

FEDERAL ENERGY REGULATORY COMMISSION

Washington, D. C. 20426

December 22, 2021

OFFICE OF ENERGY PROJECTS

Project No. 2570-034 - Ohio
Racine Hydroelectric Project
AEP Generation Resources, Inc.

VIA FERC Service

Mr. Jonathan Magalski
Environmental Supervisor
American Electric Power Services Corporation
1 Riverside Plaza
Columbus, OH 43215

Subject: Deficiency of License Application and Additional Information Request for the Racine Hydroelectric Project

Dear Mr. Magalski:

Your license application filed on November 30, 2021, fails to conform to the requirements of the Commission's regulations. A list of deficiencies is attached in Appendix A. Under section 5.20(a)(2) of the Commission's regulations, you have 90 days from the date of this letter to correct the deficiencies in your application.

In addition, requests for additional information made pursuant to section 5.21 of the Commission's regulations are attached in Appendix B. Please provide this information within 90 days from the date of this letter.

If the correction of any deficiency or requested information causes any other part of the application to be inaccurate, that part must also be revised and refiled by the due date. Also, please be aware that further requests for additional information may be sent to you at any time before the Commission takes final action on your application.

The Commission strongly encourages electronic filing. Please file the requested information using the Commission's eFiling system at **Error! Hyperlink reference not valid.** For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY). In lieu of electronic filing, you may submit a paper request. Submissions sent via the U.S. Postal Service must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street NE, Room 1A, Washington, DC 20426. Submissions sent via any other carrier must be addressed to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, Maryland 20852. The first page of any filing should include docket number P-2570-034.

If you have any questions, please contact Jay Summers at jay.summers@ferc.gov or at (202) 502-8764.

Sincerely,

Janet Hutzal, Chief
Midwest Branch
Division of Hydropower Licensing

Enclosures: Appendix A
Appendix B

APPENDIX A

DEFICIENCIES

General Content Requirements

1. Section 4.32(b)(6) of the Commission's regulation requires that an applicant must twice publish a notice of the filing of its license application, no later than 14 days after the filing date, in a daily or weekly newspaper of general circulation in each county in which the project is located. AEP Generation Resources, Inc. (AEP Generation Resources) has not provided the Commission with proof of publication. Therefore, to comply with the Commission's regulations, please provide proof that the notice was published twice in a newspaper.
2. Sections 5.18(a)(2)(i), (ii), and (iv) of the Commission's regulations requires that the license application provide the names and mailing addresses of: (i) every county in which any part of the project, and any federal facilities that would be used by the project, would be located; (ii) every city, town, or similar local political subdivision in which any part of the project, and any federal facilities that would be used by the project, would be located; and (iii) every other political subdivision in the general area of the project that there is reason to believe would likely be interested in, or affected by, the license application. Page AI-1 of the license application identifies that the project would be located in Meigs County, Ohio. However, the project is located at the U.S. Army Corps of Engineers' (Corps) Racine Locks and Dam, a federal facility that spans the Ohio River and is located in both Ohio and West Virginia. The license application does not identify the name and mailing address for the West Virginia county in which the Racine Locks and Dam is located. Additionally, it is unclear if every city, town, and political subdivision on the West Virginia side of the Ohio River has been identified. Please provide the names and mailing addresses for those entities required by sections 5.18(a)(2)(i), (ii), and (iv) of the Commission's regulations.

Initial Statement

3. Section 4.51(a)(6) of the Commission's regulations requires that the initial statement provide the name and address of the owner of any existing project facilities, including the name of the federal agency, if the dam is federally owned or operated.¹ However, this required information is not contained in the license application. Please provide the name and address of the owner of any existing

¹ Section 5.18(a)(5)(iii) of the Commission's regulations requires that a license application for a major project at an existing dam contain the information in section 4.51; however, we note that the initial statement in the license application was prepared under section 4.61(b). Because section 4.61(b) of the Commission's regulations does not require the information required by this deficiency, it was omitted from the license application.

project facilities. Moreover, because the project is located at a dam that is owned and operated by the Corps, the license application must also identify the Corps as the owner of these facilities.

