FEDERAL ENERGY REGULATORY COMMISSION
WASHINGTON, DC 20426
August 11, 2011

OFFICE OF ENERGY PROJECTS

Project No. 349-173 – Alabama
Martin Dam Hydroelectric Project
Alabama Power Company

Mr. James F. Crew
Manager, Hydro Services
Alabama Power Company
600 North 18th Street
P.O. Box 2641
Birmingham, AL 35291

Reference: Additional Information Request for the Martin Dam Hydroelectric Project No. 349-173

Dear Mr. Crew:

We have reviewed your license application filed on June 8, 2011, and your responses to our comments on your preliminary licensing proposal, for the proposed Martin Dam Hydroelectric Project No. 349-173. Based on our review, we have determined that additional information is needed for us to make an informed decision on the license application, and for our analysis of the proposed project.

Pursuant to 18 CFR § 5.21 of the Integrated Licensing Process regulations, please file within 60 days from the date of this letter the information requested in the enclosed Schedule A. Please file your response electronically via the Internet. See 18 C.F.R. 385.2001(a)(1)(iii) and the instructions on the Commission's website (http://www.ferc.gov/docs-filing/efiling.asp). For assistance, please contact FERC Online Support at FERCOnlineSupport@ferc.gov; call toll-free at (866) 208-3676; or, for TTY, contact (202) 502-8659. Although the Commission strongly encourages electronic filing, your response may also be paper-filed. To paper-file, mail an original and seven copies to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE, Washington, D.C. 20426. Please put the docket number, P-349-173 on the first page of your response.

If you have any questions, please contact Jennifer Adams at (202) 502-8087, or via email at jennifer.adams@ferc.gov.

Sincerely,

Mark Pawlowski, Chief
South Branch
Division of Hydropower Licensing

Enclosure: Schedule A

cc: Public Files
Mailing List

SCHEDULE A

Existing and Proposed Operation

1. On pages B-2 through B-6, Exhibit B, you describe the existing project operation and proposed project operation. You reference three guide curves: the Flood Control Guide Curve, Operating Guide Curve, and Drought Contingency Guide Curve. You state that the area between the Flood Control Guide and Operating Guide represents the range in which Alabama Power Company (Alabama Power) operates Lake Martin under normal conditions, and that Alabama Power attempts to maintain Lake Martin at or near the upper end of this operating range as often as possible.

It is not clear in the license application which operation and/or guide curves are required by the existing license, versus measures voluntarily implemented by Alabama Power as part of the operating plan or through some other agreements. Therefore, please reference and provide copies of the specific license articles, or amendments to the license that specify the current operating requirements or limits for the Martin Dam Project, including the three guide curves specified above.

In addition, please describe how day-to-day operations and reservoir target elevations are determined when the reservoir elevations are between the Flood Control Guide Curve and the Operating Guide Curve, and between the Operating Guide Curve and the Drought Contingency Guide Curve.

Operation and Maintenance Costs

2. On page D-3, section 4.0, you provide the estimated average operating cost of the project before proposed operations and protection, mitigation, and enhancement measures are implemented. You state that the cost includes the cost of capital, taxes, depreciation, and operation and maintenance (O & M) costs. For our economic analysis of the project, we need the various components of this cost to be broken out, and also request more detail about these components. Please provide the following:

a. The cost of capital in dollars and the cost of capital rate in percentage.

b. The taxes, which reflect the amount paid for federal, state, and local taxes and the applicable tax rate for each.

c. The amount of depreciation and a detailed description of the method of depreciation used; annual O & M costs broken down by category (operation and maintenance, administrative and general expenses, insurance, contingencies, etc.).

3. On page D-4, section 5.0, you cite an alternative capacity and energy value (based on the U.S. Department of Energy, Energy Information Administration forecasts) of $96 per megawatt-hour (MWh). Please provide a breakdown of the energy value in $/MWh and capacity in $/kilowatt-year. On page B-12, section 2.2.1 you provide the historical average energy production for a 10-year period. Please identify the 10-year period considered, and provide in tabular format the monthly generation for each of these 10 years, as well as annual generation for each of the 10 years.

