

Blended CFB Ash and Limestone Base Course

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The disposal of ash produced from the combustion of solid fuels has been a major subject of research and product development since the early 1900's. However, with the onset of modern environmental controls, the technical difficulties of identifying suitable markets for such by-products are growing ever more challenging. Traditional construction markets for ash have now been refined to the point where many by-products are excluded due to elevated levels of sulfur and other potentially reactive elements. A beneficial use has recently been demonstrated by JEA, in Jacksonville, Florida to recycle a blend of the bottom ash and fly ash from Circulating Fluidized Bed (CFB) boilers, and traditional construction aggregates. The results of laboratory and field testing demonstrate that this value-added by-product material is a superior performer in pavement base course applications. Approximately 300,000 tons of this blended base material was successfully placed on a 600 acre marine terminal at JaxPort. Specific information regarding the processing of the material, the testing performed, the material properties of the blend, and the early performance of the constructed product is documented herein.

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