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June 23, 2021

VIA HAND DELIVERY

Jackie Shultz
WV Environmental Quality Board
601 57th Street, SE
Charleston, WV 25314

RE: Appalachian Power Company dba AEP v.
Division of Water and Waste Management,
West Virginia Department of Environmental Protection

Dear Ms. Shultz,

Enclosed for filing, please find an original and six (6) copies of "*Notice of Appeal and Motion for Stay*" and "*Motion for 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 blue ink that reads 'Kathy G. Beckett'. The signature is fluid and cursive, with the first name 'Kathy' being the most prominent part.

Kathy G. Beckett

KGB/vlr
Enclosures

WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
CHARLESTON, WEST VIRGINIA

**APPALACHIAN POWER COMPANY,
dba AEP**

Appellant,

v.

Appeal No. _____

**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. WV0001074 and the related Order No. 9952, both issued on May 17, 2021. WV/NPDES Permit No. WV0001074, Order No. 9952 and related agency response to comments are attached hereto as Exhibit A. The renewal permit and order were received by AEP on May 25, 2021. The following issues represent the matters for which AEP is seeking relief:

Relief Requested:

1. Revise TSS and Oil & Grease limits for Outlet 003 using the proper application of the federal U.S. Environmental Protection Agency (“USEPA”) “combined waste stream formula” (“CWF”) at Outlet 003;

2. Remove the improperly included cyanide monitoring for Outlet 003;
3. Remove improper fecal coliform limits and monitoring requirement for Outlet 003 and fecal coliform monitoring for Outlets 004 and 005;
4. Remove new Outlets 104, 105, and 106 for “non-regulated” flows for Outlets 004, 005, and 006, respectively;
5. Remove or alternatively revise “Schedule of Compliance” in Part B of the permit requiring a detailed flow analysis and wastewater inventory for Outlets 003, 004, 005 and 006 with results to be submitted with a major modification;
6. Remove improperly included new Outlet 403 that contradicts USEPA guidance for the application of the combined waste formula (CWF);
7. Remove requirement for monitoring at Outlets 040, 041, and 042 for gross alpha radiation when there is no demonstrated reasonable potential for violation of the water quality standard;
8. Correct the effluent limits for Outlet 203 for arsenic, selenium, nitrate+nitrite, and mercury consistent with applicable effluent limit guidelines for certain categorical wastewaters to include: landfill leachate and FGD wastewaters;
9. Revise Section C.31 of the Permit to include suspension of intermediate compliance dates and limits upon the event of the election by AEP to seek qualification for the low-utilization category or to permanently cease coal combustion at one or more units by December 31, 2028 by submittal of a Notice of Planned Participation; and
10. Revise Section C.33 to eliminate the specific design of equipment, type of construction or particular method which a person shall use to reduce the discharge of a pollutant.

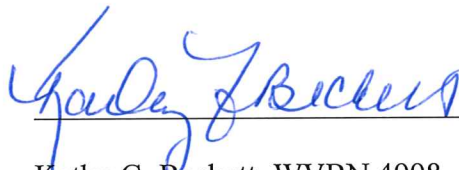
Specific Objections:

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 and Order pending review.

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

Dated this 23nd day of June, 2021.



Kathy G. Beckett, WVBN 4998
Allyn Turner, WVBN 5561
Steptoe & Johnson, PLLC
707 Virginia Street, East
Charleston, West Virginia 25326
(304) 353 8172
Counsel for Appalachian Power Company, dba
AEP

EXHIBIT A

Comments

Response to Comments

Permit/Order

EXHIBIT B

RELEVANT FACTS TO APPEAL

1. Appalachian Power Company, doing business as AEP, (“Appellant” “AEP” or the “Company”), operates the John E. Amos power plant in Putnam 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. WV0001074 that was reissued on or about May 17, 2021 (“Permit”), together with the related Order No. 9952 (“Order”), also issued on or about May 17, 2021.

3. The renewal Permit and Order were received by AEP on May 25, 2021. The renewed / reissued Permit becomes effective on July 1, 2021.

4. WVDEP – without warning and without a change in the law – significantly lowered the Permit limits for TSS and Oil & Grease for Outlet 003. Historically, the Outlet 003 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 003:

Daily Maximum interim	68.7
Daily Maximum final	65.0
Monthly Average interim	19.8
Monthly average final	17.0

5. The plant and its relevant treatment systems are designed to meet the historic effluent limits for TSS and Oil & Grease. AEP cannot consistently meet the new Outlet 003 TSS effluent limits.

6. AEP asserts that WVDEP improperly calculated the TSS and Oil & Grease limits for Outlet 003. WVDEP did not appropriately apply the applicable “combined waste stream formula” (“CWF”) at Outlet 003.

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 003 consistent with EPA guidance as illustrated by AEP in its comments on pages 2-7 (Attached with Exhibit A). AEP also requests a stay of the TSS effluent limits pending the outcome of this Appeal.

8. WVDEP improperly included cyanide monitoring for Outlet 003 in the new Permit when it is neither apparent nor reasonable to conclude that the plant processes are contributing cyanide through wastewater to the receiving stream. AEP requests that the cyanide monitoring requirements for Outlet 003 be removed from the Permit.

9. The Permit improperly establishes fecal coliform limits and monitoring for Outlets 003. The Permit also includes fecal coliform monitoring for Outlets 004 and 005. It is apparent that there is no human source of fecal coliform to these ponds. The Board is urged to order the removal of fecal coliform limits and monitoring for Outlets 003, 004, and 005.

10. WVDEP improperly includes new Outlets 104, 105, and 106 for “non-regulated” flows for Outlets 004, 005, and 006, respectively. AEP asserts that the WVDEP’s error in its application of the CWF has resulted in a number of errors in the Permit, including its designation of certain flows associated with Outlets 004-006. The non-regulated flows should have been designated as unregulated and not dilution per USEPA guidance for application of the combined

waste formula (CWF). Therefore, no new internal outlets are needed. AEP thus requests that the new internal Outlets 104, 105 and 106 be removed from the Permit. Further reporting on a monthly basis on monthly discharge monitoring reports is inappropriate and must be revised. AEP requests a stay from these monitoring requirements pending outcome of this Appeal.

11. Related to Outlets 003, 004, 005 and 006, the Permit includes a "Schedule of Compliance" in Part B of the Permit requiring a detailed flow analysis and wastewater inventory for Outlets 003, 004, 005 and 006 as the result of its failure to appropriately apply USEPA guidance for application of the combined waste formula (CWF). While as a general matter AEP appreciates the appropriateness of the agency's granting of time to address new conditions, in this case the new conditions are not justified and should be removed from the Permit. AEP requests that the CWF corrections be made relative to Outlets 003, 004, 005 and 006 and that the study and application for major modification required by the Permit as set forth in the Section B Compliance Schedule be removed.

12. As with other Permit outlets, the erroneous application of the CWF guidelines to the Permit have resulted in the WVDEP improperly including a new Outlet 403. AEP asserts that new Outlet 403 be removed from the Permit as not supported by or mandated by applicable federal guidance for the application of the combined waste formula (CWF). Further reporting on a monthly basis on monthly discharge monitoring reports is inappropriate and must be revised. AEP requests a stay from these monitoring requirements pending outcome of this Appeal.

13. WVDEP improperly includes monitoring at Outlets 040, 041, and 042 for gross alpha radiation when there is no reasonable potential for violation of the water quality standard. Absent reasonable potential, no limit or monitoring should be required. Thus, AEP requests that the Board order WVDEP to remove these monitoring requirements from the Permit.

14. WVDEP failed to correctly calculate the effluent limits for Outlet 203 for arsenic, selenium, nitrate+nitrite, and mercury consistent with applicable effluent limit guidelines for certain categorical wastewaters, including but not limited to landfill leachate and FGD wastewaters. These effluent limits must be corrected. AEP requests that the agency correct these effluent limits for Outlet 203 as illustrated in AEP's comments at pages 12 – 13 (attached as part of Exhibit A).

15. In Section C.31 of the Permit, the WVDEP improperly failed to include suspension of intermediate compliance dates and limits upon the event of the election by AEP to seek qualification for the low-utilization category or to permanently cease coal combustion at one or more units by December 31, 2028, by submittal of a Notice of Planned Participation. AEP request that the Permit be revised to include suspension of intermediate compliance dates as described by AEP in its comments on page 17 (*See Exhibit A*).

16. In Section C.33 of the Permit, WVDEP improperly requires a specific design of equipment, type of construction or particular method which a person shall use to reduce the discharge of a pollutant. Section C.33 lists prescriptive engineering design and controls details such as requiring 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 collecting piping or equivalent spec'ed liner and leak detection system.” The Board is urged to order WVDEP to remove the specific design permit conditions.

QUESTIONS OF FACT AND LAW

1. Does the Permit include improperly calculated TSS effluent limits for Outlet 003?
2. Does the Permit include improperly calculated effluent limits for Oil & Grease for Outlet 003?
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 cyanide in the Permit without sufficient basis?
7. Does the Permit include effluent limits without establishing reasonable potential?
8. Does the Permit improperly include new internal Outlets 104, 105, 106 and 403?
9. Does the Permit include fecal coliform limits for wildlife-only caused fecal coliform?
10. Does the Permit include limits and monitoring for fecal coliform despite no basis for concluding any human caused contributions?
11. Does the Permit include in Section B a schedule for compliance the improperly requires a study for certain discharge streams?
12. Does the Permit impose limits for gross alpha radiation without establishing reasonable potential?
13. Does the Permit include improperly calculated effluent limits for Outlet 203?
14. Does Section C.31 contain factual errors and fail to include appropriate language regarding the immediate suspension of intermediate compliance dates if AEP elects to seek qualification for low-utilization category or to permanently cease coal combustion at one or more facilities by December 31, 2028?
15. Does Section C.33 contain errors and wrongly specify specific equipment design and construction methods to control pollutants?
16. Whether the Permit’s failure to properly apply federal rules and guidance related to CWF is arbitrary and capricious and contrary to law?
17. Whether the Permit’s inclusion of erroneous terms and conditions as a result of misapplication of laws and guidance is arbitrary and capricious and contrary to law?
18. Whether the Permit’s requirement to use specific controls or construction methods is arbitrary and capricious and contrary to law?
19. Whether the Permit’s inclusion of certain effluent limits or requirements without legal basis is arbitrary and capricious and contrary to law?
20. Whether the WVDEP misapplied the CWF in a manner that is arbitrary and capricious and contrary to law?
21. Whether the WVDEP’s mischaracterization of certain flows as “non-regulated” is arbitrary and capricious and contrary to law?
22. Whether the WVDEP’s failure to address AEP’s right to file a Notice of Planned Participation was arbitrary and capricious and contrary to law?
23. Whether the Permit and Order wrongly regulate fecal coliform in a manner that is arbitrary and capricious and contrary to law?

**WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
CHARLESTON, WEST VIRGINIA**

**APPALACHIAN POWER COMPANY,
dba AEP**

Appellant,

v.

Appeal No. _____

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

Appellee,

CERTIFICATE OF SERVICE

I, Kathy G. Beckett, 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 23rd day of June, 2021.

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
Department of Environmental Protection
601 - 57th Street SE
Charleston, WV 25304 – 2345



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

Appellee,

MOTION FOR STAY

The Appellant Appalachian Power Company, doing business as AEP, (“Appellant” “AEP” or the “Company”), respectfully moves this Board for a stay of certain provisions of WV/NPDES Permit No. WV0001074 and the related Order No. 9952, both issued on May 17, 2021 and received by AEP on May 25, 2021, pending resolution of this appeal. In support of its motion, Appellant states as follows:

1. As set forth more fully in its appeal, incorporated herein by reference, AEP has appealed and objects to certain terms and conditions of its newly reissued WV/NPDES Permit (“Permit”).
2. AEP’s appeal has been timely filed, as has this Motion for Stay.

3. The Permit covers all water discharges from the Amos Plant. AEP anticipated a number of changes in the renewed Permit and incorporated those changes into the overall compliance strategies for the facility. AEP's Amos plant is subject to two new major federal rules – one for water discharges (effluent limitation guidelines, or ELG) and one for coal ash management and disposal (coal combustion residuals rule, or CCR). Both of these new rules will require Amos to spend millions of dollars to comply or, in the alternative, to commit to permanent cessation of coal combustion or retirement. The permit renewal includes requirements for the ELGs, which are new to the permit and were expected.
4. Unfortunately, The WVDEP also included unexpected changes in the Permit. Notably, none of the new Permit conditions for which a stay is sought is the result of a change in the law, or a change in AEP's operations. All are unanticipated changes based completely on changes in agency practice.
5. AEP seeks a stay of the following conditions in the Permit:
 - a) Outlet 003 - TSS effluent limits
 - b) Outlets 003, 004, and 005 - Fecal Coliform limits and monitoring¹
 - c) New Outlets 104, 105, 106, and 403 for “non-regulated” flows - monitoring limits
6. AEP requests imposition of previous 2014 permit limits for Outlet 003 for TSS pending resolution of this appeal.

The imposition of these conditions, without relief, will result in unjust hardship to AEP.

¹ During a conference call with WVDEP staff on Thursday, June 17, 2021, the agency indicated that it would correct the “fecal coliform (sludge)” to “fecal coliform”; as soon as this correction is made Appellant's Appeal and Motion for Stay will be revised accordingly.

TSS Effluent Limits – Outlet 003

7. The first Permit revision for which AEP seeks a stay is the revision of TSS effluent limits for Outlet 003. WVDEP lowered the average and daily maximum limits for total suspended solids (TSS) significantly. This change was not the result of any change at the facility or any change in the requirements applicable to TSS. It was solely the result of a change in how the permit writer interpreted the long-existing requirements for the facility, as WVDEP has acknowledged. In essence, WVDEP is now treating several wastewater streams as dilution water which was not the case in the 2007 or 2014 permits, nor is it justified under current regulations or guidance. The Permit also applies a new assumption concerning how efficiently TSS is removed during treatment -- an approach that was not used in the previous permits. The use of a removal efficiency in calculating ELG limits as done by WVDEP for Amos is not an approach AEP has seen in any of the other NPDES water discharge permits issued by other States for any other AEP coal powered plant.

8. The previous (2014) version of the Permit had an average TSS limit of 30 mg/L; the reissued permit has an initial average TSS limit of less than 20 mg/L, a 30% reduction. This limit drops to 17 mg/L in 2023 after the Plant modifies its operations to comply with new federal rules regulating the management and disposal of coal combustion residuals (“CCR”) and other parts of the ELG Rule. Based on past monitoring data, the Amos Plant will not be able to consistently meet the limit of 20 mg/L every month without adding new treatment technology. This will require a significant capital investment above and beyond the investments already planned for CCR and ELG compliance. Because the federal rules have not changed on this issue and Amos Plant operations have not changed, AEP had no reason to anticipate DEP would be imposing a more stringent limit prior to the draft permit being issued and as such, does not have

a long-range plan to meet 20 mg/L, or 17 mg/L. This change was made without notice to AEP outside of the initial draft permit issued earlier in 2021. Existing discharge monitoring reports for the facility demonstrate that consistent compliance with these new limits cannot be reasonably expected under current operating conditions.

9. The new limits for TSS could also impact the construction timeline for capital projects necessary to meet other CCR and ELG compliance requirements. Some of these required improvements may impact the quality of the discharge waters at the facility, including the potential to introduce additional TSS from ash pond closure and repurposing which could further exacerbate the anticipated compliance issues with this new more stringent TSS effluent limits.

10. Without relief in the form of a stay, and from either WVDEP or the EQB as a result of the Permit appeal, the Amos plant cannot confidently predict that it can remain in compliance with the new limit after July 1, 2021.

11. There is also the potential that the need for additional treatment to meet the new TSS limit could impact the Amos plant's ability to meet the commitments it has already made to United States Environmental Protection Agency in its request for an alternative compliance deadline under the CCR Rule which was submitted in November 2020.

12. AEP is evaluating options for compliance strategies for these unanticipated Permit changes, including shorter-term and longer-term approaches, and may need to further evaluate its ability to continue to operate the facility.

Internal Outlets and Fecal Coliform Effluent Limits

13. In addition to the TSS effluent limit concerns, AEP cannot fully and consistently comply with the flow evaluation and sampling requirements associated with the Permit's new

internal outlets (104, 105, 106, 403), and certain aspects of these new requirements are likely impossible to sample or accurately evaluate. Despite the inability to fully and consistently comply with the requirements for these new outlets, AEP will be immediately required to expend resources to sample and develop plans to comply with these conditions without having been heard on its appeal of these new terms and conditions.

14. AEP cannot resolve the fecal coliform at Outlet 003 as the fecal coliform is not caused by plant operations but instead by natural conditions.

15. AEP cannot comply with the “fecal coliform (sludge)” requirement for Outlets 004 and 005 as no sludge is produced or discharged from those outlets.

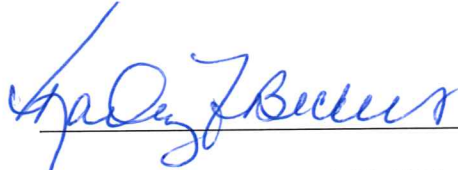
16. Despite not causing the fecal coliform discharges at Outlet 003, AEP will be immediately required to expend resources to address fecal coliform and develop plans for complying with the final limits as specified in Order No. 9952.

17. The Board has the authority to stay permit terms and conditions to avoid unjust hardship to the moving party. See W.Va. Code § 22B-1-7(d).

18. Consistent compliance with the above provisions cannot be achieved at all in the case of certain sampling of “non-regulated” flows, will be impossible to achieve for fecal coliform without likely unacceptable impacts to natural habitats and conditions, and for TSS at Outlet 003 will cost millions of dollars and take at least 18-24 months.

19. AEP is seeking stay of these specific conditions to avoid unjust and unavoidable permit noncompliance, and to avoid being forced to take costly actions to comply with permit terms and conditions it has appealed and believes to be incorrect.

WHEREFORE, Appellant AEP believes it is clear that it will suffer an unjust hardship if its Motion for Stay is not granted, and respectfully moves the Board to GRANT its Motion for Stay and to grant such other and further relief that the Board deems just.



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***Counsel for Appalachian Power Company, dba
AEP***

**WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
CHARLESTON, WEST VIRGINIA**

**APPALACHIAN POWER COMPANY,
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v.

Appeal No. _____

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


Appellee,

CERTIFICATE OF SERVICE

I, Kathy G. Beckett, do hereby certify that a true and exact copy of the foregoing MOTION FOR STAY was caused to be served upon the following via hand delivery this 23rd day of June, 2021.

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
Department of Environmental Protection
601 – 57th Street SE
Charleston, WV 25304 – 2345



Kathy G. Beckett

**WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD
CHARLESTON, WEST VIRGINIA**

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

Appellee,

PROPOSED ORDER GRANTING MOTION FOR STAY

Now come Appellant Appalachian Power Company, doing business at AEP (“Appellant” or “AEP”), by and through its undersigned counsel, and represents to the Board:

1. On June 3, 2021, AEP filed its Motion for Stay seeking a stay of certain provisions of WV/NPDES Permit No. WV0001074 (“Permit”) and the related Order No. 9952 (Order”), both issued on May 17, 2021 and received by AEP on May 25, 2021.
2. AEP’s Motion for Stay seeks a stay and imposition of previous 2014 permit limits at Outlet 003 for TSS pending resolution of its appeal of the Permit and Order
3. As set forth more fully in its appeal, incorporated herein by reference, AEP has appealed and objects to certain terms and conditions of its newly reissued WV/NPDES Permit (“Permit”).

4. AEP's appeal was timely filed, as was its Motion for Stay.

5. AEP hereby represent to the Board, as more fully set forth in its Motion for Stay, that it will suffer undue hardship in the event the requested stay is not granted, and that the requested stay if granted should be considered in effect from the date of filing and will remain in effect until a final ruling is rendered on AEP's appeal.

WHEREFORE, based upon the Motion for Stay, representations of the parties, and other reasons apparent to the Board, the Board hereby **GRANTS** Appellant's **Motion for Stay**, confirms that the requested Stay is and will remain in effect from the date of filing of AEP's appeal until a final ruling on its appeal is rendered.

The Board hereby instructs the Clerk of the Board to provide a copy of this ORDER to the parties.

Ed Snyder
Chairman, Environmental Quality Board

Prepared by:



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Allyn G. Turner WVSB 5561
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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: 304-926-0496

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

May 17, 2021

ALAN R. WOOD
AEP APPALACHIAN POWER
C/O AEP - JOHN E AMOS PLANT
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215-2372

CERTIFIED RETURN RECEIPT REQUESTED

Dear Permittee:

Enclosed please find WV/NPDES Permit Number WV0001074 dated May 17, 2021.

American Electric Power's (AEP) comments were received by letter dated March 12, 2021. The following is the agency's response to these comments regarding the draft permit that went to public notice on February 3, 2021.

Comment No. 1 : Cover Page

The correction has been made.

Comment No. 2 : Outlet 103

The correction has been made in the final permit.

Comment No. 3 : Section A.002

The requested change has been made.

Comment No. 4 : Section A.003, 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 be 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 John Amos 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 $(11.7 - 4.0) / 11.7 = 0.66$. Therefore, the alternative concentration limit would be 19.8 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 was de minimus (i.e., AEP's Mountaineer power plant).

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 : Section A.003, TSS and Oil and Grease Limits / Use of Removal Efficiency

The agency has not calculated a BPJ limit. The TSS value from the Unit 1&2 and Unit 3 cooling towers are considered dilute wastewater per the ELG. The ELG was calculated per the guideline which results in an average monthly limit of 17.4 mg/l and a maximum daily limit of 63.3 mg/l. However, due to the known concentration of TSS in the cooling tower(s) emergency overflows, the agency believes there is a TSS influent loading contributed by these wastewaters to the combined wastewater system above what was considered by the ELG. According to the 1974 Development Document, untreated boiler blowdown typically averaged 25 mg/l in surveys associated with development of the guideline. Since the suspected value of AEP's blowdown is higher than the dilute value considered in the development of the guideline, the agency believes a "credit" can be granted based on the treated value of TSS. Since no data is available on the treatment efficiency of the

bottom ash ponds and influent credit cannot be directly added to an effluent limitation, the agency assumed a removal efficiency value from EPA's Treatability Manual. Using this procedure, the agency was able to calculate limitations of 19.8 mg/l average monthly and 68.7 mg/l maximum daily at the outlet of the combined treatment system.

