

**FEDERAL ENERGY REGULATORY COMMISSION**  
**Office of Energy Projects**  
Division of Dam Safety and Inspections - Chicago Regional Office  
230 South Dearborn Street, Suite 3130  
Chicago, Illinois 60604  
(312) 596-4430 Office - (312) 596-4460 Facsimile

In reply, refer to: P-2785, P-10809, P-10810  
September 2, 2020

Via Electronic Mail

Mr. Lee Mueller  
Boyce Hydro Power, LLC  
lwmueller@boycehydrollc.com

Re: Extension of Time Request for Supplemental Report to  
12.10 Incident Report for May 19, 2020 Flood & Dam Breach;  
Sanford Hydroelectric Project No. 2785  
Secord Hydroelectric Project No. 10809  
Smallwood Hydroelectric Project No. 10810

Dear Mr. Mueller:

Our August 19, 2020 letter, reviewed your 12.10 Incident Report for the May 19, 2020 Flood Event, requiring you to address our comments included in the Enclosure and file a supplemental report by **September 15, 2020**.


Your August 24, 2020 letter requested an extension of time to October 30, 2020, stating that “the deadline stated, September 15, 2020, is only 18 business days from the date of your letter” and “professionals who must be engaged to answer the myriad questions in your letter only work during business days.”

Boyce Hydro Power, LLC (Boyce Hydro) has had ample time, beginning with our May 28, 2020 request, to submit and supplement the 12.10 Incident Report. Nevertheless, we are granting additional time for certain information due to the time it takes to secure contracts with individual contractors and because granting more time should not result in additional dam safety concerns. Information that Boyce Hydro staff can provide remains due by September 15, 2020. We have attached an updated Enclosure from our August 19, 2020 letter, which indicates the information that must be provided by the original September 15, 2020 due date and information that may be provided by your requested date of October 30, 2020.

**Please address our August 19, 2020 comments by the due dates listed in the Enclosure. We will not grant additional time extensions to address these requests.**

You may contact me at 312.596.4430 if you have any questions or concerns pertaining to this letter.

Sincerely,



John A. Zygaj, P.E.  
Regional Engineer

Enclosure – FERC Comments on 12.10 Incident Report

## Enclosure – Due Dates to address the Commission’s August 19, 2020 Comments on 12.10 Incident Report

### General

1. The incident report does not indicate that Mr. Richard D. Purkeypile listed as the Chief Dam Safety Engineer (CDSE) in the 2018 Owners Dam Safety Plan (ODSP) – Rev 6 or Mr. Shawn McGee listed as the CDSE in the June 2020 ODSP – Rev 7 was involved with the operations or assessment of project features during the May 2020 flood and dam failures. Explain why Mr. Purkeypile or Mr. McGee was not involved in the decision-making processes and flood fighting during the May 2020 flood.

**Due Date: No later than September 15, 2020.**

2. In accordance with Chapter 6 of our Engineering Guidelines, an after-action review of the EAP activation should be conducted with any emergency management authorities involved in the May 2020 incident. As part of the review, all participants must discuss and evaluate, at minimum: the events or conditions leading up to, during, and following the incident; significant actions taken by each participant and improvements for future emergencies; all strengths and deficiencies found in the incident management process, materials, equipment, staffing levels, and leadership; and corrective actions identified and a planned course of action to implement recommendations. The results of the after-action review should be documented in an After-Action Report and submitted for our review.

**Due Date: No later than October 30, 2020.**

3. As per section 12.10(a)(2) of the Commission's regulations, include a detailed description of the nature and extent of any upstream and downstream private property damages related with the breach of Sanford Dam and operation of Secord and Smallwood dams.

**Due Date: No later than October 30, 2020.**

4. Provide surveyed elevations of highwater marks upstream and downstream, and at the powerhouse/spillway structure of Sanford, Smallwood and Secord Projects.

**Due Date: No later than October 30, 2020.**

5. Provide tailwater levels-time plots for Sanford, Smallwood, and Secord Projects.

**Due Date: No later than September 15, 2020.**

6. Per the 12.10 report:

“on May 19<sup>th</sup>, between 2:00 and -3:00 pm at Smallwood, operators discovered water gushing out of the lower level of the powerhouse building; water had risen so high in the tailrace that it has reached the level of an opening and was forced outside, causing earth erosion alongside the powerhouse building.”