4. On page D-5, Table D-2, you provide estimated annual generation for four alternatives: the no-action alternative; Alabama Power's proposal; early spring fill operating recommendation; and 5-foot increase in winter pool and fall extension operating recommendation. It is not clear how the cost of the two recommendations relates to the applicant's proposal. Please provide an explanation of the difference between the various alternatives. Also, please break out the various protection, mitigation, and enhancement measures (and other recommendations) that would affect project generation included within each alternative and quantify the gains or losses associated with each protection, mitigation, and enhancement (or recommended) measure.

5. On page D-6, section 6.0, you state that Alabama Power has sufficient resources to finance the operational changes and protection, mitigation, and enhancement measures in your proposal, and that if additional financing is required, Alabama Power would use its traditional sources of debt and equity financing. Please provide an estimated interest rate that you would expect to pay for any such financing.

6. Table E-107 on page E-217 identifies the estimated capital costs and annual O&M costs for 13 proposed protection, mitigation, and enhancement measures for the Martin Project. For us to adequately assess these measures please provide more details on what is included in each of the capital costs and O&M costs listed in Table E-107. Where you identify no capital cost or O&M cost, please verify that there is no cost for that item.

In addition, for the Shoreline Management Program; Public Education and Outreach Program; Wildlife Management Program; Recreation Plan; and Historic Properties Management Plan, please provide a more detailed breakdown of the individual measures proposed under each of these categories, as well as the capital costs and O&M costs for each measure under these categories. Further, we have identified the following measures which should be itemized.

Water Quality

- Conditional Fall Extension, including any energy gain or loss (in MWh)
- Water Quality Monitoring

- Periodic drawdown to elevation 481 feet mean sea level (msl), including any associated energy gain or loss

Terrestrial Resources

- Nuisance Aquatic Vegetation and Vector Control Management Program, including any existing and proposed measures and associated costs of the projected vegetation growth resulting from the proposed 5-foot increase in winter pool

- Aquatic Vegetation Monitoring

Aquatics and Fisheries Resources

- American Eel Study, including sampling or any other study-related activities

Aquatic Resources

Historical Reservoir Levels

7. Throughout the license application, figures such as Figure E-16, Martin Rule Curve, provide the existing Flood Control Guide, Operating Guide, and the Drought Contingency Curve. However, you have not included information on historical water levels of Lake Martin beyond these general guidelines. In addition, even though you state that the two reservoirs (Yates and Thurlow) located immediately downstream of the project operate in a run-of-river mode, based on releases from the Martin Dam Project, you do not provide historical information on water levels of those reservoirs. Please submit in graphical and digital format (Excel, if possible) daily water level data for the past 20 years for the Martin, Yates, and Thurlow reservoirs. These data seem to be available (*see* Figure 4-22 in the final report for Study Plan 12A, which provides a graph of historical versus modeled Lake Martin elevations from 1990 to 2000). Similarly, please provide in graphical and digital format, daily flow releases from Lake Martin for the same time period. Include the location of any elevation or flow gages referenced and/or the methodology used to determine elevations or flows released from Lake Martin.

Modeling Data Files

8. Three major modeling efforts were completed during the preparation of the license application: HEC-RAS modeling upstream and downstream of the reservoir; HEC-ResSim modeling of the reservoir and the Tallapoosa River and nearby river basins; and completion of a project flood routing spreadsheet model.

Please submit, in an electronic format, all your model files used to prepare these reports (including any ancillary information on modeling methodology, model inputs, and notes on conclusions for the scenarios analyzed) that would facilitate our use of the model. Access to these models used during the preparation of the license application will allow us to analyze the effects associated with changing the operational rule curve, in more detail than would be possible by reviewing the reports and license application alone. In addition, access to these models will allow staff to analyze the effects on project operations from measures recommended or specified by others. We understand that the HEC-ResSim model for the Alabama, Coosa, and Tallapoosa River Basin might still be in development by Alabama Power and the U.S. Army Corps of Engineers (Corps). However, even if this model is not yet complete, please provide the most recent version of the model and a summary of the status of the model, including revisions and additions that are yet to be completed.