Exhibit A

4. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(b)(1), requires the physical composition, dimensions, and general configuration of any dams, spillways, penstocks, powerhouses, tailraces, or other structures. The license application does not provide this information for the tailrace discharge chute.² Furthermore, section A.2.4, *Powerhouse and Intake*, page A-6, states that the powerhouse is approximately 132 feet long and 210 wide. This length and width provided in section A.2.4 appears to be the dimensions of the powerhouse substructure. Therefore, please provide the physical composition, dimensions, and general configuration of: (a) the tailrace discharge chute; and (b) the powerhouse superstructure.
5. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(b)(4), requires the number, length, voltage, and interconnections of any primary transmission lines. Exhibit A, section A.2.7, *Transmission Facilities*, states the transmission line is not included in the current license and is not considered part of the FERC licensed project. However, in a letter filed on August 10, 2018, AEP Generation Resources states that it is proposing to include the transmission facilities that were originally licensed as part of the Racine Project. Therefore, please provide the number, length, voltage, and interconnections of the primary transmission line, and specify the lengths of the transmission line in conduit, cable tray, and below ground.³
6. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(b)(5), requires the specifications of any additional mechanical, electrical, and transmission equipment appurtenant to the project. The license application does not include the size of the trashracks or a description of the trash rake. Therefore, please provide: (a) the number of trashrack panels; (b) the size of the trashrack panels, including the overall size and effective size of the trashrack panels (i.e., the portion that is blocked by the intake structure); and (c) a description of the trash rake.

Exhibit B

7. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(c)(2)(i), requires, in part, that a license application include monthly flow duration curves that identify the period of record and the stream gage(s) used

² See AEP Generation Resources' Proposed Study Plan (PSP) filed on December 14, 2018, response to additional information request (AIR) 9.

³ See AEP Generation Resources' PSP, response to AIR 5.

to derive the curves. If a synthetic record is utilized, the Commission's regulations also require that details concerning the derivation of the curves be provided. Section B.2.2, *Flows*, provides the monthly minimum, mean, maximum, and 10 and 90 percent exceedance flows at the project.

Section E.4.1.1, *River Flows*, further states that the annual and monthly flow duration curves for the project are located in Appendix F of the pre-application document (PAD).⁴ Moreover, although the license application states that the flow data presented in Exhibits B and E was derived from flows measured at the United States Geological Survey (USGS) gage on the Ohio River at Greenup Dam (gage no. 03216600), a description of how the USGS data was adjusted to reflect the difference in drainage areas between the project and Greenup Dam is not provided.⁵ Commission staff notes that because some of the required information (e.g., flow duration curves, methods used to proportion the flow data, etc.) is available in previous filings on the project record, the license application only provides references to this information. Because the license application should be a stand-alone document, all of the information required to be included in Exhibits B and E must be included in the license application. Therefore, please provide annual and monthly flow duration curves for the project, including a description of the methods used to proportion the flow data based on the period of record cited in the license application (i.e., 1987 through 2020). Additionally, please provide the monthly flow duration information in a tabulated format from 0 to 100-percent exceedance and a specification of the period of critical streamflow used to determine the dependable capacity.

8. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(c)(2)(iv), requires a tailwater rating curve. This information was not included in the license application. Therefore, please provide a tailwater rating curve.
9. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(c)(2)(v), requires a curve showing powerplant capability versus head and specifying maximum, normal, and minimum heads. This information was not included in the license application. Therefore, please provide a curve showing powerplant capability versus head and specifying maximum, normal, and minimum heads.
10. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(c)(3), requires the amount of power to be used on-site be provided. This information was not included in the license application. Therefore, please provide the amount of power used on-site and specify whether this amount is included in the annual generation.

⁴ The PAD was filed on July 2, 2018.

⁵ The Greenup Dam is located approximately 103.5 river miles downstream of the project.

Exhibit D

11. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(e)(2)(i), requires the license application to include the fair value of the project. This information was not included in the license application. Therefore, please provide the fair value of the project.
12. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(e)(4)(v), requires the license application to include the estimated capital cost and estimated annual operation and maintenance expense of each proposed environmental measure.
 - a. Section D.3.2, *Cost of New Facilities*, page D-2, states that AEP Generation Resources is proposing to continue implementing certain protection, mitigation, and enhancement (PM&E) measures required by the current license. However, the license application does not include these PM&E measures or their estimated capital costs and estimated annual operation and maintenance expenses. Therefore, please identify all proposed PM&E measures, including those PM&E measures required by the current license that AEP Generation Resources proposes to continue as part of its licensing proposal, and provide their estimated capital costs and estimated annual operation and maintenance expenses.
 - b. Section D.3.2, *Cost of New Facilities*, page D-2, provides the cost of the proposed recreation enhancement project. However, the license application does not state what this cost represents. Therefore, please provide the estimated capital cost and estimated annual operation and maintenance expense of the proposed recreation enhancement project and describe the items included in the costs.

