prior to discharge at IMP-503.

The existing Cheswick FGD Wastewater Treatment System employs chemical precipitation technology to treat the blowdown from the absorber vessels, which in turn, make use of a limestone slurry forced oxidation (LSFO) process to scrub the flue gasses. As recognized in the 2015 ELG Rule and the final August 2020 ELG Reconsideration Rule released in pre-publication form, chemical precipitation is effective for removal of certain toxic metals (e.g., arsenic and mercury) and achieving measurable reductions in suspended solids. Within the 2015/2020 Rules, EPA selected chemical precipitation combined with biological treatment alternatives as BAT to meet the numeric discharge limits that were established for arsenic, mercury, selenium and nitrate/nitrite in FGD wastewaters [(per 40 CFR 423.13(g)(1)(i)]. The incorporation of biological treatment is acknowledged to specifically focus on removal of selenium and nitrate/nitrite. As further illustrated by comparison of Table 6-3 with Tables 10-4 and 10-5 in the ELG Technical Development Document (TDD) (USEPA, EPA-821-R-15-007, Sept. 2015) and Table 6-1, Table 8-1, Table 8-2, and as described in Section 8.1.1 in the ELG TDD, EPA-821-R-20-001, Aug 2020, utilization of chemical precipitation either alone or in combination with biological treatment, does not provide for any reliably or meaningful degree of boron reduction, with this constituent essentially "passing through" from influent to effluent.

Beyond BAT, the 2015 ELG Rule also included provisions under a Voluntary Incentives Program (VIP) for dischargers to optionally select a thermal technology (i.e., evaporation) for enhanced treatment and more broad-based removal of targeted FGD wastewater constituents. However, EPA rejected thermal evaporation as the VIP technology selected in the 2020 Final Rule, finding that it was nearly double the cost of membrane filtration, the new VIP technology when the 2020 Rule becomes effective.

More specifically, the revised VIP technology is identified as reverse osmosis (RO) membrane filtration with pretreatment, representing a process capable of removing a broad array of particulate and dissolved constituents from FGD wastewaters, including boron. To allow for continued development and refinement of this technology on FGD wastewater, the 2020 Rule provides an extended schedule to December 31, 2028 for those dischargers that opt into the VIP.

EPA received a wide range of comments on membrane filtration technology. After carefully considering the statutory factors for BAT and available data, EPA rejected membrane filtration as BAT for FGD wastewaters. First, based on significant information gaps and uncertainties in EPA's record, EPA could not conclude that membrane filtration is technologically available nationwide, as required by the Clean Water Act (CWA). Second, the Agency found that, on a nationwide basis, membrane filtration entails unacceptable non-water quality environmental impacts associated with management of the membranes' byproduct, brine. Finally, while the factors above were sufficient to reject membrane filtration as BAT, EPA also noted that membrane filtration would result in higher costs to industry. EPA's record demonstrated that no domestic steam electric power plants have installed full-scale nanofiltration, reverse osmosis, or electrodialysis reversal (EDR) membrane filtration systems to remove dissolved pollutants in FGD wastewater. EPA noted that plants are most likely to encapsulate the brine with fly ash and lime and dispose of the resulting solid in a landfill. As described in the 2019 ELG proposed rule, landfilling an encapsulated material raises challenges. For instance, comingling encapsulated material with other landfill refuse could result in a leachate blowout due to bridging caused by variations in infiltration rates. Therefore, based on EPA's analysis, membrane technology is not yet presently available.