Conditional Fall Extension

9. On Page B-5 you propose a conditional fall extension of the reservoir elevation during the September 1 to October 15 time frame. Your proposal is based on four conditions being met and these conditions would only occur during "wet years," when reservoir levels would likely already be at higher elevations. Thus, it is unclear whether your proposal is actually an enhancement measure. For us to evaluate the project-related effects on aquatic resources, water quality, and water quantity, please provide the following:

a. For condition No. 1, please summarize the historical data to indicate how often the reservoir reached the proposed trigger elevations. Also, you should include any modeling results that indicate the approximate number of occurrences likely to occur in the future.

b. For condition No. 2, please provide a summary of the historical data to indicate how often inflows reached the proposed inflow criteria for the fall extension. You should include any modeling results that indicate the approximate number of occurrences likely to occur during future years. Also, please include an explanation of why inflow measured at the downstream Thurlow development would be used rather than at some other point, particularly one upstream of the reservoir.

c. For condition No. 3, please provide project-specific information on why the flows from outside the Tallapoosa River Basin are a consideration for fall extension. You should summarize historical data and any modeling data available to indicate how often condition No. 3 occurred in the past and might occur in the future.

d. For condition No. 4, please provide a historical summary of the elevations during the fall extension period at the Coosa River Project No. 2148, which partially includes the Weiss, H. Neely Henry, and Logan Martin developments on the Coosa River, and the Harris Project No. 2628 on the Little Tallapoosa River. You should identify when the elevations were within both 1-foot and 2-foot of the various rule curves. Please provide project-specific information including any justifications or reasons to include these other developments into the criteria for inclusion as a condition for your proposed fall extension. Also please include any model data available to indicate how often condition No. 4 might occur in the future (both individually at each development and cumulatively) at both the 1-foot and 2-foot threshold.

e. Any modeling results that would indicate the number of days that all four conditions (cumulatively) would be likely to occur during the future. You should include any estimates of effects on costs associated with both the daily determination of the fall extension and with any generation gains or losses.

Effects on Fishery Resources

10. Alabama Power proposes to implement a number of operational changes, including changing the flood control and operating guidelines and the drought contingency curve, as well as implementing a conditional fall extension. These proposed operational changes may result in changes in flow releases from Martin dam and, in turn, downstream from Thurlow dam in a part of the Tallapoosa River known to support paddlefish spawning. The license application includes an "Evaluation of Minimum Flows Downstream of Martin Dam Report" that provides an analysis of probable downstream flow releases under alternatives related to a higher winter pool and an early spring fill, with an emphasis on the frequency of meeting a 6,000-cubic-feet-per-second flow release from Thurlow dam, which is assumed to be the flow that triggers paddlefish spawning downstream from Thurlow dam. Although this report provides useful information on the potential timing and frequency of the spring (March and April) flows assumed to be adequate for paddlefish spawning, no information is provided on how alternative flow releases would affect depths and velocities downstream of Thurlow dam, relative to spawning habitat and other life stage criteria for paddlefish, and to the recreational fishery such as, striped bass, spotted bass, largemouth bass, white bass, and channel catfish.

Therefore, please describe the effects of all proposed operational changes on flow releases, as well as water depths and velocities in the lower Tallapoosa River downstream from Thurlow dam, to the town of Milstead, Alabama. This analysis should systematically estimate the degree to which quality of habitat, in terms of depth and

velocity characteristics, would be improved, degraded, or not affected by the proposed changes in operations. You should include a discussion of the effects on available habitat relative to egg incubation, fry, juvenile, adult, and spawning habitat criteria for paddlefish, as well as the recreational fishery listed above (collectively referred to below as the species' life stages). In addition, you should address the quality of habitat, in terms of velocity and depth characteristics, available for each distinct time period for each species' life stage which meets the following criteria:

a. the river flow is predicted to be different under the proposed operation than it is under the existing operation;

b. the species' life stage is anticipated to be using the affected portion of the river; and

c. information on habitat requirements, in terms of depth and velocity characteristics, for the species' life stage is available in the existing published, peer-reviewed literature, public agency reports, or previous Alabama Power studies and reports.

