

Susquehanna River Basin Commission

a water management agency serving the Susquehanna River Watershed



March 16, 2011

Mr. Terry L. Harpster
VP-Bell Bend Project-Development
PPL Bell Bend, LLC
38 Bomboy Lane, Suite 2
Berwick, PA 18603

Re: Bell Bend Nuclear Power Plant;
IFIM and Aquatic Impact Studies Consolidated Response
to SRBC Study Plan Comments; BNP-2010-310;
Salem Township, Luzerne County, Pennsylvania

Dear Mr. Harpster:

Susquehanna River Basin Commission (Commission) staff has reviewed the "IFIM and Aquatic Impact Studies Consolidated Response to SRBC Study Plan Comments" submitted in the referenced correspondence and provide the following comments. Some of the issues addressed in the referenced correspondence were the subject of a January 19, 2011, meeting between the Commission, PPL Bell Bend, LLC (PPL), and resource agencies, and resolution awaits the final disposition of several issues discussed at that meeting.

Our comments are as follows:

1. On page 2 of the referenced correspondence, last paragraph, PPL's understanding of the agreements reached at the October 21, 2010, meeting are listed. The Commission does not agree with item No. 1. Although we agree that Ian Howett asserted that there would be no significant difference in results from 1D modeling versus 2D modeling, Commission staff and consultants did not agree based on our literature research and comments from resource agencies. The Commission did agree to participate in a Delphi Panel to address the issue, as stated in item No. 2. The Delphi Panel did meet on January 19, 2011, and final resolution has not been determined to date.
2. The Commission agrees with item 3 on page 3 of the referenced letter. The Habitat Suitability Curves (HSC) are approved as submitted based on discussions at the January 19, 2011, meeting and incorporation of the agreed upon changes to the shad spawning HSC.
3. In Enclosure 1, Section G1, the Commission acknowledges that the Bell Bend Nuclear Power Plant (BBNPP) intake is in a section of the river characterized as a pool; however, the surface water withdrawal of 44,000 million gallons per day (mgd) requires an appropriate study to identify any potential impacts to the river. The 1D PHABSIM

4. In Enclosure 1, Section G4, the Commission agrees that the extent of 2D modeling for the study plan will be the final resolution of the Delphi Panel. The purpose of the study is to determine potential adverse impacts to aquatic habitat. The use of 2D modeling for this purpose is based on recent peer-reviewed literature on instream studies. Mussel habitat was reviewed by an expert panel that met on February 23, 2011. Although general agreement was achieved at the meeting, the Commission awaits a final proposed study for approval.
5. In Enclosure 1, Section G6, second paragraph, the Commission awaits PPL's proposed study plan to address potential increased water temperature caused by increased radiant heating of the streambed due to reduced water depth, reduced capacity to remove heat load due to reduced flow, and thermal discharges. Of particular concern are the shallow areas where increased temperature would stress young-of-the-year smallmouth bass and other organisms.
6. In Enclosure 1, Section S19c, the Commission is not in agreement with the sole use of 1D modeling methods. Again, the extent and purpose of 2D modeling will be determined by the final resolution of the Delphi Panel.

If you have any questions regarding the above, please contact Paula Ballaron at (717) 238-0423, extension 222.

Sincerely yours,



Jim Richenderfer, Ph.D., P.G.
Director, Technical Programs

cc: Michael Canova; USNRC
Donald Palmrose; USNRC
Stacey Imboden; USNRC
Amy Elliott; USACE, Baltimore District
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Mark Hartle; PFBC
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