

Appendix A - Item 25

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

ACOE Information Requirement:

"Dredge material disposal site, location, and capacity, and provide plans."

Applicant Response:

It is expected that approximately 17,000 to 25,000 cubic yards (c.y.) of in-place Susquehanna River bottom substrate will be removed to accommodate the proposed in-water structures and BBNPP Intake Structure design. A bulking factor of 1.4 is assumed to account for expansion of the silty gravel material following removal, producing a total estimated volume of material for disposal of 24,000 c.y. to 35,000 c.y. A permanent location for the disposition of this material is required meeting applicable regulatory standards, and is available at BBNPP lands within 1 to 1.5 miles of the dredging location as further described below.

Disposal of dredged material (DM) is primarily regulated under the Clean Water Act (CWA) §404 administered by the ACOE, and the Residual and Municipal Waste regulations and the Pennsylvania Clean Fill Policy administered by the PADEP. To meet the standards of these regulatory programs, evaluation of the DM to determine its suitability for disposal is required. Disposal in the case of BBNPP is meant to describe the use of DM as clean fill. Clean fill is defined as an uncontaminated, nonwater-soluble, non-decomposable inert solid material. As long as the clean fill is not placed back into a waterway it does not require a permit, and it may be used in an unrestricted or unregulated manner.

Testing of the DM within the dredge envelope (Plan Sheet CS 3116) was completed in 2010, and the results of this testing are presented in Appendix A, Items 30 and 31 of this permit application package. Testing methods, analysis methods and quality assurance and control are documented in the BBNPP Sampling and Analysis Plan, provided to regulatory agencies in October, 2010 following correspondence to determine applicable sampling and testing methods. Analysis of the physical and chemical characteristics of the DM indicates that it is clean and suitable for upland disposal.

DM will be disposed of within the BBNPP site at one or more of the laydown areas to the north and southeast of the BBNPP power block, or on lands at the perimeter of the facility where it may be used as non-structural fill. The capacity of these areas is more than sufficient to accommodate the expected 24,000-35,000 c.y. volume. Amendments such as cement kiln dust (CKD) which may be required to aid in drying and material handling are not assumed to represent significant additional volume to the total DM amount.

It should be noted that DM removed from the SSES Intake Structure and diffuser ports has been disposed of on SSES property for the duration of the facility's history. Areas at SSES used for DM disposal are stable, vegetated areas carefully managed to prevent inadvertent reintroduction of DM to wetlands and waterways. DM disposal areas at BBNPP will be managed in a similar and appropriate manner.

Dewatering and preparation for upland disposal (amendment) will be completed in a dedicated DM handling area and dewatering basin constructed immediately west of the Susquehanna River approximately 300 feet south of the BBNPP Intake Structure. The proposed dewatering basin will be used to contain the DM once offloaded from the barges, and fluid collected and removed from the dewatering basin will be routed to a settling basin to allow sediment removal prior to being reintroduced to the Susquehanna River. Once the DM has been allowed to dry to a degree suitable for transportation by truck with little or no introduction of drying amendments, it will be excavated from the settling basin, removed by truck to the permanent disposal areas on the BBNPP site, graded, and stabilized via seeding and use of geotextile fabrics as necessary to ensure rapid slope stabilization.