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April 12, 2022

VIA HAND DELIVERY

Kenna DeRaimo, Clerk of the Board
WV Environmental Quality Board
601 57th Street, SE
Charleston, WV 25314

RE: **APPALACHIWN POWER COMPANY v.
DIVISION OF WATER AND WASTE MANAGEMENT,
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL
PROTECTION; Appeal No. 22-02-EQB**

Dear Ms. DeRaimo,

Enclosed for filing, please find an original and six (6) copies of "NOTICE OF APPEAL" and "MOTION TO STAY" in the above referenced matter, which I request you mark "filed" and place in the appropriate file.

Should you have questions regarding the foregoing, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Allyn G. Turner'. The signature is fluid and cursive.

Allyn G. Turner

AGT/vlr
Enclosure

WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
CHARLESTON, WEST VIRGINIA

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APR 13 2022

Environmental Quality
Board

APPALACHIAN POWER COMPANY,
dba AEP

Appellant,

v.

Appeal No. 22-02-EQB

DIVISION OF WATER AND WASTE
MANAGEMENT, WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Appellee,

NOTICE OF APPEAL AND MOTION FOR STAY

The Appellant Appalachian Power Company, doing business as AEP, (“Appellant” “AEP” or the “Company”), respectfully represents that it is aggrieved by certain terms and conditions in renewal of WV/NPDES Permit No. WV0048500 issued on or about March 7, 2022, and received by AEP on March 14, 2022. WV/NPDES Permit No. WV0048500 and the related agency response to comments are attached hereto as Exhibit A. The following issues represent the matters for which AEP is seeking relief:

Relief Requested:

1. Correctly apply the “combined waste stream formula” (“CWF”) at Outlet 001, and make necessary revisions based on those CWF corrections;

2. Revise TSS and Oil & Grease limits for Outlet 001 by using the proper application of the CWF and correcting any other errors related to development of these effluent limitations;
3. Remove the improperly included sulfate effluent limitations for Outlet 001;
4. Correct any other errors in the development of arsenic, mercury, selenium, and nitrite + nitrate nitrogen effluent limitations for Outlet 201 based on the erroneous application of certain removal efficiencies;
5. Revise the “Schedule of Compliance” in Part B of the Permit such that AEP has time beyond the first day the Permit becomes effective to submit its plan of action for aluminum;
6. Remove or revise Permit provisions that are in error based on a misapplication of the building block approach;
7. Revise the deadline for completion of the “detailed flow analysis” required by the Permit and included specifically in Section B of the Permit, such that (1) the flow study is due with the renewal application for the Permit in September 2026, and (2) the requirement for a Permit modification to address the flow study is eliminated from the Permit; and
8. Revise Section C.27. of the Permit addressing new wastewater ponds to allow for a LLDPE liner system for such ponds in addition to the HDPE liner type the agency has listed as acceptable in this condition.

Specific Objections:

The facts alleged relevant to this appeal and the specific objections on which this appeal is based, including questions of law and fact to be determined by the Board, are set forth in and attached hereto as Exhibit B.

Appellant prays that this matter be reviewed and that this honorable Board grant the requested by ordering the modification of the Permit and stay the specified requirements of the Permit pending review.

The request for stay of certain Permit requirements and justification for a stay are set forth herein and are also set forth in AEP's attached Motion for Stay.

Dated this 12th day of April, 2022.

A handwritten signature in black ink, appearing to read "Allyn Turner", is written over a horizontal line.

Kathy G. Beckett, WVBN 4998
Allyn Turner, WVBN 5561
Steptoe & Johnson, PLLC
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AEP

EXHIBIT A



American Electric Power
1 Riverside Plaza
Columbus, OH 43218
aep.com

Director
Division of Water and Waste Management, DEP
ATTN: Lori Devereux, Permitting Section
601 57th Street, SE
Charleston, WV 25304-2345

August 11, 2021

Re: Appalachian Power Company – Mountaineer Plant
WV/NPDES Permit No. WV0048500 - Mason County
Draft WV/NPDES Permit Comments

Dear Ms. Devereux:

On behalf of Appalachian Power Company (APCo), American Electric Power Service Corporation hereby submits comments regarding the referenced Draft WV/NPDES Permit and Fact Sheet for the Mountaineer Plant (Mountaineer). We appreciate the opportunity to provide these comments to the West Virginia Department of Environmental Protection (DEP) and trust they will be taken into consideration. We have numbered our comments for ease of reference and they follow the page-wise flow of the draft permit and fact sheet.

1) Cover Page:

On the first page on paragraph 4 states “Also to operate and maintain an intake system and best management practices designated at Outlet INT for the withdrawal of water from the Monongahela River at approximate Milepost 242.” Mountaineer withdraws water from the Ohio River at approximate Milepost 242. APCO requests “Monongahela” be changed to “Ohio” to correctly reflect the water withdrawal source.

DEP Response (“Comment No. 1 : Cover Page”):

The correction has been made

2) Section A.001 (page 4 of 24), TSS and Oil and Grease Limits:

Use of Combined Waste Stream Formula:

In reviewing the Draft Permit Fact Sheet (page 4 of 9 and Outlet 001 ELG table), it appears that DEP did not appropriately apply the combined waste stream formula (CWF) at Outlet 001,

specifically as it relates to designation of and credit for the “non-regulated” waste streams. The Draft Permit specifies for Outlet 001 interim TSS effluent limits of 78 mg/l (Max. Daily) and 24 mg/l (Monthly Average) and final effluent limits of 65 mg/l (Max. Daily) and 16 mg/l (Monthly Average). As DEP notes in the fact sheet, the CWF must be used to adjust effluent limits to avoid dilution of regulated waste streams when combined for treatment with other waste streams (regulated or non-regulated), since steam electric effluent guidelines are set according to the individual, categorical waste stream. USEPA’s September 1985 “Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastewater Formula” (Guidance Manual) provides clarification on the designation of non-regulated waste streams as either unregulated or dilution streams, for use of the CWF, as follows:

“Unregulated waste streams are those waste streams that are not covered by categorical pretreatment standards and not classified as dilute waste streams. An unregulated waste stream could be ... one that is not regulated for the pollutant in question although it is regulated for others. Unregulated streams are presumed, for purposes of using the CWF, to contain pollutants of concern at a significant level. In effect, the CWF “gives credit” for pollutants which might be present in the unregulated waste stream. Rather than treating the unregulated flow as dilution, which would result in lowering the allowable concentration of a pollutant, the CWF allows the pollutant to be discharged in the unregulated waste stream at the same concentration as the standard for the regulated waste stream that is being discharged. This is based on the assumption that if pollutants are present in the unregulated waste stream, they will be treated to the same level as in the regulated waste stream.”

EPA further notes that “in some cases, unregulated wastestreams may not actually contain pollutants of concern at a significant level” but they are still “considered unregulated” when applying the CWF.

Dilution streams are defined indirectly as waste streams in which the pollutant of concern is not detectable or is present in amounts too small to be effectively reduced by treatment.

DEP Response, part 1 (“Comment No. 2 : Section A.001, TSS, and Oil and Grease Limits / Use of CWF”):

To clarify, reference to the combined wastestream formula in the draft permit Fact Sheet is not in reference to the National Pretreatment Regulations in 40 CFR 403. The permittee is not classified as an industrial user under the pretreatment regulations since the facility does not discharge its wastewater to a Publicly Owned Treatment Works. AEP's Mountaineer plant is regulated under 40 CFR 423, not 40 CFR 403.

The usage of the term in the fact sheet is in reference to the combined treatment at the facility (i.e., the bottom ash pond) which treats multiple wastestreams, both regulated and non-regulated and dilute and non-dilute, as considered by each specific guideline and waste type in a single treatment facility to achieve the limitations in 40 CFR 423. In general, when used in the fact sheet the “combined wastestream formula” is a reference to a complete mass balance on all wastestreams.

In 2013, Mountaineer Plant monitored TSS in the cooling water. Below are the results of the monitoring:

Cooling Tower Blowdown TSS Results

Date	Result (mg/l)		Date	Result (mg/l)
January 2013	196		August 2013	46
	172			46
	108			152
	144			83
	56		September	100
February 2013	170			58
	300			27
June 2013	26			45
	220		October 2013	50
	108			56
July 2013	92			84
	60		November 2013	57
	114		December 2013	162
				554
				330

The average of the results is 132.7 mg/l and the maximum value was 554 mg/l.

Because the cooling tower blowdown (CTBD) is regulated by 40 CFR 423 for other pollutants (free available chlorine), but not regulated for TSS, it should be designated as *unregulated* for

the purposes of this illustration. Despite this designation, TSS is present at a significant level in the blowdown (see Table above), removing it from consideration as a dilution water. Based on this information, this waste stream should be designated as *unregulated*, but not considered to be dilution water for use in the CWF per EPA guidance.

In the APCO Amos NPDES Permit (WV0001074) Fact Sheet, WVDEP imposed a removal efficiency of 91% for TSS based USEPA's Treatability Manual for settling ponds. AEP believes that DEP's use of removal efficiency in developing these limits is inappropriate. As described above, removal efficiency does not play a role in a combined waste stream calculation, per EPA's guidance. The only mechanism that we are aware of where a permit writer may consider a removal efficiency in determining technology based limits for a waste stream is where EPA has performed no technology analysis at all, and is therefore left to a Best Professional Judgement (BPJ) determination. Further, where a waste stream has been so analyzed by EPA and the agency has determined that no effluent limit for a pollutant is warranted, therefore, a permit writer is not authorized to undertake a BPJ approach for that waste stream/pollutant combination.

Even if WVDEP was authorized to conduct a BPJ determination, such an exercise is a complex, multi-step evaluation akin to a comprehensive effluent guidelines development process. According to EPA regulations, the permit writer must consider all of the following factors when setting BPJ BAT limitations:

- the age of equipment and facilities involved;
- the processes employed;
- the engineering aspects of the application of various types of control techniques; process changes;
- non-water quality environmental impacts, including energy requirements; and
- the cost of achieving the effluent reduction. 40 C.F.R. § 125.3(d).

The permitting authority must assess these factors and then select a model treatment technology and derive effluent limitations on the basis of the selected technology. The "process and the factors considered by the permit writer are the same factors required to be considered by EPA in developing effluent guidelines..." EPA, *NPDES Permit Writers' Manual*, EPA-833-K-10-001 (Sept. 2010) ("Permit Writers' Manual") at 5-46. Finally, the permitting authority then must document both "the approach used to develop the limitations ... and how the limitations carry out the intent and requirements of the CWA and the NPDES regulations." *Id.* at 5-45.

The bottom ash ponds were designed to meet the long-standing effluent guidelines limits of 30 mg/L average and 100 mg/L maximum TSS, and not designed around a removal efficiency since the guidelines are not presented in those terms. As a result, CTBD has been indirectly managed by APCO to meet a maximum 100 mg/L TSS limit. Regardless, APCO is not including this waste stream in its calculations as it does not change the maximum TSS limit value.

APCO also notes that the example CWF calculations on page 4 in the Fact Sheet and the Outlet 001 ELG table appear to omit coal pile runoff flow from the total allowable average TSS calculation, which unintentionally designates the coal pile runoff as a dilution stream when in fact it is a waste stream *regulated* for TSS under the EPA guidance and listed in 40 CFR 423 as a categorical waste stream.

APCO requests the TSS effluent limits be calculated as per EPA guidance shown below (extracted from Section 3.4 of the Guidance Manual). Use of this calculation will accurately account for the non-process wastewater (CTBD) as an unregulated waste stream (without need for a removal efficiency), but not to be included as dilution, while also correcting for the coal pile runoff omission. As EPA notes in the CWF example in the Guidance Manual, when the formula is applied properly, it has the effect of allowing any unregulated streams combined with the regulated streams to be discharged at the same pollutant concentrations as allowed by the standards for the regulated streams.

3.4 IMPLEMENTATION OF THE CWF

This section will provide Control Authority and IU personnel with information that will be necessary to ensure the proper application and implementation of the CWF.

3.4.1 Combined Waste stream Formulas

Section 403.6(e) of the General Pretreatment Regulations provides two formulas to develop alternative categorical limits. One formula is used to develop an alternative concentration limit for standards that are concentration based. ...

3.4.1.1 Alternative Concentration Limit Formula

$$C_T = \frac{\sum_{i=1}^N C_i F_i}{\sum_{i=1}^N F_i} \times \left(\frac{F_T - F_D}{F_T} \right)$$

C_T = Alternative concentration limit for the pollutant in the combined wastestream

C_i = Concentration-based categorical pretreatment standard for the pollutant in regulated stream i

F_i = Average daily flow (at least 30 day average) of regulated stream i

F_D = Average daily flow (at least 30 day average) of dilute wastestream(s) (see previous complete definition, page 3-2)

F_T = Average daily flow (at least 30 day average) through the combined treatment facility (including regulated, unregulated and dilute wastestreams)

N = Total number of regulated streams

In using the above justification, all the waste streams discharging to Outlet 001 would be considered either regulated or unregulated for TSS, but not dilution. In applying the above CWF, the limits for TSS should be:

Waste Stream	Designation Under CWF	Avg. Flow MGD	Max Flow MGD	40 CFR 423	40 CFR 423
				Avg TSS mg/l	Max TSS mg/l
Non Process	Unregulated	0.84	3.12		
Coal Pile Runoff	Regulated	0.039	0.322		50
LVW	Regulated	2.92	8.31	30	100
Bottom Ash	Regulated	0.71	2.63	30	100
FGD/CCR	Regulated	0.195	0.724	30	100

(all flows taken from Mountaineer Draft Permit Fact Sheet)

$$CT_{avg} = \frac{30 \frac{\text{mg}}{\text{L}} * 3.83 \text{ MGD}}{3.83 \text{ MGD}} * \frac{4.704 \text{ MGD}}{4.704 \text{ MGD}}$$

$$CT_{avg} = 30 \text{ mg/L}$$

$$CT_{max} = \frac{\left(100 \frac{\text{mg}}{\text{L}} * 14.78 \text{ MGD}\right) + \left(50 \frac{\text{mg}}{\text{L}} * 0.32 \text{ MGD}\right)}{15.1 \text{ MGD}} * \frac{15.1 \text{ MGD}}{15.1 \text{ MGD}}$$

$$CT_{max} = 98.9 \text{ mg/L}$$

In addition, the bottom ash/wastewater ponds are designed to remove TSS from stormwater to meet a benchmark limit of 100 mg/l for TSS, not 16.4 mg/l as calculated in the spreadsheet.

a. Calculation of Limits and Flows:

The Fact Sheet contains spreadsheets with Outlet 001 Effluent Guideline Limitation post-2022. The spreadsheets contain two different flow values for the calculation of limits for TSS and oil and grease and TRC. WVDEP in an email confirmed that the flows used for the TRC calculation are the correct flows to calculate the TSS and Oil and Grease effluent limitations assuming coal pile runoff is not a dilution stream for monthly limits TSS effluent limits the final effluent limits should be:

TSS

73.7 mg/l (Daily Max.) and 23.7 mg/l (Monthly Average)

Oil and Grease

14.5 mg/l (Daily Max.) and 11.7 mg/l (Monthly Average)

b. Oil and Grease:

Outlet 001 contains interim Oil and Grease effluent limits of 15 mg/l (Max. Daily) and 12 mg/l (Monthly Average) and final effluent limits of 13 mg/l (Max. Daily) and 8 mg/l (Monthly Average). As discussed for TSS, APCO feels that stormwater runoff from the Plant would be considered *unregulated* and requests the Oil and Grease effluent limitations be recalculated following the same process as detailed above. DEP includes a benchmark value for oil and grease in NPDES Permits for stormwater. This shows that WVDEP feels that oil and grease could be present in the stormwater component of this combined waste stream outlet.

DEP Response, part 2 (continued from "Comment No. 2 : Section A.001, TSS, and Oil and Grease Limits / Use of CWF"):

...In addition, AEP's calculation is incorrect, specifically the $(F_t - F_d)/F_t$ value. Based on the submitted reference, the term should be $(4.7 - 0.841) / 4.7 = 0.821$ for the average. Therefore, the alternative concentration limit would be 24.6 mg/l. The non-process wastewater cannot be included as non-dilute in the calculation, it must be considered a dilute wastestream per 40 CFR 423. A similar calculation would be made for the max limit. AEP's contention is incorrect that the cooling tower blowdown should be treated as process wastewater. The cited reference in USEPA's "Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastewater Formula" was not fully included in the comment letter and has been taken out of context. The reference further goes on to clarify that dilution flow (F_d) occurs when pollutants of concern are not detectable or are in trace amounts in "process wastestreams". The reference does not refer to non-process wastestreams.

Instead, it means that even if a wastestream is a process wastestream and is regulated by a guideline it can still be considered a dilute flow if there is de minimus loadings of the parameter in question. Wastestreams, such as cooling water blowdown, are always considered dilution flow unless the guideline specifically designates cooling tower blowdown as process wastewater, which is not the case here.