The agency has also required AEP to develop a complete mass balance inventory since the information submitted with the application is lacking many data points at many unit operations in the existing flow diagram. While developing a removal efficiency is not required by the inventory, if AEP would like to revise the assumed removal efficiency value based on actual site data, the agency would evaluate any additional removal efficiency data submitted.

Comment No. 6 : Section A.003, TSS and Oil and Grease Limits / Oil and Grease

Credit for oil and grease could not be considered based on the data submitted with the application. Even though the permittee believes there is an oil and grease component in the dilute wastestreams associated with the bottom ash ponds, the permittee has not provided quantitative data indicating as such.

The agency has required AEP to develop a complete mass balance inventory as part of this issued permit since the information submitted with the application is lacking many data points at various unit operations in the existing flow diagram. While discreet sampling for oil and grease at internal wastestream points is not required by the inventory, the permittee may collect quantitative data and the agency would evaluate any additional data submitted for a potential credit in the future.

Comment No. 7 : Section A.003, TSS and Oil and Grease Limits / Outlets 104, 105, and 106

AEP has misinterpreted the Combined Wastestream Formula as previously discussed. Unregulated or dilute wastewater cannot be included in the ELG calculation. The information required by the inventory are needed to properly calculate the ELG(s) at Outlets 004, 005, 006.

Comment No. 8 : Titanium, Fluoride, and Magnesium

A reasonable potential analysis was not performed for these parameters, monitoring is imposed due to the magnitude of detection in the permit application.

Comment No. 9 : Cyanide Monitoring

The agency believes that monitoring is appropriate since the minimum water quality criterion is 0.005 mg/l.

Comment No. 10 : Fecal Coliform

The fecal colliform water quality criteria applies to the discharge. Without further quantitative information on the source and composition of the fecal coliform in the discharge, the agency cannot remove the limitation. The sampling type has been corrected in the final permit.

Comment No. 11 : Iron Monitoring, Section A.040

The sample type for iron has been corrected.

Comment No. 12 : Whole effluent toxicity and Gross Alpha Radiation, Sections A.040, A.041, and A.042

The agency believes the monitoring for gross alpha radiation is appropriate.

Chronic toxicity has been replaced with acute toxicity due to the inherent difficulty with sampling chronic toxicity on certain low volume discharges. This resulted in the addition of Section C.36 to the final permit.

Comment No. 13 : Section A.203, 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, 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 onsite, the building block approach diagram that AEP personnel are 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. 14 : Section A.203, Final Effluent Limitations / Re-calculation of Limits

Based on the updated FGD / leachate data - the Section A.203 limitations have been re-calculated.

Comment No. 15 : Addition of Outlet 403

As discussed previously, the permittee has incorrectly used the Combined Wastestream Formula. Unregulated / dilute wastestreams cannot be counted as ELG process wastewater in calculation of limits. In addition, the

purpose of the flow inventory is to compel the permittee to provide a proper delineation of non-process / unregulated / dilute wastestreams and process / regulated wastestreams per the guideline. Specifically, it is unclear if unit operations such as the Switchyard OWS and Stormwater Haul Road can be considered process wastewater per the guideline. The permittee needs to provide more detail on the operations at these locations. The permittee also needs to determine maximum flow data (measured or an engineering estimate) for many of the unit operations on the flow diagram such as the Unit Seal Water and Sumps, Pyrite Trans and Pond, and Cooling Towers for a proper application of the effluent guideline. In many cases, the agency believes it is likely that the average flow needs updated on the flow diagram also.

Comment No. 16 : A.INT1 and A.INT2

The additional intake monitoring location for cycles of concentration has been added.

Comment No. 17 : Sections A.MW001, A.MW006, A.MW007, A.MW008, A.MW009 - Total Chromium

The agency concurs with the permittee's comments. The combined dissolved levels of both trivalent chromium and hexavalent chromium would be reported for total chromium on the DMR.

Comment No. 18 : Section B Compliance Schedules - General

The start of the compliance date cannot be changed in our system. However, an additional month has been added to account for the difference in the issuance date versus the effective date of the permit.

Comment No. 19 : Section B Compliance Schedules - 003, 004, 005, 006, 040, 041, 042

The requested extension of four years to the compliance schedule has been granted. In addition, the language has been revised to allow engineering estimates in cases where quantitative evaluations are impractical which should allow the permittee to complete the evaluation in a reasonable time frame. Again, for clarification, unregulated and dilute are equivalent in meaning per 40 CFR 423.

Comment No. 20 : Section B Schedule of Compliance: Past Compliances Deadlines

These dates in Section B are artifacts from DEP's permitting database from the prior permit and were included in error. They have been removed from Section B in the final permit.

Comment No. 21 : Mixing/Zone Administrative Order No. 9952

The mixing zone requirement has been removed from the Order. The Order; however, is still required for fecal coliform.

Comment No. 22 : Section B: Proposed Date for Notice of Planned Participation

The agency cannot impose a compliance date for an action that is not required by the regulations. The specified notification is optional for the permittee; therefore, the suggested addition cannot be made.

Comment No. 23 : Section B: Compliance Schedule: December 1, 2021 and February 1, 2022

The requested changes to the dates have been made in the final permit.

Comment No. 24 : Section B: Compliance Schedule: November 1, 2023

The requested clarification has been added to the subject date.

Comment No. 25 : Section C

The requested change for quarterly has been made; however, the semi-annual reporting period is based on the effective date of the permit and cannot be changed.

Comment No. 26 : Section C.13.a / 13.c / 15 / 15.e / 28

The requested changes have been made.

Comment No. 27 : Section C.29

Any approved method for free cyanide that is sensitive enough to confirm compliance with the water quality criteria (and/or effluent limitations) is acceptable.

Comment No. 28 : Section C.30

As long as the permittee uses the specified method (or a more sensitive approved method) from a West Virginia Certified Laboratory, reporting at the laboratory developed MDL is compliant with the permit. As such, the requested change is not necessary.

Comment No. 29 : Section C.31, Notice of Planned Participation

The agency believes the current language is appropriate and no revision has been made.

Comment No. 30 : Section C.33 Pond Liner System

The requested changes have been made in the final permit.

Comment No. 31 : Section C.34

The requirement is for all outlets at the site not just the outlets with toxicity monitoring. The agency believes the requirement is appropriate.

Comment No. 32 : Section D.2.c, 316(b) Cycles of Concentration

The agency has re-evaluated the averaging basis for the cycles of concentration limitation in Sections A.INT1, A.INT2, and added A.INT3. The averaging basis has been revised based on information submitted with the comment letter. Section D.2.c has also been revised to reflect the changes in Section A.INT1, A.INT2, and INT3 and language to allow an alternative calculation via conductivity measurements.

Comment No. 33 : Section E.2.f: Monitoring Well Reporting

The correction has been made in the final permit.

Comment No. 34 : Fact Sheet: Mixing Zone Allocations

While mixing zones are permissible under law, the granting of any mixing zone results in exceedances of water quality criteria in the receiving stream within the actual mixing zone being granted. This results in an increased potential for adverse impacts to aquatic life and/or human health within the mixing zone itself. As the size of a mixing zone in the receiving stream increases, the potential for adverse impacts within that mixing zone also increase due to: the larger area/zone of the stream where water quality criteria are being exceeded, the increased mass/volume/concentration of the pollutant within the area/zone, and the increased exposure duration that occurs as the area/zone in the receiving stream increases. Therefore, the agency believes that limiting the size of mixing zones is critical in minimizing the potential for adverse impacts within the mixing zone. As such, the agency limits the size of the mixing zones granted based on what the discharge actually needs in order to be compliant. In limiting the size of the mixing zone, the agency is limiting the potential for adverse impacts to aquatic life and human health within the receiving stream.

However, upon re-evaluation of DMR data for copper, the mixing zone has been revised to allocate the full mixing zone for copper for the ZID due past detections as high as 74.4 ug/l at Outlet 003. Section A.003 has been revised in the final permit.

Comment No. 35 : Fact Sheet: MDL Sensitivity

The permittee did not provide any corrections to the MDLs of the existing analysis or provide any new sampling using the most sensitive methods with the comment letter. Analytes such as benzene (reported at less than 1 ug/l) and PAHs (reported at less than 0.98 ug/l) were either not the most sensitive method

ALAN R. WOOD

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May 17, 2021

available or are not sensitive enough to confirm compliance with the applicable water quality criteria and/or effluent limitation. As such, the agency is requiring resampling of the discharge for the parameters listed in the fact sheet.

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

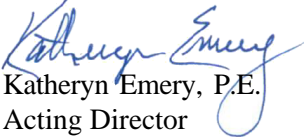
Finally note that copies of all future correspondence regarding the permit must be forwarded to the Field Inspector and Field Supervisor at the following address:

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 43821, or by email at john.v.lockhart@wv.gov.

Sincerely,


Katheryn Emery, P.E.
Acting Director

KE:jl

Enclosures

Permit Number: WV0001074

Permittee: AEP APPALACHIAN POWER

cc: Env. Insp. Supv.
Env. Insp.
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.: WV0001074

SUBJECT: Industrial Waste

ISSUE DATE: May 17, 2021

EFFECTIVE DATE : July 01, 2021

EXPIRATION DATE: May 16, 2026

SUPERSEDES: Permit No. WV0001074
dated June 30, 2014

LOCATION: SAINT ALBANS
(City)

Putnam
(County)

Lower Kanawha River
(Drainage Basin)

See the next page for a list of Outlets.

TO WHOM IT MAY CONCERN:

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

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

operate and maintain an existing 0.03 MGD sewage treatment and disposal system and best management practices with existing collection system and necessary manholes, a 10,000 gallon surge tank, three 10,000 GPD extended aeration package sewage treatment plants, chlorination facilities and all necessary appurtenances to discharge into the Kanawha River near mile point 38.3 via Outlet 002.

Also to operate and maintain treatment and disposal systems and best management practices for the discharge of treated industrial wastewater via Outlet 003; treated industrial wastewater and storm water runoff via Outlets 004, 005 and 006; and the emergency discharge of cooling tower blowdown via Outlets 007 and 008 all into the Kanawha River in the vicinity of mile points 38-39.

Also to operate and maintain disposal systems and best management practices for the discharge of untreated storm water runoff via Outlets 011 and 025 into the Kanawha River between in the vicinity of mile points 38-39 and via Outlet 035 into Bills Creek, a tributary of the Kanawha River.

Also to operate and maintain disposal systems and best management practices for the discharge of untreated storm water runoff and process wastewater (fly ash pond berm seepage / coal combustion residual) via Outlets 040, 041, and 042 into an unnamed tributary of Little Scary Creek, a tributary of the Kanawha River.

Also to acquire, construct, install, operate, and maintain a new 9-acre, lined Wastewater Pond; 5-acre, Reclaim Pond; and 2-acre Clearwater Pond and adjacent tank-based chemical treatment system (organosulfide and polymer) to replace the Bottom Ash Wastewater Treatment Ponds at Outlet 003.

Also to acquire, construct, install, operate, and maintain a new two-stage bioreactor and ultrafiltration unit to provide additional treatment at the Flue Gas Desulfurization WWTP at Outlet 203.

Both the new Outlet 003 and 203 treatment systems shall be constructed per plans and specifications in "John E.

Amos Plant, 2020 NPDES Permit Renewal Application Update, NPDES Permit #WV0001074, December 22, 2020" 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. WV0001074 dated the 15th day of December, 2017, additional information submitted with the application dated the 22nd day of December, 2020, are all hereby made terms and conditions of this Permit with like effect as if all such permit application information were set forth herein and with other conditions set forth in Sections A, B, C, D, E 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
002	38°28'34"	81°49'12"	KANAWHA RV	N/A	38.3
003	38°28'53"	81°49'38"	KANAWHA RV	N/A	39
004	38°28'22"	81°49'05"	KANAWHA RV	N/A	39
005	38°28'40"	81°49'18"	KANAWHA RV	N/A	39
006	38°28'53"	81°49'38"	KANAWHA RV	N/A	39
007	38°28'33"	81°49'11"	KANAWHA RV	N/A	38.3
008	38°28'25"	81°49'06"	KANAWHA RV	N/A	39
011	38°27'24"	81°49'30"	KANAWHA RV	N/A	40.6
025	38°28'33"	81°49'11"	KANAWHA RV	N/A	39.1
035	38°28'43"	81°50'06"	BILLS CK	N/A	N/A
040	38°27'22"	81°51'05"	Unnamed Tributary Of LITTLE SCARY CK	N/A	N/A
041	38°27'26"	81°51'08"	Unnamed Tributary Of LITTLE SCARY CK	N/A	N/A
042	38°27'23"	81°51'08"	Unnamed Tributary Of LITTLE SCARY CK	N/A	N/A
103	38°28'43"	81°49'38"	N/A	N/A	N/A
104	38°22'47"	81°47'00"	N/A	N/A	N/A
105	38°28'36"	81°49'38"	N/A	N/A	N/A
106	38°28'36"	81°49'38"	N/A	N/A	N/A
203	38°28'36"	81°49'38"	N/A	N/A	N/A
303	38°28'36"	81°49'38"	N/A	N/A	N/A
403	38°28'36"	81°49'38"	N/A	N/A	N/A
INT1	38°28'30"	81°49'09"	N/A	N/A	N/A
INT2	38°28'37"	81°49'14"	N/A	N/A	N/A
INT3	38°28'37"	81°49'14"	N/A	N/A	N/A
MW001	38°27'21"	81°51'10"	N/A	N/A	N/A
MW006	38°27'21"	81°51'10"	N/A	N/A	N/A
MW007	38°27'35"	81°51'17"	N/A	N/A	N/A
MW008	38°27'47"	81°50'27"	N/A	N/A	N/A
MW009	38°27'44"	81°50'37"	N/A	N/A	N/A

A.002 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 002 (Sanitary)

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-B)	N/A	N/A	N/A	N/A	Rpt Only	0.03	mgd	1/quarter	Estimated
					Avg. Monthly	Max. Daily			
00310 - (BOD, 5-Day 20 Deg.C) (Year Round) (ML-B) (RF-B)	7.5	15	Lbs/Day	N/A	30	60	mg/l	1/quarter	8 hr comp
	Avg. Monthly	Max. Daily			Avg. Monthly	Max. Daily			
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	7.5	15	Lbs/Day	N/A	30	60	mg/l	1/quarter	8 hr comp
	Avg. Monthly	Max. Daily			Avg. Monthly	Max. Daily			
74055 - (Coliform, Fecal) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	200	400	Cnts/100ml	1/quarter	Grab
					Mon. Geo. Mean	Max. Daily			
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6	N/A	9	S.U.	1/quarter	Grab
				Inst. Min.		Inst. Max.			
00610 - (Ammonia Nitrogen) (Year Round) (ML-1) (RF-B)	3.75	7.5	Lbs/Day	N/A	15	30	mg/l	1/quarter	8 hr comp
	Avg. Monthly	Max. Daily			Avg. Monthly	Max. Daily			
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	28	57	ug/l	1/quarter	Grab
					Avg. Monthly	Max. Daily			

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

Outlet 002, at the discharge from the STP to the Kanawha River via a 6" steel pipe.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 003 (Cooling Water, Storm Runoff Water, 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>	<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	2/month	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A) Interim: 7/1/2021 to 12/31/2022	N/A	N/A	N/A	N/A	19.8 Avg. Monthly	68.7 Max. Daily	mg/l	2/month	24 hr Composite
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A) Final: 01/01/2023 to 5/16/2026	N/A	N/A	N/A	N/A	17 Avg. Monthly	65 Max. Daily	mg/l	2/month	24 hr Composite
74055 - (Coliform, Fecal) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	200 Mon. Geo. Mean	400 Max. Daily	Cnts/100ml	1/month	Grab
00400 - (pH) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	2/month	Grab
00610 - (Ammonia Nitrogen) (Year Round) (ML-A) (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
00620 - (Nitrogen Nitrate) (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
00615 - (Nitrogen Nitrite) (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 003, at the discharge of low volume wastes from the clear water pond via a 36" HDPE pipe and diffuser to the Kanawha River.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 003 (Cooling Water, Storm Runoff Water, 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>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>	<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Units</u>	<u>Units</u>			
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	97 Avg. Monthly	194 Max. Daily	ug/l	1/month	Grab
01119 - (Copper, Total Recoverable) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	0.052 Avg. Monthly	0.109 Max. Daily	mg/l	1/month	24 hr Composite
01114 - (Lead, 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
01113 - (Cadmium, 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
71900 - (Mercury, Total (as Hg)) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	0.18 Avg. Monthly	0.44 Max. Daily	ug/l	1/month	Grab
01079 - (Silver, 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	24 hr Composite
01104 - (Aluminum, 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
00980 - (Iron, Total Recoverable) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	3 Avg. Monthly	5.4 Max. Daily	mg/l	1/month	24 hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):
Outlet 003, at the discharge of low volume wastes from the clear water pond via a 36" HDPE pipe and diffuser to the Kanawha River.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 003 (Cooling Water, Storm Runoff Water, 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>	
00940 - (Chloride (as Cl)) (Year Round) (ML-1) (RF-A)	N/A	N/A	N/A	N/A	565 Avg. Monthly	852 Max. Daily	mg/l	1/month	24 hr Composite
00951 - (Fluoride, Total) (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
61426 - (Chronic Tox-Ceriodaphnia Dul) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUc	1/6 months	24 hr Composite
61428 - (Chronic Toxicity - Pimephales) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUc	1/6 months	24 hr Composite
00981 - (Selenium, 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
00978 - (Arsenic, 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
01007 - (Barium, Total (as Ba)) (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
70295 - (Solids, Total Dissolved (TDS)) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Daily Min.	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 003, at the discharge of low volume wastes from the clear water pond via a 36" HDPE pipe and diffuser to the Kanawha River.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 003 (Cooling Water, Storm Runoff Water, 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>				
00722 - (Cyanide, Free) (Summer Mar 1-Nov 30) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/quarter	Grab	
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	
Upstream/Intake Temperature										
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 Temperature										
00011 - (Temperature, F) (Year Round) (ML-2) (RF-A)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	DEG.F	1/month	Insitu	
Difference between effluent and upstream/intake temperature										
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	
01059 - (Thallium, Total (as Tl)) (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	24 hr Composite	
00552 - (Oil and Grease, Hexane EXTf) (Year Round) (ML-1) (RF-B) Interim: 7/1/2021 to 12/31/2022	N/A	N/A	N/A	N/A	8.7 Avg. Monthly	11.9 Max. Daily	mg/l	1/quarter	Grab	
00552 - (Oil and Grease, Hexane EXTf) (Year Round) (ML-1) (RF-B) Final: 01/01/2023 to 5/16/2026	N/A	N/A	N/A	N/A	7.5 Avg. Monthly	10.4 Max. Daily	mg/l	1/quarter	Grab	

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

Outlet 003, at the discharge of low volume wastes from the clear water pond via a 36" HDPE pipe and diffuser to the Kanawha River.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 003 (Cooling Water, Storm Runoff Water, 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>		
00984 - (Titanium, 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
82077 - (Radiation, Gross Alpha) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	pCi/L	1/quarter	Grab
71870 - (Bromide) (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 003, at the discharge of low volume wastes from the clear water pond via a 36" HDPE pipe and diffuser to the Kanawha River.

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

A.004 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 004 (Storm Water Runoff, 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	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/quarter	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	Grab
01094 - (Zinc, 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	Grab
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)	N/A	N/A	N/A	N/A	0.9 Avg. Monthly	2.3 Max. Daily	mg/l	1/month	Grab
00980 - (Iron, 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	Grab

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

Outlet 004, at the discharge from the south plant stormwater/emergency overflow pond via a 12" plastic pipe to the Kanawha River.

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

A.004 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 004 (Storm Water Runoff, 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>		
00981 - (Selenium, 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	Grab
00978 - (Arsenic, 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	Grab
00552 - (Oil and Grease, Hexane EXTf) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	1/quarter	Grab
31641 - (Fecal Coliform (Sludge)) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Mon. Geo. Mean	Rpt Only Max. Daily	Cnts/100ml	1/quarter	Grab

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

Outlet 004, at the discharge from the south plant stormwater/emergency overflow pond via a 12" plastic pipe to the Kanawha River.

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

A.005 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 005 (Storm Water Runoff, 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>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>	<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Units</u>	<u>Units</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	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/quarter	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	Grab
01114 - (Lead, 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	Grab
01094 - (Zinc, 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	Grab
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)	N/A	N/A	N/A	N/A	1.2 Avg. Monthly	2.3 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 005, at the discharge from the central plant stormwater/emergency overflow pond via a 12" CMP to the Kanawha River.

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

A.005 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 005 (Storm Water Runoff, 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>		
00980 - (Iron, 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	Grab
00981 - (Selenium, 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	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
00552 - (Oil and Grease, Hexane EXTf) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	1/quarter	Grab
31641 - (Fecal Coliform (Sludge)) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Mon. Geo. Mean	Rpt Only Max. Daily	Cnts/100ml	1/quarter	Grab

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

Outlet 005, at the discharge from the central plant stormwater/emergency overflow pond via a 12" CMP to the Kanawha River.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 006 (Storm Water Runoff, 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>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>	<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Units</u>	<u>Units</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	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/6 months	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	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-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)	N/A	N/A	N/A	N/A	0.8 Avg. Monthly	2.3 Max. Daily	mg/l	1/month	Grab
00980 - (Iron, 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	Grab

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

Outlet 006, at the discharge from the north plant stormwater/emergency overflow pond via a 18" CMP to the Kanawha River.

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 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 006 (Storm Water Runoff, 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>		
00981 - (Selenium, 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	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
00552 - (Oil and Grease, Hexane EXTf (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	1/quarter	Grab

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

Outlet 006, at the discharge from the north plant stormwater/emergency overflow pond via a 18" CMP to the Kanawha River.

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

A.007 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 007 (Noncontact Cooling 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>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>		<u>Units</u>	<u>Other Units</u>	<u>Units</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	Once/Daily Discharge	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	Once/Daily Discharge	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.	Once/Daily Discharge	Grab
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	28 Avg. Monthly	57 Max. Daily	ug/l	Once/Daily Discharge	Grab
00011 - (Temperature, F) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	DEG.F	Once/Daily Discharge	Insitu

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

Outlet 007, the discharge of unit #1 cooling tower emergency overflow via a 30" steel pipe to the Kanawha River.

