

137 FERC ¶ 62,258
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Appalachian Power Company

Project No. 739-022

ORDER ISSUING NEW LICENSE

(December 27, 2011)

Article 403. Sedimentation Monitoring. The Sedimentation Monitoring Plan is approved and made part of the license and may not be amended without prior Commission approval. Upon license issuance, the licensee shall implement the

Sedimentation Monitoring Plan, filed June 29, 2009, and shall include the following modifications:

- (a) add the Skyline Soil and Water Conservation District as a consulted party on the Sedimentation Technical Review Committee;
- (b) include monitoring areas of sediment deposition in the New River downstream from Claytor dam; and
- (c) define criteria for determining the need to dredge and provide a description of the types of actions that would be implemented to manage sediment (*e.g.*, if it is restricting recreational access) and what conditions would trigger such actions.

Appalachian Power Company
Claytor No. 739

Sedimentation Monitoring Plan

June 2009

Background - Sedimentation

A Sedimentation Study was conducted for the relicensing of the Claytor Project to assess sedimentation that has occurred at the Project since it was constructed and to identify areas subject to shoaling and subaqueous sedimentation. Overall, there is a 9.2% storage reduction at Claytor due to sedimentation. However, these figures also include the deep portions of the lakes that are outside of the water level zone between 1844 feet and 1846 feet that is utilized for operations. Two-thirds of the sedimentation occurs in the upper 40 feet of Claytor Lake, between the elevations of 1,800 and 1840 feet, beneath the minimum operations pool limit.

Mapping of areas of shoaling and subaqueous sedimentation was completed as part of the Sedimentation Study. Copies of these maps are located in Appendix A of the Monitoring Plan. The results from the mapping indicate that sedimentation occurs throughout Claytor Lake but is most pronounced in bays, coves and tributary inlets. Sediment in bays, coves, and inlets are a mixture of courser sand and gravel from upstream channel sources, fine sediments from upland soils erosion, and organic matter deposits from terrestrial and aquatic sources. While shoreline erosion has caused sedimentation and storage capacity losses in shallow near-shore areas, it was very limited in spatial extent due to the prevalence of bedrock and stable shorelines in Claytor lake.

The Sedimentation Study determined that Project operation is not the primary source of sediment coming into the reservoirs. While a reduction in useable storage has occurred, sedimentation is not impacting Appalachian's ability to operate the Project. Over the term of the next license, Appalachian is proposing to conduct post licensing monitoring of specific sites on Claytor Lake. This monitoring will document the rate of sedimentation in these areas and identify impacts of sediment in these areas.

1. Monitoring of Sediment:

- a) Methods: High resolution digital bathymetry data will be obtained utilizing multibeam scanning sonar or other similar equipment. The data will be collected so as to produce a map with 2 foot contours that is compatible with the methods used for collecting the bathymetry data during relicensing of the Claytor Project. Survey data will be collected in the vicinity of the areas identified in Section 1.b. below to determine the changes in sediment deposition in these areas and determine the migration of these sediments in these areas.
- b) Locations to be Monitored: Major Tributaries Previously Identified in the Relicensing Sedimentation Study as specific areas of concern. The following locations are to be monitored:
 - New River (headwaters) – from Allisonia Boat Ramp to above Lowman’s Ferry Bridge (Maps 10 – 14)
 - Peak Creek (Maps 15 -17)

c) Frequency:

This survey will be completed every five (5) years. The first survey will be completed within one year following the Federal Energy Regulatory Commission’s (Commission) approval of the Sediment Monitoring Plan.

d) Comparison to previous bathymetry:

The bathymetry data collected will be compared to the previous data to determine changes in sediment deposition in the areas listed in Section 1.b. of the plan.

2. Reporting:

a) Reporting:

A report of the sediment survey findings will be developed following the 5-year survey. Appalachian will provide the report to a Sediment / Erosion Technical Review Committee made of representatives from Virginia Department of Game and Inland Fisheries, Virginia Department of Conservation and Recreation, Virginia Department of Environmental Quality, U.S. Corps of Engineers, Pulaski County and Friends of Claytor Lake for review and comment. This report will have been reviewed by various Technical Review Committees as described in Section 3 below and will contain their comments. Appalachian will then file the report with the Federal Energy Regulatory Commission. The Report will be filed with the Commission within six months following the 5-year sediment survey.

b) Report Contents:

The 5-year report will contain the following:

- Results of Appalachian's sedimentation survey
- Comparisons of survey data to previous survey results for all sites listed in Section 1.b. above.
- Identification of impacts of sediment deposits on public access sites as identified in Appalachian's Recreation Management Plan within areas to be mapped.
- Identification of actions to be taken by Appalachian to address impacts of sediment deposits on public access sites as identified in Appalachian's Recreation Management Plan. Any proposed action to be taken within the project boundary will require prior Commission review and approval.
- Identification of measures / actions that are intended to be implemented under the license and those that should be considered outside of the license.
- Comments provided by the members of the Technical Review Committees.

3. Coordination with Other Management Plans and Implementation Schedule:

Appalachian will prepare a draft report detailing the survey results, comparison to previous survey data, an assessment of impacts of sedimentation, any proposed actions to be taken to address sediment and a proposed implementation schedule. This draft report will be provided to the Aids to Navigation / Recreation Technical Review Committee, Aquatic Vegetation / Debris / Habitat / Shoreline