

Ponded Bottom Ash, One Man's Treasure

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ABSTRACT

Charah Environmental, Inc. and Louisville Gas and Electric Company have been working together studying reuse for coal bottom ash in the Midwest. Bottom ash from bituminous coals has been ponded for years waiting for some industrial end use application.

In developing beneficial reuse projects for this ash our paths have been directed to many places unfamiliar with its potential. We find the qualities of some bottom ash to be superior to available products in the aggregate industry. Teaching end users about these properties has led to many hours of testing and reports.

Lower sulfur Appalachian bituminous coals yield a much better bottom ash for lightweight aggregate for concrete block, as do the higher sulfur coals in the Southern Illinois basin. Bottom ash from these coals yields a better aggregate for asphalt paving materials. Our experience does not cover all coals or possible blends of coals but is a generalization from power plants participating in our studies.

Concrete block made with lightweight coal ash has an appealing texture, which for the most part, controls the production finishes of the block. Block producers are pleased because of better transportation cost, and yield per ton of material. Power plants gain pond space and the material processing can yield significant capture of useable Btu's. The road builders of America are faced with new demands for durable products that are becoming harder to come by every day. Look at what we have thrown away. It can be valuable in the right application.