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

A.008 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 008 (Noncontact Cooling 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>	<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	Once/Daily Discharge	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	Once/Daily Discharge	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.	Once/Daily Discharge	Grab
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	28 Avg. Monthly	57 Max. Daily	ug/l	Once/Daily Discharge	Grab
00011 - (Temperature, F) (Year Round) (ML-1) (RF-C)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	DEG.F	Once/Daily Discharge	Insitu

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

Outlet 008, the discharge of unit #2 cooling tower emergency overflow via a 30" steel pipe to the Kanawha River.

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

A.011 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 011 (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>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-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
01002 - (Arsenic, Total (as As)) (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-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/year	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

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

Outlet 011, the discharge of stormwater runoff via an earthen ditch to the Kanawha River.

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

A.011 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 011 (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>Quantity</u>		<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>		
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
01034 - (Chromium, Total (as Cr)) (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
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

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

Outlet 011, the discharge of stormwater runoff via an earthen ditch to the Kanawha River.

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

A.025 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 025 (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>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-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
01002 - (Arsenic, Total (as As)) (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-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/year	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

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

Outlet 025, the discharge of stormwater runoff via an earthen ditch to the Kanawha River.

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

A.025 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 025 (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>Quantity</u>		<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>		
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
01034 - (Chromium, Total (as Cr)) (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
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

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

Outlet 025, the discharge of stormwater runoff via an earthen ditch to the Kanawha River.

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

A.035 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 035 (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>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-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
01002 - (Arsenic, Total (as As)) (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-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/year	Grab
01104 - (Aluminum, 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	1/6 months	Grab

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

Outlet 035, the discharge of stormwater runoff via a vegetated ditch to Bills Creek.

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

A.035 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 035 (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>Quantity</u>		<u>Units</u>	<u>Other Units</u>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>		
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
01034 - (Chromium, Total (as Cr)) (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
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

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

Outlet 035, the discharge of stormwater runoff via a vegetated ditch to Bills Creek.

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

A.040 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 040 (Storm Water Runoff, 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>	<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	1/quarter	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/quarter	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	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	Grab
01114 - (Lead, 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	Grab
01094 - (Zinc, 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	Grab
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

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

Outlet 040, fly ash dam left abutment seepage.

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

A.040 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 040 (Storm Water Runoff, 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>			
01074 - (Nickel, 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	Grab
01104 - (Aluminum, 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	Grab
00980 - (Iron, 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	Grab
61425 - (Acute Tox - Ceriodaphnia Dut (Year Round) (ML-1) (RF-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/year	Grab
61427 - (Acute Toxicity - Pimephales) (Year Round) (ML-1) (RF-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/year	Grab
00981 - (Selenium, 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	Grab
00978 - (Arsenic, 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	Grab
00552 - (Oil and Grease, Hexane EXTf (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	1/quarter	Grab

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

Outlet 040, fly ash dam left abutment seepage.

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

A.040 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 040 (Storm Water Runoff, 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>	
82077 - (Radiation, Gross Alpha) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	pCi/L	1/quarter	Grab

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

Outlet 040, fly ash dam left abutment seepage.

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

A.041 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 041 (Storm Water Runoff, 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>		
00058 - (Flow) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	GPD	1/quarter	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/quarter	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	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	Grab
01114 - (Lead, 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	Grab
01094 - (Zinc, 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	Grab
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

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

Outlet 041, fly ash dam right abutment seepage.

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

A.041 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 041 (Storm Water Runoff, 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>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
01074 - (Nickel, 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	Grab
01104 - (Aluminum, 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	Grab
00980 - (Iron, 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	Grab
61425 - (Acute Tox - Ceriodaphnia Dut (Year Round) (ML-1) (RF-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/year	Grab
61427 - (Acute Toxicity - Pimephales) (Year Round) (ML-1) (RF-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/year	Grab
00981 - (Selenium, 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	Grab
00978 - (Arsenic, 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	Grab
00552 - (Oil and Grease, Hexane EXT (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	1/quarter	Grab

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

Outlet 041, fly ash dam right abutment seepage.

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

A.041 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 041 (Storm Water Runoff, 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>		
82077 - (Radiation, Gross Alpha) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	pCi/L	1/quarter	Grab

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

Outlet 041, fly ash dam right abutment seepage.

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

A.042 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 042 (Storm Water Runoff, 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>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
00058 - (Flow) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	GPD	1/quarter	Estimated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	30 Avg. Monthly	100 Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	6 Inst. Min.	N/A	9 Inst. Max.	S.U.	1/quarter	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	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	Grab
01114 - (Lead, 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	Grab
01094 - (Zinc, 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	Grab
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

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

Outlet 042, fly ash dam foundation drain seepage

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

A.042 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 042 (Storm Water Runoff, 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>	<u>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
01074 - (Nickel, 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	Grab
01104 - (Aluminum, 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	Grab
00980 - (Iron, 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	Grab
61425 - (Acute Tox - Ceriodaphnia Dut (Year Round) (ML-1) (RF-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/year	Grab
61427 - (Acute Toxicity - Pimephales) (Year Round) (ML-1) (RF-D)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	TUa	1/year	Grab
00981 - (Selenium, 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	Grab
00978 - (Arsenic, 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	Grab
00552 - (Oil and Grease, Hexane EXTf (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	15 Avg. Monthly	20 Max. Daily	mg/l	1/quarter	Grab

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

Outlet 042, fly ash dam foundation drain seepage

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

A.042 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 042 (Storm Water Runoff, 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>			
82077 - (Radiation, Gross Alpha) (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	pCi/L	1/quarter	Grab	

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

Outlet 042, fly ash dam foundation drain seepage

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

A.103 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 103 (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>Units</u>	<u>Other 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
01119 - (Copper, Total Recoverable) (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
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
00552 - (Oil and Grease, Hexane EXTf) (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

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

Internal Outlet 103 - Samples shall be taken from the metal cleaning waste tank prior to mixing with any other wastewaters.

A.104 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 104 (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>	
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	Calculated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	N/A	1/month	Calculated
00552 - (Oil and Grease, Hexane EXT) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	N/A	1/month	Calculated

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

Outlet 104, Non-regulated wastewater at Outlet 004 : Aux Boiler Drains, non-coal pile runoff (yard and roof drains, switchyard OWS), and overflows (chemical containment, condensate tanks, firewater system).

A.105 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 105 (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>	
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	Calculated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	mg/l	1/month	Calculated
00552 - (Oil and Grease, Hexane EXTf) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	mg/l	1/month	Calculated

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

Outlet 105, Non-regulated wastewater at Outlet 005 : Non-coal pile runoff (yard and roof drains) and overflows (chemical storage).

A.106 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 106 (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>Units</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
	<u>Quantity</u>		<u>Units</u>	<u>Other Units</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	Calculated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	mg/l	1/month	Calculated
00552 - (Oil and Grease, Hexane EXT) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	mg/l	1/month	Calculated

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

Outlet 106, Non-regulated wastewater at Outlet 006 : Aux boiler drains and non-coal pile runoff (yard and roof drains).

A.203 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 203 (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: 7/1/2021 to 12/31/2023	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	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: 01/01/2024 to 5/16/2026	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	0.03 Avg. Monthly	0.089 Max. Daily	ug/l	1/month	Grab
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-A) Interim: 7/1/2021 to 12/31/2023	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	24 hr Composite
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-A) Final: 01/01/2024 to 5/16/2026	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	0.026 Avg. Monthly	0.061 Max. Daily	mg/l	1/month	24 hr Composite
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-A) Interim: 7/1/2021 to 12/31/2023	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	24 hr Composite
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-A) Final: 01/01/2024 to 5/16/2026	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	0.0072 Avg. Monthly	0.016 Max. Daily	mg/l	1/month	24 hr Composite
00630 - (Nitrite Plus Nitrate Nitrogen) (Year Round) (ML-1) (RF-A) Interim: 7/1/2021 to 12/31/2023	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	24 hr Composite

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

Internal Outlet 203 - [Until 12/31/2023] Samples shall be taken at the discharge from the FGD Systems Treatment Unit. [On 01/01/2024 and after] Samples shall be taken at the outlet of the Bio Reactor / Ultrafiltration Unit prior to mixing.

A.203 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 203 (Process Water)

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

<u>Effluent Characteristic</u>	<u>Quantity</u>		<u>Discharge Limitations</u>				<u>Monitoring Requirements</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: 01/01/2024 to 5/16/2026	Rpt Only	Rpt Only	Lbs/Day	N/A	2.7	3.5	mg/l	1/month	24 hr Composite
	Avg. Monthly	Max. Daily			Avg. Monthly	Max. Daily			

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

Internal Outlet 203 - [Until 12/31/2023] Samples shall be taken at the discharge from the FGD Systems Treatment Unit. [On 01/01/2024 and after] Samples shall be taken at the outlet of the Bio Reactor / Ultrafiltration Unit prior to mixing.

A.303 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 303 (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)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	ug/l	1/month	Grab
00981 - (Selenium, Total Recoverable) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	24 hr Composite
00978 - (Arsenic, Total Recoverable) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	24 hr Composite
00630 - (Nitrite Plus Nitrate Nitrogen) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	mg/l	1/month	24 hr Composite

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

Outlet 303, Landfill Leachate prior to entering FGD combined wastewater Bio Reactor / Ultrafiltration Unit.

A.403 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee is authorized to discharge from Outlet Number(s) 403 (Cooling Water, Storm Water Runoff, 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>		
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	Calculated
00530 - (Total Suspended Solids) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	N/A	1/month	Calculated
50060 - (Chlorine, Total Residual) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	N/A	1/month	Calculated
00552 - (Oil and Grease, Hexane EXT) (Year Round) (ML-1) (RF-A)	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day	N/A	N/A	N/A	N/A	1/month	Calculated

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

Outlet 403, Non-regulated flows that enter the Bottom Ash Ponds. Unit 1&2 Seal Water, Unit 1&2 Cooling Water, Unit 3 Cooling Water, Switchyard OWS, Storm Water (non-Coal Pile).

A.INT1 INTAKE MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Outlet Number(s) INT1 (Intake)

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

<u>Intake Characteristic</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>						
51641 - (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):

INT1, Unit 1 Cooling Water Tower.

A.INT2 INTAKE MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Outlet Number(s) INT2 (Intake)

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

<u>Intake Characteristic</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>						
51641 - (Cycles of Concentration) (Year Round) (ML-7) (RF-A) Final: 01/02/1900 to 5/16/2026	N/A	N/A	N/A	3 Min. 7 Day Avg.	N/A	N/A	cycles	1/daily	Calculated
			See Section D.2.c						

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

INT2, Unit 2 Cooling Water Tower.

A.INT3 INTAKE MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Outlet Number(s) INT3 (Intake)

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

<u>Intake Characteristic</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>Units</u>			
51641 - (Cycles of Concentration) (Year Round) (ML-7) (RF-A) Final: 01/02/1900 to 5/16/2026	N/A	N/A	N/A	3 Min. 7 Day Avg.	N/A	N/A	cycles	1/daily	Calculated
			See Section D.2.c						

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

INT3, Unit 3 Cooling Water Tower.

A.MW001 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW001 (Monitoring Well)

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

<u>Monitoring Well 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>				
00530 - (Total Suspended Solids) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/quarter	Grab
00940 - (Chloride (as Cl)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01034 - (Chromium, Total (as Cr)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
70295 - (Solids, Total Dissolved (TDS)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01106 - (Aluminum, Diss. (as Al)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00095 - (Specific Conductance) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	UMHO/CM	1/quarter	Grab
01005 - (Barium, Dissolved (as Ba)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW001

A.MW001 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW001 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00915 - (Calcium, Dissolved (as Ca)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01040 - (Copper, Diss. (as Cu)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01046 - (Iron, Dissolved (as Fe)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01049 - (Lead, Dissolved (as Pb)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01056 - (Manganese, Diss. (as Mn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00011 - (Temperature, F) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	DEG.F	1/quarter	lmrstb
00680 - (Total Organic Carbon) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
81020 - (Sulfate) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW001

A.MW001 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW001 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00925 - (Magnesium, Diss. (as Mg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01085 - (Vanadium, Diss. (as V)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01000 - (Arsenic, Dissolved (as As)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01025 - (Cadmium, Dissolved (as Cd)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01145 - (Selenium, Diss. (as Se)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
71890 - (Mercury, Dissolved (as Hg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01020 - (Boron, Dissolved (as B)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01060 - (Molybdenum Diss. (as Mo)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW001

A.MW001 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW001 (Monitoring Well)

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

<u>Monitoring Well 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>				
01090 - (Zinc, Dissolved (as Zn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01065 - (Nickel, Dissolved (as Ni)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
00930 - (Sodium, Diss. (as Na)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW001

A.MW006 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW006 (Monitoring Well)

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

<u>Monitoring Well 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>				
00530 - (Total Suspended Solids) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/quarter	Grab
00940 - (Chloride (as Cl)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01034 - (Chromium, Total (as Cr)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
70295 - (Solids, Total Dissolved (TDS)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01106 - (Aluminum, Diss. (as Al)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00095 - (Specific Conductance) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	UMHO/CM	1/quarter	Grab
01005 - (Barium, Dissolved (as Ba)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW006

A.MW006 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW006 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00915 - (Calcium, Dissolved (as Ca)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01040 - (Copper, Diss. (as Cu)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01046 - (Iron, Dissolved (as Fe)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01049 - (Lead, Dissolved (as Pb)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01056 - (Manganese, Diss. (as Mn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00011 - (Temperature, F) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	DEG.F	1/quarter	Imrstb
00680 - (Total Organic Carbon) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
81020 - (Sulfate) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW006

A.MW006 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW006 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00925 - (Magnesium, Diss. (as Mg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01085 - (Vanadium, Diss. (as V)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01000 - (Arsenic, Dissolved (as As)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01025 - (Cadmium, Dissolved (as Cd)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01145 - (Selenium, Diss. (as Se)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
71890 - (Mercury, Dissolved (as Hg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01020 - (Boron, Dissolved (as B)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01060 - (Molybdenum Diss. (as Mo)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW006

A.MW006 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW006 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>					
01090 - (Zinc, Dissolved (as Zn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01065 - (Nickel, Dissolved (as Ni)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
00930 - (Sodium, Diss. (as Na)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW006

A.MW007 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW007 (Monitoring Well)

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

<u>Monitoring Well 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>				
00530 - (Total Suspended Solids) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/quarter	Grab
00940 - (Chloride (as Cl)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01034 - (Chromium, Total (as Cr)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
70295 - (Solids, Total Dissolved (TDS)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01106 - (Aluminum, Diss. (as Al)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00095 - (Specific Conductance) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	UMHO/CM	1/quarter	Grab
01005 - (Barium, Dissolved (as Ba)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW007

A.MW007 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW007 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00915 - (Calcium, Dissolved (as Ca)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01040 - (Copper, Diss. (as Cu)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01046 - (Iron, Dissolved (as Fe)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01049 - (Lead, Dissolved (as Pb)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01056 - (Manganese, Diss. (as Mn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00011 - (Temperature, F) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	DEG.F	1/quarter	lmrstb
00680 - (Total Organic Carbon) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
81020 - (Sulfate) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW007

A.MW007 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW007 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Other Units</u>				
00925 - (Magnesium, Diss. (as Mg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01085 - (Vanadium, Diss. (as V)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01000 - (Arsenic, Dissolved (as As)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01025 - (Cadmium, Dissolved (as Cd)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01145 - (Selenium, Diss. (as Se)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
71890 - (Mercury, Dissolved (as Hg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01020 - (Boron, Dissolved (as B)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01060 - (Molybdenum Diss. (as Mo)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW007

A.MW007 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW007 (Monitoring Well)

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

<u>Monitoring Well 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>				
01090 - (Zinc, Dissolved (as Zn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01065 - (Nickel, Dissolved (as Ni)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
00930 - (Sodium, Diss. (as Na)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW007

A.MW008 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW008 (Monitoring Well)

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

<u>Monitoring Well 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>				
00530 - (Total Suspended Solids) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/quarter	Grab
00940 - (Chloride (as Cl)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01034 - (Chromium, Total (as Cr)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
70295 - (Solids, Total Dissolved (TDS)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01106 - (Aluminum, Diss. (as Al)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00095 - (Specific Conductance) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	UMHO/CM	1/quarter	Grab
01005 - (Barium, Dissolved (as Ba)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW008

A.MW008 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW008 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>				
00915 - (Calcium, Dissolved (as Ca)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01040 - (Copper, Diss. (as Cu)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01046 - (Iron, Dissolved (as Fe)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01049 - (Lead, Dissolved (as Pb)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01056 - (Manganese, Diss. (as Mn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00011 - (Temperature, F) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	DEG.F	1/quarter	Imrstb
00680 - (Total Organic Carbon) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
81020 - (Sulfate) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW008

A.MW008 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW008 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Other Units</u>				
00925 - (Magnesium, Diss. (as Mg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01085 - (Vanadium, Diss. (as V)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01000 - (Arsenic, Dissolved (as As)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01025 - (Cadmium, Dissolved (as Cd)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01145 - (Selenium, Diss. (as Se)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
71890 - (Mercury, Dissolved (as Hg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01020 - (Boron, Dissolved (as B)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01060 - (Molybdenum Diss. (as Mo)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW008

A.MW008 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW008 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>					
01090 - (Zinc, Dissolved (as Zn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01065 - (Nickel, Dissolved (as Ni)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
00930 - (Sodium, Diss. (as Na)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW008

A.MW009 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW009 (Monitoring Well)

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

<u>Monitoring Well 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>				
00530 - (Total Suspended Solids) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00400 - (pH) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	Rpt Only Inst. Min.	N/A	Rpt Only Inst. Max.	S.U.	1/quarter	Grab
00940 - (Chloride (as Cl)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01034 - (Chromium, Total (as Cr)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
70295 - (Solids, Total Dissolved (TDS)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01106 - (Aluminum, Diss. (as Al)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00095 - (Specific Conductance) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	UMHO/CM	1/quarter	Grab
01005 - (Barium, Dissolved (as Ba)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW009

A.MW009 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW009 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00915 - (Calcium, Dissolved (as Ca)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01040 - (Copper, Diss. (as Cu)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01046 - (Iron, Dissolved (as Fe)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01049 - (Lead, Dissolved (as Pb)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01056 - (Manganese, Diss. (as Mn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
00011 - (Temperature, F) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	DEG.F	1/quarter	lmrstb
00680 - (Total Organic Carbon) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
81020 - (Sulfate) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW009

A.MW009 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW009 (Monitoring Well)

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

<u>Monitoring Well Characteristic</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>Units</u>				
00925 - (Magnesium, Diss. (as Mg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab
01085 - (Vanadium, Diss. (as V)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01000 - (Arsenic, Dissolved (as As)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01025 - (Cadmium, Dissolved (as Cd)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01145 - (Selenium, Diss. (as Se)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
71890 - (Mercury, Dissolved (as Hg)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01020 - (Boron, Dissolved (as B)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01060 - (Molybdenum Diss. (as Mo)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab

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

MW009

A.MW009 MONITORING WELL REQUIREMENTS:

Permit Limits

During the period beginning 7/1/2021 and lasting through midnight 5/16/2026 the permittee will monitor Well Number(s) MW009 (Monitoring Well)

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

<u>Monitoring Well 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>				
01090 - (Zinc, Dissolved (as Zn)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
01065 - (Nickel, Dissolved (as Ni)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	ug/l	1/quarter	Grab
00930 - (Sodium, Diss. (as Na)) (Year Round) (ML-O) (RF-B)	N/A	N/A	N/A	N/A	N/A	Rpt Only Max. Daily	mg/l	1/quarter	Grab

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

MW009

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 :

- Jun 01, 2021:** 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 TSS and O&G at Outlet 003 and arsenic, mercury, nitrate+nitrite, and selenium at Outlet 203.
- Feb 01, 2022:** Complete preliminary and detailed design for Outlet 003 to support bid packages, including civil, mechanical, and electrical engineering packages for the pond complex modifications. Also complete preliminary and detailed design for Outlet 203 to support bid packages, including the civil, mechanical, and electrical/I&C packages for the FGD treatment system.
- Jun 01, 2022:** Award construction contract(s) for Outlet 203 and 003 upgraded wastewater treatment plants.
- The permittee shall also 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 TSS and O&G at Outlet 003 and arsenic, mercury, nitrate+nitrite, and selenium at Outlet 203.
- The permittee shall also 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 TSS and O&G at Outlet 003 and arsenic, mercury, nitrate+nitrite, and selenium at Outlet 203.
- Jan 01, 2023:** Cease discharge of bottom ash wastewaters to the Outlet 003 combined wastewater system. Achieve compliance with final effluent limitations in Section A.003 for TSS and O&G.
- The permittee shall also 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 TSS and O&G at Outlet 003 and arsenic, mercury, nitrate+nitrite, and selenium at Outlet 203.
- Jun 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 arsenic, mercury, nitrate+nitrite, and selenium at Outlet 203.
- Nov 01, 2023:** Complete closure (i.e. removal of the CCR material and decontamination of the CCR unit) and repurposing of BAP 1B, Reclaim, and Clear Water Ponds of the former Bottom Ash Pond treatment system.
- Jan 01, 2024:** Complete construction, performance testing and tuning for the two stage bioreactor and ultrafiltration FGD treatment system. Achieve compliance with final effluent limitations in Section A.203 for arsenic, mercury, nitrate+nitrite, and selenium.
- The permittee shall submit a progress report that identifies the status of the actions taken, as well as actions to be taken, to complete closure of BAP1A of the former Bottom Ash Pond treatment system.
- Jun 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 complete closure of BAP1A of the former Bottom Ash Pond treatment 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 :**

Jan 01, 2025: Complete closure of BAP1A of the former Bottom Ash Pond treatment system.

Jul 01, 2025: The permittee shall submit a detailed flow analysis and wastewater inventory at Outlets 003, 004, 005, 006, 040, 041, and 042. At a minimum, the the flow analysis shall included 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, regulated vs unregulated) of each subtype of flow on the facilities' "Flow Diagram Water Usage, Units 1,2, & 3, Revision 10" dated 07/31/2020. For outlets that have a documented mixture of low volume wastewater (per 40 CFR 432) and non-regulated wastewater input into their respective treatment systems a major modification shall be submitted to adjust 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. unless such are related to a finite project or a standing inventory and they are managed consistent with best management practices to minimize pollutants in the stormwater runoff. 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
NPDES 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 following storm water requirements apply to Outlet(s) 011, 025, and 035:

- 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.

