

Appendix A - Items 30 and 31

PPL Bell Bend Nuclear Power Plant
Salem Township, Luzerne County, PA

ACOE Information Requirements:

“Provide bottom sediment substrate composition”

“Provide a sediment analysis for the presence of hazardous dredgate and pollutants (volatiles, acid, base-neutral compounds, pesticides, PCBs)”

Applicant Response:

PPL completed a comprehensive sediment sampling and testing program in 2010-2011 to meet state and federal requirements requiring analysis of the physical and chemical composition of the Susquehanna River bottom material to be dredged. The purpose of this program was collection of representative sediment samples from the location of the proposed BBNPP Intake Structure and diffuser pipes within the Susquehanna River. The intake and diffuser pipes are located immediately downstream from the existing Susquehanna Steam Electric Station (SSES) intake structure. Data on sediment grain size and any observed contamination is used to dictate appropriate methods of dredging and dredged material (DM) disposal.

Prior to preparing a Sampling and Analysis Plan (SAP), PPL and its subcontractors conducted several conference calls and exchanged emails with the state and federal agencies to make sure their regulatory standards were being addressed. The agencies concluded that the recently revised PADEP's Clean Fill Policy would be the primary determinant of suitability for upland disposal of river sediment. PPL subcontractors prepared a Sampling and Analysis Plan (SAP) detailing methods of sediment collection and analysis based on these discussions. The SAP was submitted to the USACE, PADEP, USEPA, and SRBC on November 5, 2010.

Subsequent to SAP submittal, 28 sediment locations within the intake structure and diffuser footprint and one background (reference) location were sampled using a barge-mounted vibracorer. Following sample handling and preparation, 26 total composite

samples were submitted for laboratory analysis of 232 parameters, fully described in the project document "Sediment Characterization Report, Bell Bend Nuclear Power Plant, Susquehanna River, Berwick, Pennsylvania," dated March, 2011, prepared by AECOM Environment.

Results of the sediment analysis revealed the predominant material types within the proposed dredge area are silty sand and sandy silt, and most chemical parameters were either not detected, or detected at threshold concentrations far below those listed in pertinent PADEP Clean Fill Policy guidance documents. In summary, sediment collected and analyzed from the Susquehanna River from the intake structure and diffuser locations is expected to be fully suitable for upland disposal without restriction.

Supporting documentation is included in Appendix B of the JPA.

- AECOM Environment, "Sediment Characterization Report, Bell Bend Nuclear Power Plant, Susquehanna River, Berwick, Pennsylvania," March 2011, Rev 0
- The Sampling and Analysis Plan (SAP) is included as Appendix A of the above "Sediment Characterization Report."