Exhibit E

13. Section 5.18(b)(5)(ii)(F) of the Commission's regulations requires the license application to identify relevant comprehensive plans and explain how and why the proposed project would, would not, or should not comply with such plans. The license application lists several comprehensive plans for the State of Ohio that were identified as relevant to the project and indicate that no consistencies were found; however, no explanation is provided on how or why the project is consistent with these plans. Please explain how the project would, would not, or should not comply with each relevant comprehensive plan for the State of Ohio.⁶

Exhibit F

14. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(g) [*see* section 4.41(g)(1)], requires the license application to include

⁶ For a list of Commission-approved comprehensive plans, please access <https://cms.ferc.gov/media/list-comprehensive-plans>.

drawings that show all major project structures in sufficient detail to provide a full understanding of the project. The license application does not include a profile showing the spatial relationship between the existing granular filled sheet pile cells and the newly constructed Functional Replacement Dam (FRD) structure. Therefore, please provide a profile showing the spatial relationship between the existing granular filled sheet pile cells and the newly constructed FRD structure.

Exhibit G

15. Section 5.18(a)(5)(i) of the Commission's regulations, which references section 4.51 [*see* section 4.41(h)], requires, in part, that a license application show the relative locations and physical interrelationships of the principal project works and other features described under paragraph (b) of this section (Exhibit A) that comply with section 4.41(h)(1). The project's primary transmission line, the interconnection with the electrical grid, the sheet pile cells located between the powerhouse and right abutment, and the newly constructed FRD structure are not identified on Exhibit G. Therefore, please revise the Exhibit G maps to clearly identify and label the project's primary transmission line, the interconnection with the electrical grid, the sheet pile cells located between the powerhouse and right abutment, and the newly constructed FRD structure.
16. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(h) [*see* section 4.41(h)(3)], requires the Exhibit G map to identify: (a) boundaries of the federal lands; (b) the legal subdivisions of a public land survey of the affected area; and (c) the federal agency, identified by symbol or legend, that maintains or manages each identified subdivision of the public land survey within the project boundary. This required information is not contained in the license application. Therefore, please provide an Exhibit G with a map or series of maps that identifies: (a) boundaries of the federal lands; (b) the legal subdivisions of a public land survey of the affected area; and (c) the federal agency, identified by symbol or legend, that maintains or manages each identified subdivision of the public land survey within the project boundary.
17. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(h) [*see* section 4.41(h)(3)(iv)], requires the project location to include the most current information pertaining to affected federal lands as described under section 4.81(b)(5). This required information is not contained in the license application. Therefore, please provide an Exhibit G that includes the most current information pertaining to affected federal lands as described under section 4.81(b)(5).
18. Section 5.18(a)(5)(iii) of the Commission's regulations, which references section 4.51(h) [*see* section 4.41(h)(4)(iv)], requires, in part, that a license application include an Exhibit G with a map or series of maps that complies with section 4.41(h)(4) and identify by legal subdivision non-federal lands within the project boundary. The boundaries and ownership of non-federal lands that are located within the project boundary are not indicated on Exhibit G. Therefore,

please revise the Exhibit G drawings to identify by legal subdivision non-federal lands within the project boundary.