Due to batch discharges from Outlets 011 and 025, the aforementioned protocols may not result in a discharge from a storm event. Therefore, the permittee shall attempt to sample Outlets 011 and 025 in accordance with the above mentioned protocols so long as a discharge occurs. Otherwise, the permittee shall sample the batch discharges from Outlets 011 and 025 when they occur at the approximate mid point of the scheduled discharge.

- b. Each outlet shall be monitored separately.

c.

Pollutant	Benchmark Value
Chemical Oxygen Demand	120 mg/l
Total Suspended Solids	100 mg/l
Total Copper	0.0636 mg/l
Oil and Grease	15 mg/l
pH	6.0 to 9.0 S.U.
Total Recoverable Aluminum	0.75 mg/l
Total Recoverable Iron	1.5 mg/l
Total Recoverable Zinc	0.117 mg/l
Total Arsenic	0.1685 mg/l
Total Mercury	0.0014 mg/l
Total Recoverable Selenium	0.005 mg/l
Total Recoverable Lead	0.0816 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.

- 14. 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.
- 15. The permittee shall semi-annually perform chronic toxicity tests as described below on the effluent from Outlet 003:

Section C - Other Requirements

15. a. Such testing will determine if an appropriate dilute effluent sample affects the survival or reproduction of the test species. 24-hour flow weighted composite samples of the effluent, as prescribed in Section A, shall be collected for testing. An appropriate statistical test shall be used to determine whether differences in control and effluent data are significant.
- i) The permittee shall conduct a three brood (6-8 days) Ceriodaphnia Dubia survival and reproduction toxicity test on the final effluent diluted by appropriate control water. Toxicity will be demonstrated if there is a statistically significant difference at the 95 percent confident level in survival or reproduction between Ceriodaphnia Dubia exposed to an appropriate control water and the final effluent. All test solutions shall be renewed using an approved renewal schedule. If, in any control, more than 20% of the test organisms die, or less than 60% of surviving females in controls produced their third brood, that test shall be repeated.
 - ii) The permittee shall conduct a 7-day Pimephales Promelas fathead minnow larval survival and growth toxicity test on the final effluent diluted by appropriate control water. Toxicity will be demonstrated if there is a statistically significant difference at the 95 percent confidence level in survival or growth between fathead minnows exposed to an appropriate control water and the final effluent. All test solutions shall be renewed using an approved renewal schedule. If, in any control, more than 20% of the test organisms die, or average dry weight of surviving controls was less than 0.25 mg that test shall be repeated.

- b. Results shall be reported in terms of chronic toxic units (TU_c) and shall be submitted with the corresponding monthly Discharge Monitoring Report (DMR).

$TU_c = 100/NOEC$ or $NOEL$

Where NOEC (or NOEL) is No Observed Effect Concentration (or Level), which is expressed as percent (volume) effluent in dilution water.

For Example, if NOEC is 10%, $TU_c = 100/10 = 10$

When the effluent demonstrates no toxicity at 100% effluent (no observed effect), the permittee may report zero TU_c.

- c. The monitoring required, herein, shall be conducted in accordance with the sample collection, preservation, and analytical procedures specified in 40 CFR 136.
- d. In addition to the monitoring data reporting requirements of 40 CFR 136, the exact age of the test organisms at the initiation of the test shall be reported. Values of less than or equal to 24 hours are acceptable for Pimephales Promelas, fathead minnow. The range of the Ceriodaphnia Dubia used must be reported as a range in hours. All Ceriodaphnia Dubia used in the test must be less than 24 hours of age at test commencement. The age difference between the youngest and oldest Ceriodaphnia Dubia used in the test must not exceed eight (8) hours.
- e. The chronic toxicity testing shall be performed on a semi-annual basis at Outlet 003. The first chronic toxicity testing shall be carried out within 3 months from the effective date of the permit for these outlets. There shall be a minimum of four (4) months between sampling events.
- f. If chronic effluent toxicity testing exceeds a target value of 4 TU_c, the permittee shall immediately resample and test the effluent. This shall be performed within 30 days of the initial demonstration of the exceedance with the whole effluent toxicity discharge target prescribed herein. Copies of the retesting results shall be provided to the Director immediately upon completion of the test.

If the second test shows compliance, chronic effluent toxicity testing shall continue in accordance with the requirements, as prescribed herein. However, if the second test shows an exceedance, the Director shall impose further requirements, as may be necessary.

- g. The Director may impose further requirements should the chronic effluent toxicity testing results demonstrate toxicity.

Section C - Other Requirements

16. The permittee, in conjunction with APPENDIX A, Section II, 5., shall continue to provide yearly updates to the list of persons to whom it provides ash and slag from the power plant wastewater treatment facilities, and; The permittee shall notify the Director on a yearly basis (previously quarterly) when it learns of any additional reuse that is made of the ash removed from the wastewater treatment facilities at the power plant which is not covered in previous notifications. It is recognized that the activities reflected in the above mentioned updates constitute reuse of ash within the meaning of this condition.
17. Available sampling methods for total residual chlorine (TRC) are currently not sensitive enough to confirm compliance with the permit limitations imposed at the facility. 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 enforcement. 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 enforcement.
18. The following conditions apply only to the package sewage treatment plant:
 - a. The herein described treatment works, structures, electrical, and mechanical equipment shall be adequately protected from physical damage by the maximum expected twenty-five (25) year flood level, and operability shall be maintained during the ten (10) year flood level.
 - b. The entire sewage treatment facility shall be adequately protected by fencing.
 - c. Continuous maintenance and operation of the listed sewage treatment facility shall be performed by, or supervised by, a certified operator possessing at least a Class S certificate for Wastewater Treatment Plant Operators as issued by the State of West Virginia.
 - d. The permittee shall connect to a municipal or public service district sewage collection system when one becomes available; however, prior to this connection, the permittee shall obtain written permission from the municipal or public service district sewage system authority which will receive the waste and submit a request along with one (1) copy of the written permission to the Division of Water and Waste Management for approval.
 - e. Without prior approval from the agency, use of intermediates, by-products, spent solvents or any other materials (except commercial grade materials), containing pollutant(s) that cannot be removed by the wastewater treatment plant is prohibited.
19. Prior to disposing of any solids generated by either the settling pond or the package sewage treatment plant, the permittee shall submit a letter of acceptance from the disposal facility to this Division. This does not apply to any normal solid wastes (trash/refuse) generated by the standard operation of the facility. However, those normal solid wastes shall be disposed of in a manner consistent with any, and all, appropriate laws and regulations.
20. 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.
21. If any portion of the Permittee's discharge that is identified as being subject to Federal Effluent Guideline(s) and the new or revised requirements of the Federal Effluent Guideline(s) are not currently in this permit, the Director may reopen or reissue this permit to incorporate additional, more stringent requirements or limitations.
22. 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 Kanawha 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 Kanawha River and the discharge.

Section C - Other Requirements

- 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. Neither free available chlorine nor total residual chlorine may be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine or total residual chlorine at any one time unless the permittee can demonstrate to the State that the units cannot operate at or below this level of chlorination and that the requested level of chlorination will not cause violation of the applicable Water Quality Standards.
- 25. 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.

- a.

Ammonium Hydroxide	Sodium Hydroxide	Sulfuric Acid
Calcium Hypochlorite	Sodium Nitrite	

The permittee is not, however, relieved of the requirements of Section IV.2 of Appendix A of this permit.

- 26. Debris collected on the intake trash racks shall not be returned to the waterway.
- 27. BOD-5 samples at Outlet 002 shall be obtained at a point prior to chlorination.
- 28. The permittee shall utilize EPA Method No. 1664 A or B (gravimetric analysis using the hexane extractable method [HEM]) for the analysis of oil and grease.
- 29. For the measurement of Free Cyanide, the permittee shall use any 40 CFR 136 approved method that is sensitive enough to confirm compliance with applicable water quality criteria and/or effluent limitations in Section A.
- 30. 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 or equivalent 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.	Method Detection Level (ug/l)
Lead, Total Recoverable	200.8	0.6
Copper, Total Recoverable	200.8	0.5
Zinc, Total Recoverable	200.8	1.8
Arsenic, Total Recoverable	200.8	1.4
Selenium, Total Recoverable*	200.9	0.6
Aluminum, Total Recoverable	200.8	1
Mercury, Total**	245.7	0.0018
Mercury, Total**	1631	0.0002
Gross Alpha Radiation	900.0	1.0 (pCi/l)
Titanium	283.2	10

* The permittee has indicated that its lab can attain an MDL of at least 0.6 ug/l using EPA Method No. 200.8 for total recoverable selenium. Therefore, the permittee may use Method 200.8 so long as the mentioned MDL is attained.

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

- 31. If the permittee seeks to qualify any electric generating unit that will achieve permanent cessation of coal combustion by December 31, 2028, a Notice of Planned Participation shall be made to the permitting authority, no later than October 13, 2021.

Section C - Other Requirements

31. a. Any Notice of Planned Participation shall be submitted with a major permit modification application and identify the electric generating units intended to achieve the permanent cessation of coal combustion. A Notice of Planned Participation shall include the expected date that each electric generating unit is projected to achieve permanent cessation of coal combustion, whether each date represents a retirement or a fuel conversion, whether each retirement or fuel conversion has been approved by a regulatory body, and what the relevant regulatory body is. The Notice of Planned Participation shall also include a copy of the most recent integrated resource plan for which the applicable state agency approved the retirement or repowering of the unit subject to the ELGs, certification of electric generating unit cessation under 40 CFR 257.103(b), or other documentation supporting that the electric generating unit will permanently cease the combustion of coal by December 31, 2028. The Notice of Planned Participation shall also include, for each such electric generating unit, a timeline to achieve the permanent cessation of coal combustion. Each timeline shall include interim milestones and the projected dates of completion.
32. 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:
- a. An emergency order issued by the Department of Energy under Section 202(c) of the Federal Power Act,
 - b. A reliability must run agreement issued by a Public Utility Commission, or
 - 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,
33. The repurposed wastewater pond(s), reclaim pond, and clearwater pond shall be lined with 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.

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.

34. A list of chemicals used at the facility was submitted with the permit application ("John E. Amos Plant, 2020 NPDES Renewal Application Update, NPDES Permit #WV0001074" dated December 22, 2020). The agency does not object to the use of these chemicals contingent upon continued use is as recommended by the manufacturer and application of each individual chemical shall or its residual shall not result in the exceedance of 1/10th (for non-bio-accumulative chemicals) or 1/100th (for bioaccumulated chemicals) of the lowest LC50* listed in each products Material Safety Data Sheet / Safety Data Sheet (MSDS / SDS) at any Outlet. For chemicals without a listed LC50, the permittee's use and disposal shall be as recommended by the product's labeling.

* For pesticides without a listed LC50, the permittee shall consult the product's USEPA Pesticide Registration or Re-registration Document for a LC50 value.

35. Quarterly (1/quarter) frequency means sampling shall be done between: January-March; April-June; July-September; and October-December.

Section C - Other Requirements

36. The permittee shall perform annual acute effluent toxicity testing at Outlets 040-042 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 an annual (1/year) basis. The first acute toxicity testing shall be carried out within 6 months from the effective date of the permit for Outlet(s) 040-042. There shall be a minimum of six (6) months between sampling events.
 - c. Grab 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 equals or exceeds a target value of 1.0 TUa, the permittee shall immediately resample and test the effluent. This shall be performed within 30 days of the initial demonstration of the exceedance of the target value 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 toxicity.

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. a. The permittee has provided information that the facility operates two pump houses. Unit 1/2 operates a 27 foot diameter, 27 foot deep caisson on a 32 foot x 42 foot pump house with three 36-inch intake pipes extending from the caisson out horizontally approximately 65 feet into the Kanawha River. Perpendicular piping with 3 - 30 foot long 0.5 inch x 1.5 inch screen perforations is attached to these extensions to a depth of approximately 11 feet from normal pool elevation.

Unit 3 operates a 87.5 foot x 55.25 foot pump house flush with the riverbank. 3 - 3/16 wire opening traveling screens of approximately 32 feet height with 9 feet x 2 feet belts and basket frames are approximately 13.125 feet deep into the Kanawha River at low water elevation.

- b. The make-up cooling water intake system consists of three vertical turbine, double suction, single-stage river water make-up pumps for Units 1/2 and 2 pumps for Unit 3 through a common 48-inch header (Units 1/2) and 36-inch cross-tie (Unit 3):

Primary Pump (max flow rate): 64,000 gpm (92.16 mgd)
Calculated Velocity (Units 1/2): 0.18 - 0.39 fps
Calculated Velocity (Unit 3): 0.27 - 0.97 fps
Design Velocity: ~ 0.39 fps (Units 1/2), ~ 0.97 fps (Unit 3)
Effective Intake Screen Area: ~ 113 ft² (Units 1/2), 15.6 ft² (Unit 3)
Calculated make-up flow rate: 8,630 gpm (Units 1/2), 14,400 gpm (Unit 3)
Calculated cycles of concentration: 3.0 - 6.0 (All Units)
Calculated % recycle: 96.5% (Units 1/2), 97.6% (Units 3)

- 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 96% 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, John E. Amos Plant, Prepared For: American Electric Power, Prepared by: HDR Engineer, Inc., November 21, 2017" to calculate cycles of concentration for reporting purposes in Section A.INT1 and A.INT2.

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

This, along with continued use of its close-cycle cooling water system 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 John E. Amos Plant Action Area:

Section D - 316 (b) Intake Requirements

4. a. Pleurobema clava (Clubshell)
Cyprogenia stegaria (Fanshell)
Lampsilis abrupta (Pink Mucket)
Plethobasus cyphus (Sheepnose Mussel)
Epioblasma triquetra (Snuffbox Mussel)
Cumberlandia monodonta (Spectaclecase)
Epioblasma torulosa (Tubercled Blossom)
Myotis sodalis (Indiana Bat)
Myotis septentrionalis (Northern Long-eared Bat)
- 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.

Section E - Monitoring Well Reporting

1. MONITORING WELL MARKINGS

The well casing shall be lettered with the designated well number, permit number, and elevation of the top of the casing.

2. MONITORING WELL REPORTING

- a. The permittee shall submit quarterly to the addresses indicated in Section C.7, in accordance with the enclosed format, a Semi-annual Monitoring Well Report indicating in terms of concentration the values of the constituents listed. Metals concentrations shall be reported as dissolved unless otherwise specified. If concentration levels are found to be below method detection limits, so note and report the specific method detection limit.
- b. Unless otherwise specified, the sample type shall be grab.
- c. Water levels shall be obtained prior to pumping or sampling using the wetted tape method or an electronic detector.
- d. Stagnant water shall be removed from the well bore prior to sampling so that a representative sample may be obtained. Stagnant water shall be removed at a rate of 100 ml to 500 ml per minute or at a rate that is no greater than the recovery rate of the well. The water shall be removed until monitored parameters for water temperature, pH, and specific conductance stabilize. This is determined by relatively constant readings, which are within 10 percent over two consecutive measurements. In cases where a well is pumped empty, upon sufficient recovery, the first sample shall be collected and tested for the above referenced parameters, then the well shall be tested again after the samples have been obtained as a measure of purging efficiency and a check on stability of the water samples over time. Purging efficiency parameter results shall not be submitted but are to be retained as stated in Appendix A.III.6.
- e. The permittee shall determine the groundwater flow rate and direction in the uppermost significant aquifer at least annually.
- f. The permittee shall establish background groundwater quality for each of the monitoring parameters or constituents required in Section A of this permit. The minimum number of samples used to establish background groundwater quality must be consistent with the appropriate statistical procedures as specified in Condition E.2.g of this permit.
- g. The permittee shall determine whether there is a statistically significant increase over background values for each parameter or constituent as required by the statistical procedure used. Statistical analysis shall commence with the effective date of the permit for the parameters required and be consistent with those procedures required by Section 4.11.a.9.D of 33 CSR 1, Solid Waste Management Rule (SWMR). Thereafter the permittee shall make these statistical determinations each time groundwater quality is assessed. Should a statistical significant increase occur, then the permittee shall comply with the requirements of Section 4.11.b.4 of the SWMR.
- h. The permittee must employ one of the following statistical procedures in combination with the appropriate sampling requirements to determine a statistically significant increase:
 - 1) A parametric analysis of variance (ANOVA) followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The procedure must include estimation and testing of the contrasts between each down gradient well's mean and the background mean level for each constituent;
 - 2) An analysis of variance based on ranks followed by multiple comparisons procedures to identify statistically significant evidence of contamination. The procedure must include estimation and testing of the contrasts between each down gradient well's mean and the background mean level for each constituent;
 - 3) Tolerance or prediction interval procedure in which a tolerance interval for each constituent is established from the distribution of the background data, and the level of each constituent is established from the distribution of the background data, and the level of each constituent in each down gradient well is compared to the upper tolerance or prediction limit; or

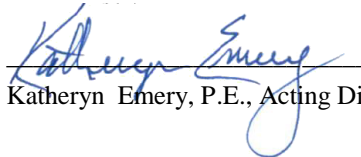
Section E - Monitoring Well Reporting

2. h. 4) A control chart approach that gives control limits for each constituent.
- i. The Director may establish an alternative sampling procedure and statistical test for any of the constituents listed in the permit, as required to protect human health and the environment.
- j. If there is a statistically significant increase over the background for any pollutant, the permittee must do the following:
 - 1) Within fourteen (14) days, place a notice in the operating record indicating which constituents have shown statistically significant changes from background levels and notify the Secretary that this notice was placed in the operating record.
 - 2) Within a thirty (30) day period of said finding, the permittee shall repeat the sampling of the groundwater in the appropriate monitoring well(s) in accordance with the requirements of this permit.
 - 3) If the repeat sampling indicates that there is not a statistically significant increase over the background for the respective pollutant, the permittee shall continue sampling as required by this permit.
 - 4) If the repeat sampling confirms that a statistically significant increase over background levels has occurred, the permittee must establish and implement a Phase II assessment monitoring program meeting the requirements of 33 CSR 1, Section 4.11.c within ninety (90) days of said confirmation.
 - 5) If the concentrations of all Phase II constituents are shown to be at or below background values, using the statistical procedures described above for two consecutive sampling events, the permittee must notify the Secretary of this finding and may return to Phase I detection monitoring.
 - 6) If the concentrations of any Phase II constituents are above background values, but all concentrations are below the groundwater protection standards, using the statistical procedures described above, the permittee must continue assessment monitoring in accordance with Phase II requirements.
3. The permittee shall not cause a statistically significant increase over the groundwater standards found in Title 47, Series 12, Requirements Governing Groundwater Standards. Should a groundwater quality standard be exceeded, the permittee shall provide the following:
 - a. Within ninety (90) days of a finding that any of the constituents listed in the permit have been detected at a statistically significant level exceeding the groundwater protection standards, the permittee must initiate an assessment of corrective measures in accordance with 33 CSR 1, Section 4.11.e.
 - b. Based on the results of the corrective measures assessment conducted pursuant to 33 CSR 1, Section 4.11.e, the permittee must select a remedy that, at a minimum, meets the standards listed in 33 CSR 1, Sections 4.11.f.2 and 4.11.f.3. The permittee must notify the Secretary, within fourteen (14) days of selecting a remedy, by sending him or her a report describing the selected remedy, stating that it has been placed in the operating record, and describing how it meets the standards in 33 CSR 1, Sections 4.11.f.2 and 4.11.f.3. Further, the permittee shall specify as part of the selected remedy a schedule(s) for initiating and completing remedial activities in accordance with 33 CSR 1, Section 4.11.f.4.
 - c. The Secretary may determine that remediation of a Phase II constituent is not necessary if the permittee can successfully demonstrate to the Secretary conditions found in 33 CSR 1, Section 4.11.f.5. However, any determination by the Secretary pursuant to 33 CSR 1, Section 4.11.f.5 cannot affect the authority of the state to require the permittee to undertake source control measures or other measures that may be necessary to eliminate or minimize further releases to the groundwater, to prevent exposure to the groundwater, or to remediate the groundwater to concentrations that are technically practicable and significantly reduce threats to human health or the environment.
 - d. In accordance with 33 CSR 1, Section 4.11.g, the permittee shall implement the correction action program based on the schedule required by 33 CSR 1, Sections 4.11.f.4 and 4.11.g.

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. WV0001074; 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. WV0001074; 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.


