

A FIELD DEMONSTRATION OF THE USE OF FBC FLYASH FOR BARNYARD PAVEMENT

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ABSTRACT

Pavement of muddy barnyards would provide a benefit to livestock health by keeping animal feet and udders dryer and cleaner. In spring 1996; a demonstration using FBC flyash as a pavement material for barnyards was located on an active farm approximately 40 miles north of Harrisburg, PA. The flyash was transported dry to the site in pneumatic tank trucks and hydrated to approximately 35% using a transit concrete mixer. The depth of the flyash pavement was approximately 45 cm (18 in). Six suction lysimeter each were installed in the paved and unpaved soil control of the barnyard. Despite the fracturing, the pavement remained very useable cattle feed lot area until the pavement was dismantled in spring 1997. Chemical analysis of leachate indicates that, except for As, concentrations of potential flyash derived contaminants in leachate collected beneath flyash paved areas do not appear to be different than those collected from beneath the unpaved control area (Table 2). The average As concentration in leachate collected from beneath the flyash-paved area appears to be higher than that collected below the unpaved control area. However, the average As concentration in the leachate collected beneath the flyash-paved area was well below the USEPA maximum concentration for drinking water.