

UNITED STATES OF AMERICA 121 FERC ¶ 62,129  
FEDERAL ENERGY REGULATORY COMMISSION

Alabama Power

Project Nos. 349-134 and 2407-121

ORDER GRANTING TEMPORARY AMENDMENT TO RULE CURVE

(Issued November 20, 2007)

On October 23, 2007, and supplemented on November 14, 2007, Alabama Power (licensee) filed a request for a drought-based temporary variance to the rule curve for the Martin Hydroelectric Project (FERC No. 349)<sup>1</sup> and associated temporarily modified minimum flows from the Thurlow development of the Yates and Thurlow Project (FERC No. 2407).<sup>2</sup> The projects are located on the Tallapoosa River in the counties of Coosa, Elmore and Tallapoosa, Alabama.

LICENSE REQUIREMENTS

Exhibit H, filed by Alabama Power on November 16, 1978, requires the licensee to maintain the Martin Reservoir at or below the elevations specified by the rule curve. Beginning in January, the curve is at elevation 480 and remains constant to February 17.<sup>3</sup> On this date, the curve begins rising until it reaches 490 on April 28. The curve remains at this elevation until August 30 when it begins to lower. The curve lowers 10 feet to elevation 480 feet by December 31 and remains constant until filling begins the next February 17.

Article 401 of the license for the Yates and Thurlow Project (FERC No. 2407) requires the licensee to release from the Thurlow development a minimum flow in accordance with Part I, Paragraphs 1,2,3,5,7 and 9 of the “Agreement for Continuous Minimum Releases from Thurlow Dam and Associated Environmental Studies” (Agreement).<sup>4</sup> According to the Agreement, the target minimum flow is 1200 cubic feet per second (cfs), where the actual minimum flow is based on a number of calculations, as described in the Agreement. Once a week, the licensee is to determine whether there is sufficient run-off in the Tallapoosa Basin, that when combined with the normal filling

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<sup>1</sup> Order Issuing New License. 3 FERC ¶ 61,137. Issued May 11, 1978.

<sup>2</sup> Order Issuing New License. 66 FERC ¶ 62,068. Issued February 3, 1994.

<sup>3</sup> The elevations noted in the licensee’s October 23, 2007, filing and on the original rule curve, dated 1978, are in “Martin Datum”, rather than referenced to mean sea level (msl). Martin Datum is the equivalent of 1 foot below msl.

<sup>4</sup> Attached to the Order Issuing New License.

and/or drawing of Harris and Martin reservoirs, will supply both power needs and the target minimum flow. If it is determined that run-off is insufficient to supply the minimum flow, a reduced target minimum flow would be computed in accordance with the Agreement. Article 401 allows the minimum flow to be temporarily modified if required by operating emergencies beyond the control of the licensee, or for short periods upon agreement between the licensee and the Alabama Department of Conservation and Natural Resources. If the flow is so modified, the licensee is required to notify the Commission as soon as possible, but no later than 10 days after each such incident.

#### LICENSEE'S PLAN

Due to severe drought conditions in Alabama, the licensee is proposing a temporary variance to the Martin Project rule curve, for the period of November 20, 2007, to April 28, 2008. The license proposes the following:<sup>5</sup>

1. Maintain the winter pool elevation 3 feet higher than normal, at elevation 483 instead of elevation 480.
2. Begin maintaining the winter pool elevation earlier than normal, on November 20 rather than January 1.
3. Initiate the filling process earlier than normal, beginning January 15 instead of February 17.
4. Reach and maintain summer pool elevation earlier than normal, on April 1 rather than April 28.

The licensee performed modeling runs with and without the rule curve variance. The projections were based on inflows during 2006 and 2007, with two significant rain events dampened to reflect the unfavorable rainfall forecasts and a continuation of the severe drought conditions. The licensee states that without the variance, the reservoir is expected to only reach an elevation of 484, which is six feet below the normal summer pool elevation. With the rule curve variance, the reservoir could reach summer pool by early April. The licensee states that this would greatly enhance its ability to support the many reservoir and downstream needs during the next summer's critical period.

The licensee states that during evaluation of the rule curve variance, consideration was given to the minimum flow releases at the downstream Thurlow Project. Along with

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<sup>5</sup> The dates originally noted in the licensee's October 23, 2007 filing were revised by the licensee's November 14, 2007 filing, to reflect actual operations according to the rule curve.

its proposed variance to the Martin rule curve, the licensee is providing notification to the Commission, under Article 401 of the Yates and Thurlow license, that upon approval of the Martin variance, the minimum flow releases at the Thurlow Project would be temporarily modified as follows:

1. Change will be in effect until April 28, 2008.
2. Discharge no less than 350 cfs until the Martin Reservoir elevation reaches the existing rule curve.
3. When the reservoir elevation is at or above the existing rule curve but below the temporary rule curve, the licensee would discharge the greater of 350 cfs or the inflow at the upstream Heflin gage.
4. When Martin Reservoir elevation is at or above the temporary rule curve, the licensee would discharge no less than 1200 cfs from Thurlow.

In its November 14, 2007 supplemental filing, APC also provided a proposal for a water quality monitoring plan to evaluate any effects the rule curve change may have on water quality within Lake Martin.

#### AGENCY COMMENTS

The licensee provided the U.S. Fish and Wildlife Service (FWS), Alabama Department of Conservation and Natural Resources (ADCNR), and the Alabama Department of Environmental Management (ADEM) a package of information describing the Martin drought-based rule curve variance and the Thurlow temporary flow modification by emails dated October 3 and 11, 2007. The U.S. Army Corps of Engineers (Corps) was also provided this information by emails on October 5 and 11, 2007. The licensee also held conference calls with these agencies to fully explain the proposals and answer agency questions.

