FEDERAL ENERGY REGULATORY COMMISSION
Office of Energy Projects
Division of Dam Safety and Inspections – New York Regional Office
19 West 34th Street, Suite 400
New York, NY 10001
Telephone No. (212) 273-5900

In reply refer to:

P-1175-WV
London-Marmet Project

February 15, 2024

Via electronic mail

Mr. Gene F. Sirca
American Electric Power
gfsirca@aep.com

Re: Marmet Development – 100% Design for Sheet Pile Bulkhead Repair

Dear Mr. Sirca:

This is in regard to your submittal under cover letter dated October 19, 2023, which provided the 100% design documents for the repair of the Marmet Development sheet pile abutment, which is part of the London-Marmet Project, FERC Project No. 1175-WV.

We have completed our review and have the following comments:

1. Prior to approval for construction the drawings need to be labeled "Issued For Construction".

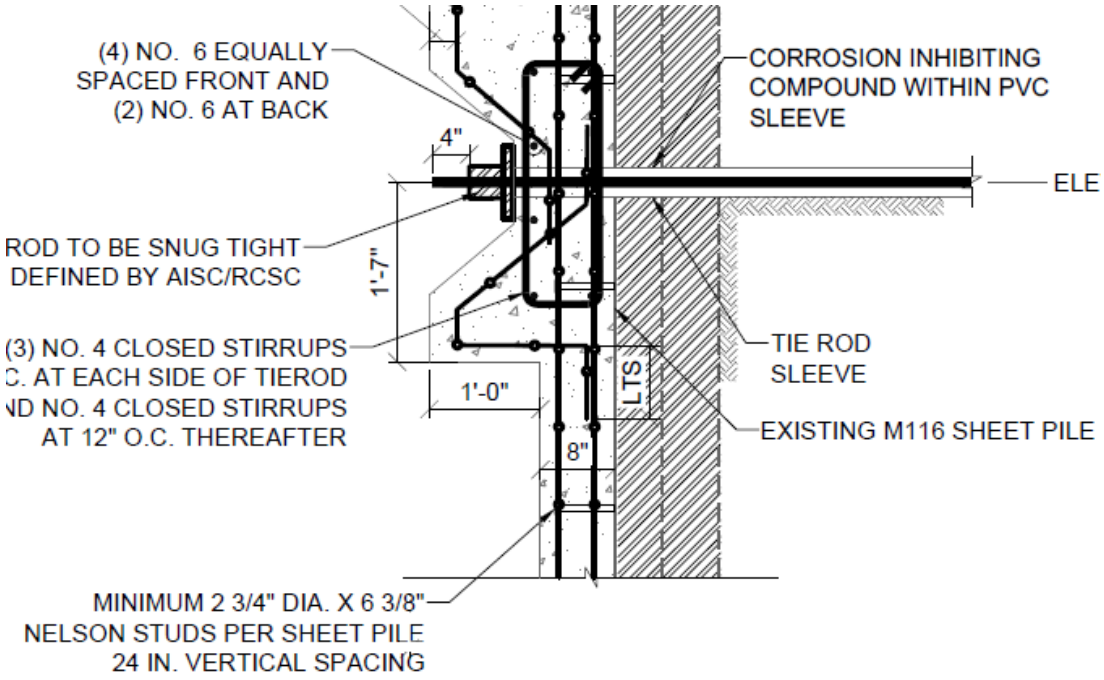
2. Drawings S-008 and S-009 should include labels for the "type" of micropile.

3. The tieback shown on cross-section B-B of Drawing S-008 is near the bottom of the existing sheetpile. There is the potential that the sheetpile is deeper than noted and could impact installation of the tieback due to interference. Consider revising to provide more distance between the tieback and the bottom of the sheetpile.

4. The top of the bond zone for the tieback as shown on cross-section B-B of Drawing S-008 is located at the top of rock and very near the bottom of the sheetpile. The borings indicate that the top of rock is comprised of highly weathered to decomposed sandstone for 2.0-2.5 feet. Consider adjusting the top of the bond zone to a few feet into the top of rock, and within the competent hard gray Sandstone below.

5. Provide a schedule for the tieback anchors that includes pertinent elevations, stressing lengths, bond lengths and design loads.

6. The reinforcement and wire mesh shown in Details C and D on Drawing S-011 appear very congested and may not provide enough space to ensure that the concrete can be properly consolidated (see figure below). Please review and revise as needed.



7. Details C, D, and E on Drawing S-011 show special form work of the beam/wall for the tie rods. Confirm with your contractor that these can be constructed as designed.

8. Detail F on Drawing S-011 shows that the vertical micropile has a #10 all thread bar. The calculations and the schedule shown on S-018 for the A-Frame micropiles states that the vertical micropile has #14 all thread reinforcing bar. Confirm and revise the drawing and calculations as needed for the vertical A-Frame micropile.

9. Detail E on Drawing S-011 should be labeled to show that the micropile has #18 all thread bar inside.

10. Neither of the cross-sections showing the A-frame batter micropile provide the angle of the battered micropile.

11. Detail A on Drawing S-013 is supposed to represent the cross-section of both the upstream micropile and the intermediate micropile based on the callout on Drawing S-008. The upstream micropile includes an all thread bar while the intermediate micropile does not have a bar. It appears the callout on Drawing S-008 for the upstream micropile is mislabeled.

12. Detail A on Drawing S-016 appears to show the upstream micropile. This micropile does not include the #6 all thread bar that is noted in the schedule on Drawing S-018. Revise the drawing as needed.

13. The design load varies for each micropile based on the calculations. The micropile schedule should clearly state the design load for each micropile.

14. Technical Specification Section 31 63 33 only requires one pre-production load test for both the type 2 and type 3 micropile. The design includes a vertical (compression) and battered (tension) type 2 micropile. The specification should designate if the test will be on the vertical or battered micropile.

15. The calculations for both the battered and vertical A-frame micropiles show that the battered micropile is 20 degrees from vertical. The A-Frame Concrete Block Design calculation states that the battered micropile is 25 degrees from vertical. Confirm the correct angle of the battered micropile and update the calculations as needed.

16. A Drilling Program Plan must be submitted for review and approval prior to starting work for installing the micropiles.

17. You are required to submit the Quality Control and Inspection Program (QCIP) and the Temporary Construction Emergency Action Plan (TCEAP) for our approval.

18. You are also reminded that you should obtain all other necessary state and federal resource agencies approvals and permits prior to the start of construction.

Please provide resolutions to address the above review comments within 60 days from the date of this letter. File your submittal using the Commission's eFiling system at https://www.ferc.gov/ferc-online/overview. When eFiling, select Hydro: Dam Safety and New York Regional Office from the eFiling menu. The cover page of the filing must indicate that the material was eFiled. For assistance with eFiling, contact FERC Online Support at FERCOnlineSupport@ferc.gov, (866) 208-3676 (toll free), or (202) 502-8659 (TTY)

Your continued cooperation is appreciated. If you have any questions, please contact Mr. James Huang at (212) 273-5915 or by email at James.Huang@FERC.gov.

Sincerely,

JOHN SPAIN

Digitally signed by JOHN SPAIN
Date: 2024.02.15 11:44:31 -05'00'

John Spain, P.E.
Regional Engineer