In previous permit reviews, the permit writer mistakenly presumed that that the cooling tower blowdown was rerouted or recycled through process waste units (i.e., ash transport) prior to entering the combined wastewater treatment system as occurs at other power plants in the State of West Virginia (i.e., MonPower's Fort Martin and Harrison power stations and AEP's own Mitchell power plant) or that the volume in comparison to the total flow through the wastewater system is much less and therefore would not significantly dilute process wastewater through the treatment system.

Therefore, the cooling tower blowdown is not process wastewater per 40 CFR 423 and the TSS and O&G limitations in the draft permit were properly assessed.

AND, "Comment No. 5 : Additional TSS Data for Cooling Tower Blowdown":

The TSS limits in Section A.001 have been revised based on the cooling tower blowdown data submitted with the comment letter.

Due note, that AEP's assertion that the cooling water TSS is at a significant higher level than dilute wastewater may not be entirely accurate. No information was provided on the TSS concentrations of bottom ash wastestreams and/or other low volume wastestreams for comparison in AEP's system. The agency reviewed the development document for 40 CFR 423 which indicates that influent TSS concentrations for process wastestreams (bottom ash and low volume wastewater) at coal fired power plant wastewater treatment plants are potentially an order of magnitude or higher than what has been observed by AEP in their cooling tower blowdown.

3) Section A.001, (page 5 of 24) Aluminum Effluent Limitations:

The NPDES Permit includes effluent limitations for Aluminum at Outlet 001. The effluent limitations are 0.75 mg/l (Max. Daily) and 0.36 mg/L (Monthly Average). APCO's data shows there may be an issue meeting this number on a consistent basis. APCO requests a 30-month compliance schedule to comply with this new limit. The 30-month period will allow for installation of the new treatment tanks at the repurposed wastewater ponds and allow for APCO to determine if they are sufficient to meet the new aluminum effluent limitations.

DEP Response (listed under "Comment No. 6. Aluminum Limitations"):

A compliance schedule has been granted for aluminum in Section A.001 and Section B of the final permit.

4) Section A.001 (page 6 of 24), Sulfate Effluent Limitations:

The NPDES Permit includes effluent limitations for sulfate at Outlet 001. The effluent limitations are 1993 mg/l (Max. Daily) and 1427 mg/l (Monthly Average). APCO requests this effluent limitations for sulfate be removed.

Section 10, page 3 of the Fact Sheet acknowledges that West Virginia does not have a numeric criteria for sulfate, but states "the agency does have concerns with the toxicity from this pollutant and its impact on the narrative water quality criteria found in 47 CSR 2, Section 3.2.e. which prohibits discharges from discharging materials in concentrations which are harmful to or toxic to man, animal, aquatic life."

Mountaineer conducted quarterly toxicity sampling for ceriodaphnia dubia and pimpephales during the last permit cycle with all results being less than 1.0 Tua. Mountaineer will continue monitoring toxicity during this permit cycle and this adequate to address DEP's stated concern regarding potential toxicity associated with this pollutant.

WVDEP notes in the Fact Sheet that USEPA has established a LC50 of 7,000 mg/l for sulfate in its ECOTOX database. WVDEP states that it applied 1/10 of USEPA's LC50 value to evaluate if there would be reasonable potential for the discharge to cause or contribute to a violation of the State's narrative water quality criterion. WVDEP provides no rationale or explanation for

using the 1/10 of the LC50. This procedure for calculating the sulfate WQBELs is inappropriate for calculating a WQBEL.¹

Finally, as West Virginia does not have a state numeric water quality criterion for sulfate, WVDEP's application of narrative water quality criterion to impose end-of-pipe effluent limitations is a de-facto creation of a numeric water quality criterion, and WVDEP did not follow the required procedures to take this action. West Virginia's state WQC are contained at W. Va. C.S.R. § 47-2-8, Appendix E. WVDEP's authority to implement specific water quality criteria is contained at W. Va. Code § 22-4.a(16), which requires WVDEP to set such standards through a rulemaking. WVDEP may only promulgate rulemakings in accordance with the requirements of the State Administrative Procedures Act, which it did not do here. *See* W. Va. Code § 29A-3-1.

DEP Response (listed under "Comment No. 7. Sulfate Limitations"):

The agency believes the application of the narrative water quality is appropriate.

5) Section A.001 (pages 5, 6, and 7 of 24), Monitoring for 2,4-Dichlorophenol, 2,4-Dinitrophenol, 4,6-Dinitro-o-cresol, BIS(2-Ethylhexyl)Phthalate, 2,4,6-Trichlorophenol, and Pentachlorophenol:

APCO requests the monitoring for these parameters be removed. Section 10, page 6 of the Fact Sheet states that parameter were added to create a database based on detections in the permit application.

APCO resampled Outlet 001 and the Ohio River for these six parameters with two different WVDEP certified laboratories and all the analytical results were below detection. The results are attached in Attachment 1. We believe these new data are sufficient to meet DEP's stated intent and request this monitoring be removed from the permit.

DEP Response (listed under "Comment No. 8: Phenol sampling"):

Section A.001 has been revised to remove sampling for phenols and DEHP due to additional sampling results submitted with the comment letter.

¹Additionally, WVDEP's use of the LC50 value from USEPA's ECOTOX database is wrong in and of itself, notwithstanding the fact that WVDEP arbitrarily applied 1/10 of the LC50 value. The ECOTOX database expressly instructs users to "consult the original scientific paper to ensure an understanding of the context of the data retrieved from ECOTOX." Doing so reveals that the LC50 value is based solely on 1984 research on uranium mine pollution. The LC50 value is therefore outdated and of no utility for a coal-fired steam electric power plant.

6) Section A.003 (page 8 of 24), Arsenic Monitoring:

APCO request that monitoring for Arsenic, Total be changed to Arsenic, Total Recoverable to be consistent with the other metals at this Outlet.

DEP Response (listed under "Comment No. 9: Total Recoverable Arsenic Outlet 003 and 006"):

The requested change has been made to Section A.003 and A.006 for arsenic.

7) Section A.010 (page 10 of 24), Arsenic Monitor:

APCO request that monitoring for Arsenic, Total be changed to Arsenic, Total Recoverable to be consistent with the other metals at this Outlet.

DEP Response (listed under "Comment No. 9: Total Recoverable Arsenic Outlet 003 and 006"):

The requested change has been made to Section A.003 and A.006 for arsenic.

[Page 10 of 24 is Outlet 006, not Outlet 010 as the comment header indicates- M.G.]

8) Section A.201 (page 14 of 24) Composite Monitoring for Arsenic, Selenium Nitrite plus Nitrate Nitrogen

APCO requests the sample type for arsenic, selenium and nitrite plus nitrate nitrogen being changed from "24hr composite" to "grab". Mountaineer has an existing system that will have additional treatment, ultrafiltration, added to the existing footprint. With the additional treatment equipment, space is limited for the installation of a composite sampler. The 24-hour composite sample must be a flow portioned sample. This creates the space issue since the effluent will be pumped to the wastewater ponds. The sampler needs to be connected to flow meter and additional sampling equipment needs to be installed to allow for Mountaineer to collect a NPDES Permit compliance sample.

At a minimum, APCO request grab sampling for interim (Initial to 6/30/2023) period in the NPDES Permit. Currently, there is no monitoring required by the NPDES Permit. There are locations for grab samples to be collected for process control, but no locations for composite to collect samples. With the proposed ultrafiltration installation, it could become difficult to collect a composite sample of the discharge during construction. Also, this will allow for APCO to include in the final design a location where composite sampler could be installed and connected to the flow meter to allow for flow-portioned sampling on the force main that discharges from the ultrafilter to the wastewater ponds.

DEP Response (listed under "Comment No. 10"):

The sample type for interim limits in Section A.201 have been revised to "grab" type for arsenic, selenium and nitrate+nitrite as well as the interim and final limits for mercury.

9) Section A.201 (page 14 of 24), Mercury Monitoring

APCO request the sample type for mercury, total be changed from 24-hour composite to grab. The collection of low-level mercury should be accomplished through a grab sample to help reduce the risk of contamination from outside sources.

DEP Response (listed under "Comment No. 10"):

The sample type for interim limits in Section A.201 have been revised to "grab" type for arsenic, selenium and nitrate+nitrite as well as the interim and final limits for mercury.

10) Section A.201 (page 14 of 24), Final Effluent Limitations for Outlet 201

a. Use of Treatment Efficiency

APCO believes that the DEP has incorrectly calculated the effluent limitations at Outlet 201 in not correctly applying the "building block" calculation of the effluent limitations.

USEPA, in its 2015 ELG Technical Development Document,² specifically noted situations that are similar to the one encountered at the Mountaineer Plant, noting that,

"In some cases, a waste stream (e.g., FGD wastewater) containing a regulated pollutant (e.g., selenium or mercury) combines with other waste streams that contain the same pollutant, but that are not regulated for that pollutant (e.g., legacy wastewater contained in a surface impoundment)."

In the case of the Mountaineer Plant, rather than a "legacy wastewater," we are dealing with landfill leachate, which also contains pollutants for which there are no limits for that categorical waste stream (i.e. arsenic in leachate). USEPA notes that,

"In these cases, based on the information in its record, EPA strongly recommends that in applying the building block approach or CWF to the regulated pollutant..., permitting authorities either treat the waste stream that does not have a limitation or standard for the pollutant (legacy wastewater contained in a surface impoundment, in the example above) as a dilution flow or determine a concentration for that pollutant based on representative samples of that waste stream."

² USEPA. 2015. Technical Development Document for the Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category. EPA-821-R-15-007. pg. 14-13.

This guidance does not instruct the permitting agency to determine the treatment efficiency of the technology through which the pollutant will pass. It only specifies that the “representative” concentration of the pollutant be determined. The permitting agency must also,

“...determine the flow rate for use in the building block approach or CWF. EPA strongly recommends that the permitting authority calculate the flowrate based on representative flow rates for each waste stream.”³

In addition, USEPA provided an example of the building block approach in the 2020 Supplemental Technical Development Document for FGD wastewater and leachate.⁴ USEPA did not require a removal efficiency for any leachate parameters. If USEPA meant for a removal efficiency to be included, it would have been required as part of 40 CFR 423. For example, in one of the few examples where USEPA applies a removal efficiency in the context of establishing technology based limits, for sanitary wastewater limitations a removal efficiency is specifically listed in 40 CFR Part 133, based on EPA guidance. It requires 85% removal of BOD and TSS, based on the influent concentration for secondary treatment (physical and biological treatment).

By using the removal efficiency in the calculation of the Mountaineer Plant FGD waste water effluent limits, similar to our comment 2, it appears that the DEP has indirectly attempted to develop a BPJ effluent limitation. As outlined in the NPDES Permit Writer’ Manual Section 5.2.3.6, Documenting Case-by-Case TBELs in the Permit Fact Sheet (and mentioned earlier in these comments), the permit writer must,

“...document the development of case-by-case limitations in the NPDES permit fact sheet. The permit writer should clearly identify the data and information used in developing these effluent limitations and how that information was used. The permit writer also should document the rationale for concluding that there are no applicable effluent guidelines for the industrial wastewater or pollutant discharge. The information in the fact sheet should provide the NPDES permit applicant and the public a transparent, reproducible, and defensible description of how the BPJ limitations comply with the CWA and EPA regulations.”

Based on these requirements, DEP would need to justify that there are no applicable effluent guidelines for the wastewater in question. In this case, that is not true. There are effluent guideline limitations (ELGs)⁵ for FGD wastewaters and landfill leachate⁶. While not identical,

³ EPA does not recommend that the permitting authority assume that the pollutant is present at a significant level in the waste stream that does not have a relevant limitation or standard and just apply the same limitation or standard for the pollutant to the mixed waste stream. This will not ensure that treatment and control strategies are being employed to achieve the limitations or standards, rather than simply dilution.

⁴ Section 14, pages 14-27 and 28, Table 14.10

⁵ 40 CFR Part 423 Steam Electric Power Generating Point Source Category

⁶ In terms of applying the BPT TSS and oil and grease limits applicable to combustion residual leachate, see the 2020 rule, which amended 40 CFR 423.12(b)(11). (85 Fed. Reg. at 64,716-17). The limits are the standard ones,

each categorical wastewater has its own ELGs that are a part of 40 CFR 423. And while litigation of the 2015 ELG rule resulted in a remand of categorical limits for leachate, there is not a void created but in fact the 1982 limits for low volume waste streams (within which leachate was then classified) apply.

It is also worth noting that USEPA itself in May 2020 established a final NPDES permit in New Hampshire (USEPA Region 1 administers the permit) for a power plant and did not conduct a BPJ analysis for leachate. In the permit for the Merrimack Station, USEPA followed the interpretation that once the Fifth Circuit vacated the BAT limits for leachate, EPA's 1982 determination not to set BAT limits for low volume wastes became automatically applicable, such that it controls and forecloses the possibility of setting BPJ limits for leachate. Specifically, USEPA said of Combustion Residual Leachate (CRL) in its response to comments:

Until EPA takes action to address the Court's vacatur or propose new national BAT limit(s) for CRL, the Region must determine what limit(s) apply and are appropriate to regulate this wastestream. In this final permit, the Region has applied the CRL limits based on the regulations prior to, or in the absence of, the 2015 Rule.... In 1982, EPA considered setting BAT limits for low volume wastes but ultimately determined not to establish BAT limits because toxic metals in the wastestream "are present in amounts too small to be effectively reduced by technologies known to the Administrator."

Region 1 goes on to say that it is not appropriate to set any BPJ BAT limits for leachate, given EPA's actions in 1982:

BAT requirements for low volume waste are, therefore, no further control beyond BPT. Stated differently, the Agency's decision not to establish BAT limits for low volume wastes in 1982 occupies the field. To the extent that any commenter would suggest the Region conduct a site-specific assessment of BAT limits for CRL, this practice is foreclosed by the existence of applicable ELGs.

For these reasons, APCO believes that the limits for Outlet 203 must be recalculated as discussed below.

DEP Response (listed under "Comment No. 11, Section A.201, Final Effluent Limitations / Use of Treatment Efficiency"):

The agency has not calculated a BPJ limit. The leachate that the permittee is describing is considered dilute wastewater per the ELG and the data provided by the permittee on the characteristics of the wastewater were on an untreated basis (prior to entering the proposed combined wastewater system). The building block approach, as agency personnel discussed with AEP personnel during a site visit during the draft permit public notice period for AEP Amos' plant, is for considering multiple wastestreams on a post-treatment basis. Since the leachate data provided is on an untreated basis and the ELG limitations are imposed on the effluent of the treatment unit, the untreated leachate data must be evaluated on an

but this section now makes those limits applicable to leachate specifically, rather than treating it in the catch-all category of low volume waste.

effluent basis. The agency used the removal efficiencies in the development document to perform this calculation. The agency is neither requiring the permittee to achieve these removal efficiencies nor imposing these removal efficiencies in the permit. Also, the permittee may develop its own removal efficiencies based on its specific treatment unit operations if it desires.

As discussed with AEP personnel, the building block approach diagram that AEP is referring to in the comment letter does not describe the proposed design on the AEP system. In EPA's diagram, leachate combines with treated FGD wastewater on the effluent side of the FGD treatment system. In the permittee's design, leachate combines with other wastewaters prior to the treatment system.

b. Recalculation of Limits

During the course of our detailed review of the draft permit, APCO has reviewed the flows at the FGD wastewater treatment system. The flows in the water balance and also in the fact sheet are incorrect. Based on the review, APCO proposes using the average flows from DMR data for the FGD wastewater, 105 gpm, and the average leachate flow of 216 gpm.

APCO provides the following flow data and comparison of limits:

Flow rates for various scenarios

Scenarios	Flow Rates (GPM)		Notes
	Leachate	FGD	
AEP Building Block (Dec 2020)	275	175	Design Basis FGD; Average leachate flow
Draft Permit Limits Daily Max	340	215	DEP-assumed maximum flows. Draft Permit limits also include assumed removal efficiencies for leachate stream
Draft Permit Limits 30 Day	275	175	"Typical flows" based on submitted water balance. Also assumes removal efficiencies for leachate stream
5-yr Average Max	265	202	Average maximum flows measured between 2017-2021
5-yr Monthly Averages	216	105	Average monthly flow between 2017-2021

Calculated ELG Limits for WVDEP scenario

Parameters	Daily Max			30-day Average		
	Max Flows Avg. (2017-2021)	Draft Permit Limits	ELG Rule (FGD Only)	All Average	Draft Permit Limits	ELG Rule (FGD Only)
Arsenic (ug/L)	8.9	8	18 ug/L	4.2	4	8 ug/L
Mercury (ng/L)	46.1	40	103 ng/L	15.8	13	34 ng/L

Nitrate-NO2 (mg/L)	1.8	1.6	4 mg/L	1.4	1.2	3 mg/L
Selenium (ug/L)	31.7	29	70 ug/L	13.5	12	29 ug/L

The revised building block effluent limit using the flows above would be:

Calculated ELG Limits for Building Block scenario

Parameters	Daily Max			30-day Average		
	Max Flows Avg. (2017-2021)	Draft Permit Limits	ELG Rule (FGD Only)	All Average	Draft Permit Limits	ELG Rule (FGD Only)
Arsenic (ug/L)	36.6	8	18 ug/L	22.6	4	8 ug/L
Mercury (ng/L)	128.1	40	103 ng/L	70.3	13	34 ng/L
Nitrate-NO2 (mg/L)	7.8	1.6	4 mg/L	5.3	1.2	3 mg/L
Selenium (ug/L)	203.4	29	70 ug/L	127.9	12	29 ug/L

APCO believes that the limits shown in the “Max Flows Avg. column for the daily maximum and in the “All Average” column for the 30-day average are the appropriate limits for Outlet 201 using WVDEP’s method of calculation. If the CWF is used, then APCO feels that leachate should be considered an *unregulated* waste stream and the ELG Rule effluent limits would apply.

