

FEDERAL ENERGY REGULATORY COMMISSION

**Office of Energy Projects
Division of Dam Safety and Inspections
Chicago Regional Office**

In reply refer to: P-2056

June 23, 2025

VIA Electronic Mail

Mr. Donald Hartinger
Plant Director, Renewable Operations – Hydro
Xcel Energy
Donald.R.Hartinger@xcelenergy.com

Re: St. Anthony Falls Hydroelectric Project (FERC No. 2056)
Hennepin Island Earth Dam Secant Pile Wall Design

- Responses to FERC's April 4, 2025 Comments
- Revised (May 2025) Design Report
- Revised (May 2025) Quality Control and Inspection Plan
- May 2025 Temporary Construction Emergency Action Plan

Dear Mr. Hartinger:

Xcel Energy's (Xcel) June 2, 2025 letter submitted the May 30, 2025 letter, prepared by your consultant Bethany Kelly, P.E. of Barr Engineering (Barr), responding to our ten (10) April 4, 2025 comments regarding the July 2024 Design Report for construction of a secant pile wall in the Hennepin Island Earth Dam (HIED) at the St. Anthony Fall Hydroelectric Project No. 2056. The submittal included a revised (May 2025) Design Report containing updated drawings, specification, Quality Control and Inspection Plan (QCIP), and a copy of Temporary Construction Emergency Action Plan (TCEAP) that was originally filed with Xcel's May 5, 2025 letter.

To recap, the objective of the construction project is to install secant pile wall within the HIED. The intent of the design is to address an area of active seepage through the embankment that manifests on the downstream slope during elevated reservoir pool levels. The secant pile cutoff wall will provide a long-term seepage control in the structure by being extend through the variable embankment fill and weathered bedrock surface and embed into the low-permeability, competent limestone layer for the full length of the HIED. End seals will be constructed at both ends of the cutoff wall to integrate the secant pile wall with the HEID's existing structures to block wrap-around seepage and avoid damage to the existing structures.

We reviewed the information provided and have the following comments:

1. Barr's May 30, 2025 responses and resulting revisions of the plans and specifications adequately address Comments #1, #4, #6, #7 and #8 of our April 4, 2025 letter.
2. A design change has been proposed in the May 2025 Design Report. Construction of a perpendicular secant pile wall, extending from the main stem to the existing Wasteway #1 core wall feature with end seal at the connection is planned to proactively address the low-risk seepage path through this area. We concur with the proposed design changes.
3. Barr's May 30, 2025 responses to Comments #2 and #3 agreed with our request to provide contractor required submittals listed in Section 31 56 00, Subsection 1.07 of the Specifications, noting that FERC's review within a 7-day duration for the key submittals will be important to stay on critical path of construction schedule.

Initially, these can be submitted via email to Mr. Paul Kokoszka, Ms. Marilyn Sabido (marilyn.sabido@ferc.gov), and me (kevin.griebenow@ferc.gov). We will acknowledge and if necessary, provide comments in an e-mail within 7 days after the filing. The submittals and e-mail correspondence can then be formally documented in the monthly and final construction report. We are open to participating in working meetings with Xcel, Barr, and the contractor, if necessary.

4. Barr's May 30, 2025 responses and resulting revisions of the QCIP adequately address Comments #5 and #9 of our April 4, 2025 letter. The May 2025 QCIP provided all the required information on organization staffing and responsibilities identifying who the person with the authority to stop work, field practices for testing and observations, documentation, training, material testing, erosion control and environmental compliance, schedules, and planned use of consultants. We determined that the QCIP was developed in accordance with the Chapter VII of FERC's Engineering Guidelines for the Evaluation of Hydropower Projects.
5. The Temporary Construction Emergency Action Plan (TCEAP) submitted on May 5, 2025, was prepared in accordance with Chapter 6, Section 6-9 of the FERC Engineering Guidelines for Temporary Construction Emergency Action Plans. The submittal adequately addressed Comment #1

You are authorized to proceed with proposed work assuming you have all necessary permits. Any changes to the plans and specifications should be coordinated between the Design Engineer, the QCIP Manager, and FERC. Any change in the operation of the project should be properly coordinated with FERC and understood by all your operators. No changes to the operation of the project can be made to the project until it is authorized by FERC. Any aberrant conditions encountered during the construction should be reported to FERC as soon as practical after the situation is discovered, without

interfering with any necessary emergency response.

Monthly construction reports should be filed by the 15th day of the month following the period covered by the report. The first monthly report, covering July and August, is to be filed by **September 15, 2025**. A Final Construction Report should be submitted within 90 days after the completion of the work (see Enclosure 1- Guidelines for Construction Reports from Licensees). We will use a due date of **December 31, 2026** for compliance tracking purposes. The final report should include certification from:

- A certification by the Design Engineer that the repairs were constructed in accordance with the design intent.
- A certification by the QCIP Manager that the results of the inspection and testing program results in a conclusion that the project was constructed in accordance with the plans and specifications.
- A certification from the Licensee that the construction fulfills the design intent and was constructed in accordance with the plans and specifications reviewed by FERC.

Finally, within 90 days of completing construction, you must file with the Secretary of the Commission revised exhibits (Exhibits A, F, and G), as applicable, to describe and show those new project facilities as built. Please note that you must identify the Exhibit F drawings as Critical Energy Infrastructure Information (CEII) material when filing. If no changes to the approved exhibits are necessary, please file a letter stating this with the Commission.

File your submittal using the Commission's eFiling system at <https://www.ferc.gov/ferc-online/overview>. When eFiling, select Hydro: Dam Safety and Chicago 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).

