

**NAVIGATIONAL SYSTEMS
REVISED STUDY PLAN**

**Claytor Project
Application for New License
FERC Project No. 739**

October 2006

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1. Introduction

Appalachian Power Company (Appalachian) is making application to the Federal Energy Regulatory Commission (Commission) for a new license for the Claytor Project (No. 739), located on the New River in southwestern Virginia. The process being utilized for applying for a new license is the Integrated Licensing Process (ILP), as defined under the rules and regulations of the Commission (18 CFR Part 5). As part of this licensing process, Appalachian has solicited input from stakeholder meetings, including governmental agencies and non-governmental organizations, to identify potential project-related issues needing to be addressed during the licensing process.

Appalachian filed the final PAD on January 6, 2006. In that document, Appalachian presented available information addressing each identified relicensing issue, and also presented its position regarding issues needing further study. Proposed study plans were prepared to address each issue needing further study, including navigational systems. The proposed study plans were filed with the Commission on June 14, 2006. Initial study plan meetings were held on July 19 and 20, 2006 to discuss the proposed study plans. A workgroup meeting to discuss the Navigational Systems study plan was held on August 21, 2006. Comments on the proposed study plans were due to the Commission on September 18, 2006. The following revised study plan reflects the comments received during the meetings and by the Commission.

2. Background

The Claytor Project is an existing conventional hydroelectric project located on the New River in Pulaski County. The Claytor Project has four generating units, with a combined generating capacity of 75 MW.

The Claytor dam has a maximum height of 137 feet above the streambed. The reservoir behind the dam has a surface area of 4,472 acres at the normal full pond elevation of 1846.0 feet and approximately 100 miles of shoreline.

At the present time there are a few shoal / rock markers on Claytor Lake. There are no channel markers at Claytor reservoir.

3. Study Objectives

1. Inventory the existing shoal/rock markers on Claytor reservoir and develop GIS mapping.
2. Develop a set of guidelines for determining the conditions under which additional navigational markers on Claytor reservoir should be approved.
3. Using information obtained from the bathymetry survey, knowledge of the reservoir, and the guidelines that have been developed, determine the need and location for additional navigational markers on Claytor reservoir.

4. Identify processes to address safety related issues on Claytor Lake, including the process for the approval, installation, inspection and maintenance of navigational markers.
5. Verify and update information related to the heights of lines crossing Claytor Lake and evaluate need for modifications.

4. Relicensing Relevance

Concerns have been raised about the need for additional navigational markers on Claytor reservoir relative to the protection of recreational boating. Over the years the Claytor Project has been in operation, there have been changes to the depth of water at various locations on the reservoir, the geometry of the shorelines, and the presence of structures. Recreational activities on Claytor reservoir have increased significantly over the years with more increases anticipated over the term of the next license. Operations of the Claytor Project, along with the recreational opportunities provided by that project, require that the safety programs, primarily the navigational system for recreational boating, be studied.

5. Methods and Geographical Scope

The study of navigational systems for recreational boating on the project reservoir will be confined to within the project boundary for the Claytor Project. Appalachian will perform a field survey of the existing navigational markers and map their location. Each marker will be categorized by type and condition. At the time the markers are identified, a record of the visible conditions at each site will be recorded. The locations of the markers will be placed onto the bathymetric maps for the reservoirs being generated under another study plan. That information will be utilized to determine if the existing locations are appropriate. Guidelines will be developed to determine the conditions under which additional navigational markers on Claytor reservoir should be approved. The standards of agencies such as the U.S. Coast Guard and those representing the Commonwealth of Virginia will be reviewed and considered when developing the guidelines. Should a drawdown occur during the study period, Appalachian will conduct a field survey to identify submerged navigational hazards during the drawdown.

The bathymetric mapping and the guidelines will also be utilized to determine other sites that navigational markers, such as channel markers and shoal markers, should be provided giving consideration to project operations, including changes in reservoir operating levels. In addition to the field surveys and mapping, Friends of Claytor Lake, U.S. Coast Guard Auxiliary, VDGIF, and VDCR will be consulted regarding the locations of markers and the need for additional markers. Others to be consulted could also include, but will not be limited to, the area fishing clubs and marina owners.

Appalachian will also consult with the Virginia Department of Game and Inland Fisheries, Pulaski County, the Coast Guard Auxiliary and other interested parties in identifying the process for the approval, installation, inspection and maintenance of

navigational markers. Processes for other safety related issues will also be identified with input from stakeholders.

Appalachian will review and update line crossing information with Appalachian's Transmission and Distribution Departments. Requirements for line crossings will be reviewed and the need for any changes will be evaluated.

6. Analysis and Reporting of Results

Collection of information regarding the existing navigational markers will begin with Appalachian initiating consultations with U.S. Coast Guard Auxiliary, VDGIF and VDCR to determine their standards for navigational markers. Once the information regarding the existing navigational markers and the bathymetric mapping are available, Appalachian will consult with the stakeholders described in Section 5 of this study plan and develop recommendations on the guidelines and additional markers in the form of a draft report. Those recommendations will incorporate considerations for the standards of the U.S. Coast Guard and other agencies with expertise regarding safety standards for recreational boating. The draft report will be provided to the stakeholders for review and comment. From those comments, a final report will be generated by Appalachian regarding the recreational boating navigation system.

7. Schedule

A pre-study meeting will be held in January 2007. Collection of information regarding the existing navigational markers will begin in Spring 2007 with Appalachian initiating consultations with U.S. Coast Guard Auxiliary, VDGIF and VDCR to determine their standards for navigational markers. During the recreational season, April through October 2007, Appalachian will conduct the field survey of the existing navigational markers. Should a drawdown occur during the study period, Appalachian will conduct a field survey to identify submerged navigational hazards during the drawdown.

At a minimum, study plan progress updates will be provided to the Commission, as well as the stakeholders involved in the relicensing of the Claytor Project, in May 2007 and November 2007. Additional progress reports will be provided to the stakeholders as information becomes available and meetings will be scheduled with stakeholders at key decision points to seek input and recommendations. All information will be made available in printed format as well as electronic format in accordance with the Information Distribution Protocol for the relicensing of the Claytor Project. Meetings will be scheduled and stakeholders notified in accordance with the Communications protocol for the relicensing of the Claytor Project. Individuals, agencies, governments, etc. will be given at least thirty (30) days time prior to a meeting to review the information to be discussed. Information will also be posted on the web site established for the relicensing of the Claytor Project (www.claytorhydro.com) as appropriate.

8. Costs

The estimated cost for performing the Navigational Systems Study components identified in this plan is \$50,000.