BEFORE THE WEST VIRGINIA ENVIRONMENTAL QUALITY BOARD

AMERICAN MUNICIPAL POWER, INC.

Appellant,

v. **Appeal No.** 24-07-EQB

JEREMY W. BANDY, DIRECTOR
DIVISION OF WATER AND WASTE MANAGEMENT,
WEST VIRGINIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION,

Appellee.

RECEIVED
JUL 15 2024
Environmental Quality Board

NOTICE OF APPEAL

Action Complained Of: The Appellant named above respectfully represents that it is aggrieved by: the West Virginia Department of Environmental Protection's ("WVDEP") issuance of NPDES Permit No. WV0116424 (the "Permit") (Permit Date: June 11, 2024; Received by Appellant via email: June 12, 2024; Effective Date: August 1, 2024).

Relief Requested: The Appellant therefore prays that this matter be reviewed and that the Board grant the following relief: Revoke and remand the Permit to WVDEP with orders to reissue the Permit without numeric water quality-based effluent limitations for Total Recoverable Iron ("Iron") on the basis that discharges from Outlet 001 at the Appellant's facility do not have the reasonable potential to cause or contribute to an excursion above the applicable water quality standard for Iron. In the alternative, if the Board finds that numeric water quality-based limits for Iron are required in this case, Appellant respectfully requests that the Permit be rescinded, revoked, set aside, and remanded to the Department to establish appropriate average monthly and maximum daily effluent limits for Iron that are based on substantial evidence. The Department should be

required to provide a reasoned explanation for the prescribed limits that reflects an evaluation of the establishment of an appropriate mixing zone for Iron based on site-specific conditions in the receiving stream, the derivation of an appropriate average monthly effluent limit for Iron that is not more stringent than the applicable chronic aquatic life water quality criterion (1.50 mg/L), and a reasonable basis for the derivation of a maximum daily effluent limit for Iron.

Specific Objections: The specific objections to the action, including questions of fact and law to be determined by the Board, are set forth in detail in separate numbered paragraphs and attached hereto.

Dated this 12th day of July 2024.

Respectfully submitted,

AMERICAN MUNICIPAL POWER, INC.

By Counsel,

Joseph M. Ward (WV Bar No. 9733)
Timothy Hagerty (pro hac vice forthcoming)
Frost Brown Todd LLP
500 Virginia Street East,
Suite 1100
Charleston, WV 25301
304-348-2404 / 304-345-0115
jward@fbtlaw.com
thagerty@fbtlaw.com

APPELLANT AMERICAN MUNICIPAL POWER, INC'S OBJECTIONS TO THE DEPARTMENT'S ACTION

I. BACKGROUND

American Municipal Power's Willow Island Facility

1. American Municipal Power, Inc. ("AMP") is a nonprofit wholesale power supplier and services provider to over 131 municipal electric systems in nine states, including West Virginia, Ohio, Pennsylvania, Michigan, Kentucky, Virginia, Indiana, Maryland and Delaware. Public power systems formed AMP in 1971 to achieve economies of scale in wholesale supply, gain access to transmission service, and enhance advocacy efforts.

2. AMP supplies up to 3,500 megawatts (MW) of electric power at peak to its members, who serve approximately 650,000 meters. AMP's generation portfolio is diverse and includes hydropower, coal, natural gas, solar, wind, and diesel. AMP operates in the PJM and MISO regional transmission organization (RTO) territories, as well as in non-RTO areas.

3. AMP is governed by a 22-member Board of Trustees made up of member officials. AMP employees approximately 200 individuals.

4. AMP operates the Willow Island Facility, which is a hydroelectric generating facility on the Ohio River in St. Mary's, Pleasants County, West Virginia (the "Facility") that began commercial operation in 2016. The Facility is located adjacent to the existing U.S. Army Corps of Engineers' Willow Island Locks and Dam. Construction of the Facility began in 2010 and full commercial operation followed in February 2016.

5. The Facility is a 44 MW run-of-the-river hydroelectric power plant that provides renewable energy generation to the region. The Facility is part of a larger project that AMP refers to as the Phase 1 Hydroelectric Project; seventy-nine AMP member communities are participants in the project, including the communities of New Martinsville and Philippi in West Virginia. The

Facility utilizes two horizontal Kaplan bulb-type turbine units that generate electricity using Ohio River water diverted from the Willow Island Locks and Dam.

6. The Facility has one outfall (Outlet 001), which discharges primarily Ohio River water that infiltrates the Facility's basement as a result of small, unavoidable leaks around the turbine wicket gates and weeps of river water through the Facility's concrete walls. The volume of flow through Outlet 001 is extremely low – approximately 1,500 gallons per day (gpd) – particularly in comparison to the extremely high flow rate of the Ohio River, into which it discharges.

7. The Ohio River is the primary water source associated with Outlet 001. Significantly upwards of ninety percent (90%) of the flow through Outlet 001 is attributable to leaks around the generators' wicket gates, which are used to regulate the flow of water through the turbines. Other than passing through the turbine – as does the very large volume of river water that passes through the turbines to generate electricity and then re-enters the Ohio River through the tailrace – the infiltrating Ohio River water does not come into contact with any industrial process within the Facility. This water simply leaks around the wicket gates and collects in the Facility's clean basement, where it enters a floor drain system, passes through oil-water separators (to account for any unanticipated leaks from oil-containing equipment), collects in a sump, and then is pumped to Outlet 001 for discharge back to the Ohio River. Other minor sources of water flow to this floor drain system include:

- Service water flow to maintain sump operation, which itself is pulled from Ohio River water in the tailrace; and
- Quarterly fire protection flushing.

8. There are no sources of iron within the Facility that could contribute meaningfully to concentrations of iron in the discharge from Outlet 001. Ohio River water leaking around the

wicket gates of the turbines or seeping through the Facility walls does not come into contact with any source of iron that could become dissolved or otherwise entrained in the infiltrating Ohio River water that passes through Outlet 001. Nor is there any material source of iron in the other, minor flows that contribute to Outlet 001.

Permitting History and Renewal Application

9. Since commencement of operations in 2016, the Facility has operated under NPDES permits issued on June 9, 2016 (effective August 1, 2016) and November 6, 2019 (effective January 1, 2020). These prior NPDES permits required AMP to monitor Outlet 001 and report quarterly measurements for Total Recoverable Iron ("Iron"), but did not contain effluent limits for Iron.

10. On December 21, 2023, AMP filed its renewal application with the West Virginia Department for Environmental Protection (the "Department" or "WVDEP") for NPDES Permit Number WV0116424 (the "Permit").

11. The Department issued a draft of the NPDES Permit on May 1, 2024. The draft NPDES Permit included new, first-time water quality-based effluent limitations for Total Recoverable Iron - an average monthly limitation of 1.11 mg/L and a maximum daily limitation of 2.57 mg/L.

12. On June 7, 2024, AMP submitted comments to the Department raising concerns about the terms of the draft Permit. *See* Exhibit 1. The issues addressed in AMP's comment letter included concerns regarding the appropriateness of the effluent limits for Iron imposed on Outlet 001. Specifically, AMP described the Facility and its operations; identified the sources of discharges through Outlet 001; explained that the vast majority of that flow is from leaks and seeps of Ohio River water into the Facility; explained that those flows do not come into contact with any

meaningful sources of Iron within the Facility; and provided historical data from the Ohio River Valley Water Sanitation Commission ("ORSANCO") on the significantly elevated concentrations of Iron in the Ohio River upstream of the Facility.

13. Based on the information in its comment letter, AMP explained that the source of elevated concentrations of Iron detected at Outlet 001 is the Ohio River itself – not the Facility. Accordingly, AMP requested that the Department revise the draft Permit to account for the presence of Iron in the Ohio River water entering the Facility. Such consideration supports the conclusion that discharges from the Facility through Outlet 001 do not have the reasonable potential to cause or contribute to an excursion above the applicable water quality standard for Iron in the Ohio River.

14. AMP also expressed its willingness in the comment letter to work with the Department to gather additional data to document the sources of Iron in the infiltrating Ohio River water discharged through Outlet 001.

15. AMP requested that the numeric water quality-based effluent limitations in the draft Permit be removed and that the Facility instead be required to continue monitoring and reporting for Iron at Outlet 001.

16. The Department issued the Permit in final form on June 11, 2024, just two business days after receipt of AMP's comments. *See* Exhibit 2 (Permit and transmittal letter). AMP received a copy of the Permit by email correspondence on June 12, 2024. *See* Exhibit 3 (transmittal email).