You may contact Mr. Paul Kokoszka at 312.596.4457 (Paul.Kokoszka@ferc.gov) or me at (312) 596-4430 or if you have questions.

Sincerely,

KEVIN
GRIEBENOW

Digitally signed by
KEVIN GRIEBENOW
Date: 2025.06.23
09:26:49 -05'00'

Kevin Griebenow, P.E.
Regional Engineer

Enclosure: Guidelines for Construction Reports from Licensees

cc: Mr. Dean Steines, PE. Chief Dam Safety Engineer at Xcel Energy
dean.s.steines@xcelenergy.com

Enclosure – Guidelines for Construction Reports from Licensees

GUIDELINES FOR CONSTRUCTION REPORTS FROM LICENSEES

When mobilization for construction commences, we will require monthly reports to provide timely information on construction progress. Each report should contain, as a minimum, the information described below. If certain sections are not yet applicable on the date of a particular report, so indicate. It is important to supplement each report with pertinent photographs. We would like to receive the reports, in duplicate, including all attachments, not later than the middle of the month following the month for which the report is written.

Monthly Reports

1. Progress of Work. Provide a brief narrative description of construction activities and related events during the reporting period.
2. Status of Construction. Describe the status of progress, as related to the original schedule and quantity estimates of items.
3. Construction Difficulties. Describe unanticipated construction difficulties which could significantly increase project costs and/or affect job progress such as latent conditions, serious job accidents, floods, labor difficulties, quantity overruns, material shortages, and similar events.
4. Contract Status. Identify principal contractors and subcontractors engaged on the work. Describe any special expertise or equipment possessed by contractors.
5. Critical Events and Dates. Report important items and events such as dates of river diversion, start and completion of construction, tunnel closure, initial unit testing, and date of initial commercial generation for each unit.
6. Reservoir Filling. Prior to filling, provide the anticipated schedule and procedures for filling. During filling, note the date of initiation of reservoir filling, filling progress, and the performance of instrumentation installed to reflect structural conditions as affected by reservoir level, such as weir measurements of seepage and flows from wet spots. Report the date maximum normal reservoir level is attained.
7. Foundations. Report specifically on foundation conditions, foundation preparations, the type of material and conditions of placement. Include photographs and descriptions of the foundation areas that have been uncovered.
8. Sources of Major Construction Materials. Provide information on the sources from which major construction materials and equipment are being obtained.

9. Materials Testing and Results. Include periodic summaries of tests on concrete specimens and results of all tests. Field control tests that fail to meet specifications and as a result of which an area was reworked, shall be reported. Tests will be referenced to ASTM or other applicable standards.
10. Instrumentation. When instrumentation of the structures is required by the license or the Regional Engineer, the report shall include the schedule for installation and the program for reading the instrumentation during construction. Before filling the reservoir, the Licensee shall develop and furnish a schedule for monitoring the instrumentation.
11. Photographs. At the outset of construction, establish several photographic vantage points from which periodic progress photographs can be taken to document progress. These photographs shall be supplemented by an appropriate number of detailed photographs to record significant elements of the work. All photographs shall be dated, captioned, and identified as to the report they accompany.
12. Erosion Control and Other Environmental Measures. The report shall include a discussion of erosion control and other measures and their effectiveness. The report should also include a discussion of any instances where sediments or other construction discharges entered the stream(s), the extent of the discharges, an assessment of any damage to the stream(s) and corrective actions taken, including measures to prevent further problems.
13. Other Items of Interest. Note here events not reported elsewhere in the inspection report. Typical items are meeting of boards of consultants, matters requiring continuing or follow-up action, public relations, job safety, important visitors, changes in job management, environmental problems, abnormal weather events, etc. Report significant events involving relationships with interested government agencies such as the U. S. Forest Service, Fish and Wildlife Service, Corps of Engineers, State and county highway and health authorities, State and Federal industrial safety enforcement organizations, and recreational and conservationist groups.

Final Construction Reports

The Licensee should submit a final construction report within 90 days from the completion of work. This report should include all information pertinent to the dam safety in a concise form, should be included by the Licensee in the project file and it should be given to the independent consultant for his safety inspection and analyses, if applicable.

As such, the report should contain a summary of information in each of the applicable sections indicated below (the information was previously presented in the monthly

reports). Tabular form for test result presentation with indication of applicable standard is recommended for conciseness. If certain sections are not applicable, skip them. Include construction difficulties under sections where it applies.

1. General. Briefly present the reason for construction and description of work with dates of beginning and end of construction. Include reservoir drawdown and filing dates, any findings regarding the original structure.
2. Foundations. Present specifically condition of foundation (faults, etc.) when uncovered, and foundation treatment. Attach foundation mapping.
3. Embankments. Describe the equipment, type of materials used in filters and fills, attach gradation and compaction requirements and all test results.
4. Concrete work. Describe equipment and materials, include all concrete and grout test results, describe surface treatments.
5. Anchors. Present summary of drilling operation including boring logs; results of water pressure tests; anchor design calculations, design loads, specification; results of grout test; results of proof and performance tests; and summary of acceptance criteria.
6. Instrumentation. Present plots of existing instrumentation readings during the construction, if the readings are affected. Include details, complete schedule, plan of calibration/reading of all new instrumentation.
7. Drawings. Attach as-built drawings reduced in size to 8.5"x11" or 11"x17". The drawings should include plan, section and details of the structure affected by the new work. Any new instrumentation should be shown on plan and sections.