600 North 18th Street Post Office Box 2641 Birmingham, Alabama 35291 Tel 205.257.1268



Date: December 29, 2008

RE: Martin Project, FERC No. 349 and Yates and Thurlow Project, FERC No. 2407

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose Secretary Federal Energy Regulatory Commission 888 First Street, NE Washington, DC 20426

Dear Ms. Bose:

As is widely known, the State of Alabama and other southeastern states continue to experience effects of the significant drought conditions (Figure 1-3) that began in 2006. The National Weather Service (NWS) and National Oceanic and Atmospheric Administration (NOAA) precipitation forecasts and Drought Outlook (Figure 4, 5) offer little hope for any significant improvement in these conditions over the near term, which is normally the wettest time of the year. This period typically allows Alabama Power Company (APC) to re-fill our storage reservoirs in anticipation of meeting downstream needs during the normally dry summer and fall months that follow. The Federal Energy Regulatory Commission (FERC or Commission), The State of Alabama's Department of Environmental Management (ADEM), Alabama Department of Conservation and Natural Resources (ADCNR), and Office of Water Resources (OWR), as well as the U.S Fish and Wildlife Service (FWS) have worked diligently with us during these difficult times to obtain minimum flow and rule curve variances to ensure we continue to optimize the use of these resources in the Coosa and Tallapoosa basins to meet the wide variety of local and downstream needs placed on them. We sincerely appreciate the guidance and assistance provided by all participating agencies in obtaining these variances, and doing so in such an expeditious manner. Additionally, Alabama Power Company has participated in regular conference calls since October of 2007 with FERC and these state and federal resource agencies, to discuss the status of its hydroelectric reservoirs, inflows and its plans for managing the low flows in the Coosa and Tallapoosa Rivers.

Because drought conditions continue to persist, impacting both current inflows and projected rainfall for the coming months, APC is, once again, in the potential position of not being able to refill our reservoirs next spring. The impact of the drought in 2007, reminds us of the

importance that must be placed on proper planning and careful management of these limited resources. It is imperative that we take the necessary steps now to attempt to minimize, as much as possible, the potential effects of this extended drought situation.

### Martin Variance

To this end, APC is seeking FERC approval of a drought-based temporary variance to the Martin Project rule curve, which is described as follows:

- 1. The Martin rule curve variance would be for a period from FERC approval to May 1, 2009.
- 2. Maintain the winter pool elevation up to 3 feet higher than normal, at elevation 483 instead of elevation 480 (Martin Datum).
- 3. Begin targeting this winter pool elevation earlier than normal (upon FERC approval).
- 4. Initiate the filling process earlier than normal, beginning January 15th instead of February 17th.
- 5. Reach and maintain the summer pool elevation earlier than normal, on April 1st rather than April 29th.

This variance request is shown graphically on the enclosed Figure 6. Also enclosed are graphs depicting the projected Martin Reservoir elevations from modeling runs made without the rule curve variance (Figure 7) and with the variance (Figure 8). In order to reflect the unfavorable precipitation forecasts and a continuation of the drought conditions (from Figures 4 & 5), the projections depicted in these figures are based on actual inflows from 2006 and 2007. As Figure 7 clearly shows, in the absence of the variance, the Martin Reservoir may reach elevation 485, which is 5 feet below the normal summer pool elevation. As seen on Figure 8, with the rule curve variance in place, there is a good possibility that Martin Reservoir could reach an elevation close to summer pool by early April, greatly enhancing APC's ability to support the many reservoir and downstream needs during next summer's critical period.

### **Thurlow Minimum Flow Release Modification**

In order to adequately evaluate the proposed rule curve variance at the Martin Project, consideration was given to the minimum flow releases at the downstream Thurlow development (Yates and Thurlow Project – FERC Project Number 2407). Upon approval of the Martin variance, the minimum flow releases at the Thurlow development will be temporarily modified as follows:

- 1. The change would be in effect until May 1, 2009.
- 2. If the Martin reservoir elevation is below the existing rule curve, discharge no less than 350 cfs from Thurlow.
- 3. Discharge the greater of 350 cfs or the inflow at the upstream Heflin gauge from Thurlow, when the Martin reservoir is at or above the existing rule curve, but below the temporary rule curve.

