

UNITED STATES OF AMERICA 115 FERC ¶ 62,071  
FEDERAL ENERGY REGULATORY COMMISSION

Appalachian Power Company

Project No. 2210-131

ORDER AMENDING SHORELINE MANAGEMENT PLAN

(Issued April 14, 2006)

On March 16, 2006, Appalachian Power Company (licensee) filed a request to amend its approved shoreline management plan (SMP) for the Smith Mountain Pumped Storage Project, FERC No. 2210, to allow pile driving and associated above water dock construction activities currently being prohibited annually between April 15 and June 15.<sup>1</sup> The project is located on the Roanoke and Blackwater Rivers in Bedford, Campbell, Pittsylvania, Franklin, and Roanoke Counties, Virginia.

BACKGROUND

On September 2, 2003, the licensee filed an application for Commission approval of its SMP for the project. By Order Modifying and Approving Shoreline Management Plan issued July 5, 2005, the Commission approved with modifications the SMP filed by the licensee. Ordering paragraph (D) stated that “All in-water construction, except pile driving and associated above water dock construction activities, is prohibited from February 15 through June 15. Pile driving and associated in-water dock construction activities are prohibited from April 15 to June 15. Installation or maintenance of navigational markers is exempt from these time-of-year restrictions.”

LICENSEE’S REQUEST

The licensee states that recent discussions regarding the in-water restrictions along with other information provided to the licensee have highlighted the need to reconsider the restrictions imposed by the July 5, 2005 Order. The licensee specifically requests that ordering paragraph (D) of the July 5, 2005 Order be modified to read as follows: “(D) All in-water construction, except pile driving and associated above water dock construction activities, is prohibited from February 15 through June 15. Pile driving shall include the removal of existing piles necessary for construction of the associated facility and be limited to only piling installed utilizing impact equipment.”

In its filing the licensee includes a letter from the Interim Director of the Virginia Department of Game and Inland Fisheries (VDGIF), Colonel W. Gerald Massengill, to

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<sup>1</sup> Order Modifying and Approving Shoreline Management Plan, issued July 5, 2005, (112 FERC ¶ 61,026) and Order Denying Rehearing, issued November 17, 2005 (113 FERC ¶ 61,168).

The Honorable Virgil H. Goode, Jr. of the U.S. House of Representatives. In the letter, the Interim Director states the VDGIF does not believe that the two-month restriction on pile driving is necessary at this time. The licensee also included a letter dated March 11, 2006, from John J. Ney, Ph.D., Professor Emeritus of Fisheries Ecology for Virginia Tech University. Dr. Ney states that the installation of docks by the driving of support piles is very unlikely to adversely affect reproductive success of SML's centrarchid population. According to Dr. Ney, spawning habitat for centrarchid fishes in Smith Mountain Lake (SML) has not been a limiting factor to their reproductive success in the past and is unlikely to be so in the future.

The licensee also included information in its amendment application from Jason Turner, a dock builder at SML, regarding pile driving. Mr. Turner notes that pile driving by means of jetting methods should not be used as it disturbs a lot of sediment, but impact, or pneumatic, driving does not. Mr. Turner states that due to the clay or rocky bottoms on SML, dock builders cannot use the jetting method and actually install the poles by pneumatic driving. Mr. Turner also states that if one were to extrapolate a comparison of the number of docks to be constructed in relation to the total miles of shoreline for SML, the result would be that the area of potential spawning habitat as compared to the habitat not being disturbed for the two-month restriction period would be minimal.

The licensee indicates that it knows of 32 permits for single-family docks whose construction would be delayed by the current restriction. The licensee states those docks are located sporadically along the entire 500-mile shoreline. In addition, the licensee states there is one large installation of 160 docks at one site (in an area zoned high density commercial by the SMP classifications) that could be affected by the restrictions. The licensee states that the number of docks described above is representative of the number of docks that could be affected each year by the restrictions currently in-place.

The licensee also requests to be allowed to remove existing piles as part of the piling driving for a new dock. The licensee states that the impacts for removing piles would be similar to driving new piles, resulting in disturbance to sediments and increased turbidity in the immediate area of the work.

## PUBLIC NOTICE

The Commission issued, on March 16, 2006, a public notice of the licensee's proposed amendment and requested comments, motions to intervene and protests with a comment closing date of April 6, 2006. In response to the notice, the Commission received comments from the Honorable Virgil H. Goode, Jr., filed March 22, 2006; the Tri-County Relicensing Committee (TCRC), filed March 23, 2006; and the U.S.

Department of Interior, Office of the Secretary (DOI), filed April 4, 2006.

The Honorable Virgil H. Goode, Jr. forwarded a March 16, 2006, letter of support from Pittsylvania County, Virginia, for removal of the ban on pile driving from April 15<sup>th</sup> to June 15<sup>th</sup>.

The TCRC strongly supports the licensee's request to amend the Smith Mountain SMP by deleting the current April 15<sup>th</sup> to June 15<sup>th</sup> seasonal ban on pile driving and associated dock construction activities and urges the Commission to act expeditiously to avoid potential, irreparable injury to the community. The TCRC states the restriction, if not removed, will have substantial adverse economic impacts on local residents and the owners and employees of small local dock building companies.