17. The final Permit failed to take into account or provide a reasonable response to the information presented in AMP's comments regarding the lack of a reasonable potential for discharges from Outlet 001 to cause or contribute to an excursion above the applicable water quality standard for Iron. In its response to AMP's comments, the Department simply stated that

"the USEPA has indicated to the WVDEP in other cases that a net provision for water quality-based effluent limits (WQBELs) may not be acceptable for consideration," and that "the agency may not be able to consider this option if the permittee decides to pursue this path." *See* Permit transmittal letter, dated June 11, 2024, included in Exhibit 2. This is a fundamental misunderstanding of AMP's comments, as AMP did not request that the Department establish a WQBEL for Iron based on a netting of Iron present in the Ohio River (that is, a so-called "net limit"). Rather, AMP requested that the Department take into account the presence of Iron in the infiltrating Ohio River water (as described above) in determining that there is no reasonable potential in the first place for a discharge from Outlet 001 to cause or contribute to a water quality excursion and thus no need to establish a numeric water quality-based effluent limit for Iron at all.

Historical Monitoring Data

18. Microbac Laboratories, Inc., on behalf of AMP, analyzed a grab sample of water collected at the Facility on November 28, 2023. AMP submitted the resulting water sampling data results to support its NPDES Permit Application. *See* Sampling Analysis Q4, 2023 in Section XX: Sampling and Analysis Information of the Permit Application. The water sample contained an Iron concentration of 0.767 mg/L.

19. The water quality standards for West Virginia are found in the Requirements Governing Water Quality Standards Rule. *See* W. Va. Code St. R. 47-2, App. E, Table 1. Under West Virginia's water quality standards, there are no acute aquatic life water quality criteria for Iron. The chronic aquatic life water quality criterion for Iron under Categories B1 (warm water fishery streams) and B4 (wetlands) is 1.50 mg/L. The water quality criterion for Iron for waters used for human consumption is also 1.50 mg/L.

20. ORSANCO performs bimonthly monitoring at seventeen stations on the Ohio River. Attachment 1 to AMP's comments on the draft NPDES Permit summarizes the past eight years of monitoring data associated with the upstream monitoring location closest to the Facility. Between 2021 and 2023, ORSANCO detected highly variable, elevated concentrations of Iron in the Ohio River, up to 8.54 mg/L. *See* Exhibit 1, Attachment 1 (ORSANCO data, March 3, 2021, sample). ORSANCO has regularly found concentrations of Iron in the Ohio River upstream of the Facility well in excess of the 1.11 mg/L monthly average limit for Iron in the Permit – and in excess of the 1.5 mg/L chronic water quality criterion. In fact, the Department has included the reach of the Ohio River upstream of the Facility on its 303(d) list of impaired waters for its failure to meet the State's water quality standards for Iron.

21. The sources of Iron in Ohio River water include nonpoint sources and point sources. Relevant nonpoint sources include "abandoned mine lands (AML), roads, oil and gas operations, timbering, agriculture, urban/residential land disturbance and streambank erosion."[1] Point sources include mining activities, stormwater, construction sites and non-mining industrial facilities.[2] "Because iron is a naturally-occurring element that is present in soils, the iron loading from many of the identified sources is associated with sediment contributions."[3]

---

[1] *Total Maximum Daily Loads for Selected Streams in the Middle Ohio River South and Middle Ohio River North Watersheds*, at xi (December 2012), https://dep.wv.gov/WWE/watershed/TMDL/grpc/Documents/C2-%20Middle%20Ohio%20North%20and%20South/EPA_Approved_Documents/Final_Middle_Ohio_TMDL_Report_12_13_12.pdf.

[2] *Id.*

[3] *Id.* In fact, Iron loading in the Ohio River correlates so well with stresses from sedimentation that WVDEP uses the TMDL for Iron as a surrogate for biological TMDLs for sedimentation. *2018/2020/2022 West Virginia Integrated Water Quality Monitoring and Assessment Report*, Appendix A (draft of April 11, 2022), https://dep.wv.gov/WWE/watershed/IR/Documents/IR-2018-2022_Documents/2018_2020_2022%20Draft%20Integrated%20Report_4_11_2022.pdf.

WVDEP's Derivation and Explanation of Effluent Limits for Iron in the Permit

22. WVDEP has provided extremely limited information regarding its basis for imposing water quality-based effluent limits for Iron in the Permit. WVDEP's basis document merely alleges that "there was reasonable potential to exceed water quality criteria at the end of the pipe for iron," and therefore, "WQBELs are imposed." *See* Basis for Limitations, attached as Exhibit 4. WVDEP's basis document does not provide any information about when or how the water being discharged from Outlet 001 could be exposed to Iron within the Facility or why the clearly elevated concentrations of Iron in the Ohio River upstream of the Facility are not the cause of the elevated concentrations found at Outlet 001.

23. The only explanation that WVDEP has provided for how the effluent limits in the Permit were derived was that a hardness value of 93 mg/L was used based on data at Willow Island collected by ORSANCO. However, the water quality-based effluent limitations calculations spreadsheet attached to WVDEP's basis document shows clearly that WVDEP did not take into account the elevated concentrations of Iron in the Ohio River upstream of the Facility when calculating the Iron limits imposed on Outlet 001.

24. WVDEP's basis document states that the Ohio River was already on the 2016 303(d) list for Iron (i.e., the Ohio River is already impaired for Iron), which was WVDEP's basis for not granting a mixing zone. However, WVDEP's basis document does not provide an explanation for why the Facility should have to effectively treat Iron-laden Ohio River water that leaks into the Facility when the Facility does not contribute any additional Iron to the water before it is discharged.

25. WVDEP's basis document also alleges that the Permit application did not identify any non-contact cooling water waste stream associated with the hydroelectric plant and that the

Permit application also stated the non-contact cooling water is a recycle system without a discharge to the river. While it may be accurate that the Permit application did not identify any non-contact *cooling water*, the Facility's Permit application (and the AMP comment letter) clearly identified that the only contributions to discharge flow through Outlet 001 are from floor drains and seepage.[4] *See* Permit Application, Section XIV: Flows, Sources of Pollution and Treatment Technologies. The key fact is that the elevated Iron in AMP's discharges is caused by the Ohio River itself, not AMP's Facility.

26. There is no evidence that there are any sources of Iron within the Facility that could contribute meaningfully to Iron concentrations at Outlet 001.

Cost of Treatment Options for Iron at Outlet 001

27. If the Facility is required to comply with the effluent limits for Iron in the Permit, AMP will be forced to incur extremely high costs to install treatment equipment that is not necessary to remove any pollutant contributed by the Facility and that will simply be treating Iron-laden water that enters the Facility from the Ohio River and is discharged right back to the Ohio River.

28. The Ohio River is already impaired for Iron. Treating the Ohio River water that enters the Facility before it is discharged back into the Ohio River will have *no measurable impact* on the high concentrations of Iron in the Ohio River – especially given the extremely small flow volume from Outlet 001 compared to the extremely high flow volume (and Iron loads) of the Ohio River. For example, applying the 1.11 mg/L monthly average limit for Iron to the expected daily discharge from Outlet 001 demonstrates the minute quantities of Iron at issue: 6.25 grams per day.[5]

---

[4] The Permit application also states that the average flow of discharged waters is merely 0.0015 million gallons per day (mgd) (equivalent to 1,500 gallons/day), which demonstrates how little water is being discharged. See Sections XIV and XIII.

[5] 1.1 mg/L * 1,500 gal/day * 3.79 L/gal * 1 g/1000 mg = 6.25 grams per day

ORSANCO's lowest 2023 monthly average Ohio River stream flow datum at Willow Island was 12,935 cfs[6], and hypothetically adding an additional 6.25 grams of Iron daily would theoretically increase the Iron concentration in the Ohio River by only 0.000000197 mg/L, or less than 0.2 parts per trillion.[7] Higher stream flows would only further reduce this number.

II. LEGAL OBJECTIONS

Water Quality-Based Effluent Limitations Are Only Required if the Department Can Demonstrate That the Discharge of a Pollutant Has the Reasonable Potential to Cause or Contribute to an Excursion Above an Applicable Water Quality Standard

29. Under West Virginia law, each NPDES permit shall include "[a]ny more stringent requirements necessary to achieve water quality standards established pursuant to the [Clean Water Act] or the State Act and regulations . . ." W. Va. Code St. R. § 47-10-6.3.d.; *see also* 40 C.F.R. § 122.44(d)(1) (federal requirement). Effluent limitations adopted pursuant to this requirement are known as water quality-based effluent limitations, or WQBELs.