4. Discharge no less than 1,200 cfs from Thurlow when the Martin reservoir elevation is at or above the temporary rule curve.

This Thurlow flow release modification is shown in Figure 9.

### Martin Water Quality Monitoring Plan

In 2007, APC consulted with ADEM and developed a Water Quality Monitoring Plan that evaluated any effects to Lake Martin water quality that may have been associated with the Rule Curve Variance. The complete ADEM Plan was filed with FERC on November 14, 2007.

In the Water Quality Monitoring Plan, water quality data was collected at nine locations on Lake Martin. These stations coincide with existing or historic sampling locations on the lake, therefore supplementing data previously collected and allowing comparison to that data if necessary. APC collected water quality samples from December 2007 through May 2008 as directed in the ADEM Plan. During the study, samples were collected once per month during December, January, and February and twice per month in March, April, and May for a total of nine samples at each collection site.

Review of the dissolved oxygen and temperature profiles collected during the Martin Rule Curve Variance did not identify any particularly unusual or negative readings. A comparison of 2007 data with historic APC and ADEM data revealed similar trends in water quality at these sampling points in the late winter and spring. Based on this comparison, there is no evidence that the operation of Martin during the rule curve variance had any impact on water quality. Data collected during this study will also be used during the relicensing process for the Martin Dam Project. The study report for the 2007 - 2008 rule curve variance was filed with the Commission on September 30, 2008.

Because the 2007 - 2008 study report did not identify any particular unusual or negative readings when the 2007 data was compared to historical data, APC is not recommending a Water Quality Monitoring Plan be conducted for this (2008 - 2009) proposal.

#### **Additional Information**

- This proposal is very similar to the proposal filed by APC on October 23, 2007 and approved by the FERC on November 20, 2007.
- This temporary variance will have no impact on the elevation of the downstream Yates and Thurlow reservoirs (FERC Project Number 2407), as these reservoirs are operated as run-of-river developments.
- The only changes to the operation of the Martin Project will be that the target winter pool elevation will be elevation 483 and that the reservoir filling may begin at an earlier date.
- Other than the variance in the Martin rule curve itself, this proposal will have no additional impact on the downstream navigational flow releases from either APC's Coosa River or Tallapoosa River projects.

- This proposal will have no impact on releases from the Jordan Project (FERC Number 618) on the Coosa River, and does establish a minimum release of 350 cfs from the Thurlow Development (FERC Project Number 2407) on the Tallapoosa River. This is a greater release from the Thurlow Development than the minimum potentially allowed by the Yates and Thurlow project license.
- This proposal does not include any modification to the rule curve, or change in the operation of the upstream Harris Project (FERC Project Number 2628)

APC is seeking your concurrence for this temporary drought based rule curve variance that will provide increased opportunity to refill the Martin reservoir during the spring. This action will put us in a much better position to meet the wide variety of local and downstream needs placed on Martin.

If you have any questions or need additional information, please contact Barry Lovett at (205) 257-1268.

Sincerely,

/s/ Gene Allison

E. B. Allison, Jr. Hydro General Manager Alabama Power Company

Enclosures: Figures 1 - 9

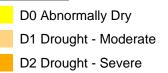
cc (w/enclosures):

Mr. Joe Morgan, FERC Mr. George Taylor, FERC Mr. Kirk Cover, FERC Colonel Byron Jorns, USACE Mr. Randall Harvey, USACE Mr. Jeff Powell, USFWS Mr. Lynn Sisk, ADEM Mr. Stan Cook, ADCNR

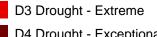
# U.S. Drought Monitor Alabama

	Drought Conditions (Percent Area)						
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4	
Current	20.8	79.2	21.9	1.5	0.0	0.0	
Last Week (11/18/2008 map)	27.2	72.8	21.9	1.5	0.0	0.0	
3 Months Ago (09/02/2008 map)	41.4	58.6	17.8	3.3	0.0	0.0	
Start of Calendar Year (01/01/2008 map)	9.5	90.5	80.8	66.9	56.5	38.9	
Start of Water Year (10/07/2008 map)	7.0	93.0	52.7	4.1	0.0	0.0	
One Year Ago (11/27/2007 map)	6.0	94.0	85.4	71.1	60.5	48.9	