Kathryn Emery, P.E., Acting 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 pollutant 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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 002
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	0.03 Max. Daily	N/A	mgd		1/quarter	Estimated
00310 (ML-B) RF-B BOD, 5-Day 20 Deg.C Year Round	Reported												
	Permit Limits	7.5 Avg. Monthly	15 Max. Daily	Lbs/Day		N/A	30 Avg. Monthly	60 Max. Daily	N/A	mg/l		1/quarter	8 hr comp
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	7.5 Avg. Monthly	15 Max. Daily	Lbs/Day		N/A	30 Avg. Monthly	60 Max. Daily	N/A	mg/l		1/quarter	8 hr comp
74055 (ML-1) RF-B Coliform, Fecal Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	200 Mon. Geo. Mean	400 Max. Daily	N/A	Cnts/100m		1/quarter	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.		1/quarter	Grab
00610 (ML-1) RF-B Ammonia Nitrogen Year Round	Reported												
	Permit Limits	3.75 Avg. Monthly	7.5 Max. Daily	Lbs/Day		N/A	15 Avg. Monthly	30 Max. Daily	N/A	mg/l		1/quarter	8 hr comp

* 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 style="width: 90%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 90%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 002 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
50060 (ML-1) RF-B	Reported												
Chlorine, Total Residual Year Round	Permit Limits	N/A	N/A			N/A	28 Avg. Monthly	57 Max. Daily	100	ug/l		1/quarter	Grab

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 003
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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		2/month	Estimated
00530 (ML-1) RF-A Total Suspended Solids Year Round Interim: 7/1/2021 to 12/31/2022	Reported												
	Permit Limits	N/A	N/A			N/A	19.8 Avg. Monthly	68.7 Max. Daily	N/A	mg/l		2/month	24 hr Composite
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	17 Avg. Monthly	65 Max. Daily	N/A	mg/l		2/month	24 hr Composite
74055 (ML-1) RF-A Coliform, Fecal Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	200 Mon. Geo. Mean	400 Max. Daily	N/A	Cnts/100m		1/month	Grab
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.		2/month	Grab
00610 (ML-A) 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

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 003
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00620 (ML-1) RF-B Nitrogen Nitrate 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
00615 (ML-1) RF-B Nitrogen Nitrite 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	Reported												
	Permit Limits	N/A	N/A			N/A	97 Avg. Monthly	194 Max. Daily	100	ug/l		1/month	Grab
01119 (ML-1) RF-A Copper, Total Recoverable Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	0.052 Avg. Monthly	0.109 Max. Daily	N/A	mg/l		1/month	24 hr Composite
01114 (ML-1) RF-B Lead, 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
01113 (ML-1) RF-B Cadmium, 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

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 003
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
71900 (ML-1) RF-A Mercury, Total (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	0.18 Avg. Monthly	0.44 Max. Daily	N/A	ug/l		1/month	Grab
01079 (ML-1) RF-C Silver, 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	24 hr Composite
01104 (ML-1) RF-B 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/quarter	24 hr Composite
00980 (ML-1) RF-A Iron, Total Recoverable Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	3 Avg. Monthly	5.4 Max. Daily	N/A	mg/l		1/month	24 hr Composite
00940 (ML-1) RF-A Chloride (as Cl) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	565 Avg. Monthly	852 Max. Daily	N/A	mg/l		1/month	24 hr Composite
00951 (ML-1) 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

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 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 003
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
61426 (ML-1) RF-C Chronic Tox-Ceriodaphnia Dubia Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	TUc		1/6 months	24 hr Composite
61428 (ML-1) RF-C Chronic Toxicity - Pimephales Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	TUc		1/6 months	24 hr Composite
00981 (ML-1) RF-B 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/quarter	24 hr Composite
00978 (ML-1) RF-B 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/quarter	24 hr Composite
01007 (ML-1) RF-B Barium, Total (as Ba) 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
70295 (ML-1) RF-B Solids, Total Dissolved (TDS) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Daily Min.	N/A	mg/l		1/quarter	24 hr Composite

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 003
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00722 (ML-1) RF-B Cyanide, Free Summer Mar 1-Nov 30	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
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-2) 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
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
01059 (ML-1) RF-C Thallium, Total (as Tl) 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	24 hr Composite

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 003
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00552 (ML-1) RF-B Oil and Grease, Hexane EXTR. Year Round Interim: 7/1/2021 to 12/31/2022	Reported												
	Permit Limits	N/A	N/A			N/A	8.7 Avg. Monthly	11.9 Max. Daily	N/A	mg/l		1/quarter	Grab
00552 (ML-1) RF-B Oil and Grease, Hexane EXTR. Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	7.5 Avg. Monthly	10.4 Max. Daily	N/A	mg/l		1/quarter	Grab
00984 (ML-1) RF-B Titanium, 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
82077 (ML-1) RF-B Radiation, Gross Alpha Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	pCi/L		1/quarter	Grab
71870 (ML-1) RF-B Bromide 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

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 90%;" type="text"/>

STATE OF WEST VIRGINIA
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DISCHARGE MONITORING REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 004
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		1/quarter	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.		1/quarter	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	Grab
01094 (ML-1) RF-B 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/quarter	Grab
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

* 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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 004
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
01104 (ML-1) RF-A Aluminum, Total Recoverable Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	0.9 Avg. Monthly	2.3 Max. Daily	N/A	mg/l		1/month	Grab
00980 (ML-1) RF-B 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/quarter	Grab
00981 (ML-1) RF-B 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/quarter	Grab
00978 (ML-1) RF-B 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/quarter	Grab
00552 (ML-1) RF-B 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		1/quarter	Grab
31641 (ML-1) RF-B Fecal Coliform (Sludge) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Mon. Geo. Mean	Rpt Only Max. Daily	N/A	Cnts/100m		1/quarter	Grab

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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 style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 005
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		1/quarter	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.		1/quarter	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	Grab
01114 (ML-1) RF-B Lead, 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	Grab
01094 (ML-1) RF-B 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/quarter	Grab

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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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 005
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
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	Reported												
	Permit Limits	N/A	N/A			N/A	1.2 Avg. Monthly	2.3 Max. Daily	N/A	mg/l		1/month	Grab
00980 (ML-1) RF-B 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/quarter	Grab
00981 (ML-1) RF-B 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/quarter	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
00552 (ML-1) RF-B 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		1/quarter	Grab

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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 style="width: 95%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 005 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
31641 (ML-1) RF-B Fecal Coliform (Sludge) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	Rpt Only Mon. Geo. Mean	Rpt Only Max. Daily	N/A	Cnts/100m		1/quarter	Grab	

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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 style="width: 90%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 006
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		1/quarter	Grab
00400 (ML-1) RF-C pH Year Round	Reported												
	Permit Limits	N/A	N/A			6 Inst. Min.	N/A	9 Inst. Max.	N/A	S.U.		1/6 months	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	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-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

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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 style="width: 95%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 006
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01104 (ML-1) RF-A Aluminum, Total Recoverable Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	0.8 Avg. Monthly	2.3 Max. Daily	N/A	mg/l		1/month	Grab
00980 (ML-1) RF-B 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/quarter	Grab
00981 (ML-1) RF-B 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/quarter	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
00552 (ML-1) RF-B 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		1/quarter	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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 007
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	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		Once/Daily Discharge	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		Once/Daily Discharge	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.		Once/Daily Discharge	Grab
50060 (ML-1) RF-C Chlorine, Total Residual Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	28 Avg. Monthly	57 Max. Daily	100	ug/l		Once/Daily Discharge	Grab
00011 (ML-1) RF-C 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		Once/Daily Discharge	Insitu

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 008
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	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		Once/Daily Discharge	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		Once/Daily Discharge	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.		Once/Daily Discharge	Grab
50060 (ML-1) RF-C Chlorine, Total Residual Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	28 Avg. Monthly	57 Max. Daily	100	ug/l		Once/Daily Discharge	Grab
00011 (ML-1) RF-C 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		Once/Daily Discharge	Insitu

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Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 011
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	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
01002 (ML-1) RF-C Arsenic, Total (as As) 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

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Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 011
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
71900 (ML-1) RF-D 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/year	Grab
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
01034 (ML-1) RF-C Chromium, Total (as Cr) 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

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 025
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	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
01002 (ML-1) RF-C Arsenic, Total (as As) 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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 025
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
71900 (ML-1) RF-D 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/year	Grab
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
01034 (ML-1) RF-C Chromium, Total (as Cr) 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

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 035
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	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
01002 (ML-1) RF-C Arsenic, Total (as As) 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

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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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 035
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
71900 (ML-1) RF-D 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/year	Grab
01104 (ML-1) RF-B 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
01034 (ML-1) RF-C Chromium, Total (as Cr) 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

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 040
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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		1/quarter	Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		1/quarter	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.		1/quarter	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	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	Grab
01114 (ML-1) RF-B Lead, 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	Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 040
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01094 (ML-1) RF-B 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/quarter	Grab
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
01074 (ML-1) RF-B Nickel, 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	Grab
01104 (ML-1) RF-B 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/quarter	Grab
00980 (ML-1) RF-B 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/quarter	Grab
61425 (ML-1) RF-D 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/year	Grab

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 040
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
61427 (ML-1) RF-D 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/year	Grab
00981 (ML-1) RF-B 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/quarter	Grab
00978 (ML-1) RF-B 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/quarter	Grab
00552 (ML-1) RF-B 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		1/quarter	Grab
82077 (ML-1) RF-B Radiation, Gross Alpha Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	pCi/L		1/quarter	Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 041
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00058 (ML-1) RF-B Flow Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	GPD		1/quarter	Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		1/quarter	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.		1/quarter	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	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	Grab
01114 (ML-1) RF-B Lead, 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	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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 041
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01094 (ML-1) RF-B 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/quarter	Grab
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
01074 (ML-1) RF-B Nickel, 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	Grab
01104 (ML-1) RF-B 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/quarter	Grab
00980 (ML-1) RF-B 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/quarter	Grab
61425 (ML-1) RF-D 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/year	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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 041
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
61427 (ML-1) RF-D 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/year	Grab
00981 (ML-1) RF-B 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/quarter	Grab
00978 (ML-1) RF-B 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/quarter	Grab
00552 (ML-1) RF-B 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		1/quarter	Grab
82077 (ML-1) RF-B Radiation, Gross Alpha Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	pCi/L		1/quarter	Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 042
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00058 (ML-1) RF-B Flow Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	GPD		1/quarter	Estimated
00530 (ML-1) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	30 Avg. Monthly	100 Max. Daily	N/A	mg/l		1/quarter	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.		1/quarter	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	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	Grab
01114 (ML-1) RF-B Lead, 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	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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 042
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01094 (ML-1) RF-B 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/quarter	Grab
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
01074 (ML-1) RF-B Nickel, 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	Grab
01104 (ML-1) RF-B 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/quarter	Grab
00980 (ML-1) RF-B 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/quarter	Grab
61425 (ML-1) RF-D 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/year	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 - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 042
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
61427 (ML-1) RF-D 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/year	Grab
00981 (ML-1) RF-B 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/quarter	Grab
00978 (ML-1) RF-B 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/quarter	Grab
00552 (ML-1) RF-B 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		1/quarter	Grab
82077 (ML-1) RF-B Radiation, Gross Alpha Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	pCi/L		1/quarter	Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 103
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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
01119 (ML-1) RF-A Copper, Total Recoverable 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

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 104
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	Calculated	
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported													
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A			1/month	Calculated	
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round	Reported													
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A			1/month	Calculated	

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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 style="width: 90%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 90%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 105 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

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	Calculated	
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported													
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A	mg/l		1/month	Calculated	
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round	Reported													
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A	mg/l		1/month	Calculated	

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Name of Principal Executive Officer _____ Title of 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 style="width: 100%;" type="text"/> Signature of Principal Executive Officer or Authorized Agent _____
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STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 DISCHARGE MONITORING REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 106 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

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	Calculated	
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported													
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A	mg/l		1/month	Calculated	
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round	Reported													
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A	mg/l		1/month	Calculated	

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Name of Principal Executive Officer _____ Title of 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 style="width: 100%;" type="text"/> Signature of Principal Executive Officer or Authorized Agent _____
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STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
DISCHARGE MONITORING REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 203
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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: 7/1/2021 to 12/31/2023	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		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	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	0.03 Avg. Monthly	0.089 Max. Daily	N/A	ug/l		1/month	Grab
00981 (ML-1) RF-A Selenium, Total Recoverable Year Round Interim: 7/1/2021 to 12/31/2023	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	24 hr Composite
00981 (ML-1) RF-A Selenium, Total Recoverable Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	0.026 Avg. Monthly	0.061 Max. Daily	N/A	mg/l		1/month	24 hr Composite
00978 (ML-1) RF-A Arsenic, Total Recoverable Year Round Interim: 7/1/2021 to 12/31/2023	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	Rpt Only Avg. Monthly	Rpt Only 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 style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 203
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00978 (ML-1) RF-A Arsenic, Total Recoverable Year Round	Reported			Lbs/Day					N/A	mg/l		1/month	24 hr Composite
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily			N/A	0.0072 Avg. Monthly	0.016 Max. Daily					
00630 (ML-1) RF-A Nitrite Plus Nitrate Nitrogen Year Round Interim: 7/1/2021 to 12/31/2023	Reported			Lbs/Day					N/A	mg/l		1/month	24 hr Composite
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily			N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily					
00630 (ML-1) RF-A Nitrite Plus Nitrate Nitrogen Year Round	Reported			Lbs/Day					N/A	mg/l		1/month	24 hr Composite
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily			N/A	2.7 Avg. Monthly	3.5 Max. Daily					

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Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 303
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	ug/l		1/month	Grab
00981 (ML-1) RF-A Selenium, Total Recoverable Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	24 hr Composite
00978 (ML-1) RF-A Arsenic, Total Recoverable Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	24 hr Composite
00630 (ML-1) RF-A Nitrite Plus Nitrate Nitrogen Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	Rpt Only Avg. Monthly	Rpt Only Max. Daily	N/A	mg/l		1/month	24 hr Composite

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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 style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 403
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 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	Calculated
00530 (ML-1) RF-A Total Suspended Solids Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A			1/month	Calculated
50060 (ML-1) RF-A Chlorine, Total Residual Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A			1/month	Calculated
00552 (ML-1) RF-A Oil and Grease, Hexane EXTR. Year Round	Reported												
	Permit Limits	Rpt Only Avg. Monthly	Rpt Only Max. Daily	Lbs/Day		N/A	N/A	N/A	N/A			1/month	Calculated

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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 style="width: 95%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 INT1 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
51641 (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	

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 INT2 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
51641 (ML-7) RF-A	Reported													
Cycles of Concentration Year Round	Permit Limits	N/A	N/A			3 Min. 7 Day Avg.	N/A	N/A	N/A	cycles		1/daily	Calculated	
Final: 01/02/1900 to 5/16/2026														

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer _____ Title of 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 style="width: 100%;" type="text"/> Signature of Principal Executive Officer or Authorized Agent _____
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STATE OF WEST VIRGINIA
 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
 INTAKE MONITORING REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 INT3 _____
 WASTELOAD FOR THE MONTH OF: _____ INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
51641 (ML-7) RF-A	Reported													
Cycles of Concentration Year Round Final: 01/02/1900 to 5/16/2026	Permit Limits	N/A	N/A			3 Min. 7 Day Avg.	N/A	N/A	N/A	cycles		1/daily	Calculated	

* 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
MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW001
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00530 (ML-O) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00400 (ML-O) RF-B 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/quarter	Grab
00940 (ML-O) RF-B Chloride (as Cl) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01034 (ML-O) RF-B Chromium, Total (as Cr) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
70295 (ML-O) RF-B Solids, Total Dissolved (TDS) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01106 (ML-O) RF-B Aluminum, Diss. (as Al) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab

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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 style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW001
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00095 (ML-O) RF-B Specific Conductance Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	UMHO/CM		1/quarter	Grab
01005 (ML-O) RF-B Barium, Dissolved (as Ba) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00915 (ML-O) RF-B Calcium, Dissolved (as Ca) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01040 (ML-O) RF-B Copper, Diss. (as Cu) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01046 (ML-O) RF-B Iron, Dissolved (as Fe) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01049 (ML-O) RF-B Lead, Dissolved (as Pb) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 100%; height: 20px;" type="text"/>	
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>	

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW001
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01056 (ML-O) RF-B Manganese, Diss. (as Mn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00011 (ML-O) RF-B Temperature, F Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	DEG.F		1/quarter	Imrstb
00680 (ML-O) RF-B Total Organic Carbon Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
81020 (ML-O) RF-B Sulfate Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00925 (ML-O) RF-B Magnesium, Diss. (as Mg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01085 (ML-O) RF-B Vanadium, Diss. (as V) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW001
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01000 (ML-O) RF-B Arsenic, Dissolved (as As) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01025 (ML-O) RF-B Cadmium, Dissolved (as Cd) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01145 (ML-O) RF-B Selenium, Diss. (as Se) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
71890 (ML-O) RF-B Mercury, Dissolved (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01020 (ML-O) RF-B Boron, Dissolved (as B) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01060 (ML-O) RF-B Molybdenum Diss. (as Mo) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 MW001 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
01090 (ML-O) RF-B Zinc, Dissolved (as Zn) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab	
01065 (ML-O) RF-B Nickel, Dissolved (as Ni) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab	
00930 (ML-O) RF-B Sodium, Diss. (as Na) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab	

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Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 100%; height: 20px;" type="text"/>
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STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW006
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00530 (ML-O) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00400 (ML-O) RF-B 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/quarter	Grab
00940 (ML-O) RF-B Chloride (as Cl) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01034 (ML-O) RF-B Chromium, Total (as Cr) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
70295 (ML-O) RF-B Solids, Total Dissolved (TDS) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01106 (ML-O) RF-B Aluminum, Diss. (as Al) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	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
MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW006
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
00095 (ML-O) RF-B Specific Conductance Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	UMHO/CM		1/quarter	Grab
01005 (ML-O) RF-B Barium, Dissolved (as Ba) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00915 (ML-O) RF-B Calcium, Dissolved (as Ca) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01040 (ML-O) RF-B Copper, Diss. (as Cu) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01046 (ML-O) RF-B Iron, Dissolved (as Fe) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01049 (ML-O) RF-B Lead, Dissolved (as Pb) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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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"/>
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STATE OF WEST VIRGINIA
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW006
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
01056 (ML-O) RF-B Manganese, Diss. (as Mn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00011 (ML-O) RF-B Temperature, F Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	DEG.F		1/quarter	lmrstb
00680 (ML-O) RF-B Total Organic Carbon Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
81020 (ML-O) RF-B Sulfate Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00925 (ML-O) RF-B Magnesium, Diss. (as Mg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01085 (ML-O) RF-B Vanadium, Diss. (as V) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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Name of Principal Executive Officer <input style="width: 95%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 95%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 95%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW006
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
01000 (ML-O) RF-B Arsenic, Dissolved (as As) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01025 (ML-O) RF-B Cadmium, Dissolved (as Cd) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01145 (ML-O) RF-B Selenium, Diss. (as Se) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
71890 (ML-O) RF-B Mercury, Dissolved (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01020 (ML-O) RF-B Boron, Dissolved (as B) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01060 (ML-O) RF-B Molybdenum Diss. (as Mo) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	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
 MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 MW006 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01090 (ML-O) RF-B Zinc, Dissolved (as Zn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01065 (ML-O) RF-B Nickel, Dissolved (as Ni) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00930 (ML-O) RF-B Sodium, Diss. (as Na) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	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 style="width: 80%;" type="text"/>
Title of Officer 		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW007
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00530 (ML-O) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00400 (ML-O) RF-B 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/quarter	Grab
00940 (ML-O) RF-B Chloride (as Cl) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01034 (ML-O) RF-B Chromium, Total (as Cr) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
70295 (ML-O) RF-B Solids, Total Dissolved (TDS) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01106 (ML-O) RF-B Aluminum, Diss. (as Al) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab

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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 style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW007
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00095 (ML-O) RF-B Specific Conductance Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	UMHO/CM		1/quarter	Grab
01005 (ML-O) RF-B Barium, Dissolved (as Ba) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00915 (ML-O) RF-B Calcium, Dissolved (as Ca) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01040 (ML-O) RF-B Copper, Diss. (as Cu) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01046 (ML-O) RF-B Iron, Dissolved (as Fe) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01049 (ML-O) RF-B Lead, Dissolved (as Pb) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	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 style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW007
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01056 (ML-O) RF-B Manganese, Diss. (as Mn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00011 (ML-O) RF-B Temperature, F Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	DEG.F		1/quarter	lmrstb
00680 (ML-O) RF-B Total Organic Carbon Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
81020 (ML-O) RF-B Sulfate Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00925 (ML-O) RF-B Magnesium, Diss. (as Mg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01085 (ML-O) RF-B Vanadium, Diss. (as V) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 100%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW007
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
01000 (ML-O) RF-B Arsenic, Dissolved (as As) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01025 (ML-O) RF-B Cadmium, Dissolved (as Cd) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01145 (ML-O) RF-B Selenium, Diss. (as Se) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
71890 (ML-O) RF-B Mercury, Dissolved (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01020 (ML-O) RF-B Boron, Dissolved (as B) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01060 (ML-O) RF-B Molybdenum Diss. (as Mo) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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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 style="width: 90%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 90%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 MW007 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity				Other Units						Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units	N.E.			
01090 (ML-O) RF-B Zinc, Dissolved (as Zn) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab	
01065 (ML-O) RF-B Nickel, Dissolved (as Ni) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab	
00930 (ML-O) RF-B Sodium, Diss. (as Na) Year Round	Reported													
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab	

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Title of Officer 		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW008
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00530 (ML-O) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00400 (ML-O) RF-B 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/quarter	Grab
00940 (ML-O) RF-B Chloride (as Cl) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01034 (ML-O) RF-B Chromium, Total (as Cr) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
70295 (ML-O) RF-B Solids, Total Dissolved (TDS) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01106 (ML-O) RF-B Aluminum, Diss. (as Al) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW008
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
00095 (ML-O) RF-B Specific Conductance Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	UMHO/CM		1/quarter	Grab
01005 (ML-O) RF-B Barium, Dissolved (as Ba) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00915 (ML-O) RF-B Calcium, Dissolved (as Ca) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01040 (ML-O) RF-B Copper, Diss. (as Cu) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01046 (ML-O) RF-B Iron, Dissolved (as Fe) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01049 (ML-O) RF-B Lead, Dissolved (as Pb) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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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
MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW008
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01056 (ML-O) RF-B Manganese, Diss. (as Mn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00011 (ML-O) RF-B Temperature, F Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	DEG.F		1/quarter	lmrstb
00680 (ML-O) RF-B Total Organic Carbon Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
81020 (ML-O) RF-B Sulfate Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00925 (ML-O) RF-B Magnesium, Diss. (as Mg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01085 (ML-O) RF-B Vanadium, Diss. (as V) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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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
MONITORING WELL REPORT

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW008
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
01000 (ML-O) RF-B Arsenic, Dissolved (as As) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01025 (ML-O) RF-B Cadmium, Dissolved (as Cd) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01145 (ML-O) RF-B Selenium, Diss. (as Se) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
71890 (ML-O) RF-B Mercury, Dissolved (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01020 (ML-O) RF-B Boron, Dissolved (as B) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01060 (ML-O) RF-B Molybdenum Diss. (as Mo) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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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 style="width: 95%;" type="text"/>
Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 95%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 MW008 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01090 (ML-O) RF-B Zinc, Dissolved (as Zn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01065 (ML-O) RF-B Nickel, Dissolved (as Ni) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00930 (ML-O) RF-B Sodium, Diss. (as Na) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	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 style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW009
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00530 (ML-O) RF-B Total Suspended Solids Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00400 (ML-O) RF-B 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/quarter	Grab
00940 (ML-O) RF-B Chloride (as Cl) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01034 (ML-O) RF-B Chromium, Total (as Cr) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
70295 (ML-O) RF-B Solids, Total Dissolved (TDS) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01106 (ML-O) RF-B Aluminum, Diss. (as Al) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer <input style="width: 100%; height: 20px;" type="text"/>	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 style="width: 80%; height: 20px;" type="text"/>
Title of Officer <input style="width: 100%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 100%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW009
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
00095 (ML-O) RF-B Specific Conductance Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	UMHO/CM		1/quarter	Grab
01005 (ML-O) RF-B Barium, Dissolved (as Ba) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00915 (ML-O) RF-B Calcium, Dissolved (as Ca) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01040 (ML-O) RF-B Copper, Diss. (as Cu) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01046 (ML-O) RF-B Iron, Dissolved (as Fe) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01049 (ML-O) RF-B Lead, Dissolved (as Pb) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW009
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01056 (ML-O) RF-B Manganese, Diss. (as Mn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00011 (ML-O) RF-B Temperature, F Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	DEG.F		1/quarter	lmrstb
00680 (ML-O) RF-B Total Organic Carbon Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
81020 (ML-O) RF-B Sulfate Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
00925 (ML-O) RF-B Magnesium, Diss. (as Mg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab
01085 (ML-O) RF-B Vanadium, Diss. (as V) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