30. In order to determine whether WQBELs must be imposed in an NPDES permit, the Department must determine whether a pollutant will be discharged at a level that will cause, ***have the reasonable potential to cause***, or contribute to an excursion above any applicable State water quality standard. 40 C.F.R. § 122.44(d)(1)(i) (emphasis added); *see also Alex Energy, Inc. v. W. Va. Highlands Conservancy*, No. 13-AA-132 at ¶¶ 23-25 (Kanawha Circuit Court, Final Order, Jan. 15, 2014) (noting that the Department is required to conduct a reasonable potential analysis based on the procedures set forth in 40 C.F.R. § 122.44(d)(1)(ii)).

31. When determining whether a proposed discharge will cause or have the reasonable potential to cause an in-stream excursion above an applicable water quality standard, "the

---

[6] https://www.orsanco.org/wp-content/uploads/2016/07/FlowsReportJanthruDec2023forWebsite.xlsx.

[7] (6.25 grams * 1000mg/gram) / (12,935 cfs * 7.48 gallons/cf * 3.79 L/gallon * 60 seconds/minute *60 minutes/hour * 24 hours/day) = 0.000000197 mg/L.

permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent . . . and where appropriate, the dilution of the effluent in the receiving water." 40 C.F.R. § 122.44(d)(1)(ii). If the permitting authority determines that "reasonable potential" for an excursion above a water quality standard exists, the NPDES permit must contain effluent limits for that pollutant. *Id.* § 122.44(d)(1)(iii). If no reasonable potential exists, no permit limits are needed.

32. In its preamble to the final rule adopting these regulations, the United States Environmental Protection Agency ("U.S. EPA") stated: "Before requiring a water quality-based effluent limit, the permitting authority must have a basis for finding that discharges have the reasonable potential to cause excursions above water quality criteria." 54 Fed. Reg. 23868, 23873 (June 2, 1989). "The permitting authority must satisfy the procedures in paragraph (ii) before establishing limits under paragraph (d)(1)(iii), (iv), (v), or (vi)." *Id.* Consideration of what permits limits should be, or how they should be set, is inappropriate if the permitting authority has not first demonstrated that "reasonable potential" exists.

33. The Iron effluent limitations on Outlet 001 at issue in this appeal are such WQBELs and are thus only appropriate if "reasonable potential" has been demonstrated.

The Department Arbitrarily and Capriciously Failed to Take Into Account the Presence of Iron in the Infiltrating Ohio River Water That Discharges Through Outlet 001 When Performing Its Reasonable Potential Analysis

34. In issuing the Permit, the Department inexplicably – and arbitrarily – ignored the presence of Iron in the infiltrating Ohio River water. Where a pollutant, such as Iron, is already present in a facility's intake water and merely passes through the facility without any meaningful exposure to or addition of any additional pollutants, the Department should take the intake pollutant into account in determining that the facility has no reasonable potential to cause or

contribute to an excursion above the relevant water quality standards for that pollutant. In this case, both federal and West Virginia law make clear the appropriateness and necessity of taking into account the presence of Iron in the Ohio River water that infiltrates into the Facility. Such a consideration should have led the Department to determine that the effluent limits for Iron at Outlet 001 are both unnecessary and inappropriate.

35. Under U.S. EPA's regulations, it is appropriate for a state authority to take into account the presence of pollutants in intake water in making a reasonable potential determination with respect to the discharge of such water back to the same body of water. U.S. EPA has stated that "a permit writer may take into account the presence of intake water pollutants, as appropriate." 49 Fed. Reg. 37998, 38027 (1984). In the Federal Register preamble accompanying its final rules governing the NPDES permitting program, U.S. EPA addressed concerns that the final rule did not contain explicit language allowing for the consideration of the presence of pollutants in intake waters, as the rule allowed in establishing technology-based permit limits. *Id.* U.S. EPA observed that such language was "unnecessary," explaining that "EPA recognizes that implementation of water quality-based standards is a complex balancing and consideration of many facilities and many factors," and that in setting WQBELs, a permit writer may take into account the presence of pollutants in the facility's intake waters. *Id.*

36. The approach articulated by U.S. EPA is consistent with the decision of the U.S. Court of Appeals for the Fourth Circuit, which stated in *Appalachian Power Co. v. Train*, 545 F.2d 1351, 1377 (4th Cir. 1976), that it is "beyond the scope of EPA's authority" to require a permittee to "treat and reduce pollutants other than those added by the plant process." Citing the Fourth Circuit for support in the preamble to its NPDES permitting rule, U.S. EPA went on to say that "the permittee should not be responsible for additional incidental removal of intake pollutants

where this would result in significant additional costs," noting that this approach "comports with the Fourth Circuit ruling in *Appalachian Power*." 49 Fed. Reg. at 38027. These statements by the U.S. EPA and the Fourth Circuit make it clear that not only is it appropriate to take into account intake pollutants when determining reasonable potential; it is required.

37. Similarly, West Virginia law expressly authorizes the Department to "issue water pollution control permits that contain water quality-based effluent limits that are adjusted to reflect credit for pollutants in the permittee's intake water (net limits)." W. Va. Code, § 22-11-6(b). There is nothing ambiguous about this express statutory authorization enacted by the Legislature in 2018.

38. Thus, both U.S. EPA and the State of West Virginia, as well as the Fourth Circuit Court of Appeals, have made it clear that a permit writer should take into account the presence of pollutants in intake water in determining whether WQBELs are needed. In this case, the evidence is clear that the only meaningful source of Iron in discharges from Outlet 001 is the Ohio River itself, and the Facility does not have the reasonable potential to cause or contribute to any excursion above the applicable water quality criterion for Iron. The Department should have taken into account the presence of Iron in the Facility's intake water in assessing *reasonable potential* and determining whether WQBELs for Iron were required at Outlet 001. In the absence of any reliable evidence that the Facility is increasing the amount of Iron in the Ohio River water that passes through the Facility – and in light of compelling evidence that the Facility is not adding any Iron to that water – the mere discharge of that Iron back to the Ohio River is not a sufficient basis, legally or factually, to impose WQBELs for Iron at Outlet 001.

39. The Department's failure to take into account the clear evidence of elevated concentrations of Iron in the Ohio River water infiltrating the Facility and discharging through Outlet 001 – and thus the lack of a reasonable potential for those discharges to cause or contribute

to an excursion above the applicable water quality standard for Iron – was clearly wrong in view of the entire record, arbitrary and capricious, an abuse of discretion, and contrary to law. *See West Virginia Land Resources, Inc. v. American Bituminous Power Partners,* 888 S.E. 2d 911 (2023) (setting forth basis to reverse, vacate or modify an order of permit of the Department).

40. The Board should order the Department to modify the Permit to remove the numeric water quality-based effluent limits for Iron at Outlet 001 and require only quarterly monitoring for Iron at Outlet 001. In the alternative, the Board should rescind, revoke, set aside, and remand the Permit to the Department to properly take into account Iron concentrations in the Ohio River water infiltrating the Facility in performing its reasonable potential analysis for Iron at Outlet 001.

Even if the Permit Were Required to Contain Water Quality-Based Effluent Limits for Iron at Outlet 001, the Limits Included in the Permit are Inappropriate, Unsupported by Substantial Evidence, and Contrary to Law

41. Even if the discharges of Iron from Outlet 001 were found to have a reasonable potential to exceed the applicable water quality criteria, the Department has failed to demonstrate a reasonable basis for the water quality-based effluent limits for Iron in the Permit. The Department did not give reasonable consideration to the establishment of a mixing zone and failed to justify the average monthly and maximum daily effluent limits established for Iron.

42. West Virginia's Water Quality Standards allow the Department to establish, on a case-by-case basis, an appropriate mixing zone to take into account the mixing conditions in the receiving stream in the immediate vicinity of the discharge. W. Va. Code St. R. § 47-2-5.1. Mixing zones must take into account, among other things, whether complete or incomplete mixing conditions exist. *Id.*

43. West Virginia's Water Quality Standards do not contain any express prohibition on the establishment of a mixing zone for the discharge of a pollutant into a receiving water that is

listed as impaired for that pollutant. Rather, mixing zones must be limited so that they will not adversely alter the existing or designated uses of the receiving water and are prohibited if they will cause or contribute to certain prohibited conditions, such as distinctly visible floating or settleable solids, suspended solids, scum, foam or oily slicks; odors; distinctly visible color, etc. W. Va. Code St. R. §§ 47-2-5.2g, 5.2.h.3.