Once effective, the WQBELs at IMP-503 are indicated as a monthly average discharge concentration of 520 mg/L and a daily maximum discharge concentration of 811 mg/L. Corresponding mass loading limits will also become effective, calculated as 780.6 lbs/day (monthly average) and 1,217.8 lbs/day (daily maximum) based on the IMP-503 design discharge rate of 0.18 MGD. With the intent of having the WQBELs or some other relevant numeric limitation established at Outfall 003 rather than IMP-503, GenOn reviewed the context of the 2015 ELG TDD specific to the application of a combined waste stream formula (CWF) as outlined in Section 14.1.5 of the subject document. As stated therein, the CWF

approach is indicated as directly applicable, *"where a regulated wastestream is combined with a well-known dilution flow, such as cooling water, non-contaminated stormwater, or cooling tower blowdown, the concentration-based limitation for the regulated wastestream is reduced by multiplying it by a factor. The factor is the combined wastestream minus the dilution flow divided by the total flow."* As further stated, EPA anticipates that proper application of the CWF approach will result in combined wastestream limitations and standards that will enable steam electric power plants to combine certain wastestreams, while also ensuring that the plant is actually treating its wastewater as intended by the CWA and the ELG Rule, rather than simply diluting it.

Utilizing the CWF approach for IMP-503 and Outfall 003, the following calculation is derived for determining an appropriate numeric limitation for boron at Outfall 003, based on a flow of 115 MGD at Outfall 003 corresponding to a minimum of one circulating water pump in operation, and assumed negligible presence of boron in the circulating cooling water.

CWF Factor = ([IMP-503 flow+Outfall 003 flow] - Outfall 003 flow)/[IMP-503 flow+Outfall 003 flow]
= ([(0.18 MGD + 115 MGD] – 115 MGD)/[0.18 MGD + 115 MGD]
= 0.00156

Resultant combined wastestream limitations at Outfall 003 would then be calculated as follows:

Outfall 003 WQBEL = IMP-503 WQBEL x CWF Factor = 520 mg/L x 0.00156 = 0.81 mg/L (mo. avg.)
Outfall 003 WQBEL = IMP-503 WQBEL x CWF Factor = 811 mg/L x 0.00156 = 1.27 mg/L (daily max)

If so desired, mass-loading limitations from the above could also be calculated as follows:

Monthly Average = 0.81 mg/L x 115 MGD x 8.34 (units conversion) = 776.9 lbs/day
Daily Maximum = 1.27 mg/L x 115 MGD x 8.34 (units conversion) = 1,218.1 lbs/day

As observed, these calculated mass loadings are nearly identical to those which become effective at IMP-503 on August 1, 2021 (i.e., 780.6 lbs/ day as monthly average and 1,217.8 lbs/day as daily maximum) and would demonstrate equivalent protectiveness of water quality criteria at external Outfall 003. In addition, applying the same mass loading limit developed for IMP-503 at Outfall 003 ensures that dilution would not be used to meet a concentration-based limit. GenOn believes this is a fundamentally sound method for maintaining compliance and more accurately represents the nature of operations at the Cheswick Generating Station. This modification to the existing NPDES Permit would manage boron discharges for the foreseeable future until possible FGD treatment system process modifications are undertaken in response to the forthcoming ELG Rule finalization. In addition to being environmentally responsive (founded on conservative PENTOXSD modeling conducted by the Department) and with effectively the same loading, adoption of this path forward is economically responsible based on of the lack of currently available treatment technology options or operating practices for boron. Accordingly, GenOn has made the requisite showing with respect to Item (3) above.

As noted above, Outfall 003 is the primary outfall at the facility, receiving once-through non-contact cooling water, uncontaminated stormwater, and discharges from IMPs 103, 203, 303, 403, 503 and 603. Moving the WQBEL for boron to Outfall 003 is more conservative than establishing the boron limitation at IMP 503 because the discharge at Outfall 003 will include boron that may be present from all of these different discharges across the station.

Lastly and with regard to Item (2) above, the Department has requested that GenOn waive any future opportunity to seek a variance from technology-based treatment requirements that are available under Sections 301(c), (g) or (h) of the CWA, and which can be applied for under 40 CFR 122.21. These

variances are outlined in 40 CFR 125.3(b)(1) and encompass economic and water quality related variances from BAT per §301(c) and §301(g), respectively. The variance under §301(h) is for POTWs and would not apply to the Cheswick Generating Station. After consideration of this aspect, GenOn agrees and is requesting a waiver to this variance, with the limitation that it only applies specifically to boron at IMP-503 and Outfall 003.