* CEL = Compliance Evaluation Level

Name of Principal Executive Officer <input style="width: 95%; height: 20px;" type="text"/>	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 style="width: 95%; height: 20px;" type="text"/>
Title of Officer <input style="width: 95%; height: 20px;" type="text"/>		Signature of Principal Executive Officer or Authorized Agent <input style="width: 95%; height: 40px;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County
 PERMIT NO.: WV0001074 MW009
 WASTELOAD FOR THE MONTH OF: _____

CERTIFIED LABORATORY NAME: _____
 CERTIFIED LABORATORY ADDRESS: _____
 INDIVIDUAL PERFORMING ANALYSIS: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL *	Units			N.E.
01000 (ML-O) RF-B Arsenic, Dissolved (as As) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01025 (ML-O) RF-B Cadmium, Dissolved (as Cd) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01145 (ML-O) RF-B Selenium, Diss. (as Se) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
71890 (ML-O) RF-B Mercury, Dissolved (as Hg) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01020 (ML-O) RF-B Boron, Dissolved (as B) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01060 (ML-O) RF-B Molybdenum Diss. (as Mo) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab

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Title of Officer		Signature of Principal Executive Officer or Authorized Agent	<input style="width: 100%;" type="text"/>

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

FACILITY NAME: (Appalachian Power Company - John E. Amos Plant) AEP APPALAC CERTIFIED LABORATORY NAME: _____
 LOCATION OF FACILITY: SAINT ALBANS; Putnam County CERTIFIED LABORATORY ADDRESS: _____
 PERMIT NO.: WV0001074 MW009 INDIVIDUAL PERFORMING ANALYSIS: _____
 WASTELOAD FOR THE MONTH OF: _____

Parameter		Quantity				Other Units					Measurement Frequency	Sample Type	
				Units	N.E.				CEL*	Units			N.E.
01090 (ML-O) RF-B Zinc, Dissolved (as Zn) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
01065 (ML-O) RF-B Nickel, Dissolved (as Ni) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	ug/l		1/quarter	Grab
00930 (ML-O) RF-B Sodium, Diss. (as Na) Year Round	Reported												
	Permit Limits	N/A	N/A			N/A	N/A	Rpt Only Max. Daily	N/A	mg/l		1/quarter	Grab

* CEL = Compliance Evaluation Level

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

**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

AEP APPALACHIAN POWER
C/O AEP - JOHN E AMOS PLANT
1 RIVERSIDE PLAZA
COLUMBUS, OH 43215-2372

2. NAME AND ADDRESS OF FACILITY

Appalachian Power Company - John E. Amos Plant
1530 Winfield Road
Winfield, WV, WV 25213

3. STATE NPDES APPLICATION NO. WV0001074

4. COUNTY Putnam

RECEIVING STREAM Kanawha River

5. PUBLIC NOTICE NO. L-9-21

COMMENT PERIOD: From 02/03/2021 To 03/05/2021

6. SIC CODE(s) 4911

10. RATIONALE FOR PROPOSED EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTLET 003 MIXING ZONE (revised)

[...]

The discharge velocity is greater than 10 feet per second and thus, the maximum zone of initial dilution (ZID) is limited 50 times the discharge length scale (9 meters). The maximum ZID that can be granted cannot exceed 9 meters in any direction from the outfall. The mixing zone reaches 9 meters from the discharge at a downstream location of 8.5 meters from the outfall and at a depth of 3.3 meters in the stream from the discharge. The dilutions available at this location are 10.2. Effluent data indicates that the permittee needs the full mixing zone to achieve the copper aquatic life water quality criteria. Therefore, a ZID of 10.2 dilutions is being granted which occurs at 3.3 meters downstream. CORMIX prediction files are attached to the fact sheet.

The mixing zone granted herein consists of a ZID of 10.2 dilutions at a downstream distance of 3.3 meters, a CMZ of 23.3 dilutions at a downstream distance of 64 meters, and a HHCMZ of 2.3 dilutions at a downstream distance of 0.03 meters.

[The mixing zone requirement and ORDER to complete a verification has been removed due to submittal of the required verification study during the comment period]

OUTLET 003 TREATMENT AND ELGs

[...]

The permittee will also construct a two-stage bioreactor and ultrafiltration treatment system to treat FGD

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

wastewater and landfill leachate at the outlet of the existing FGD WWTP (existing Internal Outlet 203). The project is expected to be completed by December 31, 2023. This date is before the statutory date of December 31, 2025; therefore, January 1, 2024 is imposed as the compliance deadline for new limitations prescribed by 40 CFR 423.13 Table 5. The new bioreactor 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 203. An example calculation for average monthly and max daily arsenic is as follows:

FGD Wastewater Avg Flow (existing): 1.16 MGD
Landfill Leachate Avg Flow (existing): 0.14 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) : 8.31 ug/l = 0.00831 mg/l

FGD Arsenic Avg Mon Limitation Mass: 1.16 MGD x 0.008 ppm x 8.34 = 0.0774 lbs/day
Landfill Leachate Arsenic Mass (pre-bioreactor) : 0.14 MGD x 0.00831 ppm x 8.34 = 0.0097 lbs/day
Landfill Leachate Arsenic Mass (post-treatment) : 0.0097 lbs/day x (1-0.963) = 0.000359 lbs/day
FGD + Landfill Leachate Arsenic Mass (post-treatment) : 0.0774 lbs/day + 0.000359 lbs/day = 0.0778 lbs/day

Adj FGD Arsenic Avg Mon Limit: 0.0778 lbs/day / (1.16 MGD + 0.14 MGD) / 8.34 = 0.0072 mg/l = 7.2 ug/l

FGD Wastewater Max Flow (existing) : 1.45 MGD
Landfill Leachate Max Flow (existing) : 0.23 MGD
ELG Arsenic Removal Efficiency* : 96.3%

FGD Arsenic Max Limitation (40 CFR 423.13) : 18 ug/l = 0.018 mg/l
Landfill leachate Arsenic Max Conc. (pre-bioreactor, assumed) : 8.31 ug/l = 0.00831 mg/l x 1.5 = 0.0125 mg/l

FGD Arsenic Max Limitation Mass : 1.45 MGD x 0.018 ppm x 8.34 = 0.218 lbs/day
Landfill Leachate Arsenic Mass (pre-bioreactor) : 0.23 MGD x 0.0125 ppm x 8.34 = 0.024 lbs/day
Landfill Leachate Arsenic Mass (post-treatment) : 0.024 lbs/day x (1-0.963) = 0.00089 lbs/day
FGD + Landfill Leachate Arsenic Mass (post-treatment) : 0.218 lbs/day + 0.00089 lbs/day = 0.219 lbs/day

Adj FGD Arsenic Max Daily Limit: 0.219 lbs/day / (1.45 MGD + 0.23 MGD) / 8.34 = 0.0156 mg/l = 15.6 ug/l

* Supplemental Technical Development Document - Steam Electric Reconsideration Rule

MISCELLANEOUS

Flow monitoring at Outlet 002 was revised to type "estimate".

Metal cleaning limitations were inadvertently omitted from Section A.103. This section has been revised to impose the limitations from 40 CFR 423 at Outlet 103.

At the requested of the permittee due to sample collection limitations associated with the nature of the

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

discharges at Outlets 040, 041, and 042, toxicity sampling has been revised to acute toxicity.

An extension to the required flow inventory compliance schedule in Section B has been granted.

Minor adjustments to the interim compliance schedule dates and language for the construction activities at Outlets 003 and 203. In addition, clarification to the definition of closure in relation to the BAP complex.

The frequency and calculation for cycles of concentration in Section D for cooling system monitoring imposed to verify the operation to comply with 316(b) of the Clean Water Act in Sections A.INT1, A.INT2, and A.INT3 have been revised to allow for calculation based on a weekly average with a monthly report. The language has also been revised to allow calculation based on conductivity.

WATER QUALITY BASED EFFLUENT LIMITATIONS

v 10.2

John Amos Power Plant

Outlet: 003

Stream: Kanawha River

Hardness (mg/l):	81	Instream Waste %:	1.93
Temperature (°C):	27	ZID:	10.2
pH:	7.7	CMZ:	23.3
Stream 1Q10 (CFS):	NA	HH CMZ:	2.3
Stream 7Q10 (CFS):	1980	HHA 1/2 Mile Rule CMZ:	2.3
Effluent Flow (MGD):	25.2		

PARAMETER	Baseline Water Quality (mg/l)	Stream Background (mg/l)	End of Pipe WQC RP	RWC WQC RP	Average Monthly Limit (mg/l)	Maximum Daily Limit (mg/l)	Tier Protection Level
Aluminum	NA	0.1840	Yes	No	Monitor	Monitor	Tier 1
Ammonia	NA	0.0300	Yes	No	Monitor	Monitor	Tier 1
Arsenic	NA	0.0007	Yes	No	Monitor	Monitor	Tier 1
Barium	NA	0.0375	No	No	Monitor	Monitor	Tier 1
Cadmium	NA	0.0000	Yes	No	Monitor	Monitor	Tier 1
Chloride	NA	8	Yes	Yes	565	852	Tier 1
Copper	NA	0.0009	Yes	Yes	0.0523	0.1088	Tier 1
Iron	NA	0.3100	Yes	Yes	3.0470	5.4026	Tier 1
Lead	NA	0.0003	Yes	No	Monitor	Monitor	Tier 1
Mercury	NA	0.00000160	Yes	Yes	0.00018079	0.00044109	Tier 1
Nitrate (as Nitrate-N)	NA	3.8000	No	No	Monitor	Monitor	Tier 1
Nitrite (as Nitrite-N)	NA	0.3800	Yes	No	Monitor	Monitor	Tier 1
Selenium	NA	0.00050	Yes	No	Monitor	Monitor	Tier 1
Silver	NA	0.0000	No	No	Monitor	Monitor	Tier 1
Thallium	NA	0.0000	Yes	No	Monitor	Monitor	Tier 1
Total Residual Chlorine	NA	NA	No Data	No Data	0.0966	0.1938	Tier 1
Sulfate	NA	44.90	Yes	No	Monitor	Monitor	Tier 1
WET - Ceriodaphnia Dubia	NA	NA	Yes	No	Monitor	Monitor	Tier 1
WET - Pimephales Promelas	NA	NA	Yes	No	Monitor	Monitor	Tier 1

Outfall discharges to Ohio River and is subject to ORSANCO Pollution Control Standards:	No
Outfall discharges to a Trout Stream:	No
Outfall discharges to a stream exempt from Human Health A Criteria:	No
Outfall discharges to a stream exempt from all Human Health Criteria:	No
Outfall discharges within 1/2 mile upstream of a public drinking water intake:	No
Outfall has limitations for at least one metal using a site specific translator:	No
Outfall has Tier 2.0 antidegradation limitations for at least one pollutant:	No

John E. Amos -- WV0001074

Outlet 003 - Effluent Guideline Limitation (Combined Wastewater Treatment System)

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

Post FGD Treatment Upgrade - 2024 and later

	Avg	Max
FGD Flows ^e	1.16	1.45
CCR Flows ^e	0.142	0.23

		Avg	Avg	Avg	Avg	Max	Max	Max	Max
		Arsenic	Mercury	Nitrogen ^b	Selenium	Arsenic	Mercury	Nitrogen ^b	Selenium
		ug/l	ng/l	mg/l	ug/l	ug/l	ng/l	mg/l	ug/l
Final Limits Outlet 203 (post 2024) ^a		8	34	3	29	18	103	4	70
CCR Existing Concentrations ^c		8.31	7.23	2.13	41.2	12.5	10.8	3.2	61.8
Final Limits Outlet 203 (post 2024)	lbs/day	0.0774	3.289E-04	29.0232	0.2806	0.2177	1.246E-03	48.3720	0.8465
Future BioReactor Leachate Influent	lbs/day	0.0098	8.562E-06	2.5225	0.0488	0.0239	2.080E-05	6.1286	0.1185
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	0.0004	8.562E-09	0.0328	0.0004	0.0009	2.080E-08	0.0797	0.0009
Adjusted FGD Limitations	lbs/day	0.077759	3.289E-04	29.055993	0.280948	0.218559	1.246E-03	48.4516724	0.847458
Adjusted FGD Limitations	mg/l	0.007161	3.029E-05	2.675831	0.025873	0.015599	8.890E-05	3.45806729	0.060484
Final Limits Outlet 203 (post 2024)		7.2	30.3	2.7	25.9	15.6	88.9	3.5	60.5

^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 flow ratio from Outlet 203 DMRs , avg flow provided in 2020 Permit Application Update / CCR Flows from Future Conditions (2024) flow diagram



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

March 12, 2021

Re: Appalachian Power Company – John E. Amos Plant
WV/NPDES Permit No. WV0001074 - Putnam 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 John E. Amos Plant (Amos). 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:

The first page describes the permitted activity as: “to acquire, construct, install, operate, and maintain a new two-stage bioreactor and ultrafiltration unit to replace the Flue Gas Desulfurization WWTP at Outlet 203.” APCO would like to clarify that the bioreactor and ultrafiltration unit will not “replace” the Flue Gas Desulfurization (FGD) WWTP, but rather will be appended to it. The FGD WWTP will still be operated, and Outlet 203 will be moved to a location downstream of the FGD WWTP, bioreactor, and ultrafiltration unit.

2) List of Outlets (page 3 of 75):

Outlet 103 is listed at 38°28'43"N, 81°49'38"W, corresponding to the internal outlet from the metal cleaning waste tank. However, no discharge limitations and monitoring requirements are listed in Section A. If DEP’s intent is to authorize the outlet but not require limitations or monitoring, that is fine. If not, we suggest the requirements of the current permit be included, as is.

3) Section A.002 (page 4 of 75) Flow Monitoring:

APCO respectfully requests that flow monitoring at Outlet 002 be changed from “measured” to “estimate”. Amos Plant uses a series of bucket-and-stopwatch readings to determine the flow at Outlet 002. The Plant was advised by DEP Inspector Newt Harman that this should be considered an “estimate”, and that the request to change from “measured” to “estimate” flow readings be made in this permit renewal. Due to the limited flow (typically less than 10,000 gallons per day), it would be difficult to calibrate a flow meter to collect accurate flow measurements. Additionally, DEP’s General Permit for Sanitary Wastewater Discharges—Less than 50,000 GPD (General Permit #WV0103110) requires only an estimated flow to be reported.

4) Section A.003 (page 5 of 75), TSS and Oil and Grease Limits:

a. Use of Combined Waste Stream Formula:

In reviewing the Draft Permit Fact Sheet (page 9 of 17 and Outlet 003 ELG table), it appears that DEP did not appropriately apply the combined waste stream formula (CWF) at Outlet 003, specifically as it relates to designation of and credit for the “non-regulated” waste streams. The Draft Permit specifies for Outlet 003 interim TSS effluent limits of 68.7 mg/l (Max. Daily) and 19.7 mg/l (Monthly Average) and final effluent limits of 65 mg/l (Max. Daily) and 17 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.

In DEP’s Outlet 003 ELG table included in the Fact Sheet, the non-regulated (non-process) waste stream is reported to contain TSS at an average concentration of 80 mg/l and a maximum of 182 mg/l. We understand from follow-up communication with DEP that this data was obtained from site DMRs that reported discharge from the cooling tower blowdown emergency overflow outlets. We note that these outlets are for emergency use only, and rarely discharge. Any use of such past data for the purpose of this calculation is inappropriate and does not reflect normal operating conditions. Further, the characteristics of this waste stream are predominantly a function of the sediment content of fresh make-up water which is subject to significant fluctuation in ambient conditions in the river.

Because the cooling tower blowdown is regulated by 40 CFR 423 for other pollutants (free available chlorine) and data shows that TSS is present at a significant level in the blowdown, this waste stream should be designated as *unregulated* for use in the CWF per EPA guidance.

APCO also notes that the example CWF calculations on page 9 in the Fact Sheet and the Outlet 003 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 *regulated* waste stream 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 as an unregulated waste stream (without need for a removal efficiency) and will also correct 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 003 would be considered either regulated or unregulated, 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 Avg TSS mg/l	40 CFR 423 Max TSS mg/l
Non Process	Unregulated	4.02	8.3		
Coal Pile Runoff	Regulated	0.91	1.87		50
LVW	Regulated	5.17	10.68	30	100
Bottom Ash	Regulated	0.94	1.94	30	100
FGD/CCR	Regulated	0.67	2.41	30	100

(all flows taken from Amos Draft Permit Fact Sheet)

$$CT_{\text{avg}} = \frac{30 \frac{\text{mg}}{\text{L}} * 6.78 \text{ MGD}}{6.78 \text{ MGD}} * \frac{11.71 \text{ MGD}}{11.71 \text{ MGD}}$$

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

$$CT_{\text{max}} = \frac{\left(100 \frac{\text{mg}}{\text{L}} * 15.03 \text{ MGD}\right) + \left(50 \frac{\text{mg}}{\text{L}} * 1.87 \text{ MGD}\right)}{16.9 \text{ MGD}} * \frac{25.2 \text{ MGD}}{25.2 \text{ MGD}}$$

$$CT_{\text{max}} = \mathbf{94.5 \text{ mg/L}}$$

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.

b. Use of Removal Efficiency:

We also believe 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 need be established, a permit writer is not authorized to undertake a BPJ approach for that waste stream/pollutant combination. A BPJ determination 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.

Notwithstanding our prior comment about the proper calculation of combined waste stream limits, it does not appear that the level of rigor described above was followed in the derivation of a 91% removal efficiency. We assume that the lack of detail on these aspects in the Fact Sheet indicate that the protocol described in the rule was not followed. Finally, since cooling tower blowdown was subjected to an effluent guidelines analysis by EPA and no limit for TSS was developed, DEP is precluded from imposing a BPJ standard for it. For these reasons, we believe that any use of a removal efficiency in calculating the limits is not supported.

c. Oil and Grease:

Outlet 003 contains interim Oil and Grease effluent limits of 11.9 mg/l (Max. Daily) and 8.7 mg/l (Monthly Average) and final effluent limits of 10.4 mg/l (Max. Daily) and 7.5 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.

d. Addition of Outlets 104, 105, 106:

The Draft Permit includes new Outlets 104, 105 and 106 for “non-regulated” flows to Outlets 004, 005 and 006, respectively. The non-regulated flows that DEP refers to in the Fact Sheet are more appropriately designated as *unregulated* and not *dilution* per the CWF. Therefore, as discussed above for Outlet 003, EPA notes that when the CWF 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. Therefore, the effluent limits for Outlets 004, 005, and 006 will not be affected by a detailed flow analysis. As such, APCO requests these outlets be removed from the NPDES Permit along with the condition in the Part B. Schedule of Compliance that the “permittee submit a detailed flow analysis and wastewater inventory at Outlet 004, 005 and 006 within 6 months of the issuance of the permit.”

5) Section A.003, (page 7, 8 of 75) Titanium, Fluoride and Magnesium Monitoring:

The Fact Sheet on page 7 states that monitoring is being added for fluoride, magnesium, and titanium to generate a database based on values submitted in the application. APCO requests that monitoring for these 3 parameters be removed from Outlet 003. Based on the waste load analysis performed for Outlet 003, none of these parameters were determined to be “monitor only” even based on one sample result. APCO currently monitors a significant number of parameters at Outlet 003.

6) Section A.003 (page 7 of 75), Cyanide Monitoring:

APCO respectfully requests cyanide monitoring be removed from Section A.003, as the renewal sampling showed a cyanide concentration of 0.004 mg/L in the discharge and a cyanide concentration of 0.005 mg/L at the Plant intake. This clearly demonstrates that Plant processes are not contributing cyanide to the discharge, nor would APCO expect any Plant process to contribute cyanide to wastewater. Furthermore, the sample from 2017 was reported at the same level as the method detection limit (0.004 mg/L). This is an order of magnitude lower than the cyanide concentration reported in the 2011 NPDES renewal (0.04 mg/L), which did not result in monitoring requirements at that time.

7) Section A.003, A.004, and A.005 (pages 9, 11, and 13 of 75), Fecal Coliform (Sludge) Limits:

APCO respectfully requests removal of Fecal Coliform (Sludge) limits at Outlets 003, 004, and 005. There is no human source of fecal coliform to these ponds; all sanitary waste is discharged via Outlet 002. There is a significant population of Canada geese, along with other wildlife, which live in and around the Bottom Ash Pond Complex draining to Outlet 003 and the stormwater ponds that discharge via Outlets 004 and 005. APCO believes that wildlife is the source of fecal coliform and as such, that it is not appropriate to regulate.

APCO also requests clarification on whether DEP intended for the permittee to sample fecal coliform in the water discharged via Outlet 003, or in sludge at Outlet 003. Sludge is not regularly removed at Outlet 003, as it is a wastewater pond. This comment also applies to fecal coliform (sludge) monitoring at Outlet 004 and Outlet 005.

8) Section A.040 (page 25 of 75), Iron monitoring:

The monitoring requirements at Outlet 040 specify a sample type of “Grab-2” for total recoverable iron. APCO requests clarification if this “-2” is a typo, and if not, where a description of a “Grab-2” sample type can be found in DEP guidance.

9) Section A.040 (page 25 of 75), Chronic Toxicity (*Ceriodaphnia*, *Pimephales*) Monitoring:

APCO requests that the monitoring for chronic toxicity for *ceriodaphnia dubia* and *pimephales* be removed from the NPDES Permit. Based on the sampling done for the 2017 NPDES Permit renewal, the results do not show that there is a reasonable potential for toxicity to be a concern.

If chronic toxicity cannot be removed, APCO requests that the toxicity monitoring be changed from chronic to acute. The discharge from this outlet is typically low in volume, less than 10,000 gpd.