### Intensity:



http://drought.unl.edu/dm



D4 Drought - Exceptional

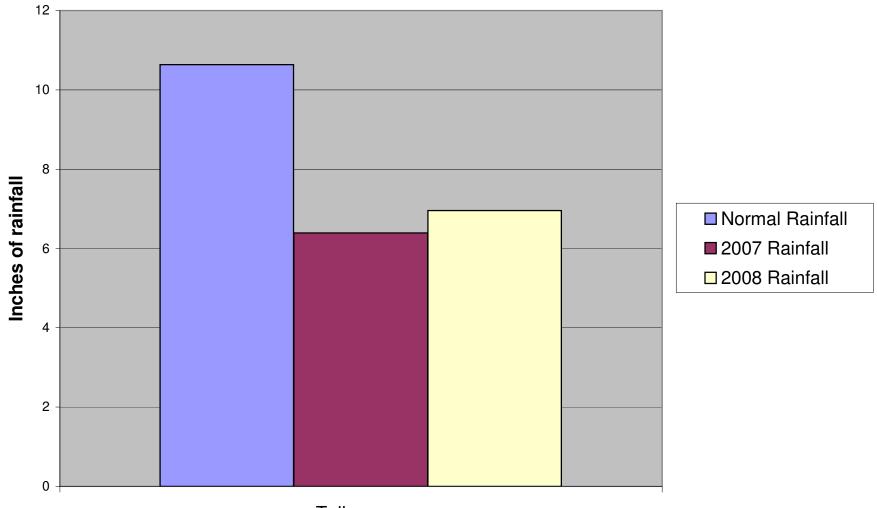
The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

