



600 North 18th Street
Hydro Services 16N-8180
Birmingham, AL 35203
205 257 2251 tel
arsegars@southernco.com

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VIA ELECTRONIC FILING

Project No. 2628-066
R.L. Harris Hydroelectric Project
10(j) Meeting Follow-Up Letter

Ms. Debbie-Anne Reese
Secretary
Federal Energy Regulatory Commission
888 First Street N.
Washington, DC 20426

Dear Secretary Reese,

Alabama Power Company (Alabama Power) is the Federal Energy Regulatory Commission (FERC or Commission) licensee for the R.L. Harris Hydroelectric Project (Harris Project) (FERC No. 2628). Alabama Power filed its Final License Application (FLA) for the Harris Project on November 23, 2021.¹

On August 12, 2025, FERC held a meeting with the Alabama Department of Conservation and Natural Resources (ADCNR) to discuss its 10(j) recommendations. As part of the discussion regarding ADCNR's 10(j) recommendation to take the 2nd Harris turbine unit offline at least 2 hours after the 1st turbine unit is taken off-line, Alabama Power committed to providing FERC with additional information on historical two-unit operations at Harris. In addition, Alabama Power is clarifying its interpretation of the Final Environmental Impact Statement (FEIS) with regard to ADCNR's recommendation of $\pm 5^{\circ}$ F (2.7° C) change from ambient water temperature and requests that FERC slightly modify the language in draft license Articles 409 and 410 based on additional information included herein.

Two Unit Operations

As referenced by FERC in the FEIS, Alabama Power states in the Final Battery Energy Storage System Report² that two-unit generation occurs approximately 9 percent of the total historical period.³ A review of hourly generation data over the last ten years (2015-2024) shows that two-unit operation has occurred approximately 3 percent of the time, and approximately 70 percent of that two-unit operation was during flood control. Therefore, non-flood control two-unit operations have occurred less than 1 percent of the time over the past 10 years. As FERC is fully aware, there can be no additional unit restrictions required during

¹ Accession Nos. 20211123-5074, -5075, -5076, -5077, -5078, -5079.

² Accession No. 20211119-5039.

³ The total historical period referenced in the Final Battery Energy Storage System Report is 1983 through 2020.

flood control, as it would likely be inconsistent with the flood control procedures described in the U.S. Army Corps of Engineers (USACE) Harris Water Control Manual.

Accordingly, while it may be physically possible to wait a specific amount of time before a second unit is unloaded following two-unit operations, it would happen very rarely with nothing in the licensing record to identify any potential benefit from doing so. And as explained in Alabama Power's Response to Recommendations and Comments on Notice of Ready for Environmental Analysis,⁴ by placing a requirement to wait a specified time to unload a second unit, the project's ability to quickly adapt and respond to system needs is severely restricted, unnecessarily putting at risk the reliability of the bulk power grid. Alabama Power fully agrees with the FERC staff determination in the FEIS that "any potential benefits to downstream resources would rarely be realized" (FEIS at I-22) and reiterates that this recommendation is infeasible and creates unnecessary risk to the existing units and system reliability. Therefore, it should not be included as a condition in the new license.

Temperature

During the 10(j) meeting, there was confusion regarding whether FERC had adopted ADCNR's $\pm 5^{\circ}$ F (2.7° C) change from ambient water temperature recommendation in the FEIS. The text of the FEIS and Draft Article 409, Water Quality Enhancement and Monitoring Plan, infer that the $\pm 5^{\circ}$ F (2.7° C) change in temperature recommendation was not adopted.⁵ Although Table 5-1 of the FEIS suggests that FERC staff retained the $\pm 5^{\circ}$ F (2.7° C) change in temperature recommendation, which Alabama Power assumed was an oversight and the Conservation Groups described as "confusing"⁶, the text of the FEIS led Alabama Power, ADCNR, the Conservation Groups, and likely others, to conclude that the $\pm 5^{\circ}$ F (2.7° C) change in temperature recommendation had been rejected in favor of establishing temperature targets during future consultation with appropriate agencies.⁷

Specifically, in the FEIS, Draft Article 409 no longer contains the numeric temperature targets that were previously included in the comparable Draft Article 408 in the Draft EIS. (*Compare* FEIS at J-8, *with* DEIS at K-7). Further, FERC states: "Since the draft EIS, we have expanded our evaluation for both water temperatures and minimum flows . . . We no longer adopt Alabama DCNR's recommended thermal regime, but instead recommend that temperature targets be included as part of the plan and developed based on

⁴ Accession No. 20230502-5242.

