



STATE OF ALABAMA  
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March 21, 2011

Mr. Lynn Sisk  
Chief, Water Quality Section  
Water Division  
Alabama Department of Environmental Management  
1400 Coliseum Boulevard  
Montgomery, AL 36110-1463

RE: Alabama Power Company's (APC) Application for the Martin Project Water Quality Certification under Section 401 of the Clean Water Act

Dear Mr. Sisk:

The Alabama Department of Conservation and Natural Resources (ADCNR) has reviewed the above referenced document and provides the following recommendations:

- Dam operations include the act of turbine discharge, which provides flow to the tailrace, and the act of terminating generation, which interrupts downstream flow, unless there is a continuous flow requirement. A cessation of flow often leads to adverse water quality that can negatively impact riverine habitat and aquatic wildlife. Based upon proceedings in other states regarding the close connection between water quality and water quantity, the Environmental Protection Agency (EPA) recently encouraged applicable state agencies to consider including a downstream flow standard for 401 water quality certifications below hydropower facilities. ADCNR agrees with EPA and suggests the development of a state standard for flows below all hydropower facilities including the Martin Project in order to protect aquatic organisms that depend on adequate flow and water quality for their sustainability. ADCNR is eager to work with the Alabama Department of Environmental Management (ADEM) on the establishment of this statewide protective flow regime.

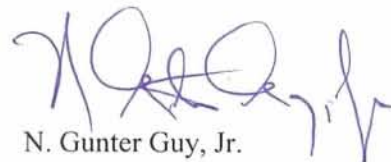
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- Due to the inherent link between water quality and water quantity, the state standard dissolved oxygen (D.O.) level should be met or exceeded not only during generation from Martin Dam, but also during non-generation. ADEM requires a D.O. level of not less than 5 mg/l at all times for diversified warm water biota, including game fish, in waters under the “Fish and Wildlife” classification. This includes all hydropower facility tailraces. The only exception under this classification is during turbine discharge from hydroelectric dams, in which case the statewide D.O. level must be maintained above 4 mg/l. ADCNR believes it is vital that “Fish and Wildlife” waters be monitored and adequately protected from adverse conditions at all times. APC’s Water Quality Monitoring Plan states that temperature and D.O. concentrations will be recorded at 60-minute intervals in the tailrace during periods of generation when the turbine aeration systems at the Martin Powerhouse are off. We recommend that ADEM require these water quality variables to be monitored at all times, including non-generation and aeration periods, at 15-minute intervals for the first three years following license issuance.

Thank you for providing ADCNR the opportunity to comment on this application. If you have any questions regarding these comments, please feel free to contact Chris Greene, Environmental Affairs Supervisor at (334) 353-0210 or [chris.greene@dcnr.alabama.gov](mailto:chris.greene@dcnr.alabama.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "N. Gunter Guy, Jr.", written in a cursive style.

N. Gunter Guy, Jr.  
Commissioner

NGG/jcg