November 25, 2008 Valid 7 a.m. EST

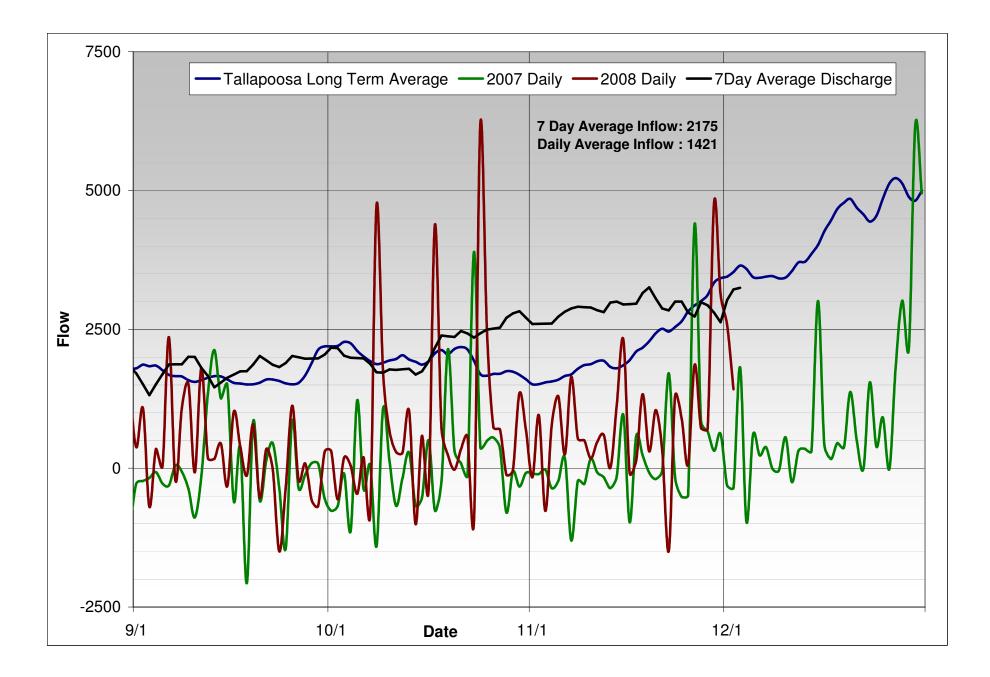


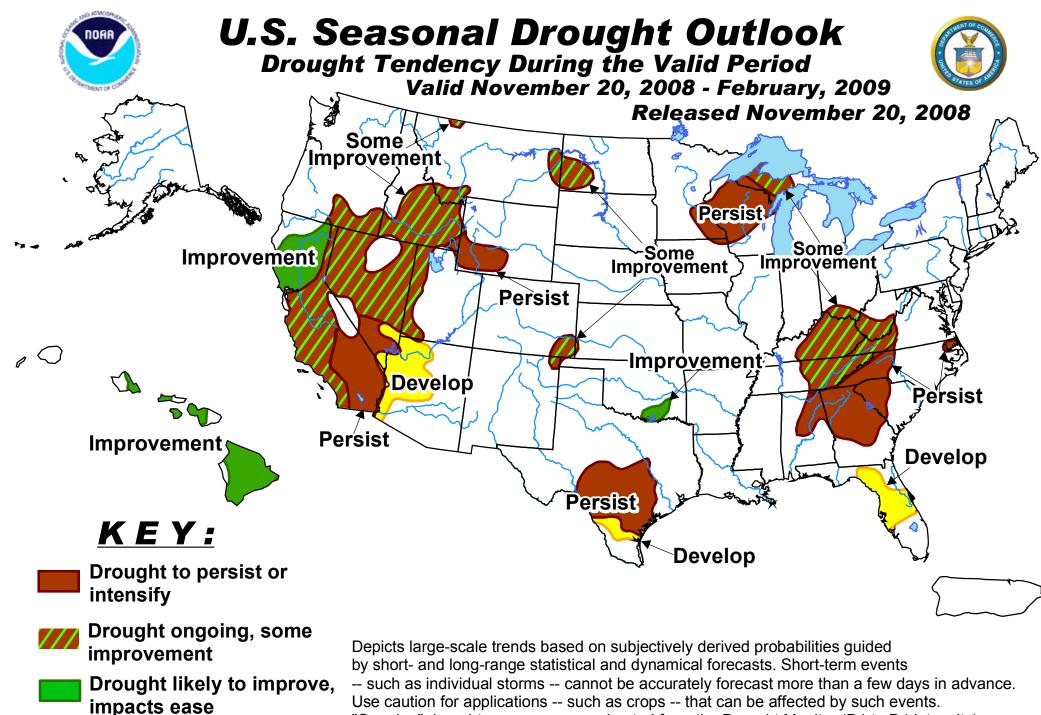
Released Wednesday, November 26, 2008 Author: Brad Rippey, U.S. Department of Agriculture