⁵ Numerous references from the Draft EIS (DEIS) to the "staff-recommended Alabama DCNR thermal regime" were eliminated in the FEIS *See e.g.*, DEIS at 2-12, I-5, I-14.

⁶ As the Conservation Groups stated in their comments on the FEIS: "Confusingly, Commission staff have now removed reference in the FEIS to this clear, quantitative, measurable § 10(j) recommendation in draft articles governing temperature and project operations, yet Recommendation #12 continues to be recommended and adopted by FERC staff in FEIS Table 5-1." Accession No. 20250612-5207.

⁷ ADCNR noted in their comments on the FEIS that FERC had only partially adopted the recommended temperature regulation with "partial adoption of 90° F (32.2° C) maximum and select other water temperature targets and rate of change in consultation." Accession No. 20250630-5286. The Conservation Groups also referenced "FERC staff's reversal from the Draft EIS on water temperature requirements." Accession No. 20250612-5207.

consultation with the consulted agencies.” (FEIS at N-14).⁸ Similarly, in its Determination of Inconsistency letter to ADCNR, FERC states: “We adopt, in part, a 90° F (32.2°C) maximum water temperature, but select other water temperature targets and rate of change in consultation.”⁹ Accordingly, the agenda for the August 12th meeting only included those 10(j) recommendations or components of 10(j) recommendations not adopted by FERC.¹⁰

Alabama Power supports the FEIS rejection of the $\pm 5^{\circ}$ F (2.7° C) change in temperature recommendation. As Alabama Power previously commented, ADCNR’s recommended temperature regime is an inappropriate starting point for any temperature targets because it is based on water quality standards (WQS) that apply to heat dischargers, not hydropower facilities.¹¹ FERC acknowledges this in the FEIS, stating: “we have clarified that Alabama DCNR’s recommended thermal regime goes beyond applicable temperature criteria in the water quality standards”, and “Commission staff has revised the referenced discussion in the final EIS to clarify that Alabama DCNR’s temperature recommendation is not equivalent to the requirements of the state’s water quality standards. The final EIS also accounts for this in the recommended Water Quality Enhancement and Monitoring Plan.” (FEIS at N-13 and N-12).

Draft Articles 409 and 410

Alabama Power has previously pointed out that there is no supporting data in the licensing record that clearly identifies the benefits of enhancing the temperature regime at Harris, much less data to support the need to install a partial destratification system.¹² And, FERC recognizes that implementation of the 300 cfs continuous minimum flow (300 CMF) is expected to benefit the aquatic community by “reduc[ing] daily temperature fluctuations” and “enhanc[ing] aquatic habitat and other river functions downstream.” (FEIS at I-11 and I-13). Therefore, monitoring the impact of the 300 CMF on the aquatic community pursuant to Article 410 should occur prior to establishing temperature targets and certainly before any additional structural modifications are required. The results could render any additional structural modifications unnecessary.

⁸ FERC also states that, “[b]ased on the comments and information filed on the draft EIS, including Alabama Power’s new tables, Commission staff has revised and refined the analysis of the flow and water temperature issues in the final EIS.” FEIS at N-10.

⁹ Accession No. 20250331-3043.

¹⁰ For example, agenda item #2 did not include the stabilization of Harris Lake because that portion of ADCNR’s 10(j) recommendation was adopted by FERC.

¹¹ Accession No. 20250219-5135 at A-5 to A-6. Specifically, the WQS recommended by ADCNR apply where there is an “addition of artificial heat,” and it is well settled that hydroelectric facilities do not “add” heat to water, much less “artificial heat,” which has been reasonably interpreted to refer to water that has been heated by an external activity (e.g., facilities that intake water to cool equipment and discharge it back to the same waterbody).