Provide additional information (photos, tailwater elevations, etc.) regarding this matter. Per the provided photos, we were not able to confirm the tailwater elevation as well as other flood scenarios that could have caused the powerhouse flooding. This issue was also discussed in our July 15, 2020 letter on your consultant's Smallwood Dam inspection report.

**Due Date: No later than September 15, 2020.**

7. Submit any in-house dam safety inspection reports completed after the date of our last annual inspection and before the May 2020 flooding.

**Due Date: No later than September 15, 2020.**

#### Operations & Data

8. Provide inflow and outflow hydrographs during the flood for the Secord, Smallwood, and Sanford dams and provide supporting calculations.

**Due Date: No later than October 30, 2020.**

9. The gate opening/closing sequence report should be updated with the gate identifier for each of your projects. For example, on May 17th the gate opening at Edenville was documented as 4.5 feet at the beginning of the 24-hour period, 2 feet at Tittabawassee and 2.5 feet at Tobacco however, there are six gates at Edenville. Information for each gate's opening height instead of the cumulative opening height should be provided.

**Due Date: No later than September 15, 2020.**

10. Clarify operational data records for Secord and Smallwood:

- a. What type of data is provided below the columns labeled as "H2O\_TMP\_VALO", "U1\_GATE\_SCALED\_VALO" and "KW\_VALO" ?
- b. There are two gates at each of these projects. Provide data for each gate.

**Due Date: No later than September 15, 2020.**

11. Clarify operational data records for Sanford:

- c. Why are different operational parameters presented for Secord and Smallwood than for Sanford? Why is "VALO" present on the elevation records for Secord and Smallwood but not for Sanford?
- d. Provide tailwater elevations.
- e. What type of data is provided under the columns labeled as U1, U2, and U3 Gate Scaled? Please provide an explanation of how these values correlate with headwater values.
- f. There are six gates at this project. Provide data for each gate.
- g. Turbine SPD: We assume this is turbine speed. Does this relate to wicket gate opening? If so, what are the corresponding flows?

**Due Date: No later than September 15, 2020.**

12. Submit any photos taken between May 17 and May 20 that show any debris blockage at the Secord, Smallwood, and/or Sanford spillways.  
**Due Date: No later than September 15, 2020.**
  
13. The maximum observed elevation at the Smallwood Project was reported as 709.2 ft (NGVD29). Per the final construction report for the Smallwood PFM No. 8 (dated May 3, 2017), the minimum elevation of the left emergency overflow section is 709.28 ft. However, the May 2020 flood overtopped the emergency overflow section. Clarify this elevation disparity.  
**Due Date: No later than September 15, 2020.**
  
14. Provide information regarding the operational status of monitoring instrumentation and post-flooding monitoring data.  
**Due Date: No later than September 15, 2020.**
  
15. Provide information regarding the operational status of powerhouse intake stoplogs and the wooden stoplogs used to close the steel sheet pile diversion during the extreme floods at Smallwood.  
**Due Date: No later than September 15, 2020.**

#### Remediation

16. Provide a detailed description and photos of any damage to the Secord Project, including the status of any repairs.  
**Due Date: No later than September 15, 2020.**
  
17. Provide construction documentation for the emergency repairs completed for your projects after the May 2020 flood event. Include the following information:
  - a. Foundation preparation of backfills.
  - b. Gradation of earthfill materials, and placement, moisture conditioning, and compaction methods and equipment. Include loose placed and compacted lift heights and number of compaction equipment passes.
  - c. Gradation, type and strength of riprap material and minimum riprap layer thickness.
  - d. Gradation and type of bedding material under riprap.
  - e. Criteria used to determine the extent of the riprap erosion protection.
  - f. Plan view showing the different erosion repairs. Include typical cross sections of each repair type.**Due Date: No later than September 15, 2020.**

Document Content(s)

02785 10809 10810 12.10 Incident Report EOT\_sh 52825.PDF .....1