

PPL Ash Removal at the Outfall to the Delaware River
Phase I – Ash Removal “In the Wet”
9-16-05

In an effort to take advantage of existing river conditions, PPL would like to resume the excavation of bulk areas of fly ash deposited in the Delaware River outside the outfall area. All work will be conducted in a manner to ensure minimal disturbance to the river bed and banks. Prior to commencing this work the existing turbidity curtain will be inspected and the Easton Water Authority will be notified. Additionally, during the excavation downstream areas will be visually monitored to ensure turbid water is being properly contained within the turbidity curtain. Should turbid water be noted, work will be immediately suspended until the issue is properly addressed. In addition to visual monitoring during excavation activities, river water samples will be collected every three hours at five river sample stations and finished water (see attached figure) as agreed upon with the Easton Water Authority. The river water samples collected during the excavation actions will be analyzed for turbidity and total metals.

Bulk areas of fly ash currently located inside the turbidity curtain will initially be removed through excavation of the material while still under water. This excavation would utilize long reach excavators (50' reach), and other support equipment (track hoe and rubber tire hoe), to remove the ash deposits along the river bottom within 175 feet of the shore and within the area of the turbidity curtain. Prior to, and during, the excavation, larger river rocks (12" or larger diameter) will be removed and placed on shore for cleaning and used for restoration of the river bottom.

The goal for Phase I is to minimize the disturbance (e.g. compaction and rutting) to the river's substrate. Surficial disturbances of the river sediment are not an immediate concern as the shallow sediments will be removed as part of the Phase II work (the details of which will be submitted shortly). To minimize the sub-surface impacts, we intend to utilize a tracked, long (50' reach) reach excavator. The use of a tracked piece of equipment allows for weight distribution over a larger surface area thereby minimizing the sub-surface compaction. In addition to this approach, we intend to minimize the movement of these 50' long reach excavators to the extent practical. The first excavator will enter the river to within 50' of the silt curtain and remove the material within its reach. This reach will be 50' radius from the equipment or 100' in diameter. Material will be moved from the river and placed near the bank by the long reach excavator. From here, a second piece of equipment (another excavator) will remove any rocks (12"-24" in diameter) and load the ash into a rubber tired truck for removal. Both excavators will move in parallel along the river's edge moving ash from the outer edge towards the bank, and finally into the rubber tired truck.

The fly ash material removed by the long reach excavators will be placed closer to shore on elevated piles and allowed to drain. The placement of this material will be such that any water draining off will go back into the excavation area contained by the turbidity curtain. The drained ash will then be loaded into a rock truck. Once full, the rock truck will be allowed to further drain before transporting the material to its final disposal location at Ash Basin 4. Again, during activity within the turbidity curtain, river conditions will be routinely monitored to ensure disturbed materials are being properly

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contained. Additionally, all work will be conducted in a manner to ensure minimal disturbance to the river beds and banks.

It is estimated approximately 60,000 square feet, up to an average 1' deep of material will be excavated. The excavation will consist mostly of ash and a minimum amount of native river sediment. It is anticipated that approximately 2,500 cubic yards of material (primarily ash with minor amounts of native river bottom material up to 12 inches in diameter) will be removed during the wet excavation phase of this project.

Excavation “In the Wet” will continue until; 1) all available material within reach of the equipment is removed, or 2) operations are interfering with the Portadam installation and must be stopped, or 3) the Portadam has been installed and “Excavation in the Dry” will be initiated. Any fly ash left from the “Wet Excavation” activities will be removed during the next phase of the operations. These operations will be detailed in Shaw’s write-up (Phase II – Excavation within the Portadam) and will consist of the installation of a Portadam, dewatering, water treatment, removal of the remaining ash and impacted substrate with traditional excavation equipment, and site restoration.