44. Federal regulations similarly do not contain any express prohibition on the establishment of a mixing zone in the aforementioned situation. In fact, U.S. EPA has recognized that a mixing zone may be established based on an evaluation of the site-specific conditions in the receiving water at the location of the discharge, even if the overall (multi-mile) reach of the receiving stream is listed as impaired.

45. In this case, the Department refused even to consider the establishment of a mixing zone for Iron at Outlet 001 on the basis that the Ohio River is "on the 2015 303(d) list for iron" (i.e., is impaired for Iron). *See* Basis for Limitations, Exhibit 4. Such refusal further reflects the Department's arbitrary and capricious approach to issuance of the Permit and failure to base it upon substantial evidence. Instead, the Department should have taken into account the site-specific conditions in the vicinity of Outlet 001 to establish a reasonable and protective mixing zone for Iron and an appropriate monthly average effluent limit based on that mixing zone.

46. Those site-specific conditions include the fact that AMP's discharge from Outlet 001 is a very low-volume discharge, i.e., approximately 1,500 gallons ***per day***, as compared to the very high-volume flow of the Ohio River at this location (in the thousands of cubic feet ***per second***). These conditions likely lead to the rapid and complete mixing of the discharge with the receiving stream within a very small area adjacent to Outlet 001. The result is that AMP's discharge of Iron from Outlet 001 will not have an adverse effect on the attainment of the Ohio River's

designated uses in the overall stream reach in question. The Department's refusal to consider these factors was arbitrary and capricious.

47. In addition to the Department's failure to consider the establishment of a reasonable mixing zone based on site-specific conditions, the Department also failed to provide a reasonable explanation of its derivation of the average monthly and maximum daily effluent limits for Iron included in the Permit.

48. Under West Virginia's Water Quality Standards, the applicable chronic aquatic life water quality criterion for Iron is 1.50 mg/L. *See* W. Va. Code St. R. 47-2, App. E, Table 1. There is no acute aquatic life water quality criterion for Iron. *Id.*

49. The Permit imposes new, first-time water quality-based effluent limitations for Total Recoverable Iron at Outlet 001: an average monthly limitation of 1.11 mg/L and a maximum daily limitation of 2.57 mg/L. The Department has failed to explain why the average monthly limitation of 1.11 mg/L is below (i.e., more stringent than) the chronic aquatic life water quality criterion for Iron of 1.50 mg/L. There is no reasonable basis for the average monthly effluent limit to be more stringent than the applicable chronic water quality criterion. Indeed, there is no defensible scientific or technical basis for setting a concentration-based limit (like the monthly average limit for Iron) below the applicable concentration-based water quality criterion. From a purely mathematical standpoint, a concentration of a pollutant in the discharge that is at or below the concentration of that pollutant specified in the applicable instream water quality criterion cannot cause or contribute to an exceedance of that criterion.

50. The Department's insistence on nevertheless imposing an average monthly effluent limit that is more stringent than the applicable chronic water quality criterion is not supported by substantial evidence or good science and is therefore arbitrary, capricious, and contrary to law.

51. It is instructive that, pursuant to W. Va. Code Ann. § 22-11-6(c), the Department may not set benchmarks for substances in, or conditions of, discharges of stormwater that are more restrictive than the acute aquatic life water quality criterion, the federal benchmark, the chronic aquatic life water quality criterion, or the ambient aquatic life advisory concentration. This demonstrates that there is no inherent legal requirement for water quality-based effluent limitations to be more stringent than the applicable water quality criterion.

52. The Department also has not provided a reasonable explanation for the maximum daily limitation of 2.57 mg/L established in the Permit. The permit basis refers to the use of Best Professional Judgment ("BPJ") to establish that limit. However, the Department provides no further detail or explanation on how that judgment was applied and the final limitation was determined. Given the absence of an acute aquatic life water quality criterion for Iron in the West Virginia Water Quality Standards, the Department was required to provide a more robust explanation for how it arrived at an appropriate maximum daily limitation for Iron in the Permit. Its failure to do so was clearly wrong in view of the entire record, arbitrary and capricious, an abuse of discretion, and an error of law. Furthermore, in the absence of a meaningful explanation, the maximum daily effluent limit for Iron is unsupported by substantial evidence and lacks "a rational basis" and, thus, is entitled to no deference from this Board and must be reversed. Syl. Pt. 3, *In re Queen*, 196 W.Va. 442, 473 S.E.2d 483 (1996).

III. QUESTIONS OF FACT

53. Does the reach of the Ohio River that is upstream from the Facility contain elevated concentrations of Iron that affect the quality of the Ohio River water that passes through the Facility?

54. Do ORSANCO's bimonthly monitoring data demonstrate that the Ohio River consistently contains concentrations of Iron well in excess of the 1.11 mg/L monthly average limit for Iron imposed in the NPDES Permit – and in excess of the 1.5 mg/L chronic water quality criterion established under West Virginia law, including Iron concentrations as high as 8.54 mg/L, as detected by ORSANCO on March 3, 2021?

55. Is the reach of the Ohio River upstream of the Facility listed on the State's 303(d) list of impaired waters for its failure to meet the State's water quality standards for Iron?

56. Does over 90% of the discharge from Outlet 001 consist of water from the Ohio River that infiltrates the Facility's basement through small, unavoidable leaks around the turbine wicket gates and weeps of river water through the Facility's concrete walls?

57. Does the water discharged through Outlet 001 come into contact with any source of Iron within the Facility that could contribute material concentrations of Iron to the Outlet 001 discharge?

58. Is the approximately 1,500 gpd flow through Outlet 001 extremely low in comparison to the flow rate of the Ohio River into which it discharges?

59. Would the Facility's compliance with the numeric water quality-based effluent limitations for Iron in the Permit have any material effect on attainment of the water quality standards for Iron in the Ohio River?

60. Did the Department account for the elevated concentrations of Iron in the Ohio River water that infiltrates the Facility in performing its reasonable potential analysis that led to the imposition of water quality-based effluent limits for Iron in the Permit?

61. Did the Department perform an evaluation of the site-specific conditions in the Ohio River at the point of discharge from Outlet 001 when it refused to consider the establishment of a mixing zone for Iron at Outlet 001?

62. Did the Department provide a reasonable explanation for the imposition of an average monthly effluent limitation on Iron in the Permit that is more stringent than the applicable chronic aquatic life water quality criterion for Iron?

63. Did the Department provide a reasonable explanation for the imposition of the maximum daily effluent limitation for Iron in the Permit, given that West Virginia does not have an acute aquatic life water quality criterion for Iron?

64. Such other and further questions of fact, as may be raised by discovery and evidence introduced at hearing, arguments of counsel and Board inquiry.

IV. QUESTIONS OF LAW

65. Was it clearly wrong given the entire record, arbitrary and capricious, an abuse of discretion, unsupported by substantial evidence, and/or otherwise inconsistent with the law for the Department to incorporate water quality-based effluent limitations for Total Recoverable Iron in the Permit?

66. Was it clearly wrong given the entire record, arbitrary and capricious, an abuse of discretion, unsupported by substantial evidence, and/or otherwise inconsistent with the law for the Department to fail to account for the presence of Iron in the Ohio River upstream of the Facility in determining whether reasonable potential exists for a discharge from Outlet 001 to cause or contribute to an excursion above the applicable water quality standards for Iron in the Ohio River?

67. Assuming, *arguendo* and without conceding, that the Department was required to impose water quality-based effluent limitations for Iron in the Permit, was it clearly wrong given

the entire record, arbitrary and capricious, an abuse of discretion, unsupported by substantial evidence, and/or otherwise inconsistent with the law with the law for the Department to fail to consider the establishment of a mixing zone for Iron at Outlet 001 based on an evaluation of the site-specific conditions in the receiving water at the location of the discharge?

68. Assuming, *arguendo* and without conceding, that it clearly wrong given the entire record, arbitrary and capricious, an abuse of discretion, unsupported by substantial evidence, and/or otherwise inconsistent with the law for the Department to establish an average monthly effluent limitation for Iron of 1.11 mg/L at Iron, which is below (i.e., more stringent than) the chronic aquatic life water quality criterion for Iron of 1.50 mg/L?