## Tallapoosa RainfallTotal - September thru November



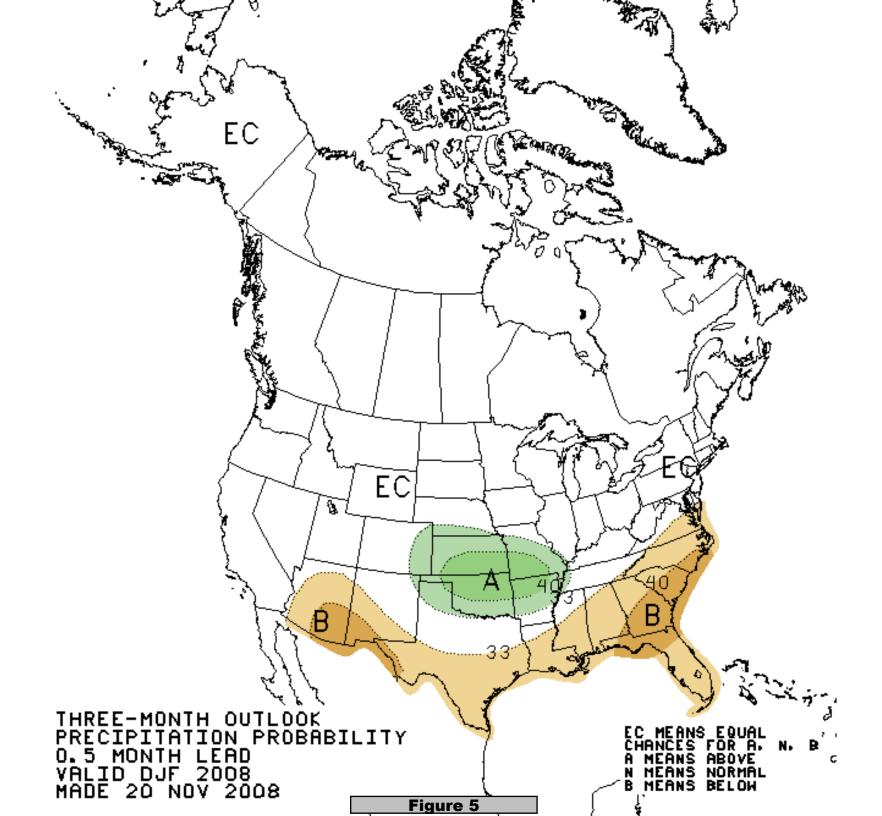
Tallapoosa



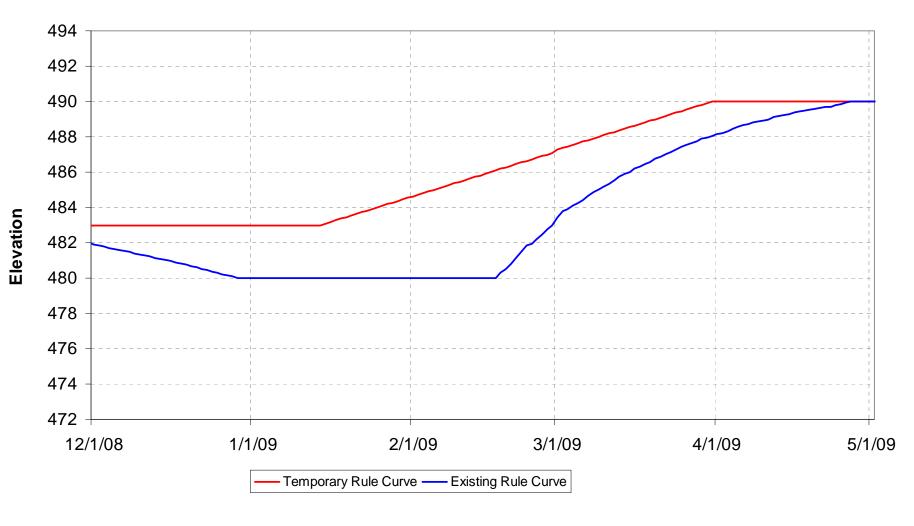


**Drought development** likely

Use caution for applications -- such as crops -- that can be affected by such events. "Ongoing" drought areas are approximated from the Drought Monitor (D1 to D4 intensity). For weekly drought updates, see the latest U.S. Drought Monitor. NOTE: the green improvement areas imply at least a 1-category improvement in the Drought Monitor intensity levels, but do not necessarily imply drought elimination.