The DOI, in its April 4, 2006, filing, stated it has no comment on the proposed amendment of the SMP.

## DISCUSSION AND CONCLUSIONS

A main concern with dock construction is associated with pile driving from barges. A typical pile driving barge measures 10 feet in width and 25 feet in length, and has an 110,000 pound force hydraulic hammer, derrick, and spuds. The barge has the capability to drive up to 10-inch diameter pilings that are 35 to 40 feet in length. A larger hammer is available, capable of driving pilings up to 14-inches in diameter. The barge can be placed at a perpendicular angle to a pier or boat dock in order to drive numerous pilings in line for stringers with one movement and little disturbance to the lake bottom.<sup>2</sup>

Pile driving has the potential to impact fish spawning, especially if the pilings are driven directly into the fish nests. For example, largemouth bass normally fan out nests of approximately 20 inches in diameter and 6 inches deep in shallow open areas of sand or gravel substrate. While bass normally nest in waters 1 to 4 feet deep, spawning can occur at much greater depths, dependent upon variables including water clarity and water level fluctuations. Nests have been recorded as deep as 27 feet in one southern reservoir. Spacing of nests for largemouth bass has been reported at 6 to 20 feet apart, depending on environmental conditions.<sup>3</sup>

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<sup>2</sup> <http://www.marinepiledrivers.com/>

<sup>3</sup> Heidinger, R.C. 1975. Life history and biology of the largemouth bass. In: Black Bass Biology and Management. Compiled from the National Symposium on the Biology and Management of the Centrarchid Basses, February 3-6, 1975.

The licensee indicates that it knows of 32 permits for single-family docks whose construction would be delayed by the current restriction, and one large installation of 160 docks that could be affected. The licensee states those docks are located sporadically along SML's 500-mile shoreline, and that these numbers could be representative of the number of docks that could be affected each year by the restrictions currently in-place.

A typical dock construction is about 6 foot wide and 36 foot-long and may utilize six driven piles.<sup>4</sup> If we assume that for this year (2006) a total of 192 individual docks would be constructed along SML's 500-mile long shoreline, and each construction site impacts 6 linear feet of shoreline, approximately 0.04 percent of the SML's shoreline could be impacted by dock construction activities. This represents a very minimal impact area in comparison to the entire SML shoreline. Further, if largemouth bass nests are spaced 6 to 20 feet apart, the likelihood of a pile driven directly into a spawning nest is very small. In addition, the impacts of dock construction would generally occur over a very broad dispersed area of the SML shoreline, and would cause only very minor short-term impacts to aquatic habitat in the immediate area of dock construction.

Based on the information provided by the licensee, and our analysis presented here, we conclude that dock construction using impact pile driving equipment would result in no impact to populations of centrarchid species in SML. To prevent, however, the possibility that a pile may be driven directly into a largemouth bass spawning nest, the licensee should ensure that, prior to the planned pile driving, the locations of the proposed piles be inspected for the presence of a largemouth bass nest. If a largemouth bass nest is detected where a proposed pile would be driven, the proposed pile should be relocated to a nest free area or the pile-driving work should be delayed until after June 15.

We also find acceptable the licensee's request to be allowed to remove existing piles as part of the piling driving for a new dock. The combined effect of first removing an existing pile followed by the installation of new piles would have a similar impact on the immediate area where the work is being done.

We therefore concur with the licensee's amendment request that all in-water construction, except pile driving and associated above-water dock construction activities,

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Tidwell, J.H., Coyle, S.D., and T.A. Woods. 2000. Species Profile: Largemouth bass. Southern Regional Aquaculture Center. SRAC Publication No. 722. January 2000.

<sup>4</sup> Smith Mountain Pumped Storage Project, FERC No. 2210, Shoreline Management Plan. August 29, 2003. Prepared by Louis Berger Group, Inc., for American Electric Power.

should be prohibited from February 15 through June 15. Pile driving allowed should be limited to piling installed utilizing impact equipment. Pile-driving work should be delayed until after June 15 if a largemouth bass nest is detected in the location of a proposed pile.

The licensee's request to revise the current pile driving restrictions, with the modification discussed above, should be approved.

The Director orders:

(A) Ordering paragraph (D) of the July 5, 2005 Order Modifying and Approving Shoreline Management Plan for the Smith Mountain Lake Project (FERC No. 2210) is modified to read as follows:

All in-water construction, except pile driving and associated above water dock construction activities, is prohibited from February 15 through June 15. Pile driving shall include the removal of existing piles necessary for construction of the associated facility and be limited to piling installed utilizing impact equipment. The licensee shall ensure that, prior to the planned pile driving, the locations of the proposed piles be inspected for the presence of a largemouth bass nest. If a largemouth bass nest is detected where a proposed pile would be driven, the proposed pile shall be relocated to a nest free area or the pile-driving work shall be delayed until after June 15.

(B) This order constitutes final agency action. Requests for rehearing by the Commission may be filed within 30 days of the date of issuance of this order, pursuant to 18 CFR § 385.713.

J. Mark Robinson  
Director  
Office of Energy Projects