69. Assuming, *arguendo* and without conceding, that the Department was required to impose water quality-based effluent limitations for Iron in the Permit, was it clearly wrong given the entire record, arbitrary and capricious, an abuse of discretion, unsupported by substantial evidence, and/or otherwise inconsistent with the law for the Department to establish a maximum daily effluent limitation for Iron of 2.57 mg/L without providing a reasoned explanation for the basis for that limit, especially given that West Virginia does not have an established acute aquatic life water quality criterion for Iron?

70. Such other and further questions of law, as may be raised by discovery and evidence introduced at hearing, arguments of counsel and Board inquiry.

V. RELIEF REQUESTED

71. Based on the foregoing, AMP respectfully requests that the Board revoke the NPDES Permit and remand to the WVDEP with orders to reissue the NPDES Permit without effluent limitations for Total Recoverable Iron. In the alternative, if the Board finds that numeric water quality-based limits for Iron are required in this case, the Permit should be rescinded, revoked, set aside, and remanded to the Department to establish appropriate average monthly and maximum daily effluent limits for

Iron that are based on substantial evidence. The Department should be required to provide a reasoned explanation for those limits that reflects an evaluation of the establishment of an appropriate mixing zone for Iron based on site-specific conditions in the receiving stream, the derivation of an appropriate average monthly effluent limit for Iron that it not more stringent than the applicable chronic aquatic life water quality criterion (1.50 mg/L), and a reasonable basis for the derivation of a maximum daily effluent limit for Iron.

Respectfully submitted,

AMERICAN MUNICIPAL POWER, INC.

By Counsel,

Joseph M. Ward (WV Bar No. 9733)
Timothy Hagerty (pro hac vice forthcoming)
Frost Brown Todd LLP
500 Virginia Street East,
Suite 1100
Charleston, WV 25301
304-348-2404 / 304-345-0115
jward@fbtlaw.com
thagerty@fbtlaw.com

0129454.0625107 4866-0059-6687v3

EXHIBIT 1

June 7, 2024

Ms. Lori Devereux
Environmental Resources Associate
Division of Water and Waste Management – NPDES Team
West Virginia Department of Environmental Protection
601 57th Street SE
Charleston, WV 25304

Re: Comment Letter – NPDES Permit No. WV0116424; Willow Island Hydroelectric Project, St. Mary's, Pleasants County, West Virginia

Dear Ms. Devereux:

American Municipal Power, Inc. (AMP) appreciates the opportunity to provide the following comments on National Pollutant Discharge Elimination System (NPDES) Draft Permit No. WV0116424 (Draft NPDES Permit). The draft was distributed by the West Virginia Department of Environmental Protection (WVDEP) on May 1, 2024, and is expected to become effective following the public comment period ending on June 7, 2024. This comment letter is organized as follows: introduction, Outfall 001 sources, regulatory review, intake water characterization, and conclusion.

INTRODUCTION

AMP operates a hydroelectric generating facility on the Ohio River in St. Mary's, West Virginia that began commercial operation in 2016. The facility has one outfall (Outfall 001), which discharges water from the transformer room and power plant floor drains. Additional detail concerning water sources is provided below.

The comments herein refer to the Draft NPDES Permit and the derivation of effluent limits for Outfall 001, which was provided for public notice by WVDEP on May 8, 2024. The draft permit was developed based on an application submitted by AMP on December 21, 2023.

Historically, the facility has operated under permits issued on November 6, 2019 (effective January 1, 2020) and on June 9, 2016 (effective August 1, 2016). These prior NPDES permits required AMP to monitor Outfall 001 and report quarterly measurements for Total

Recoverable Iron. The current Draft NPDES Permit has established Water Quality Based Effluent Limits (WQBEL) for Total Recoverable Iron based on the receiving stream (Ohio River) having an established Total Maximum Daily Load (TMDL). This requires the achievement of water quality standards at the end-of-pipe for pollutants of concern in the TMDL.

The Draft NPDES Permit includes a new Total Recoverable Iron average monthly limitation and a maximum daily limitation of 1.11 and 2.57 mg/L, respectively. In the Basis for Limitations Document, which accompanies the Draft NPDES Permit, the WVDEP acknowledged that AMP cannot immediately comply with the limits and established a two-year compliance schedule.

OUTFALL 001 SOURCES

Outfall 001 discharges wastewater associated with the transformer room and power plant floor drains. The sources to the floor drains include the following:

- River water leaks from the turbine wicket gates;
- Weeps of river water through the facility's walls;
- Service water flow to maintain sump operation;
- Quarterly fire protection flushing; and
- Incidental and infrequent oil leaks from maintenance operations.

The floor drains are conveyed through multiple oil water separators in parallel and then pumped to Outfall 001. The primary water source associated with Outfall 001 is the Ohio River, with roughly 90% of the flow attributable to leaks around the wicket gates. The remaining Ohio River water infiltration is due to ancillary leaks throughout the plant. AMP has reviewed the non-intake water related sources of Outfall 001 and has determined that they do not contribute to iron concentrations at Outfall 001.

REGULATORY REVIEW

The U.S. Environmental Protection Agency's (USEPA) NPDES Permit Writer's Manual[1] presents variances from technology based effluent limitations and standards, including a provision addressing pollutants in intake water. The USEPA states the following:

> Some facilities might be unable to comply with effluent guidelines because of pollutants in their intake water. Under certain circumstances, the NPDES regulations allow credit for pollutants in intake water. Specifically, permit writers are authorized to grant net credits for the quantity of pollutants in the intake water where (1) the applicable effluent guidelines

[1] US EPA, NPDES Permit Writer's Manual, section 5.2.2.7, at 5-42 (September 2010), https://www3.epa.gov/npdes/nutrientpwtraining/part4/story_content/external_files/NPDES-Permit-Writers-Manual_2010.pdf.

> specify that the guidelines are to be applied on a net basis; or (2) the pollution control technology would, if properly installed and operated, meet applicable effluent guidelines without the pollutants in the intake waters. The following requirements are included in § 122.45(g) for establishing net limitations:
>
> - Credit for conventional pollutants, such as BOD5 or TSS, are only authorized where the constituents resulting in the effluent BOD5 and the TSS are similar between the intake water and the discharge.
> - Credit is authorized only up to the extent necessary to meet the applicable limitation or standard, with a maximum value equal to the influent concentration.
> - Intake water must be taken from the same body of water into which the discharge is made.
> - Net credits do not apply to the discharge of raw water clarifier sludge generated during the treatment of intake water.
> - Permit writers must include influent monitoring in the permit when this type of variance is granted.

Consistent with the USEPA's regulations for calculation NPDES permit conditions in 40 C.F.R. § 122.45(g), the WVDEP's regulations[2] allow for technology based effluent limitations to provide credit for pollutants in intake water, stating:

> 7.7. Pollutants in intake water.
>
> 7.7.a. Upon request of the permittee, technology-based effluent limitations or standards shall be adjusted to reflect credit for pollutants in the permittee's intake water, if:
>
> 7.7.a.1. The applicable effluent limitations and standards specifically provide that they shall be applied on a net basis; or
>
> 7.7.a.2. The permittee demonstrates that the control system it proposes or uses to meet applicable technology-based limitations and standards would, if properly installed and operated, meet the limitations and standards in the absence of pollutants in the intake waters.
>
> 7.7.b. Credit for generic pollutants such as biochemical oxygen demand (BOD) or total suspended solids (TSS) should not be granted unless the permittee demonstrates that

[2] *See* W. Va. Code R. § 47-10-7.7.

> the constituents of the generic measure in the effluent are substantially similar to the constituents of the generic measure in the intake water or unless appropriate additional limits are placed on process water pollutants either at the outlet or elsewhere.
>
> 7.7.c. Effluent limitations or standards shall not be calculated on a "net" basis for permittees whose intake water comes from underground water systems.
>
> 7.7.d. Credit shall be granted only to the extent necessary to meet the applicable limitation or standard, up to a maximum value equal to the influent value. Additional monitoring may be necessary to determine eligibility for credits and compliance with permit limits.
>
> 7.7.e. Credit shall be granted only if the permittee demonstrates that the intake water is drawn from the same body of water into which the discharge is made. The Director may waive this requirement if he finds that no environmental degradation will result.
>
> 7.7.f. This section does not apply to the discharge of raw water clarifier sludge generated from the treatment of intake water.