APPENDIX B**REQUEST FOR ADDITIONAL INFORMATION****Exhibit A**

1. In a letter issued October 26, 2018, we requested additional information based on our review of the pre-application document (PAD). In additional information request (AIR) 3, we asked for the installed capacity of the project and, if it is not 48 megawatts (MW), we requested that an explanation be provided as to how the installed capacity is calculated. In the Proposed Study Plan (PSP) filed on December 14, 2018, AEP Generation Resources, Inc. (AEP Generation Resources) stated that the existing, rated capacities of Units 1 and 2 are 23.4 MW and 23 MW, respectively, for a total project capacity of 46.4 MW. However, the license application provides a rated project capacity of 47.5 MW. Therefore, please provide the nameplate information, including photographs, for the turbines and generators for both Units 1 and 2. Because the license application should be a stand-alone document, please incorporate AEP Generation Resources' explanation provided in the PSP, AIR 3, into the response.
2. Section A.1, *Project Location and Facilities*, page A-1, states the project is operated in accordance with the August 6, 2021 agreement between AEP Generation Resources and the U.S. Army Corps of Engineers' (Corps). In a letter to the Commission dated August 23, 2021, Counsel to AEP Generation Resources attached the Memorandum of Agreement (MOA),⁷ which is dated July 14, 2021. Please confirm the date of the MOA with the Corps that governs project operation. If the current MOA is dated after July 14, 2021, please file the latest MOA with the Commission.
3. Throughout the license application, the maximum hydraulic capacity of the project is provided as both 32,000 cubic feet per second (cfs) and 31,300 cfs. Please revise the license application to indicate a consistent maximum hydraulic capacity of the project.
4. Section A.2.1, *Reservoir*, footnote 4, page A-4, states that to be consistent with the Corp's operations, AEP Generation Resources is continuing to present elevations in the license application using the mean sea level (msl) datum. However, the MOA with the Corps dated July 14, 2021, references the National Geodetic Vertical Datum of 1929 (NGVD29).⁸ Furthermore, Exhibits F and G both present

⁷ Memorandum of Agreement Between AEP Generation Resources Inc. and the Huntington District Engineer, United States Army Corps of Engineers for the Racine Hydropower Project, Rev 7, dated July 14, 2021.

⁸ See Article 4, section B, *Specific Operational Details*, page 3.

elevations referencing NGVD29. Therefore, please present elevations using a consistent and appropriate datum.

5. Section A.2.6.1, *Turbines*, table A.2-2, page A-7, states that each turbine has a rated capacity of 24,000 kilowatts (kW) and a rated horsepower (hp) of 29,502.5. However, a turbine with a rated horsepower of 29,502.5 corresponds to a rated capacity of 22,128 kW. Please provide a rated turbine horsepower and an equivalent electrical capacity consistent with 18 CFR 11.1(i) of the Commission's regulations.
6. Section A.2.7, *Transmission Facilities*, page A-7, states the project's single-line electrical diagram is included as Appendix B. The single-line electrical diagram included as Appendix B is pixelated and is difficult to read. Therefore, please provide a single-line electrical diagram where all text, especially numerals, and linework are clearly legible. Please file the single-line electrical diagram separately as Critical Energy / Electric Infrastructure Information (CEII).

Exhibit B

7. Section B.1.2, *Operations During Normal, Low and High Flows*, page B-1, states the upper pool elevation shall remain at approximately 560.0 feet msl (+1.0 – 0.0 feet). We understand this to mean the upper pool elevation shall remain between 560.0 and 561.0 feet msl. Please either confirm our understanding or provide an alternative description.
8. Section B.1.2, *Operations During Normal, Low and High Flows*, page B-1, states the lower pool elevation cannot fall below 538.0 feet msl due to operation of the powerplant. Please identify the powerplant(s) in the lower pool requiring a minimum pool elevation and describe why the lower pool elevation cannot fall below 538.0 feet msl.
9. The license application does not include a description of the trash rake operation. Therefore, please describe trash rake operation at the project. Your response should describe: (a) how the intake screens are cleaned, including the frequency with which the intake screens are automatically cleaned; and (b) where debris removed from the intake screens is disposed.⁹
10. Section B.2.2, *Flows*, page B-4, states the project does not have any low-level outlet gates or trash gates (of any significant size) in which to release flows, which implies that the project is equipped with low-level outlet gates or trash gates. However, no low-level outlet or trash gates are described in the license application. Even if the low-level gates are not of a significant size, please describe all low-level gates, their location, function, frequency of use and estimated hydraulic capacity.

⁹ See AEP Generation Resources' PSP, response to AIR 7.