¹² Accession No. 20250219-5135 at A-5 to A-11 (citing to information in the licensing record and providing additional analyses showing that temperature requirements and structural modifications are not warranted).

Furthermore, since the issuance of the FEIS, and in preparation for license issuance, Alabama Power engaged an industry expert to evaluate potential methods to develop a partial destratification system. A preliminary desktop analysis showed that because of the intake depth at Harris Dam, partial destratification may not achieve the temperature increase FERC expects. For instance, one method for partial destratification of a forebay is the use of surface water pumps. Surface water pumps have historically been applied at projects with deep water intakes with the goal of increasing dissolved oxygen (DO). Successful surface water pump designs are currently in operation at Tennessee Valley Authority's Douglas and Cherokee dams, where the intake centerline is over 100 feet below full pool. But, because the Harris intake is high in the reservoir (i.e., intake centerline at 17.75 feet below full pool with skimmer weir raised, and 26.5 feet with the weir in lowered position) the warmer water in the epilimnion is already being passed through the intake, especially with the skimmer weir in its raised position. Because surface water pumps would be positioned very close to the intake centerline, their operation could result in over penetration whereby the warmer water passes through the withdrawal zone and mixes with the colder, less oxygenated hypolimnetic water below, forming a buoyant warm/cold mixed plume that rises back up to the withdrawal zone. This could result in cooler turbine release temperatures with lower DO.

Accordingly, Alabama Power requests that FERC revise the language in Article 409 to allow Alabama Power to evaluate ways to destratify the forebay and confirm that such measures can achieve temperature targets, rather than requiring Alabama Power to move straight to developing a plan to install destratification equipment. Furthermore, any temperature targets that are established must be feasible from an operational standpoint and should be developed following implementation of the 300 CMF and following a more robust evaluation of what any physical/structural change, such as a partial destratification system, could realistically accomplish. The results could show that destratification is unnecessary, as a destratification system could result in adverse impacts or in uncertain benefits that may not outweigh the costs.

Specifically, Alabama Power requests the language in Condition 3 from Draft Article 409, *Water Quality Enhancement and Monitoring Plan*, be revised as follows:

3. An evaluation of measures, including a narrative description and requisite conceptual design drawings, to partially destratify the Harris Lake forebay area to enhance the DO and thermal regime in accordance with the water quality enhancement and monitoring plan's goals and objectives (i.e., increase water temperature and decrease range of temperature fluctuation) of the Tallapoosa River downstream from Harris Dam and, if consistent with the plan's goals and objectives, a schedule for designing, planning, permitting, constructing, and operating a system to provide the temperature goals and objectives.¹³

Further, Alabama Power requests that Article 410, *Tallapoosa River Aquatic Resources Monitoring Plan*, be revised to insert " , if applicable" after "Article 409" in the first paragraph. This revision is necessary in the event it is determined that partial destratification is ineffective or more harmful than helpful.

¹³ Alabama Power has also requested removal of the reference to ADCNR 10(j) recommendation 9 in subpart 4 of Draft Article 409. See Accession No. 20250430-5497 at 3.

In conclusion, Alabama Power supports the rejection of the 10(j) recommendation to wait two hours before taking the second unit offline, as well as the rejection of the $\pm 5^{\circ}$ F (2.7° C) change in temperature 10(j) recommendation. In addition, Alabama Power requests that Articles 409 and 410 be amended as provided above given that initial analysis shows that partial destratification of the forebay could cause adverse impacts and given that monitoring results following implementation of the 300 CMF pursuant to Article 410 may show that additional structural modifications are not necessary. In sum, requiring installation of a destratification system without additional analysis or development of evidence to support such measure, as Article 409 is currently drafted, would be inconsistent with Sections 4(e) and 10(a) of the Federal Power Act.

If there are any questions concerning this filing, please contact me at arsegars@southernco.com or 205-257-2251.

Sincerely,



Angie Anderegg
Harris Relicensing Project Manager