

# Coal Ash Beneficial Use at Mine Sites in Pennsylvania

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## ABSTRACT

The beneficial use of coal ash at mine sites in Pennsylvania began in 1986 and is regulated under the State's Solid Waste Management Act and the accompanying coal ash beneficial use residual waste management regulations. Fluidized bed combustion (FBC) coal ash is an important component in Pennsylvania's coal ash beneficial use program, but the use of coal ash from pulverized coal-fired (PC) power plants in Pennsylvania and other States is also significant for mine reclamation. Coal refuse piles are burned by FBC power plants, acid mine drainage and sediment pollution from refuse piles are eliminated, and the alkaline coal ash generated is beneficially used for mine reclamation.

Pennsylvania Department of Environmental Protection regulations and technical guidance address: specific beneficial uses at mines; coal ash analysis parameters; concentration limits; surface and groundwater monitoring requirements; geologic and hydrologic site evaluations; quantity of coal ash and its placement at the sites; and mine reclamation plans. During the past eighteen years, the coal ash beneficial use at mine sites program consists of over 120 permitted mine sites that have received coal ash. Consequently, long-term monitoring data of the chemical and physical characteristics of the coal ash, and the groundwater quality is available for many of these sites, which attests to the success of the beneficial use program. Sixteen power plants in Pennsylvania have contributed to the reclamation of approximately 3,400 acres of abandoned mine lands, alone, within the past fifteen years.

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