10) Section A.040 (page 26 of 75), Gross Alpha Radiation Monitoring:

APCO requests the monitoring for gross alpha radiation be removed from the NPDES Permit. The result of the monitoring for the 2017 NPDES Permit renewal was 3.45 ± 2.02 pCi/L. This result is well below the water quality limit of 15 pCi/L. Should DEP provide a more defined reason for requiring this monitoring, a frequency of semi-annual would provide adequate data to perform a waste-load allocation in the next permit renewal cycle.

11) Section A.041 (page 28 of 75), Chronic Toxicity (*Ceriodaphnia*, *Pimephales*) Monitoring:

APCO requests that the monitoring for chronic toxicity for *ceriodaphnia dubia* and *pimephales* be removed from the NPDES Permit. Based on the sampling done for the 2017 NPDES Permit renewal, the results do not show that toxicity should be a concern.

If chronic toxicity cannot be removed, APCO request that the toxicity monitoring be changed from chronic to acute. The discharge from this outlet is typically low in volume, less than 10,000 gpd.

12) Section A.041 (page 29 of 75), Gross Alpha Radiation Monitoring:

APCO requests the monitoring for gross alpha radiation be removed for the NPDES Permit. The result of the monitoring for the 2017 NPDES Permit renewal was 5.64 ± 1.87 pCi/L. This result is well below the water quality limit of 15 pCi/L. Should DEP provide a more defined reason for requiring this monitoring, a frequency of semi-annual would provide adequate data to perform a waste-load allocation in the next permit renewal cycle.

13) Section A.042 (page 31 of 75), Chronic Toxicity (*Ceriodaphnia*, *Pimephales*) Monitoring:

APCO requests that the monitoring for chronic toxicity for *ceriodaphnia dubia* and *pimephales* be removed from the NPDES Permit and replaced with acute toxicity testing for the test organisms.

14) Section A.042 (page 32 of 75), Gross Alpha Radiation Monitoring:

APCO requests the monitoring frequency for gross alpha radiation be reduced from 1/quarter to semi-annual. The semi-annual monitoring would provide adequate data to perform a waste-load allocation in the next renewal.

15) Section A.104, 105 and 106 (pages 33, 34 and 35 of 75), Outlets 104, 105, and 106

As stated in comment 4.d above, APCO requests removal of these internal outlets as unnecessary for the reasons stated in that comment.

16) Section A.203 (page 36 of 75), Final Effluent Limitations for Outlet 203

a. Use of Treatment Efficiency

APCO believes that the DEP has incorrectly calculated the effluent limitations at Outlet 203 in not correctly applying the “building block” calculation of the effluent limitations.

USEPA, in its 2015 ELG Technical Development Document,¹ specifically noted situations that are similar to the one encountered at the Amos 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 Amos 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.”

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.”*²

In addition, USEPA provided an example of the building block approach in the 2020 Supplemental Technical Development Document for FGD wastewater and leachate.³ 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).

¹ 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.

² 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.

³ Section 14, pages 14-27 and 28, Table 14.10

By using the removal efficiency in the calculation of the Amos Plant FGD waste water effluent limits, similar to our comment 4.b, 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)⁴ for FGD wastewaters and landfill leachate⁵. While not identical, 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.”

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

⁵ 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, but this section now makes those limits applicable to leachate specifically, rather than treating it in the catch-all category of low volume waste.

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.

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, 364 gpm, and the average leachate flow of 99 gpm. For maximum flows APCO proposes to use the 95% percentile of the maximum flows from DMR data and the maximum leachate flow of 160 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)	99	807	Design Basis FGD; Average leachate flow
Draft Permit Limits Daily Max	500	1140	DEP-assumed maximum flows. Draft Permit limits also include assumed removal efficiencies for leachate stream
Draft Permit Limits 30 Day	250	807	"Typical flows" based on submitted water balance. Also assumes removal efficiencies for leachate stream
All Average	99	364	Average measured flow for both (2016-2020 FGD; Nov 2019- July 2020 leachate)
95% Max	160	995	95% maximum flow rate for FGD and leachate (calculated);

Calculated ELG Limits for various scenarios

Parameters	Daily Max			30-day Average		
	95% Max	Draft Permit Limits	ELG Rule (FGD Only)	All Average	Draft Permit Limits	ELG Rule (FGD Only)
Arsenic (ug/L)	16.7	13	18 ug/L	8.1	6.2	8 ug/L
Mercury (ng/L)	89.7	72	103 ng/L	28.3	26	34 ng/L
Nitrate-NO2 (mg/L)	3.7	2.8	4 mg/L	2.8	2.3	3 mg/L
Selenium (ug/L)	66.0	49	70 ug/L	31.6	22	29 ug/L

APCO believes that the limits shown in the 95% Max column for the daily maximum and in the “All Average” column for the 30-day average are the appropriate limits for Outlet 203. These are based on the revised flow figures and the correct application of the building block approach to leachate as an *unregulated* waste stream for these pollutants.

17) Section A. 403 (page 39 of 75), Addition of Outlet 403:

The Draft Permit includes new Outlet 403 for “non-regulated” flows to Outlet 003. The non-regulated flows that DEP refers to in the Fact Sheet are more specifically designated as *unregulated* and not *dilution* per the CWF. Therefore, as discussed above for Outlet 003, EPA notes that when the CWF 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. Therefore, the effluent limits for Outlet 003 will not be affected by a detailed flow analysis. As such, APCO requests Outlet 403 be removed from the NPDES Permit along with the condition in the Part B. Schedule of Compliance that the “permittee submit a detailed flow analysis and wastewater inventory at Outlet 003 within 6 months of the issuance of the permit.”

18) Section A.INT1 and A.INT2 (pages 40 and 41 of 75):

Outlets INT1 and INT2 are tied to the Unit 1 & 2 and Unit 3 cooling water intake structures, respectively. However, all three of the cooling towers (for Unit 1, Unit 2, and Unit 3) have separate cycles of concentration. APCO requests that a third outlet be added for monitoring cycles of concentration, and that each outlet be tied to reporting for one of the cooling towers: INT1 to be used for reporting cycles of concentration for the Unit 1 Cooling Tower, INT2 to be used for reporting cycles of concentration for the Unit 2 Cooling Tower, and INT3 to be used for reporting cycles of concentration for the Unit 3 Cooling Tower.

APCO refers to Comment #40 below for additional discussion and comments on the cycle of concentration monitoring and related requirements.

**19) Sections A.MW001, A.MW006, A.MW007, A.MW008, and A.MW009, 01034 –
(Chromium, Total (as Cr)) (Pages 42, 46, 50, 54, and 58 of 75):**

It is understood that groundwater quality monitoring for ‘Chromium, Total (as Cr)’ is a field filtered and/or dissolved parameter that includes reporting the total of analyses for Hexavalent Chromium and Trivalent Chromium. This is a reference for all monitoring wells including MW001, MW006, MW007, MW008, and MW009.

20) Section B: Compliance Schedule, General Comment (page 62 of 75):

The compliance schedule states “within 6 months of issuance”. APCO strongly requests that any compliance period be tied to the effective date of the NPDES Permit. It is not appropriate to require compliance based on a permit issuance date, which inherently assumes instantaneous transmittal of the permit to the permittee.

21) Section B: Compliance Schedule, 06 months after issuance (page 62 of 75):

As stated in other comments above, Section B. Schedule of Compliance requires within 6 months of “issuance” of the NPDES Permit that:

The permittee shall submit a detailed flow analysis and wastewater inventory at Outlets 003, 004, 005, 006, 040, 041, and 042. At a minimum, the flow analysis shall include quantitative 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, regulated vs unregulated) of each subtype of flow on the facilities' "Flow Diagram Water Usage, Units 1,2, & 3, Revision 10" dated 07/31/2020. For outlets that have a documented mixture of low volume wastewater (per 40 CFR 432) and non-regulated wastewater input into their respective treatment systems a major modification shall be submitted to adjust TSS and O&G limitations in Section A.

a. Outlets 003, 004, 005 and 006

APCO believes this condition is unnecessary based on the above comments submitted on the TSS effluent limitations at Outlet 003 explaining *unregulated* versus *dilution* determination of the discharges being discharged at these outlets.

In addition, the regulated waste streams discharging to Outlets 004, 005, and 006 are infrequent and difficult to quantify. It would take a significant effort and time to plan and conduct the analysis being requested by this condition. APCO feels the study and analysis would take a minimum of four years to complete due to the highly infrequent nature of the some of the discharges and determining/developing acceptable flow monitoring and sampling locations. It is assumed some flows may require significant effort to isolate before combining with other waste streams.

Further, quantifying these miscellaneous waste streams that all fall within the same categorical definition of “low volume waste streams” serves no purpose in calculating combined technology based effluent limits, for reasons also previously explained for *regulated/unregulated* and *dilution* streams.

Based on the above, APCO reiterates its comment that this condition in the Schedule of Compliance needs to be removed from the NPDES Permit for Outlets 003, 004, 005, and 006, and Outlets 104, 105, 106, and 403 similarly need to be removed. These outlets require “1/month” monitoring of each separate “non-regulated” input to the treatment system, and reporting a calculated value for flow, TSS and oil and grease (and total residual chlorine for 403). The effort required to isolate and sample these various minor inputs is not justified for the needs of proper derivation of permit limits. Such a requirement places an unrealistic burden on the permittee and represents a fundamental change in DEP’s approach in calculating limits. Amos Plant’s permit has been renewed multiple times since Outlets 004, 005, and 006 were installed several decades ago as batch discharges from these storm water management ponds that are also used to receive and treat these very low flow and infrequent low volume waste streams. It is extremely puzzling to APCO why DEP is now taking a different approach to these calculations after so many years, with no change in NPDES regulation or guidance for limit calculations. We strongly believe that the past derivation of the applicable limits was correct, proper, and lawfully done, and the same process must be followed.

b. Outlets 040, 041 and 042

APCO feels that the timeline to conduct the study is too short for these outlets. Based on the current design and runoff from the dam into these discharges, it will take significant time to design and implement a plan to meet the above condition. In addition, APCO must evaluate the stormwater contribution to these outlets over a variety of conditions to ensure proper flow values, TSS and oil and grease concentrations are obtained.

Due to the complexity of this study, APCO requests this information be developed over the course of the permit term and submitted with the next renewal application.

22) Section B: Compliance Schedule, September 29, 2001 date (page 62 of 75):

The compliance schedule has a compliance date of “September 29, 2001” to comply with Condition C.21. APCO respectfully requests that this item be removed from the compliance schedule for two reasons: 1) the compliance date is nearly twenty years in the past, and 2) the item is not actually a task to be completed by the permittee. The compliance schedule states, “Permittee shall comply with Condition C.21 within 90 days of the effective date of the permit”, while Condition C.21 states, “If any portion of the Permittee's discharge that is identified as being subject to Federal Effluent Guideline(s) and the new or revised requirements of the Federal Effluent Guideline(s) are not currently in this permit, the Director may reopen or reissue this

permit to incorporate additional, more stringent requirements or limitations.” This rightfully belongs only in Section C: Special Conditions and is not a compliance timeline issue; therefore, it should not be included in Section B. In short, APCO does not understand the purpose of this entry in the compliance schedule.

23) Section B: Compliance Schedule, February 1, 2018 date (page 62 of 75):

a. Unclear Reference

The compliance schedule requires that by “February 1, 2018”, the permittee “shall submit the results of the mixing zone verification studies required by Section C.37 of the permit.” There is no Condition C.37 in the 2021 draft or 2014 NPDES permits. APCO believes this is a reference to the mixing zone verification study required in Section C.30 of the 2014 Amos NPDES permit, which was performed in 2017 and submitted as part of the NPDES renewal application in December 2017. APCO therefore requests this compliance date be removed from the schedule.

b. Mixing Zone Study/Administrative Order No. 9952

Regarding the previously submitted 2017 mixing zone verification study, page 11 of 17 of the Fact Sheet states:

The permittee was required to perform a mixing zone verification study in Section C.30 of the previous permit. While the permittee performed the requisite instream sampling (upstream and downstream), the permittee did not perform sampling of the discharge. The discharge sampling is required to determine if the constituents [sic] of study sampling instream are actually present in the discharge at the time of the study. Administrative Order No. 9952 is being issued with the permit require re-verification of the mixing zone.

Sampling of the discharge from Outfall 003 was performed on October 16 and 17, 2017, the same dates on which the mixing zone verification study was performed. Samples from Outlet 003 taken on October 16 were analyzed by AEP’s WV-certified Dolan Chemical Laboratory in Groveport, OH for the following parameters required for the mixing zone verification study: aluminum, ammonia, arsenic, chloride, copper, lead, and selenium. TSS and mercury samples were taken on October 15 and 18, 2017 and analyzed by Dolan Chemical Laboratory. A flow rate was also recorded by the Plant on October 15 and 18, 2017.

APCO regrets that this information was not adequately provided with the 2017 renewal application. The relevant results from Outlet 003 sampling on October 16 and 17, 2017 are attached as Appendix II to this comment letter. Therefore, the Administrative Order is unnecessary, as is any related permit requirement.

24) 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 at one or more units by December 31, 2028, the permittee shall submit a Notice of Planned Participation (NOPP) for those units 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:

December 01, 2021

February 01, 2022

June 01, 2022

January 01, 2023

June 01, 2023

January 01, 2024

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.

25) Section B: Compliance Schedule, December 1, 2021 date (page 62 of 75):

For each area of construction, the contracts are typically broken into three parts (Civil, Structural/Mechanical, and Electrical/Instrumentation & Controls (I&C)). Each of these is bid separately over time to support the overall schedules. This does not include follow-up

engineering that may be necessary to address questions with the packages or support construction. Upon further review of the timeline, APCO believes additional time is needed after December 1, 2021 to finalize the electrical/I&C engineering design packages. APCO respectfully requests that the compliance milestone of “Complete preliminary design and detailed engineering design for Outlet 203 and 003 upgraded wastewater treatment plants” be changed from December 1, 2021 to February 1, 2022 and be revised to read as follows:

Complete preliminary and detailed design for Outlet 003 to support bid packages, including civil, mechanical, and electrical engineering packages for the pond complex modifications. Also complete preliminary and detailed design for Outlet 203 to support bid packages, including the civil, mechanical, and electrical/I&C packages for the FGD treatment system.

26) Section B: Compliance Schedule, February 1, 2022 date (page 62 of 75):

While the construction contract for the Civil work is anticipated to be awarded by February 1, 2022 for treatment updates for Outlets 003 and 203, upon further review APCO does not anticipate having awarded contracts for Electrical/I&C work until June 1, 2022. APCO respectfully requests that the compliance date to “Award construction contract(s) for Outlet 203 and 003 upgraded wastewater treatment plants” be changed from February 1, 2022 to June 1, 2022 and combined with the June 1, 2022 date to submit a progress report.

27) Section B: Compliance Schedule, November 1, 2023 date (page 63 of 75):

The compliance schedule requires completing closure and repurposing of BAP 1B, Reclaim, and Clear Water Ponds of the former BAP Complex by November 1, 2023. APCO would like to clarify that for the purposes of this compliance schedule, “closure” of the BAP Complex is understood in the context of the Coal Combustion Residual (CCR) Rule as the phrase “removal of the CCR material and decontamination of the CCR unit” is used in that Rule.

28) Section C (page 65 of 75):

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.

29) Section C.13.a (page 65 of 75):

APCO requests that language from Section C.13.a of the 2014 Amos NPDES permit related to batch discharges from Outlets 011 and 025 be included in the 2021 NPDES permit's Section C.13.a. These outlets are the final discharge from ponds controlled by manual valves. The revised language in the 2021 NPDES permit would read as follows (underlined text is additional language taken from 2014 NPDES permit):

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. Due to batch discharges from Outlets 011 and 025, the aforementioned protocols may not result in a discharge from a storm event. Therefore, the permittee shall attempt to sample Outlets 011 and 025 in accordance with the above mentioned protocols so long as a discharge occurs. Otherwise, the permittee shall sample the batch discharges from Outlets 011 and 025 when they occur at the approximate midpoint of the scheduled discharge.

30) Section C.13.c (page 65 of 75):

APCO notes that Total Suspended Solids is listed in the stormwater benchmarks list twice, in a possible typo. It is listed after Chemical Oxygen Demand and again after pH.

31) Section C.15 (page 65 of 75):

APCO notes that the sub-section lettering for Condition C.15 are out of order. They are listed in the following order: a.i, d, a.ii, b, c, e, f, and g.

32) Section C.15.e (page 66 of 75):

Condition C.15.e states, "The chronic toxicity testing shall be performed on a semi-annual basis. The first chronic toxicity testing shall be carried out within 3 months from the effective date of the permit for Outlet 003. There shall be a minimum of four (4) months between sampling events." APCO requests clarification that this condition applies only to Outlet 003. Chronic toxicity testing is only required annually for Outlets 040, 041, and 042, and not on a semi-annual basis as the condition specifies.

33) Section C.28 (page 68 of 75):

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.

34) Section C.29 (page 68 of 75):

Condition C.29 states, "For the measurement of Free Cyanide, the permittee shall use the standard method for weak acid dissociable cyanide, as specified in the latest edition of Standard Methods approved in 40 CFR 136." There is no Standard Method approved for analysis of Free Cyanide in 40 CFR 136; Free Cyanide approved methods are ASTM D7237-10, ASTM D4282-02, and OIA-1677-09. APCO requests clarification on which methods DEP expects to be used for free cyanide analysis, or if any approved method may be used, this condition is then rendered unnecessary.

35) Section C.30, Aluminum MDL (page 68 of 75):

APCO respectfully requests an increase in the required method detection limit (MDL) for Total Aluminum from 1 ug/L to 5 ug/L. While the lab performing NPDES monitoring does use EPA Method 200.8 for Total Aluminum, the currently achievable MDL is 5 ug/L. This is due to the Methods Update Rule, which required changes in the MDL calculation to include background contamination resulting in overall higher MDLs for most parameters. APCO also notes that the lowest permit limit for aluminum is proposed at Outlet 006 and is 0.8 mg/L, or 800 ug/L, significantly higher than an MDL of 5 ug/L.

36) Section C.30, Titanium analysis (page 68 of 75):

APCO notes that EPA Method 200.7 is typically used to analyze titanium in the laboratory used for sample analysis. EPA Method 283.3 specified in Section C.30 is from 1978, while 200.7 (and 200.8, as an alternative), are from 1994. APCO anticipates using EPA Methods 200.7 or 200.8 for titanium analysis, and does not anticipate any difficulty meeting a 10 ug/L MDL.

37) Section C.31, Notice of Planned Participation (page 68 of 75):

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 #24 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.

38) Section C.33, pond liner system requirements (page 69 of 75):

Section C.33 requires the use of “a double synthetic liner and leak detection and removal system consisting of two 60-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 60-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 “60-milimeter HDPE” liners be removed from the permit condition.

APCO plans to use 40-mil (1.00-mm) linear low density polyethylene (LLDPE) for the upper and lower liners of the pond liner system for the repurposed ponds in the former bottom ash pond complex. 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.

APCO also notes that Section C.33 requires any newly constructed impoundment containing “partially treated or fresh water” shall be lined with a 60-millimeter HDPE liner and minimum of 10 ounce geotextile lower liner or equivalently spec'ed liner system. APCO inquires as to the justification and legal basis of requiring a specific liner system design on all new wastewater and fresh water ponds. These liners should be evaluated on a case-by-case basis, and there is no provision in West Virginia’s Groundwater Protection Rule to support the selection of a particular liner design, material, or thickness via the NPDES permit process. Further, these ponds are not solid waste disposal units subject to WV solid waste regulation. Liner requirements in the permit should be limited to the ponds being repurposed or constructed as identified in the application, and reflect the design described therein.

Additionally, fresh water ponds (this is not clear if this means stormwater ponds) would not be expected to contaminate groundwater, nor are they considered storage or disposal sites for waste streams. APCO believes the additional expense for such a liner system on “fresh water” ponds is untenable and requests that the second and third paragraphs of section C.33 be revised as shown below. Prospective language for any future “newly constructed” pond should be stricken and any specific requirements applicable to the pond would be added at the time of permit modification to incorporate the new pond.

Proposed revisions to Section C.33 are as follows (underlines denote added text, strikethroughs are deletions):

The repurposed wastewater pond, reclaim pond, and clearwater pond ~~At a minimum, any newly constructed impoundment containing raw untreated wastewater~~ shall be lined with a 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.

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 raw and fresh water~~ 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.

39) Section C.34, approved chemicals (page 70 of 75):

APCO requests removal of Section C.34 from the permit because it is redundant with the existing toxicity monitoring requirements and unreasonably burdensome for the permittee. The permit already includes toxicity monitoring at the main outfall, which demonstrates that toxic concentrations of chemicals are not being discharged. This requirement imposes limits that are variable and dependent on MSDS/SDS or manufactures' instructions, which are subject to change without notice. It is also unreasonably burdensome to monitor or test for the limits suggested by this condition, particularly since toxicity monitoring is specifically required in other sections of the Permit. To the extent the condition is retained, APCO believes it should be limited to requiring the company to continue to comply with manufacture use recommendations only.

40) Section D.2.c, 316(b) Cycles of Concentration (page 71 of 75)

Section D.2.c currently reads:

“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 on a daily basis to calculate cycles of concentration of the closed-cycle recirculation system. Cycles of concentration shall not be less than 3.0 (i.e. greater than 96.5% recycle at Units 1/2 and greater than 97.6% at Unit 3) at any time.

The permittee shall use calculation procedures in "Clean Water Act, 316(b) Compliance Submittal Requirements, John E. Amos Plant, Prepared For: American Electric Power, Prepared by: HDR Engineer, Inc., November 21, 2017" to calculate cycles of concentration for reporting purposes in Section A.INT1 and A.INT2”

APCO believes that the imposition of a numeric limit for cycles of concentration (COC) that applies “at any time” is inconsistent with EPA’s approach to this selected method of impingement mortality compliance.

First, we note that while EPA originally proposed such a limit in the 316(b) regulations for existing facilities, as part of the definition of a “closed-cycle recirculating system”, such standards were removed in the final rule. EPA stated at various locations in the preamble of the August 15, 2014 rule:

In the final rule, EPA revised the definition of a closed-cycle recirculating system to provide additional flexibility for the Director in determining which closed-cycle cooling systems comply with the IM standards. The proposed rule’s definition of “closed-cycle recirculating systems” included, as elements of a properly operated closed-cycle system performance, requirements generally expressed in terms of cycles of concentration (COC) or percentage flow reduction relative to a once-through cooling system.

