

Strength of CCB Concrete Compared to an Equivalent Conventional Concrete

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ABSTRACT

It is well recognized that concrete is one of the most widely used civil engineering construction materials and coal combustion byproducts (CCBs) constitute the largest amount of residues produced by the coal burning utility industry. The use of CCBs as supplementary cementing material (CSM) in portland cement concrete has received significant attention by engineers and researchers all over the world. The authors are currently working on a research project to develop more cost effective concrete composites by synergistically mixing Illinois CCBs from two utility companies in Illinois. The results obtained so far show that the concrete composites exhibit strength, measured in terms of unconfined compression and splitting tensile strength, similar to that of an equivalent conventional concrete. Detailed information about the experimental program and test results will be presented in the proposed paper.

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