DEP Response (listed under “Comment No. 12 : Section A.201, Final Effluent Limitations / Re-calculation of Limits”):

The agency considered the flow information provided and recalculated the final limits at Outlet 201 in the final permit.

[Fact sheet shows 0.152 MGD (105 gpm) average and 0.291 MGD (202 gpm) max flow from FGD WWTP and 0.311 MGD (216 gpm) average and 0.38 MGD (265 gpm) max flow from leachate were used to recalculate limits, as recommended. See PDF page 55 of 55 in the final permit and fact sheet document.—M.G.]

11) Section B: Compliance Schedule, proposed October 13, 2021 date:

APCO proposes the addition of a compliance date of October 13, 2021, as this is the regulatory date by which a Notice of Planned Participation must be filed, should APCO choose to pursue that route. APCO proposes the following language be added to the compliance schedule:

October 13, 2021: If the permittee seeks to qualify for the low-utilization category or to permanently cease coal combustion by December 31, 2028, the permittee shall submit a Notice of Planned Participation (NOPP) to the WV Department of Environmental Protection by this regulatory deadline. Filing of a NOPP by the regulatory deadline will result in a suspension of

the following compliance dates in this schedule until a modification is issued based on Section C.31:

February 1, 2022

June 01, 2022

February 01, 2023

July 01, 2023

Dec 01, 2023

Until a modification is issued based on the NOPP to incorporate revised requirements for the bottom ash transport water and FGD wastewater as allowed by the 40 CFR 423, the interim limits for Outlet 203 and Outlet 003 will remain in effect and the applicability dates for elimination of the discharge of bottom ash transport water and complying with the FGD wastewater effluent limitations will be December 31, 2025.

APCO believes it is necessary to suspend the intermediate compliance dates and limits because the compliance schedule would otherwise require work that: 1) is no longer required due to future cessation of coal combustion or low-unit utilization, and 2) would be due only months later (starting December 1, 2021). There is insufficient time to file and process a permit modification within that short window. If and when the NOPP is filed, APCO would suspend work related to the intermediate compliance dates.

DEP Response (listed under "Comment No. 13 : Section B: October 13, 2021"):

The referenced date has already passed and cannot be added to the permit.

12) Section C (page 18 of 24):

To avoid confusion in implementing less frequent monitoring requirements, AEP requests that the quarterly and semi-annual monitoring frequencies be defined in Section C. and be based on a calendar year, as follows:

Quarterly (1/quarter) frequency means sampling shall be done between: January-March; April-June; July-September; and October-December. The quarterly results shall be reported on the March, June, September and December DMRs.

Semi-annual sample frequency means sampling shall be done between: January-June and July-December with a minimum of 3 months between samples. The semi-annual results shall be reported on the June and December DMRs.

DEP Response (listed under “Comment No. 14 : Section C: Quarterly and Semi-Annual Requirements”):

Quarterly requirements have been defined in new Section C.30. Semi-annual sampling periods are based on the issue date of the permit so they cannot be pre-defined in Section C.

[Quarterly definitions are actually in Section C.29—M.G.]

13) Section C.18 (page 20 of 24):

APCO respectfully requests that Condition C.28 be revised to include EPA Method 1664 B as follows: "The permittee shall utilize EPA Method No. 1664 A or EPA Method No. 1664 B (gravimetric analysis using the hexane extractable method [HEM]) for the analysis of oil and grease." EPA Method 1664 B (2010) is the updated version of EPA Method 1664 A (1999), and both are listed in 40 CFR 136 as acceptable methods. The same method detection limit and report limit are specified in both methodologies.

DEP Response (listed under Comment No. 15 : Section C.18”):

The requested revision has been made.

14) Section C.25, Notice of Planned Participation (page 22 of 24):

If the requested language regarding a Notice of Planned Participation submittal is not added to the compliance schedule in Section B as described in comment #1 above, APCO hereby requests the following language be added to Section C.31 as condition C.31.b:

C.31.b Until a modification is issued based on the NOPP to incorporate revised requirements for the bottom ash transport water and FGD wastewater as allowed by the 40 CFR 423, the interim limits for Outlet 203 and Outlet 003 will remain in effect and the applicability dates for elimination of the discharge of bottom ash transport water and complying with the FGD wastewater effluent limitations will be December 31, 2025. In addition any requirements in Schedule B. Schedule of Compliance related to compliance with bottom ash transport water and FGD wastewater are no longer applicable.

DEP Response (listed under “Comment No. 16 : Section C.25, Notice of Planned Participation”):

This section is now moot since the October 13, 2021 NOPP date has passed. Section C.25 was deleted in the final permit.

15) Section C.27, pond liner system requirements (page 22 of 24):

Section C.33 requires the use of “a double synthetic liner and leak detection and removal system consisting of two 40-millimeter HDPE (upper and lower liners), synthetic geonet leak detection and removal layer, and leak collection piping or equivalent spec'ed liner and leak detection system” for newly constructed impoundments containing raw wastewater. APCO respectfully notes that 40-millimeters is not an available thickness for liner systems, nor would such a thickness be appropriate for use as a liner. APCO therefore requests at a minimum that the specification of two “40-milimeter HDPE” liners be removed from the permit condition.

APCO plans to use 40-mil (mill = 1/1,000 inch) linear low density polyethylene (LLDPE) for the upper and lower liners of the pond liner system for the repurposed ponds in the former east and west bottom ash ponds. 40-mil liner is the more widely available LLDPE liner compared to other thicknesses (e.g., 60-mil). LLDPE liner is more flexible than HDPE liner and, APCO believes, less likely to experience seam failure due to cyclical contractions over time. While APCO understands that 60-mil HDPE is a common liner for municipal solid waste landfills, it does not believe it to be an appropriate liner for upcoming pond repurposing work.

Proposed revisions to first paragraph of Section C.33 and the addition of condition that allows for single liner to be used in case cessation of coal combustion is pursued through a NOPP is selected are as follows (underlines denote added text, strikethroughs are deletions):

The new wastewater pond(s) (i.e. former east and west BAP pond footprints) shall be lined with a double synthetic liner and leak detection and removal system consisting of two ~~60-millimeter HDPE~~ 40-mil LLDPE (upper and lower liners), synthetic geonet leak detection and removal layer, and leak collection piping or equivalent spec'ed liner and leak detection system.

In the event APCO pursues the cessation of coal combustion option, the liner requirements for the new wastewater ponds(s) will need to meet the requirements as outlined the Coal Combustion Residual (CCR) Rule.

DEP Response (listed under “Comment No. 17 : Section C.27 Pond Liner System”):

The liner reference has been corrected. The cessation of coal combustion language is no longer applicable since the NOPP date has passed.

[The liner reference is not corrected. It refers to 40-mil HDPE liner, not LLDPE liner—M.G.]

16) Section D.2.c, 316(b) Cycles of Concentration (page 23 of 24)

Section D.2.c the second paragraph currently reads:

“The permittee shall use calculated procedures in “Clean Water Act, 316(b) Compliance Submittal Requirements, Prepared For American Electric Power, Prepared by HDR Engineer,

Inc., February 9, 2018” to calculate cycles of concentration for reporting purposes in Section A. Int.

APCO requests that “(or alternatively conductivity) be added to clarify that conductivity can be used for the calculation of the number of cycles.

“The permittee shall use calculated procedures in “Clean Water Act, 316(b) Compliance Submittal Requirements, Prepared For American Electric Power, Prepared by HDR Engineer, Inc., February 9, 2018”(or alternatively conductivity) to calculate cycles of concentration for reporting purposes in Section A. Int.

DEP Response (listed in “Comment No. 18 : Section D.2.c Cycles of Concentration”):

The requested change has been made in the final permit.

17) Issuance of Final NPDES Permit

APCO has appealed the recently issued NPDES permit for its Amos plant, and has raised on appeal issues with how DEP calculated limits for various outfalls using the combined wastestream formula. Because APCO raises similar concerns with DEP’s approach to calculating limits for Mountaineer (see comments regarding Total Suspend Solids and Oil and Grease effluent limitations at Outlet 001 and ELG FGD effluent limitations at Outfall 201), and to avoid duplicative litigation over the same issue, to the extent DEP is not willing to revise its approach to calculating these limits in accordance with the comments contained herein, we urge DEP to refrain from finalizing this permit until these issues are resolved by the Environmental Quality Board.

DEP Response (listed as “Comment No. 19 : Issuance of Final NPDES Permit”):

Based on discussions regarding the Amos Appeal between APCO, the WVDEP, and the USEPA, the agency believes its assessment of the limits are appropriate and there is no reason to further delay the issuance of this permit.

If necessary, we can participate in a meeting with DEP staff to further discuss these comments. In the meantime, if there are any questions or further information is needed, please contact Steve Wells at (740) 215-0408 or sfwells@aep.com.

Sincerely,

Alan R. Wood, P.E. (OH)
Director, Water & Ecological Resource Services

Attachment

c: Marie Gildow – AEP Headquarters
Randall Brown – Mountaineer
David Thompson – Mountaineer
Steve Wells – AEP Headquarters
Robert Schmidt – AEP Headquarters



west virginia department of environmental protection

Division of Water and Waste Management
601 57th Street SE
Charleston, West Virginia 25304-2345
Phone: 304-926-0495/Fax: 304-926-0463

Harold D. Ward, Cabinet Secretary
<https://dep.wv.gov>

March 08, 2022

ALAN R. WOOD
APPALACHIAN POWER COMPANY
c/o AEP - MOUNTAINEER PLANT
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215-2372

CERTIFIED RETURN RECEIPT REQUESTED

Dear Permittee:

Enclosed please find WV/NPDES Permit Number WV0048500 dated March 08, 2022.

American Electric Power's (AEP) comments were received by letter dated August 11, 2021. The following is the agency's response to these comments regarding the draft permit that went to public notice on June 29, 2021.

Comment No. 1 : Cover Page

The correction has been made.

Comment No. 2 : Section A.001, TSS, and Oil and Grease Limits / Use of CWF

To clarify, reference to the combined wastestream formula in the draft permit Fact Sheet is not in reference to the National Pretreatment Regulations in 40 CFR 403. The permittee is not classified as an industrial user under the pretreatment regulations since the facility does not discharge its wastewater to a Publicly Owned Treatment Works. AEP's Mountaineer plant is regulated under 40 CFR 423, not 40 CFR 403.

The usage of the term in the fact sheet is in reference to the combined treatment at the facility (i.e., the bottom ash pond) which treats multiple wastestreams, both regulated and non-regulated and dilute and non-dilute, as considered by each specific guideline and waste type in a single treatment facility to achieve the limitations in 40 CFR 423. In general, when used in the fact sheet the "combined wastestream formula" is a reference to a complete mass balance on all wastestreams.

In addition, AEP's calculation is incorrect, specifically the $(F_t - F_d)/F_t$ value. Based on the submitted reference, the term should be $(4.7 - 0.841) / 4.7 = 0.821$ for the average. Therefore, the alternative concentration limit would be 24.6 mg/l. The non-process wastewater cannot be included as non-dilute in the calculation, it must be considered a dilute wastestream per 40 CFR 423. A similar calculation would be made for the max limit. AEP's contention is incorrect that the cooling tower blowdown should be treated as process wastewater. The cited reference in USEPA's "Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastewater Formula" was not fully included in the comment letter and has been taken out of context. The reference further goes on to clarify that dilution flow (F_d) occurs when pollutants of concern are not detectable or are in trace amounts in "process wastestreams". The reference does not refer to non-process wastestreams.

Instead, it means that even if a wastestream is a process wastestream and is regulated by a guideline it can still be considered a dilute flow if there is de minimus loadings of the parameter in question. Wastestreams, such as cooling water blowdown, are always considered dilution flow unless the guideline specifically designates cooling tower blowdown as process wastewater, which is not the case here.

In previous permit reviews, the permit writer mistakenly presumed that that the cooling tower blowdown was rerouted or recycled through process waste units (i.e., ash transport) prior to entering the combined wastewater treatment system as occurs at other power plants in the State of West Virginia (i.e., MonPower's Fort Martin and Harrison power stations and AEP's own Mitchell power plant) or that the volume in comparison to the total flow through the wastewater system is much less and therefore would not significantly dilute process wastewater through the treatment system.

Therefore, the cooling tower blowdown is not process wastewater per 40 CFR 423 and the TSS and O&G limitations in the draft permit were properly assessed.

Comment No. 5 : Additional TSS Data for Cooling Tower Blowdown

The TSS limits in Section A.001 have been revised based on the cooling tower blowdown data submitted with the comment letter.

Due note, that AEP's assertion that the cooling water TSS is at a significant higher lever than dilute wastewater may not be entirely accurate. No information was provided on the TSS concentrations of bottom ash wastestreams and/or other low volume wastestreams for comparison in AEP's system. The agency reviewed the development document for 40 CFR 423 which indicates that influent TSS concentrations for process wastestreams (bottom ash and low volume wastewater) at coal fired power plant wastewater treatment plants are potentially an order of magnitude or higher than what has been observed by AEP in their cooling tower blowdown.

Comment No. 6 : Aluminum Limitations

A compliance schedule has been granted for aluminum in Section A.001 and Section B of the final permit.

Comment No. 7 : Sulfate Limitations

The agency believes the application of the narrative water quality is appropriate.

Comment No. 8 : Phenol Sampling

Section A.001 has been revised to remove sampling for phenols and DEHP due to additional sampling results submitted with the comment letter.

Comment No. 9 : Total Recoverable Arsenic Outlet 003 and 006

The requested change has been made to Section A.003 and A.006 for arsenic.

Comment No. 10 : Section A.201 Composite Sampling

The sample type for interim limits in Section A.201 have been revised to "grab" type for arsenic, selenium and nitrate+nitrite as well as the interim and final limits for mercury.

Comment No. 11 : Section A.201, Final Effluent Limitations / Use of Treatment Efficiency

The agency has not calculated a BPJ limit. The leachate that the permittee is describing is considered dilute wastewater per the ELG and the data provided by the permittee on the characteristics of the wastewater were on an untreated basis (prior to entering the proposed combined wastewater system). The building block approach, as agency personnel discussed with AEP personnel during a site visit during the draft permit public notice period for AEP Amos' plant, is for considering multiple wastestreams on a post-treatment basis. Since the leachate data provided is on an untreated basis and the ELG limitations are imposed on the effluent of the treatment unit, the untreated leachate data must be evaluated on an effluent basis. The agency used the removal efficiencies in the development document to perform this calculation. The agency is neither requiring the permittee to achieve these removal efficiencies nor imposing these removal efficiencies in the permit. Also, the permittee may develop its own removal efficiencies based on its specific treatment unit operations if it desires.

As discussed with AEP personnel, the building block approach diagram that AEP is referring to in the comment letter does not describe the proposed design on the AEP system. In EPA's diagram, leachate combines with treated FGD wastewater on the effluent side of the FGD treatment system. In the permittee's design, leachate combines with other wastewaters prior to the treatment system.

Comment No. 12 : Section A.201, Final Effluent Limitations / Re-calculation of Limits

The agency considered the flow information provided and recalculated the final limits at Outlet 201 in the final permit.

Comment No. 13 : Section B: October 13, 2021

The referenced date has already passed and cannot be added to the permit.

Comment No. 14 : Section C: Quarterly and Semi-Annual Requirements

Quarterly requirements have been defined in new Section C.30. Semi-annual sampling periods are based on the issue date of the permit so they cannot be pre-defined in Section C.

Comment No. 15 : Section C.18

The requested revision has been made.

Comment No. 16 : Section C.25, Notice of Planned Participation

This section is now moot since the October 13, 2021 NOPP date has passed. Section C.25 was deleted in the final permit.