AMP understands that both USEPA regulations (40 C.F.R. § 122.45(g)) and WVDEP regulations (W. Va. Code R. § 47-10-7.7) allow for technology-based effluent limitations to provide credit for pollutants in intake water, but they do not directly address consideration of pollutants in intake water when establishing water quality-based effluent limitations. The preamble to the USEPA's regulations[3] addressed the use of net credits for water-quality-based effluent limitations, stating:

> Another industrial commenter wanted net credits to be available for water quality-based standards. A State also raised water quality concerns. The proposed regulation included a section stating that the regulation did not preclude consideration of intake pollutants in setting water quality based limits. For the following reasons, EPA is deleting this section as unnecessary. This regulation deals only with technology-based standards. The Clean Water Act's requirement to protect and enhance water quality is not conditioned on factors such as intake water quality and it would be inappropriate for EPA to impose such a condition. Eligibility for a net credit under these regulations does not

[3] *See* U.S. EPA, NPDES Permit Regulations, Final Rule, 49 Fed. Reg. 37,998, at 38,027 (September 26, 1984).

> imply any right to violate water quality standards. However, EPA recognizes that implementation of water quality based standards is a complex balancing and consideration of many facilities and many factors and that, in setting water quality based permit limitations, a permit writer may take into account the presence of intake water pollutants, as appropriate. Of course, in any case limits must be adequate to meet the water quality objectives of the Clean Water Act when considered along with control requirements for other dischargers to the stream.

AMP understands that the WVDEP has developed the Draft Permit's Outfall 001 Iron WQBEL in accordance with the procedures of the WVDEP's Water Quality Standards/Mixing Zones Implementation Guidance (WVDEP Guidance).[4] The WVDEP Guidance states that if a toxic pollutant in the discharge is not likely to exceed the value of the most stringent water quality standard, then there is no reason to develop a water quality-based effluent limit.[5] Further, "[t]o make that determination, the permit writer should use the 'Reasonable Potential' procedures of Chapter 3.3 of the [U.S.] EPA's Technical Support Document for Water Quality-based Toxics Control (TSD)."[6] The WVDEP included with the Draft Permit a spreadsheet showing the reasonable potential analysis that was conducted, generally consistent with the methods of TSD Chapter 3.3. However, the reasonable potential assessment does not account for the presence of intake water pollutants.

AMP has reviewed procedures that other states have developed to account for the presence of intake water pollutants in establishing WQBELs. For example, the Ohio Environmental Protection Agency (OEPA) has developed its Permit Guidance for Intake Credits/Non-contact Cooling Water,[7] addressing intake credits for WQBELs. The OEPA Guidance includes monitoring recommendations to determine if a discharge has a reasonable potential to contribute to exceedances of water quality standards.

INTAKE WATER CHARACTERIZATION

AMP understands that the TMDL for the Middle Ohio River North documents that the receiving stream is impacted for Iron. The Ohio River Valley Water Sanitation Commission (ORSANCO) performs bimonthly monitoring at seventeen stations on the Ohio River. Attachment 1 hereto summarizes the past eight years of monitoring data associated with the upstream monitoring location closest to the Willow Island Project. Total Recoverable Iron values ranged up to 8,540 micrograms per liter (µg/L) from 2016

---

[4] WVDEP, Water Quality Standards/Mixing Zones Implementation Guidance (June 30, 1997), https://dep.wv.gov/wwe/permit/individual/documents/370_mzguide.pdf.
[5] *Id.* at 3.
[6] *Id.* (citing U.S. EPA, Technical Support Document for Water Quality-based Toxics Control (March 1991), https://www3.epa.gov/npdes/pubs/owm0264.pdf).
[7] Ohio EPA, Permit Guidance 6, Intake Credits/Non-contact Cooling Water (July 28, 1998), https://dam.assets.ohio.gov/image/upload/epa.ohio.gov/Portals/35/guidance/permit6.pdf.

through 2023. The ORSANCO monitoring data support AMP's conclusion that the source of iron at Outfall 001 is associated with the intake water to the plant.

CONCLUSION

AMP is requesting that the WVDEP account for the presence of intake water pollutants in the establishment of WQBELs for Total Recoverable Iron at Outfall 001. AMP understands that data will need to be collected to document that the source of iron in the discharge is associated with the intake water and that the discharge does not have the reasonable potential to cause or contribute to an excursion above an applicable water quality standard. AMP is requesting that the Draft Permit be modified to include a variance from the Total Recoverable Iron water quality-related effluent limitations and to include a requirement for monitoring, recordkeeping, and reporting of intake water iron concentrations throughout the permit cycle. AMP requests that the intake monitoring frequency to be on the same day when Outfall 001 is monitored and requests that intake monitoring be performed at the primary source of intake water to the floor drains, which consists of the leaks from the turbine wicket gates.

We appreciate your consideration of these comments and would be pleased to answer any questions you may have. In that event, please contact the undersigned.

Sincerely,

John McGreevy
Assistant Vice President, Environmental, Health, Safety, & Compliance

Enclosure: Attachment 1 – ORSANCO Monitoring Data

cc: Dylan Shays – AMP
Adam Ward – AMP
Gerit Hull – AMP
Lisa McAlister – AMP

ATTACHMENT 1

ORSANCO MONITORING DATA

ATTACHMENT 1
WILLOW ISLAND HYDRO-ELECTRIC POWER
NPDES PERMIT NO. WV0116424 COMMENT LETTER
ORSANCO MONITORING DATA - HANNIBAL STATION - TOTAL RECOVERABLE IRON
AMERICAN MUNICIPAL POWER, INC.
ST. MARY'S, PLEASANTS COUNTY, WEST VIRGINIA
CEC PROJECT NUMBER 343-490

Source.Name	Station Location	Mile Point	Latitude	Longitude	Date Collected	Parameter	Unit	Public Result
2016_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/26/2016	Iron (Total Recoverable)	ug/L	438
2016_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/22/2016	Iron (Total Recoverable)	ug/L	383
2016_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/10/2016	Iron (Total Recoverable)	ug/L	394
2016_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/6/2016	Iron (Total Recoverable)	ug/L	186
2016_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/7/2016	Iron (Total Recoverable)	ug/L	309
2016_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/21/2016	Iron (Total Recoverable)	ug/L	352
2017_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/24/2017	Iron (Total Recoverable)	ug/L	2330
2017_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/21/2017	Iron (Total Recoverable)	ug/L	476
2017_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/23/2017	Iron (Total Recoverable)	ug/L	397
2017_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/25/2017	Iron (Total Recoverable)	ug/L	1210
2017_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/19/2017	Iron (Total Recoverable)	ug/L	266
2017_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/30/2017	Iron (Total Recoverable)	ug/L	415
2018_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/24/2018	Iron (Total Recoverable)	ug/L	1850
2018_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/27/2018	Iron (Total Recoverable)	ug/L	509
2018_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/24/2018	Iron (Total Recoverable)	ug/L	1150
2018_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/26/2018	Iron (Total Recoverable)	ug/L	219
2018_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/17/2018	Iron (Total Recoverable)	ug/L	1250
2018_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/28/2018	Iron (Total Recoverable)	ug/L	767
2019_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/2/2019	Iron (Total Recoverable)	ug/L	1160
2019_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/20/2019	Iron (Total Recoverable)	ug/L	620
2019_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/28/2019	Iron (Total Recoverable)	ug/L	591
2019_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/23/2019	Iron (Total Recoverable)	ug/L	1890
2019_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/18/2019	Iron (Total Recoverable)	ug/L	337
2019_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/13/2019	Iron (Total Recoverable)	ug/L	403
2020_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/14/2020	Iron (Total Recoverable)	ug/L	820
2020_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/11/2020	Iron (Total Recoverable)	ug/L	596
2020_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/13/2020	Iron (Total Recoverable)	ug/L	298
2020_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/27/2020	Iron (Total Recoverable)	ug/L	62.1
2020_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/16/2020	Iron (Total Recoverable)	ug/L	194
2020_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/18/2020	Iron (Total Recoverable)	ug/L	185
2021_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/26/2021	Iron (Total Recoverable)	ug/L	200
2021_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/3/2021	Iron (Total Recoverable)	ug/L	8540
2021_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/19/2021	Iron (Total Recoverable)	ug/L	287
2021_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/13/2021	Iron (Total Recoverable)	ug/L	241
2021_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/16/2021	Iron (Total Recoverable)	ug/L	384
2022_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/25/2022	Iron (Total Recoverable)	ug/L	438
2022_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/23/2022	Iron (Total Recoverable)	ug/L	403
2022_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/24/2022	Iron (Total Recoverable)	ug/L	395
2022_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/19/2022	Iron (Total Recoverable)	ug/L	114
2022_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/20/2022	Iron (Total Recoverable)	ug/L	284
2022_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/9/2022	Iron (Total Recoverable)	ug/L	144
2023_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	1/10/2023	Iron (Total Recoverable)	ug/L	1480
2023_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	3/7/2023	Iron (Total Recoverable)	ug/L	1850
2023_JanJune_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	5/24/2023	Iron (Total Recoverable)	ug/L	217
2023_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	7/12/2023	Iron (Total Recoverable)	ug/L	80.3
2023_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	9/20/2023	Iron (Total Recoverable)	ug/L	188
2023_JulDec_CleanMetals.xlsx	Hannibal	126.4	39.63611	80.87528	11/15/2023	Iron (Total Recoverable)	ug/L	133