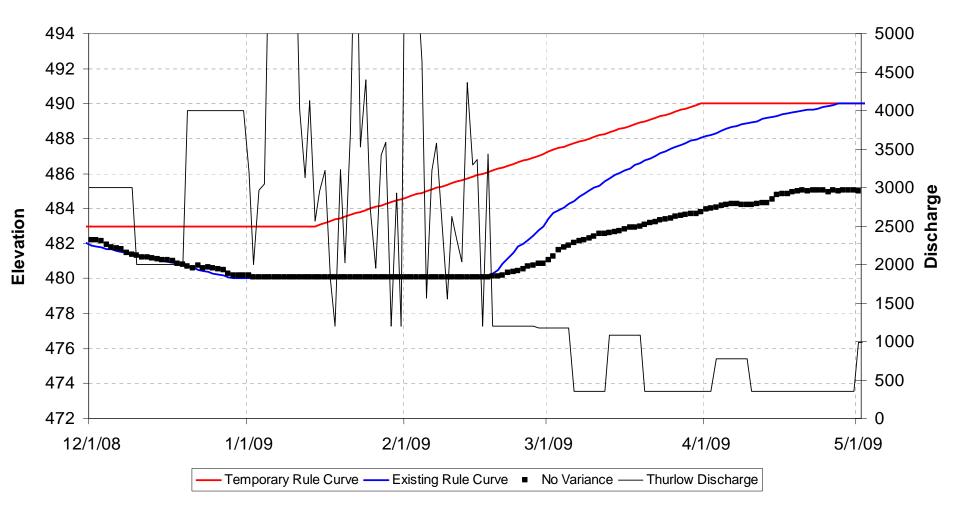






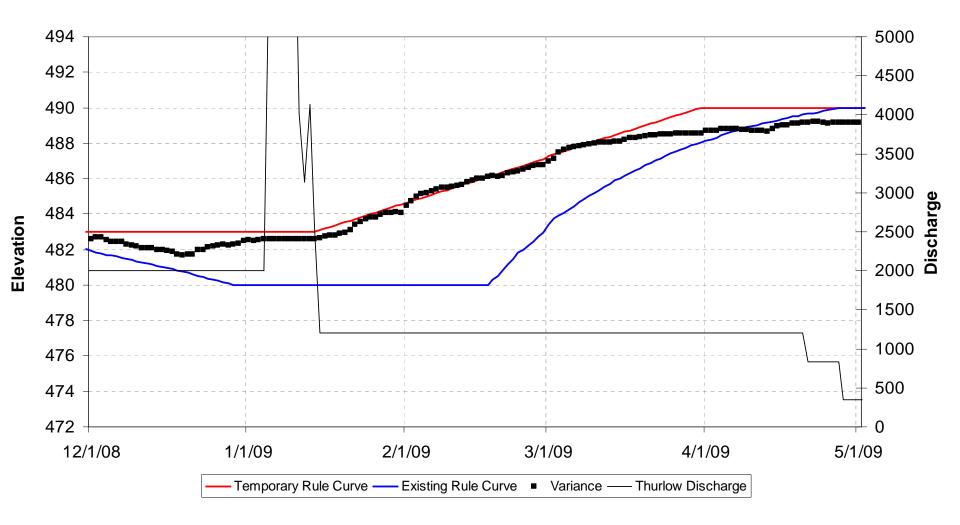
### Martin Project -<u>Without</u> Proposed Drought-Based Temporary Variance

### **Example - Thurlow Minimum Discharges**



Martin Project -<u>With</u> Proposed Drought-Based Temporary Variance

### **Example - Thurlow Minimum Discharges**





### Martin Variance Assumptions

- Assume 2006/2007 inflows from November 20<sup>th</sup>, 2008 forward.
- Maximum Martin elevation projected without variance is 485.07 ft.
- Maximum Martin elevation projected with variance is 489.2 ft.
- Thurlow discharges equal 2000 cfs or greater through the end of 2008 to support navigation.
- Thurlow discharges for 2009 follow the plan previously approved by FERC.
  - If below the existing rule curve discharge no less than 350 cfs.
  - Discharge the greater of 350 cfs or the inflow at the upstream Heflin gauge when the reservoir is at or above the existing rule curve, but below the temporary rule curve.
  - Discharge no less than 1200 cfs when the reservoir elevation is at or above the temporary rule curve.

Figure	e 9

# **Agency Consultation**

### **ADCNR**

----Original Message-----From: Nichols, Nick [mailto:Nick.Nichols@dcnr.alabama.gov] Sent: Monday, December 01, 2008 12:06 PM To: Stover, Charles M. Cc: Cook, Stan; Greene, Chris Subject: RE: Request for Variance at Martin Charles, We are in concurrence with regard to your request for this variance at Lake Martin. Nick Nichols Assistant Chief of Fisheries Alabama Division of Wildlife & Freshwater Fisheries 64 North Union St. Suite 551 Montgomery, AL 36130 (334) 242-3883 (334) 850-6121 (Cell) (334) 242-2061 FAX ----Original Message-----From: Stover, Charles M. [mailto:CMSTOVER@southernco.com] Sent: Monday, November 24, 2008 3:45 PM To: Sisk, Lynn; Cook, Stan; Littlepage, Tom; Atkins, Brian; Addison, Joe; Nichols, Nick; Jeff\_Powell@fws.gov Cc: Bowers, Willard L.; Grogan, John D.; Peeples, Alan L.; Crew, James F.; Lovett, Barry K.; Nix, Christy M.; Segars, Angela Rachel Subject: Request for Variance at Martin