Comment No. 17 : Section C.27 Pond Liner System

The liner reference has been corrected. The cessation of coal combustion language is no longer applicable since the NOPP date has passed.

Comment No. 18 : Section D.2.c Cycles of Concentration

The requested change has been made in the final permit.

Comment No. 19 : Issuance of Final NPDES Permit

Based on discussions regarding the Amos Appeal between APCO, the WVDEP, and the USEPA, the agency believes its assessment of the limits are appropriate and there is no reason to further delay the issuance of this permit.

Please note that a Discharge Monitoring Report (DMR) is to be completed and submitted to this Division each month.

ALAN R. WOOD
Page 5
March 08, 2022

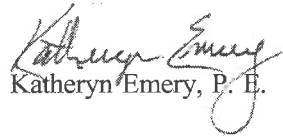
Finally note that copies of all future correspondence regarding the permit must be forwarded to the Field Inspector and Field Supervisor at the following address:

Department of Environmental Protection
Environmental Enforcement
PO Box 662
Teays, WV 25569

Also, please note the attachment to this permit which describes the annual permit fee requirement. Reissuance of your permit does not change the annual fee billing cycle.

If you have any questions, please contact John Lockhart, P.E. of this Division at (304) 926-0499 at extension 43889, or by email at john.v.lockhart@wv.gov.

Sincerely,


Katheryn Emery, P. E.

KE:jl

Enclosures

Permit Number: WV0048500

Permittee: APPALACHIAN POWER COMPANY

cc: Env. Insp. Supv.
Env. Insp.
ORSANCO
US EPA

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT
601 57TH STREET SE
CHARLESTON, WV 25304-2345

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
WATER POLLUTION CONTROL PERMIT

NPDES PERMIT NO.: WV0048500

SUBJECT: Industrial Waste

ISSUE DATE: March 08, 2022

EFFECTIVE DATE : May 01, 2022

EXPIRATION DATE: March 07, 2027

SUPERSEDES: Permit No. WV0048500
dated July 10, 2009

LOCATION: NEW HAVEN
(City)

Mason
(County)

Middle Ohio River 2
(Drainage Basin)

See the next page for a list of Outlets.

TO WHOM IT MAY CONCERN:

This is to certify that: APPALACHIAN POWER COMPANY
C/O AEP - MOUNTAINEER PLANT
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215-2372

is hereby granted a West Virginia NPDES Water Pollution Control Permit to:

operate and maintain treatment and disposal systems and best management practices for the direct discharge of treated industrial wastes (process, low volume wastewater, coal pile runoff, metal cleaning wastewater, cooling tower blowdown, landfill leachate, FGD wastewater, and stormwater) via Outlet 001 into the Ohio River near Mile Point 242.

Also to operate and maintain disposal systems and best management practices for the direct discharge of untreated storm water runoff via Outlet 003 into Little Broad Run, a tributary of the Ohio River.

Also to operate and maintain disposal systems and best management practices for the direct discharge of untreated storm water runoff via Outlet 006 into the Ohio River near Mile Point 242.

Also to operate and maintain an intake system and best management practices designated as Outlet INT for the withdrawal of water from the Ohio River at approximate Milepost 242.

Also to acquire, construct, install, operate, and maintain a new 14-acre, lined East Settling Pond and 14-acre, lined West Settling Pond and adjacent tank-based chemical treatment system (organosulfide and polymer) to replace the Bottom Ash Wastewater Treatment Ponds at Outlet 001.

Also to acquire, construct, install, operate, and maintain a new ultrafiltration unit (pressure filter) to provide additional treatment at the CPS Treatment Facility at new Outlet 201.

Both the new Outlet 001 and 201 treatment systems shall be constructed per plans and specifications in "Mountaineer Plant, 2021 NPDES Permit Renewal Application Update, NPDES Permit #WV0048500, January 8, 2021" prepared by American Electric Power Service Corporation.

This permit is subject to the following terms and conditions :

The information submitted on and with Permit Application No. WV0048500, dated December 31, 2012, and additional information submitted March 28, 2017 and January 8, 2021, are all hereby made terms and conditions of this permit with like effect as if all such permit application was set forth herein and with other conditions set forth in Section A, B, C, D, and Appendix A.

The validity of this permit is contingent upon the payment of the applicable annual permit fee, as required by Chapter 22, Article 11, Section 10 of the Code of West Virginia.

Inspectable Unit	Latitude	Longitude	Receiving Stream	Dist. to Stream Mouth (in Mile)	Milepost
001	38°58'22"	81°55'37"	OHIO RV	N/A	242.01
003	38°59'03"	81°56'45"	LITTLE BROAD RUN/SEAMAN RN	0.1	N/A
006	38°59'26"	81°56'30"	OHIO RV	N/A	243.64
101	38°58'22"	81°55'37"	N/A	N/A	N/A
106	38°59'26"	81°56'30"	OHIO RV	N/A	243.64
201	38°58'22"	81°55'37"	N/A	N/A	N/A
INT	38°58'22"	81°55'37"	N/A	N/A	N/A

A.001 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 001 (Cooling Water, Storm Water Runoff, Process Water, Other)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Other Units</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Quantity</u>		<u>Units</u>					<u>Measurement Frequency</u>	<u>Sample Type</u>
50050 - (Flow,in Conduit or thru plant) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mgd	Continuous	measured
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 5/31/2022	N/A	N/A	N/A	N/A	26 Avg. Monthly	89 Max. Daily	mg/l	1/week	24 hr Composite
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A) Final: 06/01/2022 to 3/7/2027	N/A	N/A	N/A	N/A	26 Avg. Monthly	86 Max. Daily	mg/l	1/week	24 hr Composite
00400 - (pH) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/week	Grab
00610 - (Ammonia Nitrogen) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/quarter	24 hr Composite
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 5/31/2022	N/A	N/A	N/A	N/A	15 Avg. Monthly	44 Max. Daily	ug/l	2/month	Grab
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-A) Final: 06/01/2022 to 3/7/2027	N/A	N/A	N/A	N/A	18 Avg. Monthly	53 Max. Daily	ug/l	2/month	Grab
01119 - (Copper, Total Recoverable) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/quarter	24 hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 001, at the discharge to the Ohio River via a 46" CMP

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS 1 - 12.

A.001 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 001 (Cooling Water, Storm Water Runoff, Process Water, Other)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Other Units</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Quantity</u>		<u>Units</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>			
71900 - (Mercury, Total (as Hg)) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01104 - (Aluminum, Total Recoverable) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 6/1/2024	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	2/month	24 hr Composite
01104 - (Aluminum, Total Recoverable) (Year Round) (ML-1) (RF-A) Final: 06/02/2024 to 3/7/2027	N/A	N/A	N/A	N/A	0.36 Avg. Monthly	0.75 Max. Daily	mg/l	2/month	24 hr Composite
00980 - (Iron, Total Recoverable) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	1.1 Avg. Monthly	2.5 Max. Daily	mg/l	2/month	24 hr Composite
00940 - (Chloride (as Cl)) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/quarter	24 hr Composite
00951 - (Fluoride, Total) (Year Round) (ML-5) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/quarter	24 hr Composite
61425 - (Acute Tox - Ceriodaphnia Dut) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/6 months	24 hr Composite
61427 - (Acute Toxicity - Pimephales) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/6 months	24 hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 001, at the discharge to the Ohio River via a 46" CMP

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.001 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 001 (Cooling Water, Storm Water Runoff, Process Water, Other)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>						<u>Monitoring Requirements</u>		
	<u>Quantity</u>		<u>Units</u>	<u>Other Units</u>		<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	
00011 - (Temperature, F) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	DEG.F	1/month	Insitu
Effluent									
00011 - (Temperature, F) (Year Round) (ML-7) (RF-A)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	DEG.F	1/month	Insitu
Intake/Upstream Temperature									
81020 - (Sulfate) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	1427 Avg. Monthly	1993 Max. Daily	mg/l	2/month	24 hr Composite
00927 - (Magnesium, Tot (as Mg)) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/quarter	24 hr Composite
00552 - (Oil and Grease, Hexane EXTF) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 5/31/2022	N/A	N/A	N/A	N/A	12 Avg. Monthly	15 Max. Daily	mg/l	1/month	Grab
00552 - (Oil and Grease, Hexane EXTF) (Year Round) (ML-1) (RF-A) Final: 06/01/2022 to 3/7/2027	N/A	N/A	N/A	N/A	8 Avg. Monthly	13 Max. Daily	mg/l	1/month	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 001, at the discharge to the Ohio River via a 46" CMP

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.003 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 003 (Storm Water Runoff)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Other Units</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Quantity</u>		<u>Units</u>					<u>Measurement Frequency</u>	<u>Sample Type</u>
50050 - (Flow, in Conduit or thru plant) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mgd	1/6 months	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
00400 - (pH) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/6 months	Grab
01119 - (Copper, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
01094 - (Zinc, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
71900 - (Mercury, Total (as Hg)) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/6 months	Grab
01104 - (Aluminum, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
00980 - (Iron, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 003, at the discharge to Little Broad Run via a 30" CMP.

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.003 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 003 (Storm Water Runoff)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Other Units</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Quantity</u>		<u>Units</u>					<u>Measurement Frequency</u>	<u>Sample Type</u>
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 003, at the discharge to Little Broad Run via a 30" CMP.

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.006 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 006 (Storm Water Runoff)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>		<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>		<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Sample Type</u>			
50050 - (Flow, in Conduit or thru plant) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mgd	1/6 months	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
00400 - (pH) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/6 months	Grab
01119 - (Copper, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
01094 - (Zinc, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
71900 - (Mercury, Total (as Hg)) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/6 months	Grab
01104 - (Aluminum, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
00980 - (Iron, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 006, at the discharge to the Ohio River via a 36" corrugated plastic pipe.

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.006 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 006 (Storm Water Runoff)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Other Units</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Quantity</u>		<u>Units</u>					<u>Measurement Frequency</u>	<u>Sample Type</u>
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/6 months	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 006, at the discharge to the Ohio River via a 36" corrugated plastic pipe.

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.101 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 101 (Process Water)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Other Units</u>		<u>Units</u>	<u>Monitoring Requirements</u>	
	<u>Quantity</u>		<u>Units</u>					<u>Measurement Frequency</u>	<u>Sample Type</u>
50050 - (Flow, in Conduit or thru plant) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mgd	Once/Discharge	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	Once/Discharge	Grab
Sampling not to exceed 2 times a month.									
01042 - (Copper, Total (as Cu)) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	1 Avg. Monthly	1 Max. Daily	mg/l	Once/Discharge	Grab
Sampling not to exceed 2 times a month.									
01045 - (Iron, Total (as Fe)) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	1 Avg. Monthly	1 Max. Daily	mg/l	Once/Discharge	Grab
Sampling not to exceed 2 times a month.									
00552 - (Oil and Grease, Hexane EXT) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	Once/Discharge	Grab
Sampling not to exceed 2 times a month.									

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Internal Outlet 101, at the discharge from the metal cleaning waste treatment tank prior to entering the wastewater treatment system.

A.106 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 106 (Other)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>		<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>	<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>			
50050 - (Flow, in Conduit or thru plant) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mgd	Once/Daily Discharge	Estimated
Sampling shall not exceed twice per month.									
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	100 Max. Daily	mg/l	Once/Daily Discharge	Grab
Sampling shall not exceed twice per month.									
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	Once/Daily Discharge	Grab
Sampling shall not exceed twice per month.									
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	57 Max. Daily	ug/l	Once/Daily Discharge	Grab
During hypochlorite treatment only. Not to exceed twice per month.									

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

Outlet 106, at the discharge to the Ohio River via a 36" corrugated plastic pipe (same as Outlet 006). This outlet is for reporting of fire suppression system flush waters only. Stormwater only discharges shall be reported via Outlet 006.

This discharge shall comply with Appendix A - I MANAGEMENT CONDITIONS I - 12.

A.201 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 201 (Process Water)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>				<u>Monitoring Requirements</u>				
	<u>Quantity</u>		<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>		
50050 - (Flow, in Conduit or thru plant) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mgd	1/month	measured
71900 - (Mercury, Total (as Hg)) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 6/30/2023	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/month	Grab
71900 - (Mercury, Total (as Hg)) (Year Round) (ML-1) (RF-A) Final: 07/01/2023 to 3/7/2027	N/A	N/A	N/A	N/A	0.0112 Avg. Monthly	0.0446 Max. Daily	ug/l	1/month	Grab
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 6/30/2023	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	Grab
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-A) Final: 07/01/2023 to 3/7/2027	N/A	N/A	N/A	N/A	0.0106 Avg. Monthly	0.0317 Max. Daily	mg/l	1/month	24 hr Composite
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 6/30/2023	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	Grab
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-A) Final: 07/01/2023 to 3/7/2027	N/A	N/A	N/A	N/A	0.0035 Avg. Monthly	0.0088 Max. Daily	mg/l	1/month	24 hr Composite
00630 - (Nitrite Plus Nitrate Nitrogen) (Year Round) (ML-1) (RF-A) Interim: 5/1/2022 to 6/30/2023	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	Grab

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

Internal Outlet 201, at the discharge from CTP / ultrafiltration unit prior to entering the clearwater pond.

A.201 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee is authorized to discharge from Outlet Number(s) 201 (Process Water)

Such discharges shall be limited and monitored by the permittee as specified below:

<u>Effluent Characteristic</u>	<u>Discharge Limitations</u>						<u>Monitoring Requirements</u>		
	<u>Quantity</u>		<u>Units</u>	<u>Other Units</u>		<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	
00630 - (Nitrite Plus Nitrate Nitrogen) (Year Round) (ML-1) (RF-A) Final: 07/01/2023 to 3/7/2027	N/A	N/A	N/A	N/A	1	1.8	mg/l	1/month	24 hr Composite
					Avg. Monthly	Max. Daily			

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Internal Outlet 201, at the discharge from CTP / ultrafiltration unit prior to entering the clearwater pond.

A.INT INTAKE MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 5/1/2022 and lasting through midnight 3/7/2027 the permittee will monitor Outlet Number(s) INT (Intake)

Such intake shall be monitored by the permittee as specified below:

<u>Intake Characteristic</u>	<u>Quantity</u>		<u>Monitoring Requirements</u>			<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>	
			<u>Units</u>		<u>Other Units</u>				
51463 - (Cycles of Concentration) (Year Round) (ML-7) (RF-A)	N/A	N/A	N/A	3	N/A	N/A	cycles	1/daily	Calculated
				Min. 7 Day Avg.					
			See Section D.2.c						

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

Closed-cycle recirculation system, the permittee shall measure intake flow, blowdown flow, condenser flow, and condenser temperature delta (or conductivity) and report the results as cycles of concentration of the close-loop recycle cooling system.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the provisions for waste treatment and the monitoring requirements specified in the permit in accordance with the following schedule :

- May 01, 2022: Complete preliminary and detailed design for Outlet 001 to support bid packages, including civil, mechanical, and electrical engineering packages for the pond complex modifications. Also complete preliminary and detailed design for Outlet 201 to support bid packages, including civil, mechanical, and electrical/I&C packages for the FGD treatment system.
- The permittee shall submit a plan of action that identifies the courses of action to be taken by the permittee that will result in compliance with the final effluent limitations for aluminum at Outlet 001.
- Jun 01, 2022: Cease discharge of bottom ash transport wastewaters to the Outlet 001 combined wastewater system. Achieve compliance with the final effluent limitations in Section A.001 for TSS and O&G.
- The permittee shall also submit a progress report that identifies the status of the actions taken, as well as the actions to be taken, to come into compliance with the final effluent limitations for arsenic, mercury, nitrate+nitrite, and selenium at Outlet 201.
- The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to come into compliance with the final effluent limitations for aluminum at Outlet 001.
- Sep 01, 2022: The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to come into compliance with the final effluent limitations for aluminum at Outlet 001.
- Dec 01, 2022: The permittee shall complete any studies, complete any designing or engineering, obtain any necessary funding, and commence implementation of any action specified in the latest revision of the plan of action for compliance in order to achieve compliance with the for aluminum at Outlet 001. The permittee shall also submit a progress report which summarizes actions taken and additional actions to be taken in the future to achieve compliance with the final effluent limitations for aluminum at Outlet 001.
- Feb 01, 2023: Complete closure (i.e. removal of the CCR material and decontamination of the CCR unit) and repurposing of East BAP of the former Bottom Ash Pond treatment system.
- The permittee shall also submit a progress report that identifies the status of the actions taken, as well as the actions to be taken, to come into compliance with the final effluent limitations for arsenic, mercury, nitrate+nitrite, and selenium at Outlet 201.
- The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to come into compliance with the final effluent limitations for aluminum at Outlet 001.

B. SCHEDULE OF COMPLIANCE

1. The permittee shall achieve compliance with the provisions for waste treatment and the monitoring requirements specified in the permit in accordance with the following schedule :

Jul 01, 2023: Complete construction, performance testing and tuning for the ultrafiltration (pressure filter) FGD treatment system. Achieve compliance with final effluent limitations in Section A.201 for arsenic, mercury, nitrate+nitrite, and selenium.