This analysis should consider the flows that would occur year-round and not be limited to only spring flows. Also, you should analyze instantaneous flow records for acute problems with habitat quality, in addition to addressing daily average conditions. Where habitat quality for a species' life stage has a time-base component, such as days above a certain depth, this analysis should address how often the time-base component is met in the existing versus the proposed scenario. The velocity and depth characterization may be based on a desktop analysis using existing HEC-RAS modeling data. The habitat use data for the species' life stages should be derived from the existing literature listed in the third criterion (letter c) above.

Terrestrial Resources

Exhibit E

11. In Exhibit E, you state that you will implement an aquatic vegetation monitoring plan. However, we could not locate the plan in any of the supporting documents for Exhibit E. We reviewed your Nuisance Aquatic Vegetation and Vector Control and Management Program, but found no description of proposed monitoring for aquatic vegetation. Please amend your Nuisance Aquatic Vegetation and Vector Control and Management Program to include a section on monitoring and reporting. The plan should be developed after consultation with the Alabama Department of Conservation and Natural Resources (Alabama DCNR) and the U.S. Bureau of Land Management (BLM), and should include, at a minimum, the following information:

a. proposed methods for identifying areas where nuisance aquatic vegetation could create a public health hazard, affect power generation facilities, restrict recreational use, or pose a threat to the ecological balance of the reservoir;

b. proposed methods for controlling nuisance aquatic vegetation;

c. proposed schedules for implementation of control measures and monitoring; and

d. associated costs for all measures and actions included in the plan.

12. In Table E-40, you identify acreages of wetlands within the project boundary, categorized by wetland type. However, you do not quantify acreages of each wetland type that would be affected by the proposed changes in project operations. Please provide acreages of wetlands, by wetland type, within the areas that would be affected by the early spring fill, 5-foot increases in winter pool, and conditional fall extension operating recommendations. In addition, please provide maps and geographic information system (GIS) shapefiles of the wetland areas, limits of the 3-foot and 5-foot winter pool increases, and local topography. This information is necessary for our assessment of project-related effects on wetlands and terrestrial habitats, which are dependent on the bank slope within the affected areas.

13. On page E-51, you state that bald eagles are known to nest within the project area and that nest locations are available in the Alabama DCNR database. Because we were unable to locate the files using via the Alabama DCNR website, we ask that you obtain, and file with the Commission, the five most recent reports. Also, to the extent available, please provide color photos, written descriptions, and GIS shapefiles of locations for the bald eagle nest locations at Lake Martin. This information should be marked, "Non Public" and filed as such. We need this information to adequately assess project-related effects on bald eagles nesting at Lake Martin, and their associated habitat.

14. On Page E-67, you identify 20 sites, totaling 858 acres, as high probability of aquatic vegetation establishment. Please provide the locations of the 20 sites in GIS shapefiles, so that we can analyze potential effects of the proposed changes in project operations on aquatic vegetation.

Wildlife Management Plan

15. One page 15, you cite the U.S. Fish and Wildlife Service's (FWS) Red-Cockaded Woodpecker Final Recovery Plan, and on page 21, you cite the FWS's National Bald Eagle Management Guidelines. For our analysis of the benefits and costs of your final Wildlife Management Plan, please amend your Wildlife Management Plan by attaching a

copy of the most recent versions of the FWS's Red-Cockaded Woodpecker Final Recovery Plan and the National Bald Eagle Management Guidelines.

16. On page 21, you state that you will monitor active bald eagle nests in accordance with the National Bald Eagle Management Guidelines (FWS, 2007). Because the guidelines do not provide specific details on the protocol and methods for monitoring bald eagles, please consult with the Alabama DCNR, the BLM, and the FWS to develop your monitoring protocol and methods. After consultation with the agencies, amend the Wildlife Management Plan by attaching the methods and protocol, including the following information:

a. specific details of protocol and methods to be followed;

b. monitoring schedules; and

c. schedules for reporting the information to the Commission, Alabama DCNR, BLM, and the FWS.