By email dated October 19, 2007, the ADEM concurred with the licensee's proposal, provided that the licensee implement a monitoring plan to evaluate the effect the rule curve change may have on water quality within the lake and dam tailrace. By emails dated October 19, 2007, the FWS and ADCNR both concurred with the temporary rule curve variance. The Corps, by letter filed November 15, 2007, stated it has no objection to the licensee's request.

The licensee proposes to continue to communicate with these resource agencies to provide additional information. As a condition of agency concurrence, the licensee has

agreed to participate in weekly conference calls with the FWS, ADCNR and ADEM during the variance period to discuss any issues that may arise.

The Commission issued a public notice of APC's proposed temporary variance on November 1, 2007, with a comment closing date of November 14, 2007. The Lake Martin Home Owners & Boat Owners Association and individual property owners were all in favor of the proposed temporary variance. The Corps stated they have no objection to the variance request. The U.S. Department of the Interior (Interior) filed to intervene in the proceeding.

## DISCUSSION

Review of records from the U.S. Geological Survey real-time stream flow gage data, from the gage near Heflin, Alabama, indicates that streamflow in the Tallapoosa River is substantially below the historic average. The United States Geological Survey (USGS) stream gauging station five miles upstream of Lake Martin (USGS 02414715) at Horseshoe Bend reports a mean monthly discharge, for the time period of 1986 to 2006, for the month of October, of 1750 cfs. With the current drought conditions, the daily mean discharge for October 2007 was below 300 cfs for the majority of the month. Furthermore, the U.S. Drought Monitor classifies this region of Alabama as currently having exceptional drought conditions, which is the most severe classification given by the Monitor. The U.S. Drought Monitor also provides a drought outlook which is derived from probabilities guided by short and long range statistical forecasts. The seasonal outlook for the Tallapoosa River basin shows some short term improvement, however, the long term outlook shows continuing exceptional drought conditions.

The licensee is requesting a variance to the existing rule curve in order to minimize the effects of the extended drought situation by maintaining a higher winter pool elevation, and starting the spring refilling process sooner, in the hope to capture and hold winter rains in Martin Reservoir, rather than allowing that flow to pass out of the system. Alabama Power states that with the continuing drought conditions, there is a possibility of not being able to fill its reservoirs to their normal elevations next spring, which could result in emergency type situations as severe as, or worse than, they are experiencing this year. The licensee states that with the rule curve variance there is good possibility that Martin Reservoir could reach summer pool by early April, and enhance the licensee's ability to support the many reservoir and downstream needs during the next summer's critical period. The licensee states that without the variance, the reservoir is expected to only reach an elevation of 484, which is six feet below the normal summer pool elevation.

Commission staff completed an Environmental Assessment (EA)<sup>6</sup> of the licensee's proposed variance. Based upon the analysis within the EA, staff concluded the drought based temporary variance to the Martin Project rule curve would not constitute a major federal action significantly affecting the quality of the human environment.

In order to evaluate the effect the rule curve change may have on water quality within Lake Martin, the licensee is proposing to implement a water quality monitoring plan from December 2007 through May 2008. Results will be analyzed by the licensee and the ADEM. Commission staff recommends that the licensee be required to file a final report of the study results, including agency comments, with the Commission. If during the monitoring it is determined through consultation with the agencies, that additional monitoring or measures are needed to ensure protection of water quality, the licensee should notify the Commission within 5 days of the implementation of any additional measures or monitoring. This will allow the Commission to stay apprised of the results of the study and to determine if any further actions are needed.

Commission staff believes the proposed drought-based temporary variance to the Martin Project rule curve should be approved in order to minimize the effects of the extended drought situation and ensure water is available during the next summer if drought conditions continue as forecasted.

The Director orders:

(A) Alabama Power's (licensee) request for a temporary variance of the Martin Project rule curve, pursuant to Exhibit H, and associated temporarily modified minimum flows from the Thurlow development of the Yates and Thurlow Project is approved, from November 20, 2007, until April 28, 2008.

(B) If, during the water quality monitoring at Lake Martin, it is determined, through consultation with the agencies, that additional monitoring or measures are needed to ensure protection of water quality, the licensee shall notify the Commission within 5 days of the implementation of any additional measures or monitoring.

(C) The licensee shall file a Final Water Quality Monitoring Report documenting the results of the water quality monitoring as outlined in the Lake Martin Water Quality Sampling Plan, filed November 14, 2007, and describe any additional monitoring or measures that were implemented. The final report shall be filed by August 31, 2008. The licensee shall prepare the final report after consultation with the Alabama Department of Environmental Management, Alabama Department of Conservation and Natural Resources and the U.S. Fish and Wildlife Service. The licensee's final report

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<sup>6</sup> Filed November 19, 2007.

shall include documentation of consultation with these agencies and copies of comments the agencies may have on the results of the monitoring. The licensee shall allow the agencies a minimum of 30 days to make comments prior to filing the report with the Commission. The Commission reserves the right to require additional monitoring if warranted.

(D) The licensee shall file an original and eight copies of any filing required by this order with:

The Secretary  
Federal Energy Regulatory Commission  
Mail Code: DHAC, PJ-12.3  
888 First Street, N.E.  
Washington, D.C. 20426

(E) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR § 385.713.

Joseph D. Morgan  
Director  
Division of Hydropower Administration  
and Compliance