We trust this submittal aligns with the Department's expectations, and should you have any questions regarding the information provided, please contact Steve Frank at Stephen.Frank@genon.com (724-249-3610).

Respectfully submitted,

Kevin P. Panzino

Kevin P. Panzino
Plant Manager

cc: Maria Schumack, PADEP-Central Office
Bill McGraw, Cheswick Station
Steve Frank, GenOn

ATTACHMENT C:

Letter from Daniel McDevitt, General Counsel, GenOn Holdings, LLC, dated June 9, 2021, “GenOn Holdings, LLC Announces Retirement of Three Coal-Fired Power Plants”.

GenOn Holdings, LLC
1360 Post Oak Blvd, Suite 2000
Houston, TX 77056

FOR IMMEDIATE RELEASE

Contact: Daniel McDevitt
E-mail: GeneralCounsel@Genon.com

GenOn Holdings, LLC Announces Retirement of Three Coal-Fired Power Plants

Units total 2,421MW in Ohio, Pennsylvania, and Maryland

(Houston, Texas, June 9, 2021) GenOn Holdings, LLC (GenOn) announced today that it has initiated the process to permanently retire 2,421 MW of coal-fired electric generating capacity at three stations in Ohio, Pennsylvania, and Maryland. The three facilities and associated coal retirements are the 627MW Avon Lake Generating Station located in Avon Lake, OH; the 565MW Cheswick Generating Station located in Springdale, PA; and the 1,229MW Morgantown Generating Station Units 1 and 2 located in Newburg, MD. The Avon Lake and Cheswick Stations are anticipated to retire by September 15, 2021; the retiring units at the Morgantown Generating Station are anticipated to retire as of June 1, 2022.

The decision to initiate the retirement of these coal units is driven by unfavorable economic conditions, higher costs including those associated with environmental compliance, an inability to compete with other generation types, and evolving market rules that promote subsidized resources.

Avon Lake Unit 9 came online in 1970. A small, oil-fired unit that came online in 1973 located at the Avon Lake site will also be retired. No power generation facilities will be operational at the Avon Lake site following these unit retirements.

The Cheswick Generating Station Unit 1 was commissioned in 1970. No power generation operations will continue at the Cheswick site following the unit retirement.

The Morgantown Generating Station Units 1-2 came online in 1970 and 1971. GenOn will continue to operate six electric generating units totaling 252MW at the Morgantown site following the retirement of Morgantown Units 1-2.

Deactivation of these units is subject to a 90-day reliability review period by PJM. Once the PJM review period is complete, GenOn will initiate a reduction in the workforce at each site and GenOn will provide benefits common in this situation to all affected employees. GenOn CEO Dave Freysinger stated, "The decision to retire a power plant is always a difficult one for employees and the local communities. These are not decisions taken lightly. GenOn will provide transition assistance, including advance notice, severance payments and access to health care, in accordance with our contracts and policies to all affected workers."

GenOn is a competitive independent power producer that, following the retirement of these units, will own approximately 7,285 MW of electric generation facilities located in Pennsylvania, New York, New Jersey, Maryland, Ohio, and California.

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For more information on this topic, please contact Daniel D. McDevitt, Executive Vice President and General Counsel at: GeneralCounsel@Genon.com

ATTACHMENT D:

Letter from Josh Simon, Plant Manager, GenOn, Cheswick Generating Station, dated September 16, 2021, “ELG Notice of Planned Participation, GenOn Power Midwest LP, Cheswick Generating Station, Permit No. PA0001627”.

Cheswick Generating Station
100 Pittsburgh Street
Springdale, PA 15144-1452
724-275-1401

September 16, 2021

Mr. Michael E. Fifth, P.E.
Environmental Engineer Manager
Clean Water Program
Pennsylvania Department of Environmental Protection
Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222

Re: **ELG Notice of Planned Participation**
GenOn Power Midwest LP
Cheswick Generating Station
Permit No. PA0001627

Dear Mr. Fifth,

GenOn Power Midwest LP (GenOn), owner and operator of the Cheswick Generating Station (Cheswick) is providing certification of a retirement date. On June 9, 2021, GenOn issued a press release announcing the retirement of the Cheswick (565 MW) coal-fired unit by September 15, 2021 that was later extended to April 1, 2022.

