



American Electric Power
Hydro Generation
P O Box 2021
Roanoke, VA 24022-2121
AEP.com

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

November 13, 2007

Re: Appalachian Power Company
Claytor Project No. 739
Application for New License
Initial Study Report

Dear Secretary:

On behalf of Appalachian Power Company (Appalachian), enclosed for filing are one (1) original and eight (8) copies of the Initial Study Report describing the overall progress in implementing the study plan and schedule for the Application for New License for the Claytor Project located on the New River in southwestern Virginia. The enclosed Initial Study Report has been prepared and is being filed in accordance with the requirements of the Integrated Licensing Process (18 CFR 5, §5.15(c)(1)).

In accordance with the requirements of the Integrated Licensing Process (18 CFR 5, §5.15(c)(2)), Appalachian has scheduled a meeting with the participants and Commission staff involved in the relicensing process for the Claytor Project to discuss the progress made to date relative to each study. The meeting is scheduled for November 28 and 29, 2007 at Claytor Lake State Park located in Dublin, Virginia. The agenda for the meeting along with directions to the meeting site are provided as part of this filing.

Any questions regarding the enclosed Initial Study Report and/or the scheduled meeting referenced above, should be directed to the undersigned.

Very truly yours,

A handwritten signature in black ink that reads "Teresa P. Rogers".

Teresa P. Rogers
Environmental and Regulatory Affairs Supervisor
(540) 985-2441

cc: w/enc.
Distribution List Attached

Claytor Project No. 739

Distribution List

Federal Agencies	
John Fuller	Advisory Council on Historic Preservation
Mike Nedd	Bureau of Land Management – Eastern States
Director	Bureau of Reclamation – Regional Office
Michel Hicks, Mike Bolt and Tyler Howe	Eastern Band of Cherokee Indians
Chadwick Smith	Cherokee Nation
Dr. James T. Kardatzke	U.S. Bureau of Indian Affairs – Eastern Region
John Smith	Federal Energy Regulatory Commission
Jerrold Gotzmer	Federal Energy Regulatory Commission – Atlanta
Patricia Arcuri	FEMA Region III
The Honorable Rick Boucher	United States House of Representative
The Honorable Jim Webb	United States Senate
The Honorable John Warner	United States Senate
Patricia Kurkul	National Marine Fisheries – Northeast Region
Cynthia Wilkerson	National Park Service – Northeast Region
Jesse Purvis	National Park Service – New River Gorge National River
Lisa Morgan	U.S. Army Corps of Engineers – Huntington
Chief	U.S. Army Corps of Engineers – Norfolk
Donald Welch	U.S. Environmental Protections Agency – Region III
Director	U.S. Fish and Wildlife Service– Annapolis, MD
Marvin Moriarty	U.S. Fish and Wildlife Service – Hadley, MA
Eric Davis	U.S Fish and Wildlife Service – Gloucester, VA
Ward Staubitz	U.S. Geological Survey
Lt. Bill Clark	U.S. Coast Guard – MSO Hampton Roads
Dean Jackson	U.S. Coast Guard – Flotilla 83
Thom Leedom	U.S. Corps of Engineers – Blacksburg Field Office
State Agencies	
David Collette	Claytor Lake State Park
The Honorable Anne Crockett-Starke	House of Delegates
The Honorable David Nutter	House of Delegates
The Honorable Phillip Puckett	Senate of Virginia
Thomas James	New River Health Department
Mark Hufeisen	New River Trail State Park
Gary Boring	New River Highland RC&D
Deanna Beacham	Virginia Council on Indians
Director	Virginia Department of Agriculture
Robert Munson	Virginia Department of Conservation and Recreation
Dean Gall / Dan Repella / Chuck Dietz / Krystal Coxen	Virginia Dept. of Conservation and Recreation – Div. of Soil and Water Conservation Office - Dublin
Robert Stroube	Virginia Department of Health
Roger Kirchen	Virginia Department of Historic Resources
Steve Dietrich	Virginia Department of Environmental Quality
John Copeland	Virginia Department of Game and Inland Fisheries