We note that on page 21, you state that you will meet with the Alabama DCNR and the FWS every six years to discuss the status of wildlife management activities covered by the wildlife management plan. Because you propose to monitor and manage bald eagle nests, we recommend a consultation and reporting schedule that is more frequent than once every six years, such as every two years.

When filed with the Commission, these reports should be marked, "Non Public," and filed as such. The reports should include color photos, written descriptions, and GIS shapefiles of locations for all bald eagle nests located at Lake Martin, in addition to any other information required by the agencies.

17. On page E-177 of the license application, you state that the Wildlife Management Plan contains a provision to manage active bald eagle nests within the project boundary, in accordance with the National Bald Eagle Management Guidelines. However, in the Wildlife Management Plan, you do not specify how you propose to restrict human activities and thus disturbance around the active bald eagle nests. Please amend the Wildlife Management Plan to include this information.

Rare, Threatened, and Endangered Species

18. In Study Report 5, you describe the methods by which you identified potential habitat, within the project boundary, for the federally listed Georgia rockcress (*Arabis georgiana*) and little amphianthus (*Amphianthus pusillus*). You also state that you conducted surveys within a subsample of the potential habitat areas for these species. In the report, you do not quantify the potential habitat and the subsample of habitat that you

surveyed. Because the study plan states that "areas that exhibit the necessary habitat characteristics will be surveyed to determine the presence or absence of these two species," we would like to evaluate the acreage of potential habitat versus the subsample of the habitat, for both species, for our analysis of project-related effects on Georgia Rockcress and little amphianthus. Therefore, please provide the acreage of lands that exhibit necessary habitat characteristics (based on LIDAR, topography, and soils) for these species and the acreage of the subsamples for each species.

19. In Tables 2 and 3, Study Report 5, you identify the alligator snapping turtle, Tallapoosa crayfish, slackwater crayfish, and the Chattahoochee crayfish as state priority species of interest. However, the study report does not contain any information about the presence of these species or their habitats in the project vicinity, and you do not indicate in the report if you surveyed for these species and their habitats. For our analysis of project-related effects on rare, threatened, and endangered species, please provide the following information:

a. a description of the preferred habitats of these species;

b. known occurrences of the species and their habitats within the project vicinity;

c. results of any desktop or field studies for these species; and

d. an assessment of potential occurrence of the species and their habitats in the project vicinity;

20. In Table E-42, you reference a personnel communication from the FWS, but we can not locate this citation in the references for the respective section. Please include a copy of the email, or summary of the phone call, as documentation of this communication.

Recreation Resources and Land Use

Exhibit B

21. On page B-10, you propose to lower the reservoir elevation to at least 481 feet msl every 6 years to facilitate seawall and boat dock construction and maintenance. While we understand the periodic drawdown would be contingent on weather or other parameters, please provide the month and duration which the periodic drawdown is expected to occur. Please explain whether the periodic drawdown to 481 feet msl should be a component of one of your plans, such as your Shoreline Management Program.

Exhibit E

22. On page E-37, you propose to remove 499 acres of project land, reclassify 1,295 acres, and add 991 acres to the project boundary. On page E-232, you reiterate your proposal to remove, reclassify, and add a total of 47 tracts of land. Please explain your reasons for removing 499 acres of project land.

23. On page E-182, Table E-44 identifies 12 existing public recreation sites; however, some of these recreation sites differ from those identified in Table 4-1 of your final Recreation Plan: Martin Dam Project (Recreation Plan), dated June 2011. For example, General Public Use Area #2, Johnson Creek Boat Ramp, Sturdivant Creek Ramp, and Timbergut Landing are listed in Table E-44, but are not listed in Table 4-1. Please explain. If any of these recreation sites should be included in Table 4-1, then please modify the table accordingly.

24. On page E-182, Table E-44 identifies Sturdivant Creek Ramp as partially located within the Martin Dam Project boundary. Please discuss whether you intend to expand the project boundary to include the entire recreation site, and your reason for including or not including the entire recreation site. Also, Table E-44 identifies the owner of Johnson Creek Boat Ramp as Right-of-Way. Please identify the entity that you list as Right-of-Way.