On July 15, 2021, GenOn was notified by Monitoring Analytics, acting in its capacity as the Independent Market Monitor for PJM (IMM), that they concluded that the decision to retire Cheswick did not "appear to raise market power issues at this time." A copy of the IMM letter is attached.

The Effluent Limitation Guidelines for Steam Electric Power Generating Point Source Category were revised on October 13, 2020 (2020 ELG reconsideration Rule) modifying the flue gas desulfurization (FGD) wastewater compliance alternatives. Therefore, under 40 CFR § 423.13(g)(2)(i) and § 423.13(k)(2)(ii), GenOn hereby certifies that the Cheswick Generating Station Unit 1 will cease combustion of coal and retire by December 31, 2028 or earlier pursuant to §423.19(f).

Our interim milestones included seeking approval from PJM to deactivate this generating unit by September 15, 2021 (extended by GenOn to April 1, 2022), which was received on July 15, 2021 and transitioning to retirement. No other significant milestones are required preceding the retirement. This shall serve as Cheswick's Notice of Planned Participation (NOPP) required by § 423.19(f), which is due no later than October 13, 2021.

2020 ELG permit conditions applicable to all NPDES permits (40 CFR § 423.18 Permit conditions) and our NOPP should be considered for inclusion in the pending NPDES modification.

Certification Statement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

If you have any questions, please do not hesitate to contact Stephen Frank at 724-249-3610 or via e-mail at Stephen.Frank@genon.com or me at Joshua.Simon2@genon.com.

Sincerely,

Josh Simon
Plant Manager

cc: Stephen Frank, Senior Manager, Environmental, GenOn Holdings, LLC

Monitoring Analytics

2621 Van Buren Avenue, Suite 160
Valley Forge Corporate Center
Eagleville, PA 19403
Phone: 610-271-8050
Fax: 610-271-8057

VIA MIRA

July 15, 2021

Michael Stockton
Director, Commercial Operations
GenOn Holdings, Inc.
1360 Post Oak Blvd.
Suite 2000
Houston, Texas 77056

Re: Proposed deactivation/retirement of Cheswick

Dear Mr. Stockton:

On June 9, 2021, GenOn Energy Management, LLC ("GenOn"), an affiliate of GenOn Energy, Inc., submitted to PJM Interconnection, L.L.C. notice of proposed permanent retirement of Cheswick, effective September 15, 2021. On July 14, 2021, GenOn submitted a revised deactivation date of April 1, 2022. Monitoring Analytics, acting in its capacity as the Independent Market Monitor for PJM (IMM), must perform a market power analysis of the proposed deactivation.

Section IV of Attachment M—Appendix to the PJM Open Access Transmission Tariff (OATT) provides:[1]

> [T]he Market Monitoring Unit shall analyze the effects of the proposed deactivation with regard to potential market power issues and shall notify the Office of the Interconnection and the generator owner (of [sic], if applicable, its designated agent) within 30 days of the deactivation request if a market power issue has been identified. Such notice shall include the specific market power impact resulting from the proposed deactivation of the generating unit, as well as an initial assessment of any steps that could be taken to mitigate the market power impact.

Based on our review, the IMM concludes that the decision to retire Cheswick does not appear to raise market power issues at this time.

[1] *See also* PJM Manual 14D (Generator Operational Requirements) § 9 at 83—86.

The IMM analysis did not consider any market power issues that could arise in connection with any PJM determination that reliable system operations may require the unit to continue operating after April 1, 2022.[2]

Please contact me if you have any questions about the information provided.

Sincerely,

Joseph E. Bowring

cc: Manu Asthana, PJM Interconnection, L.L.C.
Michael Bryson, PJM Interconnection, L.L.C.
Stu Bresler, PJM Interconnection, L.L.C.