

THE ROLE OF COAL COMBUSTION BY-PRODUCTS IN SUSTAINABLE CONSTRUCTION MATERIALS

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ABSTRACT

Over one billion tons of coal combustion by-products are produced annually in the United States. CCBs represent incombustible materials left after combustion of coal in conventional and/ or advanced clean coal technology combustors. These include fly ash, bottom ash, boiler slag, and flue gas desulfurization (FGD) by-products from advanced clean coal technology combustors. This paper briefly describes various coal combustion products produced, as well as current best recycling use options for these materials. Materials, productions, properties, potential applications in manufacture of emerging materials for sustainable construction, as well as environmental impact are briefly discussed.