

Project Name

Report on the Technical and Regulatory Options for Fly Ash Pond Closure at the PSE&G Mercer Generating Station

Client

Public Service Electric and Gas Company (PSE&G), Newark, New Jersey

Services Provided

- # Determination of the Cost Effective Option for the Permanent Closure Fly Ash Pond
- # Identification of the Appropriate Federal, State, and Local Regulatory Requirements
- # Development of a Step-by-step Procedure Fly Ash Pond Closure

Project Description

Bituminous coal is used for the generation of electricity at the PSE&G facility. All bottom ash produced at the site is utilized beneficially. The fly ash that is not marketed is stored in an on-site fly ash pond, where it is solidified/stabilized with the addition of cement kiln dust and water. The two unlined ponds have a total design capacity of 355,000 cubic yards and encompass an area of approximately 27.6 acres. The solid product is sent to the G.R.O.W.S. Landfill to be used as intermediate cover. PSE&G is making an attempt to eliminate or significantly reduce the coal fly ash disposal and is focusing in ways of using the entire quantity (100%) of the dry fly ash generated at the Mercer Station. SAI was retained by PSE&G to develop and evaluate appropriate options for the permanent closure of one or both of the two on-site fly ash ponds.

Approach

SAI evaluated the available physical and environmental/chemical background information regarding the PSE&G Mercer Station and the two fly ash pond. SAI utilized this information to classify the liquid and solid contents of the ponds and in identifying the applicable federal, state and local regulations associated with the closure of the ponds. In addition, the various permits that would have to be obtained for the ponds closure were identified. SAI also evaluated several fly ash closure options based on technical feasibility, long and short term effectiveness, compliance with federal, state and local regulations, as well as schedule and unit cost for performance and completion. Finally, SAI recommended the options that were deemed as the most feasible, applicable, regulatory simple and time and cost effective for the closure of the ponds, along with a course of action to accomplish this goal.