The permittee shall also submit a progress report that identifies the status of the actions taken, as well as the actions to be taken, to complete closure of the West BAP of the former Bottom Ash Pond treatment system.

The permittee shall begin the construction of any upgrades or system modifications necessary to comply with the final effluent limitations for aluminum at Outlet 001.

Sep 01, 2023: The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to come into compliance with the final effluent limitations for aluminum at Outlet 001.

Dec 01, 2023: Complete closure (i.e. removal of the CCR material and decontamination of the CCR unit) and repurposing of West BAP of the former Bottom Ash Pond treatment system.

The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to come into compliance with the final effluent limitations for aluminum at Outlet 001.

Mar 01, 2024: The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to come into compliance with the final effluent limitations for aluminum at Outlet 001.

Jun 01, 2024: The permittee shall complete the construction of any necessary upgrades or system modifications and shall comply with the final effluent limitations for aluminum at Outlet 001.

Jun 01, 2025: The permittee shall submit a detailed flow analysis and wastewater inventory at Outlet 001. At a minimum, the flow analysis shall include quantitative (or qualitative engineering estimates where quantitative estimates are impractical) average and maximum flows for each waste type at each outlet (regulated vs non-regulated). The wastewater inventory shall at a minimum detail the status (source, dilute vs process) of each subtype of flow on the facilities' "Current Water Balance Diagram" and/or "Proposed (2024) Water Balance Diagram" dated 08/05/2020 and 1/4/2021. For Outlet 001 which has a documented mixture of process wastewater (per 40 CFR 432) and non-regulated, dilute wastewater input into the respective treatment systems a major modification shall be submitted to adjust/update TSS and O&G limitations in Section A.

2. Reports of compliance or non-compliance with, and progress reports on interim and final requirements contained in the above compliance schedule, if any, shall be postmarked no later than 14 days following each schedule date.

Section C - Other Requirements

1. The permittee shall practice good housekeeping including maintaining the facility grounds. There shall be no scattered parts, equipment, debris, etc. Any and all drums shall be either stored in a covered area or kept upon pallets and properly sealed.
2. The issuance of this permit shall not relieve the permittee of the obligation to comply with any other federal, state or local laws. Compliance with this permit does not relieve the permittee from the obligation of Section 311 of the Clean Water Act. This permit does not authorize spills of hazardous substances/wastes from any permitted outlet into waters of the State. Such incidents are to be reported in accordance with Sections IV.1 and IV.2 of Appendix A of this permit.
3. Upon review of information submitted under terms and conditions of this permit, the permit may be modified to require additional effluent limitations/monitoring requirements and/or improved best management practices.
4. The permittee shall notify the Division of Water and Waste Management immediately when it becomes aware of any migration of any pollutant from any unpermitted source (such as contaminated groundwater and/or storm water) into surface waters of the State.
5. Without prior approval from the agency, the permittee shall not accept and treat wastewater from any other facility.
6. The permittee shall submit each month according to the enclosed format, a Discharge Monitoring Report (DMR) indicating in terms of concentration and/or quantities the values of the constituents listed in Section A analytically determined to be in the plant effluent(s). Additional information pertaining to effluent monitoring and reporting can be found in Section III of Appendix A.
7. The required DMRs shall be received by the agency no later than 25 days following the end of the reporting period in accordance with the following requirements. The agency is now requiring the permittee to utilize our electronic discharge monitoring report (eDMR) system which is now mandatory. The permittee is not required to submit hard copies of the DMRs to the addresses listed below when using eDMR. Special circumstances may result in the agency granting an exemption to eDMR and are considered on case by case basis. If the permittee was exempted by the agency from using the eDMR system, then the permittee is required to send hard copies to the addresses below. The permittee may contact the agency for more information about the eDMR system and potential exemptions from using it. Regardless, in accordance with Appendix A, Section III.6 of this permit, the permittee shall maintain copies of DMRs (either hard copies or electronic copies) at the plant site and the DMRs shall be made readily available upon request for DEP personnel.

Director
Division of Water and Waste Management
601 57th Street, SE
Charleston, West Virginia 25304
Attn: Permitting Branch

U. S. Environmental Protection Agency
Region III, Water Protection Division
NEDES Enforcement Branch (3WP42)
1650 Arch Street
Philadelphia, PA 19103

Department of Environmental Protection
Environmental Enforcement
601 57th Street, SE
Charleston, West Virginia 25304

8. For any noncompliance reports to be submitted in writing by this permit, a copy shall also be forwarded to the EPA at the location specified under Condition C.7. of this permit.
9. Any "not detected (ND)" results by the permittee must be "ND" at the method detection limit (MDL) for the test method used for that parameter and must be reported as less than the MDL used. The permittee may not report the result as zero, "ND", or report the result as less than a minimum level (ML), reporting limit (RL), or practical quantitation limit (PQL).

When averaging values of analytical results for DMR reporting purposes for monthly averages, the permittee should use actual analytical results when these results are greater than or equal to the MDL and should use zero (0) when these results are less than the MDL. If all analytical results are non-detect at the MDL (<MDL), then the permittee should use the actual MDL in the calculation for averaging and report the result as less than the average calculation.

Section C - Other Requirements

10. In incidences where a specific test method is not defined, the permittee shall utilize an EPA approved method with a method detection limit (MDL) sensitive enough to confirm compliance with the permit effluent limit for that parameter. If a MDL is not sensitive enough to confirm compliance, the most sensitive approved method must be used. If a more sensitive EPA approved method becomes available, that method shall be used. Should the current and/or new method not be sensitive enough to confirm compliance with the permitted effluent limit, analytical results reported as "not detected" at the MDL of the most sensitive method available will be deemed compliant for purposes of permit compliance. Results shall be reported on the Discharge Monitoring Reports as a numeric value less than the MDL.
11. The permittee shall not use alternate DMRs without prior approval from this Agency.
12. The Groundwater Protection Plan (GPP) shall be maintained at the plant site and shall be available for inspection by the Division of Water and Waste Management personnel.
13. The permittee shall maintain and implement the storm water pollution prevention plan (SWPPP) for the site. The SWPPP shall identify potential sources of pollution which may reasonably be expected to affect the quality of storm water discharges associated with the industrial activity. In addition, the plan shall describe and ensure the implementation of practices which are to be used to reduce the pollutants in storm water discharges associated with the industrial activity at the facility and to assure compliance with the terms and conditions of this permit. A copy of this document shall be retained at the site and shall be available for review upon request from DEP personnel.
14. The following storm water requirements apply to Outlets 003 and 006:

- a. Samples shall be collected from the discharge resulting from a storm event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable (greater than 0.1 inch rainfall) storm event. Samples shall be taken during the first thirty (30) minutes, or as soon thereafter as practicable, of the storm event.
- b. Each outlet shall be monitored separately.

c.

Pollutant	Benchmark Value
Total Suspended Solids	100 mg/l
pH	6.0 to 9.0 S.U.
Total Copper	0.0636 mg/l
Total Zinc	0.117 mg/l
Total Aluminum	0.75 mg/l
Total Selenium	0.005 mg/l
Total Iron	1.5 mg/l
Total Arsenic	0.16854 mg/l
Total Mercury	0.0014 mg/l

When the concentration results from a minimum of four consecutive samples of a pollutant are all less than the corresponding benchmark value for the pollutant, additional monitoring for the pollutant is not required (all pH values of the samples must be within the range 6.0 to 9.0 S.U.). The facility shall submit, each year, to the Division of Water and Waste Management, in lieu of the monitoring data, a certification (form will be provided upon request) that there has not been a significant change in the industrial activity or the pollution prevention measures in the area of the facility that drains to the outlet for which sampling is to be waived. If the concentration of a pollutant exceeds the corresponding benchmark concentration or a pH value is not within the range of 6.0 to 9.0 S.U., monitoring shall be continued and storm water pollution prevention practices shall be revised and implemented. A letter stating the revised and implemented storm water pollution prevention practices shall be submitted to the Division of Water and Waste Management at the address listed in Section C.7.

15. The facility shall maintain a Spill Prevention Control and Countermeasures (SPCC) Plan as required by Section 311(j) of the Clean Water Act. At a minimum the plan shall include all the required elements in 40 CFR 112 of the Code of Federal Regulations and be independently certified by a licensed professional engineer.
16. If there is evidence indicating potential or realized impacts on water quality due to any storm water discharge associated with industrial activity covered by this permit, the permit may be promptly modified and/or reissued to include effluent limitations and/or other requirements to control such storm water discharges.

Section C - Other Requirements

17. The permittee shall perform acute effluent toxicity testing in accordance with the following.
 - a. The acute effluent toxicity testing prescribed, herein, shall be 48-hour static acute toxicity tests utilizing Pimephales Promelas fathead minnow and Ceriodaphnia Dubia as the test species.
 - b. The acute toxicity testing shall be performed on a semi-annual (1/6 months) basis. The first acute toxicity testing shall be carried out within 6 months from the effective date of the permit for Outlet 001.
 - c. 24-hour flow weighted composite samples of the effluent, as prescribed in Section A, shall be collected for testing.
 - d. The dilution water should be a representative sample of the receiving water and should be obtained from a point as close as possible to but upstream or outside of the zone influenced by the effluent. If dilution water from the receiving stream is not suitable, some other uncontaminated, well-aerated surface or groundwater or commercially available media or reconstituted laboratory water can be used.
 - e. Testing and reporting of the result shall be performed in accordance with 40 CFR 136 and must be submitted with the Discharge Monitoring Report (DMR) for the month following the completion of each test. LC50 shall be converted into Acute Toxic Units (TUa) using the following formula:

$TUa = 100/LC50$
 For example, if LC50 is 100%, then $TUa = 100/100 = 1$.

When the LC50 is greater than 100%, the permittee shall report the acute toxicity as less than 1 TUa. When the effluent demonstrates no toxicity (no organisms die), the permittee may report zero TUa.

- f. If acute effluent toxicity testing shows noncompliance with the specified limitations prescribed in Section A, the permittee shall immediately resample and test the effluent. This shall be performed within 30 days of the initial demonstration of noncompliance with the whole effluent toxicity discharge limitations prescribed herein. Copies of the retesting results shall be provided to the Director immediately upon completion of the test.
 - g. The Director may impose further requirements should the acute effluent toxicity testing results demonstrate noncompliance.
18. The permittee shall utilize EPA Method No. 1664 A or 1664 B (gravimetric analysis using the hexane extractable method [HEM]) for the analysis of oil and grease.

19. Effluent monitoring for the following pollutants shall be conducted using the most sensitive methods and detection levels commercially available and economically feasible. The following methods are to be used unless the permittee desires to use an EPA Approved Test Method with a listed lower method detection level. Regardless, it is recognized that detection levels can vary from analysis to analysis and that non-detect results at a different MDL for the specified test method would not constitute a permit violation.

Parameter	EPA Method No.	Recommended Detection Level (ug/l)
Zinc, Total Recoverable	200.8	0.5
Arsenic, Total	200.8	0.6
Selenium, Total Recoverable	200.9	0.6
Copper, Total Recoverable	200.8	0.5
Mercury, Total*	245.7	0.0018
Mercury, Total*	1631	0.0002
Bis(2-ethylhexyl)phthalate	525.2	0.49
2,4,6-trichlorophenol	604	0.64
2,4-dichlorophenol	604	0.39
2,4-dinitrophenol	604	0.45
4,6-dinitro-o-cresol	604	16
Pentachlorophenol	515.2	0.14

*The permittee may use either Method 245.7 or Method 1631 for the analysis of mercury.

20. The permittee is relieved of the reporting requirements for the following substances consistent with Exclusion 2 and 3 of Section 311 of the Clean Water Act.

Ammonium Hydroxide	Sodium Hydroxide	Sulfuric Acid
Calcium Hypochlorite	Sodium Nitrite	

Section C - Other Requirements

20. The permittee is not, however, relieved of the requirements of Section IV.2 of Appendix A of this permit.
21. As required by 40 CFR 423.13(d)(1), there shall be no detectable amount of each of the 126 priority pollutants found in 40 CFR 423 Appendix A (other than chromium which is limited to 0.2 mg/l and zinc which is limited to 1.0 mg/l) due to their presence in chemicals added for cooling tower maintenance. The permittee may use the following maintenance chemicals:

Chlorine	Bleach
Gengard GN7004	Depositrol BL5400
Fluorscein	Sulfuric Acid
Fomaldehyde	Sodium Nitrite
KlariaidCDP 1302	Spectrus OX103
Sodium Hydroxide	Ferric Chloride
KlaraidCDP1346	Metclear MR2416
Novus CE2681	Spectrus AE1125
Lime	ABMet Olympus Culture
Molasses based custom blends	Activated Carbon
Ammonia	Formic Acid
Hydroxyacetic Acid	Ammonium bifluoride
Inhibitor OSI-1	Polymer 1138
Foamtrol AF2290	Sno-Glo Bleach
Spectrus CT1301	Klaraid 1301
Metclear MR2405	Dustreat DC9123
Dustreat DC9131E	Accord
Turf Trimec Broadleaf	Roundup
Spike - 40P, 5G, 80W	Stomp 3.3EC
Pendulum 3.3EC	Miracle Grow
Cygon 2-E	Ortho Diazinon Plus
Dormant Oil	Ortho Malathion 50 Plus
RDC - 400	

22. The permittee shall operate and maintain barge loading and unloading facilities in such a manner so as, to the maximum extent practicable, preclude spillage of coal, chemicals, etc. used at the facility, and shall take all actions necessary to clean up and control any such spill which may occur.
23. In conformance with the requirements of Appendix A, Part II, Section 5, Removed Substances, the permittee shall obtain approval for the disposal of any solids generated by the wastewater treatment plant. This approval shall be afforded in accordance with the provisions of Title 33, Series 2, of the Legislative Rules, accordingly, and 40 CFR Part 503, as applicable.
24. Available sampling methods for total residual chlorine (TRC) are currently not sensitive enough to confirm compliance with the permit limitations imposed. Total residual chlorine (TRC) samples shall be taken, preserved and analyzed in accordance with the latest edition of 40 CFR Part 136. Because the permittee does not operate a certified wastewater laboratory at the plant site but still must comply with the instantaneous sample-type requirements, the permittee shall use an EPA Approved Method with at least a method detection level (MDL) of 100 ug/l. Any TRC sampling result reported as less than the MDL stated above shall be assumed to confirm compliance for purposes of permit compliance. Should a more sensitive EPA approved method become available for field analysis of TRC, the permittee shall perform TRC self-monitoring in accordance with the new method. If the new method is not sensitive enough to determine compliance with specified TRC limits, analytical results reported as "not detected" at the MDL of the new method will be deemed compliant for purposes of permit compliance.
25. DELETED
26. Any facility providing the required documentation, via submittal of a major permit modification application, pursuant to § 423.19(g) may avail itself of the protections of a low utilization electric generating unit or permanently ceasing the combustion of coal by December 31, 2028, if such qualification would have been demonstrated absent the following qualifying events:
- An emergency order issued by the Department of Energy under Section 202(c) of the Federal Power Act,
 - A reliability must run agreement issued by a Public Utility Commission, or

Section C - Other Requirements

26. c. Any other reliability-related order or agreement issued by a competent electricity regulator (e.g., an independent system operator) which results in that electric generating unit operating in a way not contemplated when the certification was made; or
- d. The operation of the electric generating unit was necessary for load balancing in an area subject to a declaration under 42 U.S.C. 5121 et seq., that there exists:
 1. An "Emergency," or
 2. A "Major Disaster," and
 3. That load balancing was due to the event that caused the "Emergency" or "Major Disaster" in paragraph (a)(4) of this section to be declared,
27. The new wastewater pond(s) (i.e. former east and west BAP pond footprints) shall be lined with a double synthetic liner and leak detection and removal system consisting of two 40-mil HDPE (upper and lower liners), synthetic geonet leak detection and removal layer, and leak collection piping or an equivalent spec'ed liner and leak detection system.

Installation of the minimum controls specified above does not relieve the permittee from future installation of additional engineering controls and/or remediation of impacts upon migration of pollutants from the wastewater ponds to waters of the State. The permittee shall ensure proper operation and maintenance of the liners and shall take immediate action to repair any breach of the liners.

28. The temperature difference between the upstream/intake location and the discharge shall be calculated by subtracting the discharge temperature from the upstream/intake temperature measured in the Ohio River. The upstream/intake temperatures and discharge temperatures required by Section A of this permit shall be collected concurrently. Concurrently shall be defined as no more than 30 minutes between monitoring collected at the upstream/intake location in the Ohio River and the discharge.
29. Quarterly sampling periods are January - March; April - June; July - September; and October - December. Results shall be reported on the March, June, September, and December DMRs.