25. Pages E-191 and E-192 refer to Table E-49; however the text does not reflect the data shown in the table, nor does the title of the table accurately reflect the columns in the table. For example, the text on page E-191 and the title of the table assess the water level at which shoreline property owners *can not* (emphasis added) moor their boats at their docks, but the data shows the percentage of shoreline property owners that *can* (emphasis added) moor their boats at their docks. Likewise, the text on page E-192 refers to Table E-50; however the text does not reflect the data shown in the table and the table does not contain the months, as stated in the title of the table. It is also unclear what is meant by the separate columns labeled "%" in both tables. Please correct the inconsistencies.

26. On page E-222, you state the Corps has given Alabama Power the authority to manage certain permitting on Lake Martin that ordinarily would be subject to Corps permitting. Please explain.

27. On page E-233, Table E-67 shows a total of 991.4 acres as additional acreage. On page H-12 in Section 10, you propose to add 492 acres of Alabama Power-owned land to the project boundary. We assume your proposal to add 492 acres is included in the total 991.4 acres. Therefore, please identify the land ownership for the other 499.4 acres. If our assumption is incorrect, please explain.

Recreation Plan

28. For staff to accurately evaluate the benefits and costs of your final Recreation Plan, please amend your plan to include or address the following items:

a. On page B-10 of the license application, you propose to: continue to operate and maintain 12 existing project recreation sites, add six new project recreation sites, add one future project recreation site, improve Jaybird Landing, improve the parking area at Madwind Creek, and improve the parking area at Smith Landing. On page 48 of your Recreation Plan, Section 4.1 notes there are 16 recreation sites that are considered or proposed to be project recreation sites. It is unclear, therefore, the number of actual project recreation sites at the Martin Dam Project. Please develop a new section and list all project recreation sites that you propose to continue to own, operate and maintain, or provide for the operation and maintenance of, during the term of a new license. Also, please identify the six new project recreation sites.

b. On page 15, Table 3-3 identifies a total of 26 recreation sites within the project boundary. While the information contained in the table is important, please separate Table 3-3 into two tables - one table to identify project recreation sites and the other table to identify non-project recreation sites, along with the associated information.

c. On pages 51 and 52, in Section 4.1.1, you propose to bring 5.8 acres of non-project land at Madwind Creek Ramp and 4.2 acres of non-project land at Smith Landing into the project boundary. As with the recreation sites identified in Table 3-3, please identify the minimum elevations (feet msl) at which each existing boat ramp at Madwind Creek Ramp and at Smith Landing would be usable.

d. On page 52, in Section 4.1.1, you propose to remove 25.8 acres of project land from Pleasure Point Park and Marina that is currently within the project boundary. The remaining 6.6 acres of project land would continue to provide for a marina, rental cabins, and a boat ramp, but the land would be classified as Commercial Recreation. Please provide a reason for removing 25.8 acres of project land.

e. On page 52, in Section 4.1.1, you propose to reserve 36.4 acres as a future location for a recreation site, Ponder Camp (Stillwaters Area Boat Ramp), and potentially construct a paved access road, single lane boat ramp, parking area, and courtesy pier. Because you note construction of the facilities would require participation from Tallapoosa County, as access to

the site is limited to an existing county road, please provide a preliminary estimated length of the proposed access road, a general description of the terrestrial resources that could be removed or displaced by the access road, the proximity of the access road to the existing county road, and the location of the access road in relation to the Martin Dam Project boundary. Also, please provide an estimated number of parking spaces at the new parking area.

f. Appendix D is labeled As-Built/Concept Design Drawings/Maps of Project Recreation Sites. Staff finds Appendix D appears to be individual aerial overlays of 11 project recreation sites, rather than specific as-built drawings or conceptual drawings. One exception is Map C-8 that identifies an area for the future Ponder Camp (Stillwaters Area Boat Ramp). Although page B-10 of the license application refers to 12 project recreation sites, Appendix D includes 11 project recreation sites. Therefore, please provide individual drawings of all the project recreation sites and associated facilities, pursuant to 18 C.F.R. section 4.51(f)(5)(D), that you propose to own, operate, and maintain, or provide for the operation and maintenance of, during the term of a new license. In your revision, please retain the map designated future Ponder Camp (Stillwaters Area Boat Ramp) (Map C-8).