11. Section B.2.2, *Flows*, page B-4, states Article 13 of the current license requires maintenance of a minimum flow of 6,300 cfs, as measured immediately downstream of the Racine Dam when such flow can be provided either from stream inflow or from water in storage. Please describe how this minimum flow requirement is currently measured. Also, please describe how the project is currently operated to maintain a minimum flow of 6,300 cfs when flow in the Ohio River is between 4,000 cfs, the minimum hydraulic capacity of a single turbine, and the required minimum flow of 6,300 cfs, while maintaining an upper pool elevation between 560.0 and 561.0 feet msl.
12. Section B.2.3, *Estimated Dependable Capacity*, page B-5, states under the current license, the project's estimated dependable capacity is approximately 46 kW. Please provide the calculations used to estimate the project's dependable capacity.
13. Section B.2.4, *Hydraulic Capacity of Powerhouse*, page B-5, states the minimum hydraulic capacity of the powerhouse is 4,000 cfs. Please clarify whether the minimum hydraulic capacity provided is for the operation of a single unit or for two units.
14. Section B.4, *Statement of Power Utilization*, page B-5, states the electrical energy generated at this station is transformed to the proper voltage in the station switchyard and distributed into AEP's electrical grid, and the power is then distributed and sold to AEP's retail and wholesale customers. Please identify the operator of the grid receiving the project's power, whether it is AEP, AEP Generation Resources or some other entity. If the operator of the grid receiving the project's power is not AEP Generation Resources, please provide their relationship to AEP Generation Resources. If the owner of the grid receiving the project's power is AEP Generation Resources, please describe the entity or entities purchasing power from AEP Generation Resources and their relationship to AEP Generation Resources.

Exhibit E

General

15. Section E.1.1, *Consultation*, states that the final study reports for the Water Quality and Recreation Studies are under development and will be filed with the Commission upon completion. However, no date indicating when these final reports will be filed is provided in the license application. Please file the final study reports for these two studies within 90 days from the date of this letter.

Geology and Soils

16. Section E.3.5, *Project Impacts on Geology and Soils*, page E-15, states no signs of erosion are present along the shorelines of the project. However, in its comments on the draft license application (DLA), the Corps suggested replacing this language with: "Seepage-related outflanking has resulted in limited displacement

of both up and down channel stone treatments along the right descending bank of the project together with launching of stone into the fisherman access." Although the Corps stated that a photograph taken on July 9, 2021 was provided with their comment letter, the photograph was not filed with the Commission. Please provide a response to the Corps' comment to assist Commission staff with assessing potential project effects on shoreline erosion.

Aquatic Resources

17. Section E.5.2.3, *Fish Entrainment and Impingement Study*, states that the intake approach velocity at the project was calculated based on "screen" dimensions of 21 feet wide by 88 feet high, and a maximum hydraulic capacity of 32,000 cfs. Section A.2.5, *Powerhouse and Intake*, states that there are two 21.75-foot-wide by 60-foot-high intake openings for each of the two generating units. Further, throughout the license application (e.g., sections B.1.2 and B.2.2) the maximum hydraulic capacity of the project is cited as 31,300 cfs. Please confirm the submerged trashrack dimensions and the hydraulic capacity used to estimate the intake approach velocity at the project. If the estimated intake approach velocity of 5.86 feet per second provided in the license application was calculated using an incorrect hydraulic capacity or incorrect trashrack dimensions, please provide a revised intake approach velocity using the correct information along with a description of the calculations used to develop the revised intake velocity. Additionally, please make any changes to the analysis in section E.5.2.3, *Fish Entrainment and Impingement Study*, that are necessary as a result of any revisions to the estimated intake approach velocity at the project.
18. Section 5.2.3, *Fish Entrainment and Impingement Study*, summarizes the methods used by AEP Generation Resources to conduct the Fish Entrainment and Impingement Study. The Fish Entrainment and Impingement final report filed on September 8, 2021 and the license application explain that the monthly entrainment estimates for two species of clupeids at the project (i.e., gizzard shad and skipjack herring) were adjusted to account for high rates of clupeid cold stress-related entrainment at four projects contained in the Electric Power Research Institute's (1997) database. The U.S. Fish and Wildlife Service's (FWS) comments on the DLA suggest that it may be inappropriate to apply cold stress adjustments to skipjack herring.¹⁰ FWS states that it has been unable to verify that this species experiences cold stress-related effects based on a search of the available literature. Although the effects of cold stress in gizzard shad is well documented, Commission staff has been unable to locate any literature that indicates skipjack herring are similarly affected by cold stress. Therefore, please provide literature references that support the cold stress adjustments made to the entrainment estimates for skipjack herring in the license application. If no such

¹⁰ See FWS' comment letter filed on October 1, 2021.

literature is available to support the cold stress adjustments made to skipjack herring, please revise the entrainment and turbine mortality estimates provided in the license application, as appropriate.