Section D - 316 (b) Intake Requirements

1. In accordance with 316(b) of the Clean Water Act, the location, design, construction, and capacity of the cooling water intake structures (CWIS) for the permittee's facility shall reflect the best technology available (BTA) for minimizing adverse environmental impingement and entrainment at the intake structure.
2. On the basis of currently available information, the agency has determined that the facility will meet the BTA requirements 40 CFR 125.94 by choosing the BTA standard in 40 CFR 125.94(c)(1) for impingement mortality of closed-cycle recirculation system.

- a. The permittee has provided information that the facility operates a 18 x 25 x 73 (L x W x D) foot caisson with three 36-inch intake pipes extending from the caisson below grade approximately 310 feet horizontally into the Ohio River to provide make-up water to the 97.6% closed-water cooling system.
- b. The make-up cooling water intake system consists of three (one operational, two backup) vertical turbine, double suction, single-stage river water make-up pumps discharge water to a 48-inch header:

Primary Pump (max flow rate): 20,000 gpm (28.8 mgd)
Secondary Backup Pumps (max flow rate): 20,000 gpm x 2 (57.6 mgd)
Measured Velocity: N/A
Design Velocity: 0.25 ft/s @ 10,000 gpm
Effective Intake Screen Area: Unknown
Calculated make-up flow rate: 11,520 - 14,400 gpm
Calculated cycles of concentration: 3.0 - 6.0
Calculated % recycle: 97.6 %

- c. To comply with the impingement mortality BTA requirement of 316(b) the permittee shall measure the intake flow, blowdown flow, condenser flow, and condenser temperature delta (or alternatively via conductivity) on a daily basis to calculate cycles of concentration of the closed-cycle recirculation system. Cycles of concentration shall not average less than 3.0 (i.e. greater than 97.5% reduction) on a weekly average during steady state operation (data collection during startup and shutdown of individual units, i.e. non-steady state, may be excluded).

The permittee shall use calculation procedures in "Clean Water Act, 316(b) Compliance Submittal Requirements, Prepared For: American Electric Power, Prepared by: HDR Engineer, Inc., February 9, 2018" or alternatively conductivity to calculate cycles of concentration for reporting purposes in Section A.INT.

3. The permittee shall operate its intake to ensure that the total withdrawal from the Ohio River is less than 5% of the mean annual flow of the Ohio River.

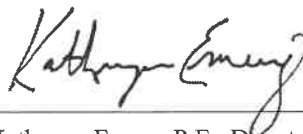
This is considered to meet the BTA entrainment requirements of 40 CFR 125.94(d) and 316(b) of the Clean Water Act.

4. The permittee has identified the following species as Federally or West Virginia State threatened or endangered with a potential to occur within the AEP Mountaineer Plant Action Area:
 - a. *Cyprogenia stegaria* (Fanshell)
Lampsilis abrupta (Pink Mucket)
Plethobasus cyphyus (Sheepnose Mussel)
Epioblasma triquetra (Snuffbox Mussel)
Myotis sodalis (Indiana Bat)
Myotis septentrionalis (Northern Long-eared Bat)
Trifolium stoloniferum (Running Buffalo Clover)
 - b. The permittee does not believe that it has impacted Federally or State listed species and has not sought or obtained an incidental take exemption or authorization from the United States Fish and Wildlife Service or West Virginia Division of Natural Services. However, nothing in this permit authorizes take for the purposes of a facility's compliance with the Endangered Species Act (40 CFR 125.98(b)(1)).
5. Pursuant to 40 CFR 122.62, the permit may also be reopened and modified with requirements of new regulations, standards, or judicial decisions relating to 316(b) of Clean Water Act.

The herein-described activity is to be extended, modified, added to, made, enlarged, acquired, constructed or installed, and operated, used and maintained strictly in accordance with the terms and conditions of this permit, with the plans and specifications submitted with Permit Application No. WV0048500; with the plan of maintenance and method of operation thereof submitted with such application(s); and with any applicable rules and regulations promulgated by the Environmental Quality Board and the Secretary of the Department of Environmental Protection.

Failure to comply with the terms and conditions of this permit, with the plans and specifications submitted with Permit Application No. WV0048500; and with the plan of maintenance and method of operation thereof submitted with such application(s) shall constitute grounds for the revocation or suspension of this permit and the invocation of all the enforcement procedures set forth in Chapter 22, Article 11, or 15 of the Code of West Virginia.

This permit is issued in accordance with the provisions of Chapter 22, Article 11 and 12 and/or 15 of the Code of West Virginia and is transferable under the terms of Section 11 of Article 11.

A handwritten signature in cursive script, reading "Kathryn Emery". The signature is written in black ink and is positioned above a horizontal line.

Katheryn Emery, P.E., Director

Appendix A

I. MANAGEMENT CONDITIONS:

1. Duty to Comply

- a) The permittee must comply with all conditions of this permit. Permit noncompliance constitutes a violation of the CWA and State Act and is grounds for enforcement action; for permit modification, revocation and reissuance, suspension or revocation; or for denial of a permit renewal application.
- b) The permittee shall comply with all effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified to incorporate the requirement.

2. Duty to Reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for a new permit at least 180 days prior to expiration of the permit.

3. Duty to Mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment.

4. Permit Actions

This permit may be modified, revoked and reissued, suspended, or revoked for cause. The filing of a request by the permittee for permit modification, revocation and reissuance, or revocation, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

5. Property Rights

This permit does not convey any property rights of any sort or any exclusive privilege.

6. Signatory Requirements

All applications, reports, or information submitted to the Director shall be signed and certified as required in Title 47, Series 10, Section 4.6 of the West Virginia Legislative Rules.

7. Transfers

This permit is not transferrable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary.

8. Duty to Provide Information

The permittee shall furnish to the Director, within a reasonable specified time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, suspending, or revoking this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

9. Other Information

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

10. Inspection and Entry

The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a) Enter upon the permittee's premises in which an effluent source or activity is located, or where records must be kept under the conditions of this permit;
- b) Have access to and copy at reasonable times, any records that must be kept under the conditions of this permit;
- c) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the State Act, any substances or parameters at any location.

11. Permit Modification

This permit may be modified, suspended, or revoked in whole or in part during its term in accordance with the provisions of Chapter 22-11-12 of the Code of West Virginia.

12. Water Quality

This discharge shall not cause or materially contribute to: distinctly visible floating or settleable solids, suspended solids, scum, foam or oily slicks; deposits or sludge bank on the bottom; odors in the vicinity of the waters; taste or odor that would adversely affect the designated uses of the affected waters; distinctly visible color which may impair or interfere with the designated uses of the affected waters; and shall not cause a fish or mussel kill. The limitations and conditions in this permit for the discharges identified in this permit are limitations and conditions that are necessary to meet applicable West Virginia water quality standards, Requirements Governing Water Quality Standards 47 CSR 2.

13. Outlet Markers

A permanent marker at the establishment shall be posted in accordance with Title 47, Series 11, Section 9 of the West Virginia Legislative Rules.

14. Liabilities

- a) Any person who violates a permit condition implementing sections 301, 302, 306, 307, 308, 318, or 405 of the Clean Water Act is subject to a civil penalty not to exceed \$25,000 per day of such violation. Any person who willfully or negligently violates permit conditions implementing sections 301, 302, 306, 307, 308 or 405 of the Clean Water Act is subject to a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than 1 year, or both.
- b) Any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years, or by both.
- c) Any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than 2 years, or by both.
- d) Nothing in I.14 a), b), and c) shall be construed to limit or prohibit any other authority the Director may have under the State Water Pollution Control Act, Chapter 22, Article 11.

II. OPERATION AND MAINTENANCE:

1. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls, and appropriate quality assurance procedures. Unless otherwise required by Federal or State law, this provision requires the operation of back-up auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of the permit. For domestic waste treatment facilities, waste treatment operators as classified by the WV Bureau of Public Health Laws, W. Va. Code Chapter 16-1, will be required except that in circumstances where the domestic waste treatment facility is receiving any type of industrial waste, the Director may require a more highly skilled operator.

2. Need to Halt or Reduce Activity Not a Defense

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

3. Bypass

- a) Definitions
 - (1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility; and
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- b) Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provision of II.3.c) and II.3.d) of this permit.
- c)
 - (1) If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least ten (10) days before the date of the bypass;
 - (2) If the permittee does not know in advance of the need for bypass, notice shall be submitted as required in IV.2.b) of this permit.
- d) Prohibition of bypass
 - (1) Bypass is permitted only under the following conditions, and the Director may take enforcement action against a permittee for a bypass, unless;
 - (A) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - (B) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate backup equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance; and
 - (C) The permittee submitted notices as required under II.3.c) of this permit.
 - (2) The Director may approve an anticipated bypass, after considering its adverse effects, if the Director determines that it will meet the three conditions listed in II.3.d.(1) of this permit.

4. Upset

- a) Definition. "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.
- b) Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitation if the requirements of II.4.c) are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c) Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the permittee can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The permittee submitted notice of the upset as required in IV.2.b) of this permit.
 - (4) The permittee complied with any remedial measures required under I.3. of this permit.
- d) Burden of proof. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

5. Removed Substances

Where removed substances are not otherwise covered by the terms and conditions of this permit or other existing permit by the Director, any solids, sludges, filter backwash or other pollutants (removed in the course of treatment or control of wastewaters) and which are intended for disposal within the State, shall be disposed of only in a manner and at a site subject to the approval by the Director. If such substances are intended for disposal outside the State or for reuse, i.e., as a material used for making another product, which in turn has another use, the permittee shall notify the Director in writing of the proposed disposal or use of such substances, the identity of the prospective disposer or users, and the intended place of disposal or use, as appropriate.

III. MONITORING AND REPORTING

1. Representative Sampling

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

2. Reporting

- a) Permittee shall submit, according to the enclosed format, a Discharge Monitoring Report (DMR) indicating in terms of concentration, and/or quantities, the values of the constituents listed in Part A analytically determined to be in the plant effluent(s). DMR submissions shall be made in accordance with the terms contained in Section C of this permit.
- b) Enter reported average and maximum values under "Quantity" and "Concentration" in the units specified for each parameter, as appropriate.
- c) Specify the number of analyzed samples that exceed the allowable permit conditions in the columns labeled "N.E." (i.e., number exceeding).
- d) Specify frequency of analysis for each parameter as number of analyses/specified period (e.g., 3/month is equivalent to 3 analyses performed every calendar month). If continuous, enter "Cont.". The frequency listed on format is the minimum required.

3. Test Procedures

Samples shall be taken, preserved and analyzed in accordance with the latest edition of 40 CFR Part 136, unless other test procedures have been specified elsewhere in this permit.

4. Recording of Results

For each measurement or sample taken pursuant to the permit, the permittee shall record the following information.

- a) The date, exact place, and time of sampling or measurement;
- b) The date(s) analyses were performed;
- c) The individual(s) who performed the sampling or measurement;
- d) The individual(s) who performed the analyses; if a commercial laboratory is used, the name and address of the laboratory;
- e) The analytical techniques or methods used, and
- f) The results of such analyses. Information not required by the DMR form is not to be submitted to this agency, but is to be retained as required in III.6.

5. Additional Monitoring by Permittee

If the permittee monitors any pollutant at any monitoring point specified in this permit more frequently than required by this permit, using approved test procedures or others as specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the Discharge Monitoring Report Form. Such increased frequency shall also be indicated. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

6. Records Retention

The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Director at any time.

7. Definitions

- a) "Daily discharge" means the discharge of a pollutant measured during a calendar day or within any specified period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
- b) "Average monthly discharge limitation" means the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.
- c) "Maximum daily discharge limitation" means the highest allowable daily discharge.
- d) "Composite Sample" is a combination of individual samples obtained at regular intervals over a time period. Either the volume of each individual sample is proportional to discharge flow rates or the sampling interval (for constant volume samples) is proportional to the flow rates over the time period used to produce the composite. The maximum time period between individual samples shall be two hours.
- e) "Grab Sample" is an individual sample collected in less than 15 minutes.
- f) "is" = immersion stabilization - a calibrated device is immersed in the effluent stream until the reading is stabilized.
- g) The "daily average temperature" means the arithmetic average of temperature measurements made on an hourly basis, or the mean value plot of the record of a continuous automated temperature recording instrument, either during a calendar month, or during the operating month if flows are of shorter duration.
- h) The "daily maximum temperature" means the highest arithmetic average of the temperatures observed for any two (2) consecutive hours during a 24 hour day, or during the operating day if flows are of shorter duration.
- i) The "monthly average fecal coliform" bacteria is the geometric average of all samples collected during the month.
- j) "Measured Flow" means any method of liquid volume measurement, the accuracy of which has been previously demonstrated in engineering practice, or which a relationship to absolute volume has been obtained.
- k) "Estimate" means to be based on a technical evaluation of the sources contributing to the discharge including, but not limited to pump capabilities, water meters and batch discharge volumes.
- l) "Non-contact cooling water" means the water that is contained in a leak-free system, i.e., no contact with any gas, liquid, or solid other than the container for transport; the water shall have no net poundage addition of any pollutant over intake water levels, exclusive of approved anti-fouling agents.

IV. OTHER REPORTING

1. Reporting Spills and Accidental Discharges

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities or penalties established pursuant to Title 47, Series 11, Section 2 of the West Virginia Legislative Rules promulgated pursuant to Chapter 22, Article 11. Attached is a copy of the West Virginia Spill Alert System for use in complying with Title 47, Series 11, Section 2 of the Legislative rules as they pertain to the reporting of spills and accidental discharges.

2. Immediate Reporting

- a) The permittee shall report any noncompliance which may endanger health or the environment immediately after becoming aware of the circumstances by using the Agency's designated spill alert telephone number. A written submission shall be provided within five (5) days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.
- b) The following shall also be reported immediately:
 - (1) Any unanticipated bypass which exceeds any effluent limitation in the permit;
 - (2) Any upset which exceeds any effluent limitation in the permit; and
 - (3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Director in the permit shall be reported immediately. This list shall include any toxic pollutant or hazardous substance, or any pollutant specifically identified as the method to control a toxic pollutant or hazardous substance.
- c) The Director may waive the written report on a case-by-case basis if the oral report has been received in accordance with the above.
- d) Compliance with the requirements of IV.2 of this section, shall not relieve a person of compliance with Title 47, Series 11, Section 2.

3. Reporting Requirements

- a) Planned changes. The permittee shall give notice to the Director of any planned physical alterations or additions to the permitted facility which may affect the nature or quantity of the discharge. Notice is required when:
 - (1) The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in Section 13.7.b of Series 10, Title 47; or
 - (2) The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under IV.2 of this section.
- b) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- c) In addition to the above reporting requirements, all existing manufacturing, commercial, and silvicultural discharges must notify the Director in writing as soon as they know or have reason to believe:
 - (1) That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, or any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (A) One hundred micrograms per liter (100 ug/l);
 - (B) Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitro phenol; and for 2-methyl 4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
 - (C) Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 4.4.b.9 of Series 10, Title 47.
 - (D) The level established by the Director in accordance with Section 6.3.g of Series 10, Title 47;
 - (2) That any activity has occurred or will occur which would result in any discharge (on a non-routine or infrequent basis) of a toxic which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (A) Five hundred micrograms per liter (500 ug/l);
 - (B) One milligram per liter (1 mg/l) for antimony;
 - (C) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 4.4.b.7 of Series 10, Title 47;
 - (D) The level established by the Director in accordance with Section 6.3.g of Series 10, Title 47.
 - (3) That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product of any toxic pollutant which was not reported in the permit application under Section 4.4.b.9 of Series 10, Title 47 and which will result in the discharge on a routine or frequent basis of that toxic pollutant at levels which exceed five times the detection limit for that pollutant under approved analytical procedure.
 - (4) That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product of any toxic pollutant which was not reported in the permit application under Section 4.4.b.9 of Series 10, Title 47 and which will result in the discharge on a non-routine or infrequent basis of that toxic pollutant at levels which exceed ten times the detection limit for that pollutant under approved analytical procedure.

4. Other Noncompliance

The permittee shall report all instances of noncompliance not reported under the above paragraphs at the time monitoring reports are submitted. The reports shall contain the information listed in IV.2.a). Should other applicable noncompliance reporting be required, these terms and conditions will be found in Section C of this permit.

STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 001
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
50050 (ML-1) RF-B Flow,in Conduit or thru plant Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mgd		Continuous	measured
00530 (ML-1) RF-A Total Suspended Solids Year Round Interim: 5/1/2022 to 5/31/2022	Reported												
	Permit Limits	N/A	N/A			N/A	26 Avg. Monthly	89 Max. Daily	N/A	mg/l		1/week	24 hr Composite
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	26 Avg. Monthly	86 Max. Daily	N/A	mg/l		1/week	24 hr Composite
00400 (ML-1) RF-A pH Year Round	Reported												
	Permit Limits	N/A	N/A			6 Inst. Min.	N/A	9 Inst. Max.	N/A	S.U.		1/week	Grab
00610 (ML-1) RF-B Ammonia Nitrogen Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/quarter	24 hr Composite
50060 (ML-1) RF-A Chlorine, Total Residual Year Round Interim: 5/1/2022 to 5/31/2022	Reported												
	Permit Limits	N/A	N/A			N/A	15 Avg. Monthly	44 Max. Daily	100	ug/l		2/month	Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer	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 a fine and imprisonment for knowing violations.	Date Completed
Title of Officer		Signature of Principal Executive Officer or Authorized Agent

STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 001 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity			Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
				Units	N.E.							
50060 (ML-1) RF-A Chlorine, Total Residual Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	18 Avg. Monthly	53 Max. Daily	100	ug/l		2/month	Grab
01119 (ML-1) RF-B Copper, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/quarter	24 hr Composite
71900 (ML-1) RF-B Mercury, Total (as Hg) Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01104 (ML-1) RF-A Aluminum, Total Recoverable Year Round Interim: 5/1/2022 to 6/1/2024	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		2/month	24 hr Composite
01104 (ML-1) RF-A Aluminum, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	0.36 Avg. Monthly	0.75 Max. Daily	N/A	mg/l		2/month	24 hr Composite
00980 (ML-1) RF-A Iron, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	1.1 Avg. Monthly	2.5 Max. Daily	N/A	mg/l		2/month	24 hr Composite

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STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 001
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity			Other Units					Measurement Frequency	Sample Type	
				Units	N.E.			CEL*	Units			N.E.
00940 (ML-1) RF-B Chloride (as Cl) Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/quarter 24 hr Composite
00951 (ML-5) RF-B Fluoride, Total Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/quarter 24 hr Composite
61425 (ML-1) RF-C Acute Tox - Ceriodaphnia Dubia Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	TUa		1/6 months 24 hr Composite
61427 (ML-1) RF-C Acute Toxicity - Pimephales Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	TUa		1/6 months 24 hr Composite
00011 (ML-7) RF-A Temperature, F Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	DEG.F		1/month Insitu
00011 (ML-1) RF-A Temperature, F Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	DEG.F		1/month Insitu

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FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 001 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
81020 (ML-1) RF-A Sulfate Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	1427 Avg. Monthly	1993 Max. Daily	N/A	mg/l		2/month	24 hr Composite
00927 (ML-1) RF-B Magnesium, Tot. (as Mg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/quarter	24 hr Composite
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round Interim: 5/1/2022 to 5/31/2022	Reported												
	Permit Limits	N/A	N/A			N/A	12 Avg. Monthly	15 Max. Daily	N/A	mg/l		1/month	Grab
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	8 Avg. Monthly	13 Max. Daily	N/A	mg/l		1/month	Grab

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STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 003
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter	Reported	Quantity			Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
				Units	N.E.							
50050 (ML-1) RF-C Flow,in Conduit or thru plant Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mgd		1/6 months	Estimated
00530 (ML-1) RF-C Total Suspended Solids Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab
00400 (ML-1) RF-C pH Year Round	Reported											
	Permit Limits	N/A	N/A		Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	N/A	S.U.		1/6 months	Grab
01119 (ML-1) RF-C Copper, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab
01094 (ML-1) RF-C Zinc, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab
71900 (ML-1) RF-C Mercury, Total (as Hg) Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	ug/l		1/6 months	Grab

* CEL = Compliance Evaluation Level

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STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 003 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity			Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
				Units	N.E.							
01104 (ML-1) RF-C Aluminum, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab
00980 (ML-1) RF-C Iron, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab
00981 (ML-1) RF-C Selenium, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab
00978 (ML-1) RF-C Arsenic, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer	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 a fine and imprisonment for knowing violations.	Date Completed	<input type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input type="text"/>

STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 006
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter	Reported	Quantity			Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
				Units	N.E.							
50050 (ML-1) RF-C Flow, in Conduit or thru plant Year Round	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mgd		1/6 months Estimated
00530 (ML-1) RF-C Total Suspended Solids Year Round	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab
00400 (ML-1) RF-C pH Year Round	Permit Limits	N/A	N/A			Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	N/A	S.U.		1/6 months Grab
01119 (ML-1) RF-C Copper, Total Recoverable Year Round	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab
01094 (ML-1) RF-C Zinc, Total Recoverable Year Round	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months Grab
71900 (ML-1) RF-C Mercury, Total (as Hg) Year Round	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	ug/l		1/6 months Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer	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 a fine and imprisonment for knowing violations.	Date Completed	
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	

STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 006 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
01104 (ML-1) RF-C Aluminum, Total Recoverable Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab	
00980 (ML-1) RF-C Iron, Total Recoverable Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab	
00981 (ML-1) RF-C Selenium, Total Recoverable Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab	
00978 (ML-1) RF-C Arsenic, Total Recoverable Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/6 months	Grab	

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer	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 a fine and imprisonment for knowing violations.	Date Completed	<input type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input type="text"/>

STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

FACILITY NAME: (Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 101 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units				Measurement Frequency	Sample Type	
				Units	N.E.			CEL*	Units			N.E.
50050 (ML-1) RF-A Flow,in Conduit or thru plant Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mgd		Once/Discharg Estimated
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		Once/Discharg Grab
01042 (ML-1) RF-A Copper, Total (as Cu) Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	1 Avg. Monthly	1 Max. Daily	N/A	mg/l		Once/Discharg Grab
01045 (ML-1) RF-A Iron, Total (as Fe) Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	1 Avg. Monthly	1 Max. Daily	N/A	mg/l		Once/Discharg Grab
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	15 Avg. Monthly	20 Max. Daily	N/A	mg/l		Once/Discharg Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent

STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 106 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity			Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
				Units	N.E.							
50050 (ML-1) RF-B Flow, in Conduit or thru plant Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mgd		Once/Daily Discharge Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	100 Max. Daily	N/A	mg/l		Once/Daily Discharge Grab
00400 (ML-1) RF-B pH Year Round	Reported											
	Permit Limits	N/A	N/A			6 Inst. Min.	N/A	9 Inst. Max.	N/A	S.U.		Once/Daily Discharge Grab
50060 (ML-1) RF-B Chlorine, Total Residual Year Round	Reported											
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	57 Max. Daily	100	ug/l		Once/Daily Discharge Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input type="text"/>

STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 201
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.			CEL*	Units	N.E.			
50050 (ML-1) RF-A Flow, in Conduit or thru plant Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mgd		1/month	measured
71900 (ML-1) RF-A Mercury, Total (as Hg) Year Round Interim: 5/1/2022 to 6/30/2023	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	ug/l		1/month	Grab
71900 (ML-1) RF-A Mercury, Total (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	0.0112 Avg. Monthly	0.0446 Max. Daily	N/A	ug/l		1/month	Grab
00981 (ML-1) RF-A Selenium, Total Recoverable Year Round Interim: 5/1/2022 to 6/30/2023	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	Grab
00981 (ML-1) RF-A Selenium, Total Recoverable Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	0.0106 Avg. Monthly	0.0317 Max. Daily	N/A	mg/l		1/month	24 hr Composite
00978 (ML-1) RF-A Arsenic, Total Recoverable Year Round Interim: 5/1/2022 to 6/30/2023	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer 	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 a fine and imprisonment for knowing violations.	Date Completed
		Signature of Principal Executive Officer or Authorized Agent
Title of Officer 		

STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 201 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity			Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
				Units	N.E.							
00978 (ML-1) RF-A Arsenic, Total Recoverable Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	0.0035 Avg. Monthly	0.0088 Max. Daily	N/A	mg/l		1/month	24 hr Composite
00630 (ML-1) RF-A Nitrite Plus Nitrate Nitrogen Year Round Interim: 5/1/2022 to 6/30/2023	Reported											
	Permit Limits	N/A	N/A		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	Grab
00630 (ML-1) RF-A Nitrite Plus Nitrate Nitrogen Year Round	Reported											
	Permit Limits	N/A	N/A		N/A	1 Avg. Monthly	1.8 Max. Daily	N/A	mg/l		1/month	24 hr Composite

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input type="text"/>

STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 INTAKE MONITORING REPORT

FACILITY NAME: Appalachian Power Company dba American Electric Power - Mount CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: NEW HAVEN; Mason County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0048500 INT _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
51463 (ML-7) RF-A Cycles of Concentration Year Round	Reported												
	Permit Limits	N/A	N/A			3 Min. 7 Day Avg.	N/A	N/A	N/A	cycles		1/daily	Calculated

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	

**EMERGENCY RESPONSE SPILL ALERT SYSTEM
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

REQUIREMENTS:

Title 47, Series 11, Section 2 of the West Virginia Legislative Rules, Environmental Protection, Water Resources - Waste Management, Effective July 1, 1994.

RESPONSIBILITY FOR REPORTING:

Each and every person who may cause or be responsible for any spill or accidental discharge of pollutants into the waters of the State shall give immediate notification to the Division of Water and Waste Management's Emergency Notification Number, 1-800-642-3074. Such notification shall set forth insofar as possible and as soon thereafter as practical the time and place of such spill or discharge, type or types and quantity or quantities of the material or materials therein, action or actions taken to stop such spill or discharge and to minimize the polluting effect thereof, the measure or measures taken or to be taken in order to prevent a recurrence of any such spill or discharge and such additional information as may be requested by the Division of Water and Waste Management. This also applies to spills to the waters of the State resulting from accidents to common carriers by highway, rail and water.

It shall be the responsibility of each industrial establishment or other entity discharging directly to a stream to have available the following information pertaining to those substances that are employed or handled in its operation in sufficiently large amounts as to constitute a hazard in case of an accidental spill or discharge into a public stream:

- (1) Potential toxicity in water to man, animals and aquatic life;
- (2) Details on analytical procedures for the quantitative estimation of such substances in water and
- (3) Suggestions on safeguards or other precautionary measures to nullify the toxic effects of a substance once it has gotten into a stream.

Failure to furnish such information as required by Section 14, Article 11, Chapter 22, Code of West Virginia may be punishable under Section 24, Article 11, Chapter 22, and/or Section 22, Article 11, Chapter 22, Code of West Virginia.

It shall be the responsibility of any person who causes or contributes in any way to the spill or accidental discharge of any pollutant or pollutants into State waters to immediately take any and all measures necessary to contain such spill or discharge. It shall further be the responsibility of such person to take any and all measures necessary to clean-up, remove and otherwise render such spill or discharge harmless to the waters of the State.

When the Director determines it necessary for the effective containment and abatement of spills and accidental discharges, the Director may require the person or persons responsible for such spill or discharge to monitor affected waters in a manner prescribed by the Director until the possibility of any adverse effect on the waters of the State no longer exists.

VOLUNTARY REPORTING BY LAW OFFICERS, U. S. COAST GUARD, LOCK MASTERS AND OTHERS:

In cases involving river and highway accidents where the responsible party may or may not be available to report the incident, law officers, U. S. Coast Guard, Lock Masters and other interested person(s) should make the report.

WHO TO CONTACT:

Notify the following number: **1-800-642-3074**

INFORMATION NEEDED:

- | | |
|--|---------------------------------------|
| - Source of spill or discharge | - Personnel at the scene |
| - Location of incident | - Actions initiated |
| - Time of incident | - Shipper/Manufacturer identification |
| - Material spilled or discharged | - Railcar/Truck identification number |
| - Amount spilled or discharged | - Container type |
| - Toxicity of material spilled or discharged | |

NOTICE TO PERMITTEES

The 1999 regular session of the West Virginia legislature revised the Water Pollution Control Act, Chapter 22, Article 11, Section 10 of the Code of West Virginia relating to fees associated with permits. This section of the Code requires all holders of a State water pollution control permit or a national pollutant discharge elimination system permit to be assessed an annual permit fee, based upon rules promulgated by the Secretary of the Department of Environmental Protection. The Secretary has promulgated a final rule in accordance with the code revision to this effect and these rules were effective May 4, 2000. The rules establish an annual permit fee based upon the relative potential to degrade the waters of the State which, in most instances, relate to volume of discharge. However, for sewage facilities, the annual permit fee is based upon the number of customers served by the facility. You may contact the Secretary of State's Office, State Capitol Building, Charleston, WV 25305, to obtain a copy of the rules. The reference is Title 47, Legislative Rules, Department of Environmental Protection, Division of Water Resources, Series 26 Water Pollution Control Permit Fee Schedules.

Based upon the volume of discharge for which your facility is currently permitted, the number of customers served by your facility or for the category you fall within, pursuant to Section 7 of Title 47, Series 26, your annual permit fee is **\$5000.00**. This fee is due no later than the anniversary date of permit issuance in each year of the term of the permit or in the case of coverage under a general permit, the fee is due no later than the anniversary date of your coverage under the general permit. **You will be invoiced by this agency at the appropriate time for the fee.** Failure to submit the annual fee within ninety(90) days of the due date will render your permit void upon the date you are mailed a certified written notice to that effect.

RIGHT OF APPEAL

Notice is hereby given of your right to appeal the terms and conditions of this permit which you are aggrieved by to the Environmental Quality Board by filing a NOTICE OF APPEAL on the form prescribed by such Board for this purpose, with the Board, in accordance with the provisions of Section 21, Article 11, Chapter 22 of the Code of West Virginia within thirty (30) days after the date of receipt of the above permit.

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT

FACT SHEET ADDENDUM

1. NAME AND ADDRESS OF APPLICANT

APPALACHIAN POWER COMPANY
c/o AEP - MOUNTAINEER PLANT
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215-2372

2. NAME AND ADDRESS OF FACILITY

Appalachian Power Company dba American
Electric Power - Mountaineer Plant
W.V. Route 62
New Haven, WV 25265

3. STATE NPDES APPLICATION NO. WV0048500

4. COUNTY Mason

RECEIVING STREAM Ohio River

5. PUBLIC NOTICE NO. L-60-21

COMMENT PERIOD: From 06/29/2021 To 07/29/2021

6. SIC CODE(s) 4911

10. RATIONALE FOR PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTLET 001 TREATMENT AND ELGs (revised)

These treatment facilities consists of a reclaim pond, east and west wastewater ponds, east and west bottom ash ponds, and the clear water pond which are used for neutralization, sedimentation, and oil skimmers for separation. All plant's drains, except non-contaminated yard drains, are directed to the plant's wastewater treatment facilities.

Previous permits imposed 30 mg/l avg monthly / 100 mg/l max daily TSS limits and 15 mg/l average monthly / 20 mg/l max daily O&G limits at Outlet 001. However, the Outlet 001 treatment system is a combined treatment system which contains both regulated wastestreams and non-regulated wastestreams. As such, the 40 CFR 423 ELGs must be adjusted via the combined wastestream formula to prohibit dilution of process wastewater. Based on the flow diagram submitted with the permit application and DMR flows, the ELG limitations have been adjusted for non-regulated flows. An example calculation for the average monthly TSS at Outlet 001 is as follows:

DMR Average Flow (2016-2021) : 4.7 mgd
DMR Max Flow (2016 - 2020) : 15.1 mgd
% Low Volume Wastewater (permit application) : 62
% Coal Pile Runoff (permit application) : 0.82
% Bottom Ash (permit application) : 15
% FGD / CCR (permit application) : 4.2
% Non - process (permit application) : 17.9

Avg Low Volume Wastewater Flow : 2.92 mgd
Avg Coal Pile Runoff Flow : 0.039 mgd

10. RATIONALE FOR PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Avg Bottom Ash Flow : 0.71 mgd
Avg FGD / CCR : 0.195 mgd
Avg Non-process Flow : 0.84 mgd

[40 CFR 423.12]

TSS Avg Non-regulated WW at Outlet 001 (Non-coal pile runoff, cooling water) = 930.8 lbs/day * (1-0.91) = 83.77 lbs/day

TSS Avg ELG (LVW + Bottom Ash + FGD / CCR) + NR WW = 30 mg/l x 3.82 mgd x 8.34 = 955.7 lbs/day + 83.77 lbs/day

Equivalent TSS Avg ELG limitation at Outlet 001 = 1,039.5 lbs/day / 4.7 MGD / 8.34 = 26.5 mg/l

The non-regulated wastewaters are not expected to contribute any significant amounts of oil and grease to the combined treatment system; therefore, no credit was given in calculation of the equivalent O&G ELG at Outlet 001.

O&G Avg ELG (LVW+Bottom Ash + FGD / CCR) = 15 mg/l x 3.83 mgd x 8.34 = 479 lbs/day
Equivalent O&G Avg ELG limitation at Outlet 001 = 479 lbs/day / 4.7 MGD / 8.34 = 12.2 mg/l

A similar calculation was used to calculate the free available chlorine ELG limitations required by 40 CFR 423.13 for cooling tower blowdown to compare to the water quality based total residual chlorine limitations at Outlet 001. It was determined that the free available chlorine limitations are more stringent than the water quality based limitations and therefore the ELG limitations were imposed in Section A.001.