Shoreline Management Program

29. Alabama Power proposes to develop a Sensitive Resources Land Use Classification within 1 year of license issuance and, therefore, update the various sections of the final Shoreline Management Program: Martin Dam Project (Shoreline Management Program), dated June 2011. For staff to accurately evaluate the benefits and costs of your final Shoreline Management Program please amend your plan to include or address the following items:

a. In our letter issued on November 1, 2010, we commented on Study Plan 13 and Alabama Power's goal for a consistent Shoreline Management Program for all of its hydroelectric projects. Similar to the Warrior River Project No. 2165, please create a land use classification for Federal Land since the Martin Dam Project occupies 1.36 acres of land administered by the BLM. Consequently, the applicable sections of the Shoreline Management Program, including Table 4-1 and your individual Shoreline Management Program maps, should denote a Federal Land Classification, where applicable.

b. On page 3-2, Section 3.2, and in Appendix E, you mention dredging. You state Alabama Power is working with the Corps and other agencies to develop a Dredging Permit Program for all of Alabama Power's

hydroelectric projects on the Warrior, Coosa, and Tallapoosa Rivers. However, on January 26, 2011, Alabama Power filed its Dredge Permit Program for Commission approval. Please revise Section 3.2 and Appendix E to incorporate your Dredge Permit Program that was approved by the Commission on July 6, 2011.[1]

c. On page 4-2, Section 4.1.4 and on page 4-6 Table 4-1, the Commercial Recreation Classification denotes 32.3 acres. Please explain whether this acreage should be modified to reflect your proposal for removing 25.8 acres of project land from Pleasure Point Park and Marina that is currently within the project boundary, and retaining 6.6 acres of project land to be classified as Commercial Recreation. See page 52 of your Recreation Plan.

d. On page 4-6, Table 4-1 identifies 6,992.4 acres for the Natural/Undeveloped Classification. At General Public Use Area #2 (Smith Mountain), you propose to reclassify 673 acres from General Public Use Classification to Natural/Undeveloped Classification. See page 55 of your Recreation Plan. Please explain whether the 673 acres are included in the 6,992.4 acres. If not, please correct Table 4-1 and the applicable sections of the Shoreline Management Program.

e. In our letter issued on November 1, 2010, we commented on the land use classification identified as Potential Residential and recommended your Shoreline Management Program be clear regarding lands necessary for the operation and maintenance of the Martin Dam Project. In your final Shoreline Management Program, you include a map entitled, Proposed Project Land Changes from Existing Land Use Plan. On the map you identify Potential Residential with "ADD" on it. Potential Residential, however, is not identified as a land use classification in your Shoreline Management Program. Please explain.

Also, the two legends on the map appear to be inconsistent. For example, Martin Small Game Hunting Area is in one of the legends, but not in the other legend. While we understand the Martin Small Game Hunting Area is a sub-classification of the Natural/Undeveloped Classification, please correct the legends on the map to be consistent with your revised land use classifications.

30. In our letter issued on November 1, 2010, we recommended you include signage about the forests within the project boundary to inform the public of the management goals that would be implemented as part of your proposed Section 6.1 Public Outreach,

[1] *See* Order Modifying and Approving Dredge Permit Program, 136 FERC ¶ 62,012 (2011).

Shoreline Management Program. You now propose to develop and implement a separate Public Education and Outreach Program Plan, which is listed on page E-271 in Table E-107.