EXHIBIT 2

west virginia department of environmental protection

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

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

June 11, 2024

DYLAN SHAYS, DIRECTOR
AMERICAN MUNICIPAL POWER, INC.
1111 SCHROCK RD
STE 100
COLUMBUS, OH 43229

CERTIFIED RETURN RECEIPT REQUESTED

Dear Permittee:

Enclosed please find WV/NPDES Permit Number WV0116424 dated June 11, 2024.

In response to correspondence dated the 7th day of June 2024 presenting comments on the draft WV/NPDES Water Pollution Control Permit, the agency provides the following responses.

Comment No. 1 : Iron Limits at Outlet 001

As noted in the comment letter, the noted provisions regarding net limits apply to technology-based effluent limits. Please note that the USEPA has indicated to the WVDEP in other cases that a net provision for water quality-based effluent limits (WQBELs) may not be acceptable for consideration. The agency is supplying this information to the permittee so that it is aware that the agency may not be able to consider this option if the permittee decides to pursue this path. Pursuant to 40 CFR 122.44(d)(iii), the agency must impose WQBELs in a permit where a discharge exhibits the reasonable potential to exceed a State numeric criterion for a pollutant. As such, the WQBELs must be imposed. The agency cannot afford such a variance to water quality criteria through a WV/NPDES permit. Any such variance must be pursued through the agency's Water Quality Standards Program. As noted in the comment letter, the agency has afforded a two-year compliance schedule to afford the permittee time to address compliance which includes interim limitations of report only. Therefore, the permittee has time to pursue any compliance methods. It is to be noted that the permittee has exhibited extreme variability in reported iron levels at Outlet 001 including levels above 5 mg/l. The agency recommends that the permittee also examine the causes of these elevated values during the compliance period and make any necessary adjustments to reduce this variability.

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

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
76 Conservation Way
Parkersburg, WV 26104

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 Matt Sweeney, P.E. of this Division at (304) 926-0499 at extension 43882, or by email at matthew.l.sweeney@wv.gov.

Sincerely,

Jeremy W. Bandy
Director

JWB:ms

Enclosures

Permit Number: WV0116424

Permittee: AMERICAN MUNICIPAL POWER, INC.

cc: Env. Insp. Supv.
Env. Insp.
ORSANCO

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.: WV0116424
SUBJECT: Industrial Waste

ISSUE DATE: June 11, 2024
EFFECTIVE DATE : August 01, 2024
EXPIRATION DATE: June 10, 2029
SUPERSEDES: Permit No. WV0116424 dated November 06, 2019

LOCATION:	SAINT MARYS	Pleasants	Middle Ohio River 1
	(City)	**(County)**	**(Drainage Basin)**

See the next page for a list of Outlets.

TO WHOM IT MAY CONCERN:

This is to certify that: AMERICAN MUNICIPAL POWER, INC.
1111 SCHROCK RD
STE 100
COLUMBUS, OH 43229

is hereby granted a West Virginia NPDES Water Pollution Control Permit to:
Operate and maintain a treatment and disposal system for the direct discharge of treated industrial wastewater (floor drains wastewater from oil/water separators) from Outlet No. 001, into the Ohio River near Mile Point 161.8.

This permit is subject to the following terms and conditions :
The information submitted on and with Permit Application No. WV0116424 dated the 21st day of December 2023 is 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, and Appendix A.

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

Inspectable Unit	Latitude	Longitude	Receiving Stream	Dist. to Stream Mouth (in Mile)	Milepost
001	39°21'24"	81°19'11"	OHIO RV	N/A	161.8

A.001 DISCHARGE LIMITATIONS AND MONITORING REQUIREMENTS:

Permit Limits

During the period beginning 8/1/2024 and lasting through midnight 6/10/2029 the permittee is authorized to discharge from Outlet Number(s) 001 (Process Water)

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

Effluent Characteristic	Discharge Limitations							Monitoring Requirements	
	Quantity		Units		Other Units		Units	Measurement Frequency	Sample Type
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	Rpt Only Avg. Monthly	Rpt Only 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
00980 - (Iron, Total Recoverable) (Year Round) (ML-1) (RF-B) Interim: 8/1/2024 to 7/31/2026	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) Final: 08/01/2026 to 6/10/2029	N/A	N/A	N/A	N/A	1.11 Avg. Monthly	2.57 Max. Daily	mg/l	1/quarter	Grab
81017 - (Chem. Oxygen Demand) (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 EXTI (Year Round) (ML-1) (RF-B)	N/A	N/A	N/A	N/A	5 Avg. Monthly	10 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 No.001 - At the discharge from the sump after treatment from the oil water separators.

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

B. SCHEDULE OF COMPLIANCE

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

Nov 01, 2024:	The permittee shall submit a plan of action outlining measures to be taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
Feb 01, 2025:	The permittee shall submit a quarterly progress report summarizing actions that have been taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
May 01, 2025:	The permittee shall submit a quarterly progress report summarizing actions that have been taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
Aug 01, 2025:	The permittee shall have completed any designs and/or studies necessary to comply with the final effluent limitations for iron at Outlet 001. The permittee shall submit a quarterly progress report summarizing actions that have been taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
Nov 01, 2025:	The permittee shall submit a quarterly progress report summarizing actions that have been taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
Feb 01, 2026:	The permittee shall begin any necessary construction of upgrades or system modifications to achieve compliance with the final effluent limitations for iron at Outlet 001. The permittee shall submit a quarterly progress report summarizing actions that have been taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
May 01, 2026:	The permittee shall submit a quarterly progress report summarizing actions that have been taken to achieve compliance with the final effluent limitations for iron at Outlet 001.
Aug 01, 2026:	The permittee shall complete any necessary construction/upgrades and achieve compliance with the final effluent limitations for iron at Outlet 001.

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

Section C - Other Requirements

1. The permittee shall practice good housekeeping including maintaining the facility grounds. There shall be no scattered parts, equipment, debris, etc. Any and all drums shall be either stored in a covered area or kept upon pallets and properly sealed.
2. The issuance of this permit shall not relieve the permittee of the obligation to comply with any other federal, state or local laws. Compliance with this permit does not relieve the permittee from the obligation of Section 311 of the Clean Water Act. This permit does not authorize spills of hazardous substances/wastes from any permitted outlet into waters of the State. Such incidents are to be reported in accordance with Sections IV.1 and IV.2 of Appendix A of this permit.
3. Upon review of information submitted under terms and conditions of this permit, the permit may be modified to require additional effluent limitations/monitoring requirements and/or improved best management practices.
4. The permittee shall notify the Division of Water and Waste Management immediately when it becomes aware of any migration of any pollutant from any unpermitted source (such as contaminated groundwater and/or storm water) into surface waters of the State.
5. Without prior approval from the agency, the permittee shall not accept and treat wastewater from any other facility.
6. The permittee shall submit each quarter (1/quarter) 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.

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

   Department of Environmental Protection
   Environmental Enforcement
   76 Conservation Way
   Parkersburg, WV 26104

8. In conjunction with all other reporting requirements of this permit, copies of all future correspondence regarding this permit will be forwarded to the Environmental Inspector and Environmental Inspector Supervisor at the following address:

   a. Department of Environmental Protection
   Environmental Enforcement
   76 Conservation Way
   Parkersburg, WV 26104

Section C - Other Requirements

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.