With the current renewal application, the permittee has proposed to eliminate bottom ash transport discharges to Outlet 001 and to convert the bottom ash ponds to 14-acre, lined Wastewater Ponds. A tank-based chemical treatment system (organosulfide and polymer) will be constructed. The current schedule has completion by May 31, 2022. This date is before the statutory date of December 31, 2025; therefore, June 1, 2022 is imposed as the compliance deadline for reduction or elimination of bottom ash transport wastewater by 40 CFR 423.13(k)(1)(i).

The permittee will also construct an ultrafiltration treatment system (pressure filter) to treat FGD wastewater and landfill leachate at the outlet of the existing FGD WWTP (new Outlet 201). The project is expected to be completed by June 30, 2023. This date is before the statutory date of December 31, 2025; therefore, July 1, 2023 is imposed as the compliance deadline for new limitations prescribed by 40 CFR 423.13 Table 5. The new ultrafiltration system will be a combined system that treats both FGD wastewater (regulated) and landfill leachate (non-regulated). As such the permit writer used the combined wastewater formula to grant a credit for arsenic, mercury, nitrate-nitrite, and selenium at Outlet 201. An example calculation for average monthly and max daily arsenic is as follows:

FGD Wastewater Avg Flow (existing): 0.252 MGD
Landfill Leachate Avg Flow (existing): 0.396 MGD
ELG Arsenic Removal Efficiency* : 96.3%

FGD Arsenic Avg Mon Limitation (40 CFR 423.13) : 8 ug/l = 0.008 mg/l
Landfill leachate Arsenic Average Conc. (pre-bioreactor, May - August 2020) : 33.8 ug/l = 0.0338 mg/l

FGD Arsenic Avg Mon Limitation Mass: 0.252 MGD x 0.008 ppm x 8.34 = 0.0168 lbs/day
Landfill Leachate Arsenic Mass (pre-bioreactor) : 0.396 MGD x 0.0338 ppm x 8.34 = 0.112 lbs/day
Landfill Leachate Arsenic Mass (post-treatment) : 0.112 lbs/day x (1-0.963) = 0.0041 lbs/day

10. RATIONALE FOR PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

FGD + Landfill Leachate Arsenic Mass (post-treatment) : $0.0168 \text{ lbs/day} + 0.0041 \text{ lbs/day} = 0.0209 \text{ lbs/day}$

Adj FGD Arsenic Avg Mon Limit: $0.0209 \text{ lbs/day} / (0.252 \text{ MGD} + 0.396 \text{ MGD}) / 8.34 = 0.0039 \text{ mg/l} = 3.9 \text{ ug/l}$

FGD Wastewater Max Flow (existing, assumed) : 0.31 MGD

Landfill Leachate Max Flow (existing, assumed) : 0.49 MGD

ELG Arsenic Removal Efficiency* : 96.3%

FGD Arsenic Max Limitation (40 CFR 423.13) : $18 \text{ ug/l} = 0.018 \text{ mg/l}$

Landfill leachate Arsenic Max Conc. (pre-bioreactor, assumed) : $50.7 \text{ ug/l} = 0.0507 \text{ mg/l}$

FGD Arsenic Max Limitation Mass : $0.31 \text{ MGD} \times 0.018 \text{ ppm} \times 8.34 = 0.0465 \text{ lbs/day}$

Landfill Leachate Arsenic Mass (pre-bioreactor) : $0.49 \text{ MGD} \times 0.0507 \text{ ppm} \times 8.34 = 0.206 \text{ lbs/day}$

Landfill Leachate Arsenic Mass (post-treatment) : $0.206 \text{ lbs/day} \times (1-0.963) = 0.0076 \text{ lbs/day}$

FGD + Landfill Leachate Arsenic Mass (post-treatment) : $0.0465 \text{ lbs/day} + 0.0076 \text{ lbs/day} = 0.05415 \text{ lbs/day}$

Adj FGD Arsenic Max Daily Limit: $0.05415 \text{ lbs/day} / (0.31 \text{ MGD} + 0.49 \text{ MGD}) / 8.34 = 0.00815 \text{ mg/l} = 8.15 \text{ /l}$

* Supplemental Technical Development Document - Steam Electric Reconsideration Rule

Miscellaneous Revisions

The permittee requested a compliance schedule for aluminum at Outlet 001. Section A.001 and B has been revised.

Due to the delayed issuance of this permit, the February 1, 2022 milestone in Section B of the permit has been revised to a date of May 1, 2022 in the final permit.

The permittee requested removal of individual phenols and bis(2-ethylhexyl) phthalate based on additional data submitted with the comment letter. Section A.001 has been revised.

Clarification of the quarterly reporting periods has been added as new Section C.29.

The permittee requested that conductivity be allowed to be used for estimating cycles of concentration. Section D.2.c has been revised.

Other minor typos have been corrected as requested in the comment letter.

Mountaineer Power Plant -- WV0048500

Outlet 001 - Effluent Guideline Limitation (Combined Wastewater Treatment System)

Subject to Federal Effluent Guideline 40 CFR 423 Steam Electric Power Generation

Post 2022

	Avg Flow mgd	Max Flow mgd	Avg TSS mg/l	Max TSS mg/l	Pre-BA Pond Avg TSS lbs/day	Pre-BA Pond Max TSS lbs/day	Removal Efficiency	Outlet 001 Avg TSS lbs/day	Outlet 001 Max TSS lbs/day
Non-process	0.99034253	3.773464617	132.7	554	1096.0	17434.8	0.91	98.64	1569.13
Coalpile	0.045468044	0.390155941							
LVW	3.434174615	10.05996272							
Bottom Ash	0	0							
FGD / CCR	0.230014811	0.876416717							

40 CFR 423.12 (BPT)							
Avg O&G mg/l	Max O&G mg/l	Avg TSS mg/l	Max TSS mg/l	Avg O&G lbs/day	Max O&G lbs/day	Avg TSS lbs/day	Max TSS lbs/day

Non-Process

Coalpile				50			163
LVW	15	20	30	100	429.6	1678.0	859.2
Bottom Ash	15	20	30	100	0.0	0.0	0.0
FGD / CCR	15	20	30	100	28.8	146.2	57.5
Regulated Wastestreams					458.4	1824.2	916.8
Unregulated Wastewater Credit							9283.6
							98.6

Outlet 001	
------------	--

	TSS	O&G	
Total Avg Flow	4.7	4.7	mgd
Total Avg Allowable	1015.4	458.4	lbs/day
Total Avg Allowable	25.9	11.7	mg/l
Total Max Flow	15.1	15.1	mgd
Total Max Allowable	10853	1824	lbs/day
Total Max Allowable	86.2	14.5	mg/l

Mountaineer Power Plant -- WV0048500

Outlet 201 - Effluent Guideline Limitation (Combined Wastewater Treatment System)

Subject to Federal Effluent Guideline 40 CFR 423 Steam Electric Power Generation

Post FGD Treatment Upgrade - 2022 and later

	Avg mgd	Max mgd
FGD Flows ^e	0.152	0.291
CCR Flows ^e	0.311	0.38

		Avg Arsenic ug/l	Avg Mercury ng/l	Avg Nitrogen ^b mg/l	Avg Selenium ug/l	Max Arsenic ug/l	Max Mercury ng/l	Max Nitrogen ^b mg/l	Max Selenium ug/l
Final Limits Outlet 203 (post 2024) ^a		8	34	3	29	18	103	4	70
CCR Existing Concentrations ^c		33.8	98.1	7.1	203.4	50.7	147.2	10.7	305.1
Final Limits Outlet 203 (post 2024)	lbs/day	0.0101	4.310E-05	3.8030	0.0368	0.0437	2.500E-04	9.7078	0.1699
Future BioReactor Leachate Influent	lbs/day	0.0877	2.544E-04	18.4156	0.5276	0.1615	4.688E-04	33.9296	0.9720
ELG Model Treatment Removal Efficiency ^d	%	96.3	99.9	98.7	99.2	96.3	99.9	98.7	99.2
Future BioReactor Leachate Effluent	lbs/day	0.0032	2.544E-07	0.2394	0.0042	0.0060	4.688E-07	0.4411	0.0078
Adjusted FGD Limitations	lbs/day	0.013385	4.336E-05	4.0424422	0.040983	0.049661	2.504E-04	10.1488451	0.177662
Adjusted FGD Limitations	mg/l	0.003466	1.123E-05	1.0468797	0.010614	0.008848	4.462E-05	1.80815438	0.031653
Final Limits Outlet 203 (post 2024)		3.5	11.2	1.0	10.6	8.8	44.6	1.8	31.7

^a 40 CFR 423.13(g)(1)(i)

^b Nitrate + Nitrite Nitrogen

^c Coal Combustion Residuals (landfill leachate) - characteristics provided by permittee

^d Supplemental Technical Development Document - Steam Electric Reconsideration Rule

^e FGD / CCR Flow from comment letter dated 8/11/2021

EXHIBIT B

RELEVANT FACTS TO APPEAL

1. Appalachian Power Company, doing business as AEP, (“Appellant” “AEP” or the “Company”), operates the Mountaineer power plant in Mason County, West Virginia.

2. AEP is aggrieved by certain terms and conditions (as set forth in its appeal above and as set forth herein) contained in its WV/NPDES Permit No. WV0048500 that was reissued on or about March 7, 2022 (“Permit”).

3. The renewal Permit was received by AEP on March 14, 2022. The renewed / reissued Permit becomes effective on May 1, 2022.

4. AEP timely filed detailed comments on the draft Permit (submitted to the agency on August 11, 2021). Thereafter, with little warning and without a change in the law, the WVDEP significantly lowered the Permit limits for TSS and Oil & Grease for Outlet 001. Historically, the Outlet 001 TSS effluent limits were 30 mg/L monthly average and 100 mg/L daily maximum. The new Permit, however, includes the following TSS effluent limits for Outlet 001:

Daily Maximum interim	89
Daily Maximum final	86
Monthly Average interim	26
Monthly average final	26

5. The plant and its relevant treatment systems are designed to meet the historic effluent limits for TSS and Oil & Grease.

6. AEP asserts that WVDEP improperly calculated the TSS and Oil & Grease limits for Outlet 001. WVDEP did not appropriately apply the applicable “combined waste stream formula” (“CWF”) at Outlet 001.

7. WVDEP failed to implement the CWF which, among other things, addresses the management of “non-regulated”, unregulated, and regulated waste streams such as non-process wastewater and the coal pile runoff when calculating applicable limits. To address these errors, AEP requests that the Board order WVDEP to recalculate the TSS and Oil & Grease limits for Outlet 001 consistent with EPA guidance as illustrated by AEP in its detailed comments (Attached with Exhibit A).

8. WVDEP wrongly included and improperly calculated using “best professional judgment” or BPJ effluent limitations for sulfate for Outlet 001. These limits should be removed from the Permit. The limits are included, as numeric limits, for which no supporting West Virginia numeric water quality criteria exist. Further, AEP believes that inclusion of the sulfate limits for Outlet 001 is a misapplication of narrative water quality standards.

9. As with TSS and oil and grease effluent limits for Outlet 001, the Permit includes arsenic, mercury, selenium, and nitrite + nitrate nitrogen effluent limits for Outlet 201 developed based on a misapplication of the CWF and wrongly applied and calculated removal efficiencies.

10. The erroneous application of the CWF guidelines to the Permit have resulted in the WVDEP improperly including certain effluent limits and permit term and conditions. AEP seeks to have these errors addressed and remedied. AEP also requests a stay of the

applicability date of these effluent limits and related compliance schedule deadlines pending the outcome of this Appeal.

11. In Section B, "Schedule of Compliance," AEP requested and the WVDEP granted a compliance period for achieving compliance with final effluent limitations for aluminum at Outlet 001. The compliance period, however, requires some adjustment. Sufficient time has not been provided for initial evaluation and planning for aluminum compliance. The Permit only allows until the first day of the permit period to have its plan ready and submitted to the agency. AEP seeks a sufficient schedule for achieving compliance with the aluminum effluent limit, including specifically the first deadline, its plan of action, for aluminum.

12. AEP has provided detailed comments and calculations related to the proper application of the building block approach and the CWF as they relate to the Mountaineer Permit. AEP seeks through its appeal to correct certain errors in the Permit related to the agency's errors and/or misapplication of CWF and/or the building block approach. This more specifically includes errors in the development of effluent limits for TSS and oil and grease at Outlet 001, and arsenic, mercury, selenium, and nitrite+nitrate nitrogen at Outlet 201 based on CWF and removal efficiencies errors.

13. Section B of the Permit requires that AEP design, conduct and submit a detailed flow analysis and then submit that study to the agency in an application for a major modification. AEP argues that by the time this study is completed and submitted, there will be no meaningful reason to have it considered as part of a major modification when it can more efficiently be included as part of the next permit renewal. Thus, AEP seeks to

have Section B revised to provide (1) that the deadline for the “detailed flow analysis” coincide with timely submittal of the renewal application for the Permit in 2026, and (2) that the requirement for a Permit modification to address the flow study is eliminated from the Permit.

14. As set forth in its comments on the Permit, AEP has evaluated and plans to use 40-mil linear low-density polyethylene (LLDPE) for the upper and lower liners for the east and west bottom ash ponds repurposing project. AEP believes the LLDPE is superior to the HDPE liner specified in the Permit and less likely to suffer seam failure over time. While HDPE liners may be common for landfills, AEP asserts that HDPE is not the better choice for a pond liner system such as it will be installing. AEP thus seeks to revise Section C.27. of the Permit addressing the new wastewater ponds to require a LLDPE type liner for the ponds.

QUESTIONS OF FACT

1. Did the Permit include improperly calculated TSS effluent limits for Outlet 001?
2. Did the Permit include improperly calculated effluent limits for Oil & Grease for Outlet 001?
3. Did the WVDEP misapply the CWF?
4. Did the WVDEP misapply the applicable federal effluent limit guidelines and guidance?
5. Did the WVDEP mischaracterize and wrongly classify certain discharges as “non-regulated”?
6. Did the WVDEP include limits for sulfate in the Permit without sufficient basis?
7. Did the Permit include effluent limits without establishing reasonable potential?
8. Did the Permit include in Section B an insufficient and unreasonable schedule for compliance with aluminum effluent limits and submittal of a flow study?
9. Did the Permit include improperly calculated effluent limits for Outlet 201?
10. Did the Permit fail to properly apply federal rules and guidance related to CWF?
11. Did the Permit include erroneous terms and conditions as a result of misapplication of laws and guidance?
12. Did the Permit wrongly specify the need to use specific controls or construction methods?
13. Did the Permit include certain effluent limits or requirements without legal basis?

QUESTIONS OF LAW

1. Whether the improper inclusion of improperly calculated TSS effluent limits for Outlet 001 in the Permit was arbitrary and capricious and contrary to law?
2. Whether the inclusion of improperly calculated effluent limits for Oil & Grease in the Permit for Outlet 001 was arbitrary and capricious and contrary to law?
3. Whether the WVDEP's misapplication of the CWF and applicable guidance was arbitrary and capricious and contrary to law?
4. Whether the WVDEP misapplied the applicable federal effluent limit guidelines and guidance in a manner that was arbitrary and capricious and contrary to law?
5. Whether the WVDEP's wrongful classification of certain discharges as "non-regulated" was arbitrary and capricious and contrary to law?
6. Whether the WVDEP's inclusion of limits for sulfate in the Permit without sufficient basis was arbitrary and capricious and contrary to law?
7. Whether the Permit's inclusion of effluent limits without establishing reasonable potential was arbitrary and capricious and contrary to law?
8. Whether the Permit's schedule to submit a flow study as set forth in Section B. of the Permit was arbitrary and capricious and contrary to law?
9. Whether the Permit's inclusion of an insufficient and unreasonable schedule for compliance for aluminum effluent limits was arbitrary and capricious and contrary to law?
10. Whether the Permit's inclusion of erroneous terms and conditions as a result of misapplication of laws and guidance was arbitrary and capricious and contrary to law?
11. Whether the Permit's inclusion of certain effluent limits or requirements without legal basis was arbitrary and capricious and contrary to law?

EXHIBIT A

Comments

Response to Comments

Permit

WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
CHARLESTON, WEST VIRGINIA

APPALACHIAN POWER COMPANY,
dba AEP

Appellant,

v.

Appeal No. 22-02-EQB

DIVISION OF WATER AND WASTE
MANAGEMENT, WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION,

Appellee,

CERTIFICATE OF SERVICE

I, Allyn G. Turner, do hereby certify that a true and exact copy of the foregoing
NOTICE OF APPEAL was caused to be served upon the following via hand delivery this
12th day of April 2022.

Ms. Kathy Emery, Acting Director
Division of Water and Waste Management
WV Department of Environmental Protection
601 - 57th Street SE
Charleston, WV 25304 – 2345

Office of Legal Services
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Allyn G. Turner