William Kittrell	Virginia Department of Game and Inland Fisheries
Randy Owen	Virginia Marine Resources Commission
Preston Bryant	Virginia Natural Resources Commission
Cody Walker	Virginia State Corporation Commission
Kerry Bledsoe	West Virginia Department of Natural Resources
Tamara Vance	VA Outdoor Foundation
Local Government	
Mark Henne	City of Bluefield
Chris McKlarney	Giles County
Joe Coburn	Mercer County
Craig Mohler	Monroe County
B. Clayton Goodman	Montgomery County
Brad Buchanan	Montgomery County Parks and Recreation
Peter Huber	Pulaski County
Dean Pratt	Pulaski County – Draper District
Ranny Akers	Pulaski County – Ingles District
Thomas Starnes	Radford City
Lonnie Mullins	Summers County
Howard Spencer	Town of Glen Lyn
James Kast	Town of Narrows
Rick Showalter	Wytheville Parks and Recreation
Non-Governmental Organizations	
David Jenkins	American Canoe Association
Andrew Fahlund	American Rivers
Kevin Colburn	American Whitewater
Ronnie Powers / Darla Jennings	Friends of Claytor Lake
Richard Roth	Friends of the New River
Bill Tanger	Friends of the Rivers of Virginia
Rebecca Sherman	Hydropower Reform Coalition
Russell Alls	Isaak Walton League – Radford Chapter
George Santucci	National Committee for the New River
Director	National Wildlife Federation
David Rundgren	New River Valley Planning District Commission
Shawn Hash	Tangent Outfitters
Director	Nature Conservancy
Steve Moyer	Trout Unlimited
Jeffery George	Norfolk Southern, Real Estate, Pulaski County
Roger Holnback	Western Virginia Land Trust
Debbie Lineweaver	New River Land Trust
Beth Obenshain	New River Land Trust
Dave Mondy	New River Junction
Paul Angermeier	Dept. of Fisheries and Wildlife Sciences, VPI SU
Llyn Sharp	New River Watershed Roundtable
David Bernard	Coastal Canoeists

**APPALACHIAN POWER COMPANY
CLAYTOR PROJECT NO. 739
APPLICATION FOR NEW LICENSE
INITIAL STUDY REPORT**

November 2007

**APPALACHIAN POWER COMPANY
CLAYTOR PROJECT NO. 739
APPLICATION FOR NEW LICENSE
INITIAL STUDY REPORT**

Introduction

Appalachian Power Company (Appalachian), licensee for the Claytor Project, is following the Integrated Licensing Process (ILP) as defined by the Code of Federal Regulations (18 CFR 5) in the preparation and filing of its Application for New License for the Claytor Project. The existing license for the Claytor Project expires June 30, 2011. Following the requirements outlined under the ILP, Appalachian filed with the Federal Energy Regulatory Commission (Commission) the Notice of Intent to File for New License (NOI) and Pre-Application Document (PAD) on January 6, 2006. In accordance with those same regulations, Appalachian then filed its Proposed Study Plan on June 14, 2006. Based upon comments received, Appalachian prepared its Revised Study Plan which was filed with the Commission on October 17, 2006. The Director of the Commission's Office of Energy Projects issued the Study Plan Determination for the Claytor Project by letter dated November 17, 2006. The Study Plan Determination issued by the Director established the scope of the studies to be performed as part of the relicensing effort for the Claytor Project.

In accordance with the ILP regulations (18 CFR 5 § 5.15 (c)(1)), Appalachian has prepared this Initial Study Report that describes the overall progress in implementing the approved Study Plan and schedule, and the data collected. Any variances from the Study Plan and/or schedule are also provided along with any modifications to ongoing studies or new studies proposed by Appalachian.

Under the Study Plan Determination issued by the Director, a total of twelve individual study plans as filed by Appalachian were reviewed and approved with or without modification. Those studies are currently underway and consist of the following:

1. Aquatic Resources Assessment
2. Cultural Resources
3. Debris
4. Erosion
5. Fish Entrainment and Impingement
6. Instream Flow Needs and Reservoir Elevation
7. Native and Exotic Aquatic Vegetation
8. Navigational Systems
9. Recreation Assessment and Angler Use Survey
10. Sedimentation
11. Water Quality
12. Wetlands, Riparian, Woody Debris, Littoral and Bald Eagle Habitat

Progress related to each of the above listed studies is summarized below. Where additional detailed information is available for an individual study, the information is provided in Appendix A to this Initial Study Report. It should be noted that the information provided in Appendix A is preliminary and subject to change.