EPA carefully considered these issues and concluded that the most important aspect of the definition of a properly operated closed-cycle cooling system is that the makeup flow be minimized. Thus EPA has removed the numeric levels of the metrics as a threshold, while retaining the minimized makeup flow aspect of the definition.

The final rule further recognizes that in certain unavoidable circumstances, these levels for COC or percent flow reduction might not be achievable at all facilities.

The rationale for removing the proposed limits from the rule in part was based on comments received by EPA that facilities either faced conditions that precluded meeting the minimum standards either by design or due to operational factors. Related to this aspect, EPA further stated in the preamble:

Such facilities should demonstrate these circumstances to their Director and indicate the measures they have taken to minimize makeup flows. The Director will retain the discretion to conclude that the particular facility employs a closed-cycle recirculating system when the benchmarks are not met.

Therefore while the definition in this final rule does not establish fixed requirements in terms of COC and comparable percentage flow reduction to qualify as a closed-cycle recirculating system, the rule provides that a closed-cycle recirculating system “generally” will achieve the specified benchmarks that characterize a properly operating closed-cycle cooling system.

APCO strongly believes that DEP is not bound by the rule, nor encouraged, to impose a numeric standard to assure that the definition of a closed-cycle recirculating system is met. EPA has included the requirement in the rule for daily monitoring of flow as a method to assess whether flow is consistently minimizing make-up and blowdown flows, but not necessarily to meet an absolute limit.

The calculations contained in the HDR report submitted by APCO reflect the design basis of the generating units and intake structures. The calculations utilize average and maximum calculated intake flows, and blowdown flows, condenser flows, and temperature deltas based on design standards rather than real-time, daily data. As such, these reflect an average of normal operating condition and applying them on a continuous basis (i.e., “at any time”) is inappropriate.

Finally, we note that the entire rationale for the 316(b) requirements of the permit is limited to these few sentences in the Fact Sheet:

This facility operates a cooling water intake structure potentially subject to 316(b) of the Clean Water Act. The permittee has indicated that its intake satisfies BTA requirements of 316(b) and submitted the required information in 40 CFR 122.21(r). Section D has been imposed detailing the reported requirements to satisfy Section 316(b) of the Clean Water Act.

This discussion in the Fact Sheet does not provide APCO with an adequate understanding of the basis for DEP’s approach which is not prescribed by the regulation.

Notwithstanding APCO’s objection to a numeric limit, we would request DEP consider the following with respect to the monitoring requirement proposed in the permit.

Amos Plant does not currently have the ability to measure intake flow, blowdown flow, condenser flow, and condenser temperature delta on an ongoing, daily basis. The calculations performed in the Clean Water Act, 316(b) Compliance Submittal Requirements utilize average and maximum calculated intake flows, and blowdown flows, condenser flows, and temperature deltas based on design standards rather than real-time, daily data.

The typical method for Amos Plant to determine the Cycles of Concentration in the cooling towers is to compare conductivity readings in the cooling towers to the conductivity of the cooling water intake. This provides an estimate of concentration of dissolved solids cycling through the cooling tower compared to the makeup water drawn from the river. This measurement does have the ability to be done daily, and is already tracked regularly at Amos Plant. APCO therefore requests, to the extent this requirement is retained, that Section D.2.c be revised to allow conductivity readings to be used instead of flow data for calculating cycles of concentration for reporting purposes in Section A.INT1 and A.INT2 (and INT3 as requested).

This is consistent with 40 CFR 125.94(c)(1) which allows monitoring of cycles of concentration in lieu of daily flow monitoring.

Cycles of concentration as determined by conductivity readings show that while Amos Plant operates at or above 3 cycles of concentration during standard operation, the cycles can occasionally drop below 3 during unit start-ups or during maintenance. Additionally, during unit outages when there is no cooling water flow, no cycles of concentration can be calculated. 40 CFR 125.94(c)(1) requires that daily monitoring “must be representative of normal operating conditions.” Therefore, APCO respectfully requests, to the extent this requirement is retained, that the cycle of concentration be measured daily on days of normal unit operation, excluding startup, maintenance, or other time periods that should not be considered “normal operating conditions.” APCO proposes the following revisions to the language in Section D.2.c (underlined text highlights revisions):

To comply with the impingement mortality BTA requirement of 316(b) the permittee shall measure the cooling tower conductivity and intake water conductivity on a daily basis to calculate cycles of concentration of the closed-cycle recirculation system. Cycles of concentration shall not be less than 3.0 (i.e. greater than 96.5% recycle at Units 1/2 and greater than 97.6% at Unit 3) at any time during normal operating conditions.

Normal operating conditions do not include times of unit startup, maintenance, mechanical issues, or when a unit is nonoperational. During times of non-normal operating conditions, and if cooling water is being withdrawn, the cycles of concentration shall still be monitored but a cycle of concentration less than 3.0 will not be considered a violation. A note explaining non-normal operating conditions will be added to the eDMR when cycles of concentration are reported in Sections A.INT1, A.INT2, and A.INT3, if applicable.

Additionally, APCO hereby requests a six-month trial period from the effective date of the permit for cycle of concentration monitoring at Outlets INT1, INT2, and INT3. Daily monitoring and reporting of cycles of concentration will be a new requirement for the Plant, and additional time is needed to determine more specifically those types of operating conditions that can affect cycles of concentration and should not be considered as “normal operating conditions” in terms of cooling water intake, as required by 40 CFR 125.94. During this trial period the Plant will monitor cycles of concentration daily but the minimum limit of 3.0 would not be in effect.

41) Section E.2.f: Monitoring Well Reporting (page 73 of 75)

Condition E.2.f references statistical procedures used to establish background groundwater quality "in condition C.2.g of this permit" APCO believes this is a typo, and that it should reference condition E.2.g, instead.

42) Fact Sheet, mixing zone allocations (page 11 of 17):

APCO requests that the full mixing zones dilutions be granted to Amos Plant and be used to calculate permit limits. The Fact Sheet states that for the chronic mixing zone, human health chronic mixing zone, and zone of initial dilution, Amos Plant's main discharge is eligible for more dilutions than are granted. This is based on DEP's perception of what Amos Plant "needs" to meet compliance with permit limits. The discrepancies are as follows:

- Chronic mixing zone: 32.4 dilutions can be granted, but limited to 23.3 dilutions.
- Human health chronic mixing zone: 35.1 dilutions can be granted, but limited to 2.3 dilutions.
- Zone of initial dilution: 10.2 dilutions are available, but limited to 6.9 dilutions.

As a result, Amos Plant is not being granted the full benefit of the diffuser installed on Outlet 003, for which DEP's own CORMIX model shows it is eligible. While the ZID has been increased significantly since the 2014 NPDES permit, it is still not the full ZID that DEP admits is available. Even with the copper limit granted using a ZID of 6.9 dilutions, Amos Plant would still have had one exceedance on average monthly copper in the last permit cycle (had the stay of the limit not been in effect.) The Outlet 003 diffuser, with the corresponding full allowable mixing zone, is a mechanism of compliance and therefore the full mixing zones should be granted to Amos Plant. The larger mixing zones would also allow for reduced water treatment chemical usage in order to remain in compliance with permit limits and is therefore an economic penalty.

APCO would also like to reiterate previous comments from the 2014 NPDES permit that our CORMIX calculations, based on all three units running at full load, show an allowable ZID size of 16, and a chronic mixing zone size of 54. This has been extensively discussed with DEP in past permit proceedings.

43) Fact Sheet, MDL sensitivity (page 12 of 17):

The Fact Sheet issued with the draft permit states on page 12 of 17:

"The permittee analyzed for Base/Neutrals, Acids, and Volatile Organics for the permit application; however, the reported method detection limits (MDLs) for the listed analytes appears to not be the most sensitive. Administrative Order No. 9952 will also require the permittee to submit appropriate MDLs using approved methods for these analytes."

Analysis of process wastewater base/neutrals, acids, and volatile organics was performed by Pace Labs in summer and fall 2017. The latest dates of analysis for the above-mentioned parameters for Amos Plant's NPDES renewal sampling are July 24, 2017 for Outlet 003, August

14, 2017 for Outlets 004, 005, and 006, September 5, 2017 for Outlet 040, and September 11, 2017 for Outlet 041.

EPA Method 624 was used to sample and analyze volatile organics and EPA Method 625 was used to analyze acids and base/neutral compounds at Outlets 003, 004, 005, 006, and 041. EPA Methods 624 and 625 were not replaced by the current EPA Methods 624.1 and 625.1 until the EPA's 2017 Method Update Rule became effective on September 27, 2017. Therefore, the appropriate test available at the time was used to analyze the parameters mentioned above. The MDLs for parameters analyzed using Method 624 and 625 were consistent with industry standards in 2017. APCO does not agree that any resampling or reanalysis for Outlets 003, 004, 005, 006, and 041 would be appropriate.

EPA Method 8270C was used to analyze VOCs, acids, and base/neutral compounds at Outlet 040. Upon further review of the method, APCO believes this method was used in error by Pace Labs, and that Methods 624 and 625 should have been used at the time. Therefore, APCO agrees that resampling of Outlet 040 using currently approved methods is appropriate.

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,



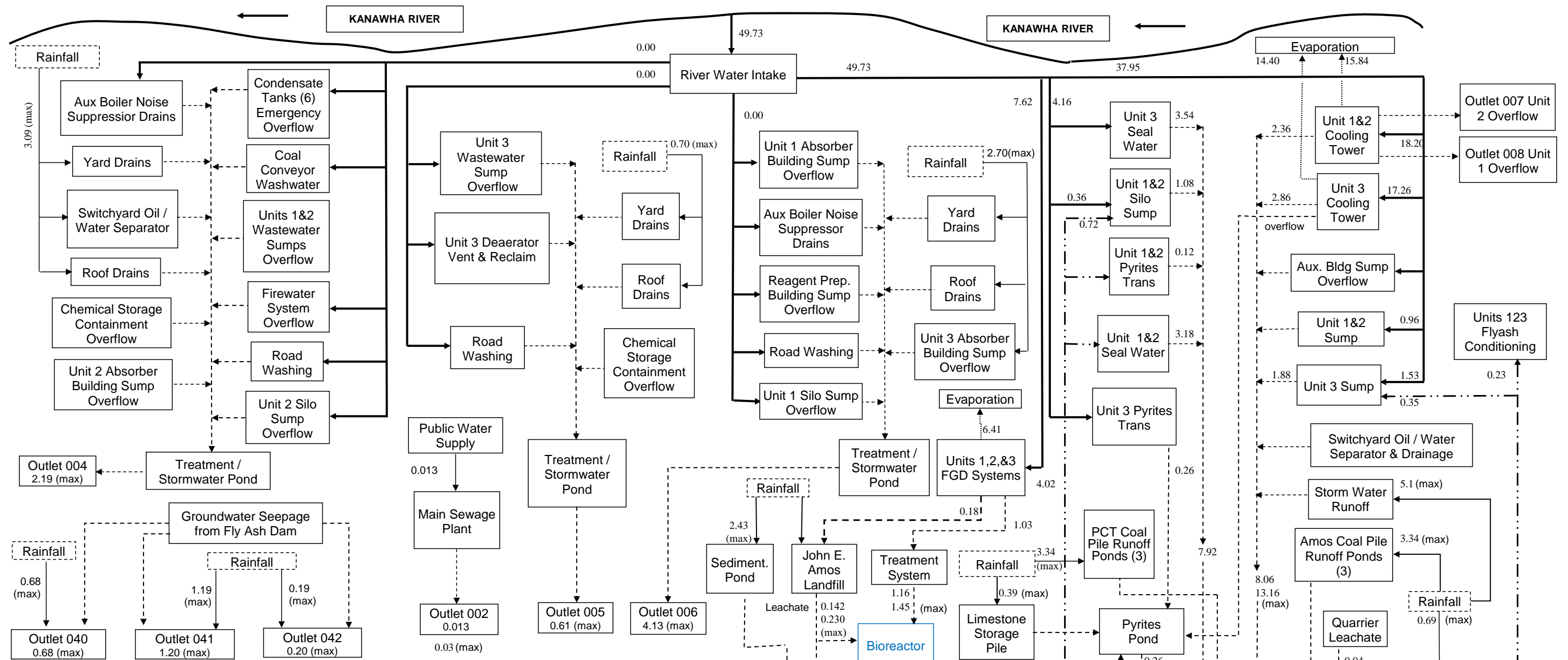
Alan R. Wood, P.E. (OH)
Director, Water & Ecological Resource Services

Attachment

c: Marie Gildow – AEP Headquarters
Christy Lawrence – Amos
Larry Harrison – Amos
Steve Wells – AEP Headquarters
Robert Schmidt – AEP Headquarters

Appendix I

Updated Water Balance



FLOWS IN MILLIONS OF GALLONS PER DAY (MGD)			
OUTLET NO.	RECEIVING WATER	AVG.	MAX.
002	Kanawha River	0.013	0.03
003	Kanawha River	13.08	28.93
103	Kanawha River via Pyrite Pond	---	0.14
203	Kanawha River via Clear Water Pond	1.03	1.45
004	Kanawha River	0.86	2.19
005	Kanawha River	0.16	0.61
006	Kanawha River	1.43	4.13
011	Kanawha River	0.23	0.60
025	Kanawha River	0.050	0.22
040	Little Scary Creek	0.0072	0.68
041	Little Scary Creek	0.0098	1.20
042	Little Scary Creek	0.010	0.20

John E. Amos Plant
Flow Diagram Water Usage
Units 1, 2, & 3

- LEGEND**
- Supply Water
 - - - Waste Water
 - · - Reclaim Water
 - Rainfall
 - Evaporation
 - - - Gypsum Cake Water

NOTES

Note 1: Flows represent actual water usage with all units operating at full load.
 Note 2: Flows are measured in million gallons per day (MGD).
 Note 3: Maximum & average flows for Outlets 203, 004, 005, 006, 011, and 025 are actual values recorded during 2014-2017. These are not intended to be an upper limit of potential discharges and do not necessarily represent future flows.
 Note 4: Rainfall values shown are maximum values and intended for use in pond sizing only. They are not included in the calculated average flow rates shown.
 Note 5: Rainfall values listed reflect the 100 year, 24-hour rainfall.
 Note 6: Average flow rates for Outlets 040 and 041 are from monthly dam and dike inspection reports, 2015-2017.
 Note 7: Average flow rate for Outlet 042 is calculated based on seepage rate during Fly Ash Pond operation. Post-closure flowrate may be smaller.
 Note 8: Blue boxes represent changes for CCR/ELG Compliance.



FUTURE CONDITIONS (2024)

Appendix II

Results from Outlet 003 for Mixing Zone Study

**October 2017 Amos Mixing Zone Verification Study
Flow and Total Suspended Solids from Amos Plant Outlet 003**

Parameter	Date Sampled	Result
Flow	10/16/2017	8.1 MGD
Flow	10/17/2017	7.7 MGD
Flow	10/18/2017	8.0 MGD
Total Suspended Solids, TSS	10/15/2017 – 10/16/2017	9.3 mg/L
Total Suspended Solids, TSS	10/17/2017 – 10/18/2017	9.0 mg/L

TSS samples were taken as 24-hour composite samples

Parameter results from John E. Amos Laboratory, 1530 Winfield Road, Winfield WV 25213,
WV Laboratory Certificate No. 108



Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
T: 614-836-4221, Audinet 210-4221
F: 614-836-4168, Audinet 210-4168
<http://aepenv/labs>

Water Analysis

Location: Amos Plant

Report Date: 10/25/2017

Outlet 003

Sample Number: 173543-001

Date Collected: 10/16/2017 10:12

Date Received: 10/17/2017

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Arsenic, As	2.06	ug/L		0.2	0.03	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Barium, Ba	82.3	ug/L		0.3	0.06	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Cadmium, Cd	0.30	ug/L		0.06	0.02	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Copper, Cu	8.29	ug/L		0.2	0.03	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Lead, Pb	0.517	ug/L		0.06	0.01	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Selenium, Se	10.3	ug/L		0.3	0.09	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Silver, Ag	< 0.03	ug/L	U	0.2	0.03	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Thallium, Tl	1.09	ug/L		0.2	0.03	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Aluminum, Al	229	ug/L		6	2	CTK	10/23/2017 17:50	EPA 200.8-1994, Rev. 5.4
Iron, Fe	0.627	mg/L		0.005	0.002	DAM	10/20/2017 09:25	EPA 200.7-1994, Rev. 4.4
Manganese, Mn	0.560	mg/L		0.001	0.0002	DAM	10/20/2017 09:25	EPA 200.7-1994, Rev. 4.4
Ammonia, NH3, as N	0.91	mg/L		0.5	0.1	KLG	10/19/2017 13:17	EPA 350.1-1993, Rev. 2.0
Bromide, Br	2.36	mg/L		0.2	0.05	MK	10/18/2017	EPA 300.1-1997, Rev. 1.0
Chloride, Cl	233	mg/L		2	0.5	MK	10/18/2017	EPA 300.1-1997, Rev. 1.0
Nitrate, NO3 as N	1.29	mg/L		0.02	0.01	MK	10/18/2017	EPA 300.1-1997, Rev. 1.0
Nitrite, NO2 as N	0.232	mg/L		0.02	0.01	MK	10/18/2017	EPA 300.1-1997, Rev. 1.0
Sulfate, SO4	865	mg/L		2	1	MK	10/18/2017	EPA 300.1-1997, Rev. 1.0

Trip Blank

Sample Number: 173543-002

Date Collected: 10/17/2017 08:30

Date Received: 10/17/2017

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Mercury, Hg	0.3	ng/L	J	0.5	0.2	JAB	10/20/2017	EPA 1631E-2002

Field Blank

Sample Number: 173543-003

Date Collected: 10/17/2017 08:30

Date Received: 10/17/2017

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Mercury, Hg	0.2	ng/L	J	0.5	0.2	JAB	10/20/2017	EPA 1631E-2002

Outlet 003

Sample Number: 173543-004

Date Collected: 10/17/2017 08:30

Date Received: 10/17/2017

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Mercury, Hg	7.0	ng/L		2	0.8	JAB	10/20/2017	EPA 1631E-2002
Oil & Grease	4	mg/L	J	5	1	SDB	10/23/2017	EPA 1664B-2010

The reporting limit for oil and grease is directly affected by the collected sample volume.

Outlet 003 Duplicate

Sample Number: 173543-005

Date Collected: 10/17/2017 08:30

Date Received: 10/17/2017

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Mercury, Hg	6.3	ng/L		2	0.8	JAB	10/20/2017	EPA 1631E-2002

U: Analyte was analyzed and not detected at or above adjusted Method Detection Limit
J: Analyte was positively identified, though the quantitation was below Reporting Limit.



Dave Conover, Chemist Principal

Email dpconover@aep.com

Tel. 614-836-4219

Fax 614-836-4168

Audinet 210-4219

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.



west virginia department of environmental protection

Division of Water & Waste Management
601 57th Street SE
Charleston, WV 25304
(304) 926-0495

Harold E. Ward, Cabinet Secretary
dep.wv.gov

ORDER
ISSUED UNDER THE
WATER POLLUTION CONTROL ACT
WEST VIRGINIA CODE, CHAPTER 22, ARTICLE 11

TO: AEP – John E. Amos Plant
1530 Winfield Road
Winfield, WV 25213

DATE: May 17, 2021

ORDER NO.: 9952

INTRODUCTION

The following findings are made and Order issued to AEP – John E. Amos Plant herein after, “permittee” pursuant to the authority vested in the Director of the Division of Water and Waste Management under Chapter 22, Article 11, Section 1 et seq. of the Code of West Virginia.

FINDINGS OF FACT

In support of this Order, the Director hereby finds the following:

1. The permittee owns and operates a steam electric generating power plant, which is located in Putnam County, West Virginia. WV/NPDES Permit No. WV0001074 was reissued on May 17, 2021 to allow the permittee to discharge process, cooling water, and storm water via Outlet 003 to the Kanawha River near mile point 39.
2. The reissued WV/NPDES Permit No. WV0001074 contains effluent limitations for fecal coliform at Outlet 003. Based on a review of available effluent data, the permittee cannot currently comply with the final effluent limitations for fecal coliform at this outlet.

ORDER FOR COMPLIANCE

And now, this 17th day of May 2021, the permittee is hereby ORDERED by the Director as follows:

1. The permittee shall immediately take measures to initiate compliance with all terms and conditions of WV/NPDES Permit No. WV0001074.
2. The permittee shall submit a Plan of Action on or before September 30, 2021 outlining the measures the permittee will take to achieve the fecal coliform permit limitations at Outlet 003. The permittee shall submit semiannual progress reports thereafter summarizing the actions taken, and any additional actions to be taken in the future to ensure compliance with the final permit limitations for fecal coliform.
3. Final Fecal Coliform Limitations mean a monthly geometric mean limitation of no more than 200 counts/100 ml and a daily maximum limitation of no more than 400 counts/100 ml at Outlet 003. Interim Fecal Coliform Limitations mean a monthly geometric mean limitation of monitor only and a daily maximum limitation of monitor only at Outlet 003 through June 30, 2023. The permittee shall comply with the final fecal coliform limits as soon as possible but no later than July 1, 2023. Until that time, the permittee shall comply with the interim fecal coliform requirements at Outlet 003.
4. The permittee shall submit semi-annual progress reports until the permittee achieves effluent limitations for fecal coliform at Outlet 003 and the permittee has achieved compliance with all the terms and conditions of the permit.

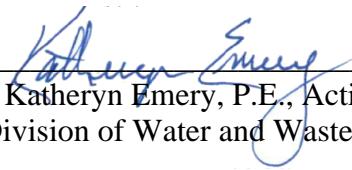
OTHER PROVISIONS

1. Compliance with the terms and conditions of this Order shall not in any way be construed as relieving the permittee of the obligation to comply with any applicable law, permit, other order, or any other requirement otherwise applicable. Violations of the terms and conditions of this Order may subject the permittee to additional enforcement action in accordance with the applicable law.
2. The provisions of this Order are severable and should a court or board of competent jurisdiction declare any provisions to be invalid or unenforceable, all other provisions shall remain in full force and effect.
3. This Order is binding on the permittee, its successors, and assigns.
4. This Order shall terminate upon the permittee's notification of full compliance with the "Order for Compliance" and verification of this notification by WVDEP.

RIGHT OF APPEAL

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

This Order shall become effective upon receipt.



Kathryn Emery, P.E., Acting Director
Division of Water and Waste Management

KE/jvl

cc: Environmental Inspector Supervisor
EPA Region 3