Gentleman,

We will be requesting your concurrence on a request to the FERC for a variance to the Martin rule curve in order to cope with the continuing drought situation. Attached is a draft of the request and an updated package of hydrologic data. The proposal is very similar to the one approved last year.

Please send any comments you may have.

We also understand the COE will hold an ACT conference call tomorrow to discuss our request for a variance on Harris.

Thanks and have a happy Thanksgiving,

Charles Stover

<<2008-11-24 Draft - Martin 2008 Rule Curve Variance.doc>> <<Martin Variance 2008.pdf>>

### **ADEM**

-----Original Message-----From: Sisk, Lynn [mailto:LS@adem.state.al.us] Sent: Thursday, December 04, 2008 9:40 AM To: Stover, Charles M.; Cook, Stan; Littlepage, Tom; Brian Atkins; joe.addison@dcnr.alabama.gov; nick.nichols@dcnr.alabama.gov; Jeff\_Powell@fws.gov Cc: Bowers, Willard L.; Grogan, John D.; Peeples, Alan L.; Crew, James F.; Lovett, Barry K.; Nix, Christy M.; Segars, Angela Rachel Subject: RE: Request for Variance at Martin

We have reviewed the proposed rule curve variance for Lake Martin and have no comments. ADEM concurs that the change would not negatively affect water quality.

Lynn Sisk Chief, Water Quality Branch Water Division, ADEM (334) 271-7826

-----Original Message-----From: Stover, Charles M. [mailto:CMSTOVER@southernco.com] Sent: Monday, November 24, 2008 3:45 PM To: Sisk, Lynn; Cook, Stan; Littlepage, Tom; Brian Atkins; joe.addison@dcnr.alabama.gov; nick.nichols@dcnr.alabama.gov; Jeff\_Powell@fws.gov Cc: Bowers, Willard L.; Grogan, John D.; Peeples, Alan L.; Crew, James F.; Lovett, Barry K.; Nix, Christy M.; Segars, Angela Rachel Subject: Request for Variance at Martin

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Charles Stover

<<2008-11-24 Draft - Martin 2008 Rule Curve Variance.doc>> <<Martin Variance 2008.pdf>>

----Original Message----From: Atkins, Brian Sent: Tuesday, December 23, 2008 2:31 PM To: Stover, Charles M. Subject: RE: Request for Variances

Charles,

We have reviewed the proposed modifications to the Martin and Jordan licenses and are not opposed to them. We are supportive of the FERC process to ensure adequate consideration of various implications of the request.

J. Brian Atkins Director, Alabama Office of Water Resources Alabama Department of Economic and Community Affairs 401 Adams Avenue, Suite 434 Montgomery, AL 36103-5690 Phone: (334) 242-5499 Fax: (334) 242-0776

-----Original Message-----From: Stover, Charles M. [mailto:CMSTOVER@southernco.com] Sent: Tuesday, December 23, 2008 12:02 PM To: Atkins, Brian Subject: Request for Variances

Brian,

Attached is the request for temporary modification to the Martin and Jordan licenses. The Martin document has some minor changes to draft I sent last week.

As we have discussed in our conference calls we are proposing to closely follow the temporary plans that were approved by FERC for 2008. These actions should allow us to better prepare and respond quickly should the drought continue or intensify into the spring months.

I am requesting your concurrence on the Martin and Jordan proposals. If you do, please respond by email as soon as possible so we can include your concurrence with the FERC filing.

Thank you for your timely consideration and if you have questions please call.

Charles Stover Supervisor - Environmental Affairs Water Compliance 205-257-3220

<<Jordan.pdf>> <<Martin Order.pdf>>