Correspondence related to the studies is documented in Appendix B: Consultation / Correspondence Documentation of this report. Documentation of consultation begins October 18, 2006, the day after Appalachian submitted the Revised Study Plans to the Commission.

The study plans were developed in consultation with numerous stakeholders including Federal and State agencies, local governments, non-governmental organizations, and individuals. Those consultations occurred during work group meetings established for each of the listed studies. The work groups consist of individuals representing agencies, local governments, and non-governmental organizations having an interest in a particular study. Comments received on the proposed study plans and copies of the work group meeting notes were included in the Revised Study Plan that was filed with Commission. The work groups will continue to meet during the ILP for the Claytor Project, both pre- and post- application, on a periodic basis. All of the work group meetings are open to the public.

Appalachian also held Study Plan Update Meetings on January 24 and 25, 2007 and May 16 and 17, 2007. The purpose of those meetings was to provide all of the stakeholders involved in the relicensing process for the Claytor Project, as well as the general public, information regarding the work related to each study and the schedules for the studies. For those studies that work had already began, updates on information obtained were also provided. As with the individual study work groups, there was open dialogue regarding the studies. The update meeting in May was recorded and transcribed. Correspondence related to the work group meetings, the transcript of the May meeting, and all other correspondence are available on the web site established by Appalachian for the relicensing of the Claytor Project, www.claytorhydro.com. Correspondence related to the update meetings can also be found in Appendix C of this report.

In accordance with the regulations for the ILP (18 CFR 5 § 5.15(c)(2)), Appalachian has scheduled an Initial Study Report meeting to be held November 28 and 29, 2007 to discuss progress on the studies related to the relicensing of the Claytor Project. The meeting will be held at the Claytor Lake State Park in Dublin, Virginia and will begin at 9:00 each day. Information regarding the meeting has been submitted to the stakeholders and advertised in order to encourage participation by the public. The meeting will have an open format to allow discussion of the studies and related progress. Correspondence related to this update meeting can be found in Appendix C of this report.

Study Plan Updates

1. Aquatic Resources Assessment

Fisheries:

The literature review is currently being conducted on the fish community occurring or potentially occurring in Claytor Lake and downstream on the New River. To date, over 30 scientific reports on Claytor area fisheries have been obtained. A list of literature obtained to date is provided in the Progress Report contained in Appendix A of this report. Virginia Department of Game and Inland Fisheries (VDGIF) research and fish monitoring findings are also being compiled and analyzed. Searches of the Virginia Fish and Wildlife Information Services database have been conducted, resulting in 13 sampling events and species lists being documented on the New River and associated tributaries.

Deep Water Habitat, Plankton, and W2 Model:

The W2 model will simulate stratification, temperature and dissolved oxygen profiles, plankton movements, and locations of summer Striped Bass habitat at varying inflows and operating regimes. Currently, only preliminary information has been gathered for the W2 model. This includes bathymetry, operations data, powerhouse drawings, and USGS stream gage data. Meteorological data, historic water quality data, and 2007 water quality data have yet to be analyzed. Once the 2007 data is available, it is expected to take approximately 2- 3 months for calibration and modeling.

Mussels:

Through consultation with state agencies and the subcontractor for the mussel sampling, John Alderman, of Alderman Environmental Resources, Inc., a sampling protocol was developed for the field survey of mussel populations. The protocol provides specific methods utilized in the 2007 reservoir and riverine surveys. This protocol is included in the Progress Report contained in Appendix A of this report.

Lake Survey:

The reservoir survey was conducted in May 2007. Ten (10) sampling zones were established in Claytor Lake. Within each of these areas, two nearly rectangular sections (one in the “dewatered” area and one in the permanently “watered” area) were sampled. “Dewatered” areas were classified from 0 to 5 feet deep and “watered” areas were classified from 5 to 10 feet deep. Also, areas beyond the “watered” section, classified from 10 to 30 feet deep, were qualitatively (rapid assessment) sampled with SCUBA. Both the “watered” and “dewatered” areas were sampled quantitatively using smaller quadrats (up to 200) and SCUBA and/or snorkeling, and qualitatively by visual observation.