19. On August 26, 2021, Commission staff issued a determination on requests for study modifications for the project. In this determination, Commission staff requested, in part, that the license application include an analysis of the effects of project operation on fish entrainment and turbine mortality that includes entrainment and turbine mortality estimates for clupeids without the cold stress adjustments made to the data presented in the updated study report filed on May 12, 2021. Although the analysis in section 5.2.3, *Fish Entrainment and Impingement Study*, of the license application includes entrainment and turbine mortality estimates for clupeids using data adjusted for cold stress, and entrainment estimates for clupeids without an adjustment made for cold stress, an analysis of turbine mortality estimates for clupeids using data without an adjustment for cold stress was not provided. Therefore, please provide an estimate of turbine mortality for clupeids at the project using data that has not been adjusted for cold stress.
20. Section E.8.7, *Recreation-PM&E Measures Proposed by the Applicant, Resource Agencies, and/or Other Consulting Parties*, states that AEP Generation Resources proposes to develop a recreation management plan (RMP) that would include measures to enhance the tailrace fishing area and access to this facility. The license application states that the design of the tailrace fishing enhancements and access improvements to this facility would be developed in the context of the plan and completed in consultation with stakeholders. This proposal suggests that some level of in-water work and perhaps soil removal along the shoreline may be necessary to construct these improvements. However, no specific details on these construction activities or the potential effects of soil erosion and in-water work associated with these activities on environmental resources are provided in the license application. If in-water work would be required, please describe the construction process for the proposed improvements to the project's recreation facilities in as much detail as possible, including: (a) the timing and duration of all in-water work; (b) the specific areas of benthic disturbance; and (c) a description of any areas that would require dewatering and how these areas would be dewatered (e.g., cofferdams). If in-water work is required, please describe any effects to water quality and aquatic resources, and any proposed PM&E measures (e.g., best management practices, limiting in-water work activities to designated work windows, etc.) to minimize adverse effects to water quality and aquatic resources in the Ohio River during the construction of these facilities. Additionally, please provide estimated capital costs and estimated annual operation and maintenance expenses for any proposed PM&E measures.

Recreation Resources

21. Section E.8.7, *Recreation-PM&E Measures Proposed by the Applicant, Resource Agencies, and/or Other Consulting Parties*, states that AEP Generation Resources proposes to develop a RMP, which would include measures to enhance the tailrace fishing area and access downstream from the project's powerhouse; however, no additional detail is provided about the contents of the proposed RMP or the specific enhancements to the fishing area and access. So that staff may analyze the measures proposed for the RMP and determine the costs associated with the plan, please provide the following: (a) a detailed description of the proposed enhancements to the tailrace fishing area and access, such as any new construction or modifications to the pier and any changes in size, location, access, or security features; (b) a detailed description of any other proposed recreation facilities or enhancements or any proposal to maintain existing recreation facilities; and (c) an estimate of the capital cost and annual operation and maintenance cost associated with the development and implementation of the plan.

Terrestrial Resources

22. Section E.7.6, *Project Impacts on Wildlife Resources*, states AEP Generation Resources does not plan to remove any trees, but would consult with FWS and restrict tree removal from April 1 to November 15 to protect any roosting Indiana or northern long-eared bats at the project. However, a measure to seasonally restrict cutting trees has not been included in section 3.2.2, *Proposed Environmental Measures*. Please clarify if this is a proposed PM&E measure and if so, provide the estimated capital cost and estimated annual operation and maintenance expense of this measure.

Appendix C

23. Appendix C does not contain a comment letter from the West Virginia State Historic Preservation Office (West Virginia SHPO) regarding the cultural resources study completed for this project. Please contact the West Virginia SHPO to ask for comment on the study and provide correspondence from the West Virginia SHPO.

Exhibit F

24. Exhibit F-1, *General Design Drawings Plan*, presents an elevation of 384 feet NGVD29 for the powerhouse, the two 70-foot-diameter steel sheet pile cells, and adjacent paved area. This 384-foot elevation appears to be a typographic error because this elevation is inconsistent with elevations presented for these project facilities throughout the license application. Therefore, please verify the veracity of these elevations.

Exhibit G

25. In the PSP (*see* response to AIR 11), AEP Generation Resources stated the area southwest of the storage building is a staging area for construction projects. Please state whether this 7-acre area southwest of Tappers Run has any other use.