For us to accurately evaluate the benefits and costs of a Public Education and Outreach Program Plan, please develop a draft Public Education and Outreach Program Plan, after consultation with the Alabama DCNR, the Alabama Historical Commission (Alabama SHPO), and the BLM, that takes into consideration your final Wildlife Management Program, dated June 2011. The draft Public Education and Outreach Program Plan could include provisions for your proposed measures, as listed on pages E-37 and E-38 of your license application. Please include a provision for signage about the effects of domestic livestock and non-native species on the forests occurring on project lands, particularly the longleaf pine forests being managed for the federally listed red-cockaded woodpecker (*Picoides borealis*). You should also include documentation of agency consultation.

Cultural Resources

31. Section 5.7, Cultural Resources, does not contain sufficient information for staff to analyze the effects of the Martin Dam Project on cultural resources. Absent a detailed Historic Properties Management Plan (HPMP) or specific information about historic properties located within the project's area of potential effects (APE), including a description of project effects on these resources, and absent written documentation of section 106 consultation staff has identified the following items.

In your letter filed on June 8, 2011, you stated that the HPMP was filed with the Commission. However, in reviewing eLibrary, we do not find any record that the document has been filed. It is our understanding that a draft HPMP will be filed within the next few months. Please provide a schedule for developing a draft and final HPMP. The draft and final HPMP should be marked, "Not For Public Disclosure" and filed as such. Please ensure that the HPMP contains, at a minimum, the following items that are missing from Section 5.7 of your license application:

(a) A detailed description of the project's APE, including a map or maps, and documentation of consultation with the Alabama SHPO and identified Indian tribes, and their concurrence with the defined APE.

(b) A description of the ethnographic setting of the area (post 1450 AD).

(c) A summary of the history of the development of the Martin Dam Project, including a discussion of post-construction activities and modifications that may have affected the historic integrity of project facilities.

(d) A detailed description and a status of your efforts to identify historic properties within the APE, including any proposal to complete archaeological surveys[2] and evaluate them for listing on the National Register of Historic Places (National Register); consult with identified Indian tribes to identify properties of traditional religious and cultural importance (TCP) to an Indian tribe; and your efforts to document and evaluate project historic hydroelectric facilities, which you state are likely eligible for the National Register.

(e) Detailed information regarding previous studies, including their purpose and a description of prior survey coverage within the project's APE.

(f) A detailed description of all 18 previously recorded sites identified during your records search, including site numbers, site classifications (type), observed cultural materials and/or features, property ownership, and National Register status, including documentation of Alabama SHPO determinations of eligibility. Your site descriptions may be presented in tabular form and should not disclose confidential location information; however, a map of site locations relative to the APE should be filed "Non Public" with the Commission. Please also identify any of the 18 recorded sites that have been previously mitigated and the reason for that mitigation (such as, for recreation improvements).

(g) A discussion of existing and potential project-related effects on resources that may be eligible for listing on the National Register, including TCPs, archaeological sites, and project historic hydroelectric facilities. This discussion should include potential effects associated with project operations, such as the early spring fill, because on page E-214 you state that "inundation provides an overall positive benefit for cultural resources but eroded soils and exposure from high flow events may have an adverse effect. These effects are located outside of the APE for cultural resources and no further analysis is required." On page E-216 you state "the periodic drawdown to 481-foot msl during the winter will not occur frequently and any effects to cultural resources would be minor and temporary." Staff notes you do not provide any analysis to support your conclusions. Please note that any assessment of effects must be undertaken in accordance with the Advisory Council on Historic Preservation's criteria of adverse effects found at 36 C.F.R. § 800.5.

[2] On page E-216 of your license application, item No. 3 states that the HPMP would contain cultural resource surveys of selected survey sites (894 ac). If Alabama Power proposes to survey a portion of the APE, please define the criteria that you are using to identify areas to be surveyed. Please provide documentation of concurrence with the Alabama SHPO and identified Indian tribes on your approach.

(h) If project-related activities are resulting in, or may result in, erosion, vandalism, or any other adverse effects on cultural resources that are eligible or potentially eligible for the National Register, please ensure that the HPMP contains measures to mitigate these impacts.

(i) On page E-211 of the license application, Table E-61 lists the dates of cultural resource meetings, but it does not provide written documentation of section 106 consultation efforts. In an appendix to the HPMP, please include a summary of the section 106 consultation efforts.