10. In incidences where a specific test method is not defined, the permittee shall utilize an EPA approved method with a method detection limit (MDL) sensitive enough to confirm compliance with the permit effluent limit for that parameter. If a MDL is not sensitive enough to confirm compliance, the most sensitive approved method must be used. If a more sensitive EPA approved method becomes available, that method shall be used. Should the current and/or new method not be sensitive enough to confirm compliance with the permitted effluent limit, analytical results reported as "not detected" at the MDL of the most sensitive method available will be deemed compliant for purposes of permit compliance. Results shall be reported on the Discharge Monitoring Reports as a numeric value less than the MDL.

11. The permittee shall not use alternate DMRs without prior approval from this Agency.

12. The Groundwater Protection Plan (GPP) shall be maintained at the plant site and shall be available for inspection by the Division of Water and Waste Management personnel.

13. The permittee shall utilize EPA Method No. 1664 A (gravimetric analysis using the hexane extractable method [HEM]) for the analysis of oil and grease.

14. Should the use of any cleaning agent cause a problem with the operation of the oil/water separator, the use of said products shall be discontinued.

15. 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.

16. The permit only authorizes the discharge of wastewater from floor drains within the hydroelectric power plant itself from Outlet 001. No discharge of cooling water, storm water, groundwater, blowdown wastewater or sanitary wastewater is authorized to be discharged through Outlet 001 of this permit.

17. The permittee shall maintain a discharge log for the transformer room oil/water separator. The log shall record and document any discharge of sufficient quantity to reach the General Plant Sump. The log shall be retained onsite for agency review and also submitted with the permittee's subsequent permit renewal application.

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. WV0116424; 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. WV0116424; 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.

Jeremy W. Bandy, 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 settable 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 Series10, Title 47.

(D) The level established by the Director in accordance with Section 6.3.g of Series 10, Title 47;

(2) That any activity has occurred or will occur which would result in any discharge (on a non-routine or infrequent basis) of a toxic which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

(A) Five hundred micrograms per liter (500 ug/l);

(B) One milligram per liter (1 mg/l) for antimony;

(C) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 4.4.b.7 of Series 10, Title 47;

(D) The level established by the Director in accordance with Section 6.3.g of Series 10, Title 47.

(3) That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product of any toxic pollutant which was not reported in the permit application under Section 4.4.b.9 of Series 10, Title 47 and which will result in the discharge on a routine or frequent basis of that toxic pollutant at levels which exceed five times the detection limit for that pollutant under approved analytical procedure.

(4) That they have begun or expect to begin to use or manufacture as an intermediate or final product or by-product of any toxic pollutant which was not reported in the permit application under Section 4.4.b.9 of Series 10, Title 47 and which will result in the discharge on a non-routine or infrequent basis of that toxic pollutant at levels which exceed ten times the detection limit for that pollutant under approved analytical procedure.

4. Other Noncompliance

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

WRD 2A-82

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

Permit Limits

FACILITY NAME: (Willow Island Hydroelectric Facility) AMERICAN MUNICIPAL POWE
LOCATION OF FACILITY: SAINT MARYS; Pleasants County
PERMIT NO.: WV0116424 001
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	Rpt Only Avg. Monthly	Rpt Only 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
00980 (ML-1) RF-B Iron, Total Recoverable Year Round Interim: 8/1/2024 to 7/31/2026	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	1.11 Avg. Monthly	2.57 Max. Daily	N/A	mg/l		1/quarter	Grab
81017 (ML-1) RF-B Chem. Oxygen Demand 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
Title of Officer		Signature of Principal Executive Officer or Authorized Agent

WRD 2A-82

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

Permit Limits

FACILITY NAME: (Willow Island Hydroelectric Facility) AMERICAN MUNICIPAL POWE
LOCATION OF FACILITY: SAINT MARYS; Pleasants County
PERMIT NO.: WV0116424 001
WASTELOAD FOR THE MONTH OF:

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

Parameter		Quantity		Units	N.E.	Other Units			CEL*	Units	N.E.	Measurement Frequency	Sample Type
00552 (ML-1) RF-B	Reported												
Oil and Grease, Hexane EXTR. Year Round	Permit Limits	N/A	N/A			N/A	5 Avg. Monthly	10 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
Title of Officer		Signature of Principal Executive Officer or Authorized Agent

EMERGENCY RESPONSE SPILL ALERT SYSTEM
WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

REQUIREMENTS:

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

RESPONSIBILITY FOR REPORTING:

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

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

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

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

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

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

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

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

WHO TO CONTACT:
Notify the following number: **1-800-642-3074**

INFORMATION NEEDED:

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

WV/NPDES Permit No.: WV0116424

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 **$250.00**. 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.

EXHIBIT 3

Bryant, Lindsey A.

From: Devereux, Lori K <lori.k.devereux@wv.gov>
Sent: Wednesday, June 12, 2024 11:02 AM
To: Dylan Shays; stacey@orsanco.org; Tonya A Mather
Subject: WV0116424-American Municipal Power, Inc-Final Permit
Attachments: AMP Willow Island Hydro Final Permit.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

External email

Mr. Shays, please find attached your certified final copy of your permit. If you could please reply back to this email to verify receipt, I would appreciate it. Thanks

--
Environmental Resource Associate
WV Department of Environmental Protection
Division of Water and Waste MGMT
601 57th Street SE
Charleston, WV 25304
Email: lori.k.devereux@wv.gov
Telephone: 304-926-0499 ext. 43863

EXHIBIT 4

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER AND WASTE MANAGEMENT
BASIS FOR LIMITATIONS
AMP Willow Island Hydro (2024 Permit)
WV0116424

BACKGROUND INFORMATION:
AMP Ohio operates a hydroelectric power plant. Prior NPDES permits covered activities associated with construction of the powerhouse. Those activities included construction of a coffer dam and slurry wall to isolate ground water in the area of the structure from the river and the shallow aquifer in the surrounding area. The powerhouse construction is complete, the characteristic of the discharge from Outlet 001 according to the permit application consists only of wastewater from floor drains from the transformer room, power plant which after treatment from oil water separators travels to the plant sump prior to discharge to the Ohio River.

The permittee in the permit application did not identify any non-contact cooling water waste stream associated with the hydroelectric plant. The permit application also stated the non-contact cooling water is a recycle system without a discharge to the river.

Receiving Stream: Ohio River
7Q10: 6,560
2016 303(d) list: iron
Trout Stream: no

OUTLET 001 (consists of floor drains). Samples shall be collected after treatment from the oil and water separators.

Flow - monitor only both avg mon & max daily (BPJ)
pH – 6 to 9 s.u. (WQS)
Oil and Grease – 5 mg/l avg mon & 10 mg/l max daily (BPJ)
Iron- 1.11 mg/l avg mon & 2.57 mg/l max daily (BPJ)
COD- monitor only both avg mon & max daily (BPJ)
TSS- monitor only both avg mon & max daily (BPJ)

Based on the oil/water separator specifications submitted with the permit application, with proper operation, the manuals indicate that a 10 mg/l oil and grease concentration is achievable. Review of the facilities DMRs confirms the manufacturers claims for this unit at the hydroelectric plant. Therefore, the specification is imposed at Outlet 001 to ensure continued proper operation and maintenance of the oil/water separator unit(s).

A hardness value of 93 mg/l was used (ORSANCO data at Willow Island) in the evaluation and development of water quality-based effluent limits (WQBELs) for metals. No mixing zone could be granted for iron due to the Ohio River being on the 2016 303(d) list for iron. There was reasonable potential to exceed water quality criteria at the end of pipe for iron and WQBELS are imposed. The permittee cannot immediately comply with the limits and a two-year compliance schedule was granted.

WATER QUALITY BASED EFFLUENT LIMITATIONS

v 10.4

AMP - Willow Island Hydro

Outlet: 001

Stream: Ohio River

Hardness (mg/l):	93	**Instream Waste %:**	0.00
Temperature (°C):	27	**ZID:**	1.0
pH:	7.3	**CMZ:**	1.0
Stream 1Q10 (CFS):	NA	**HH CMZ:**	1.0
Stream 7Q10 (CFS):	6560	**HHA 1/2 Mile Rule CMZ:**	1.0
Effluent Flow (MGD):	0.0045		

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
Iron	NA	NA	Yes	Yes	1.1088	2.5711	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