System and Process for Agglomeration and Processing of Carbonaceous Fines and Dust

Description of Technology

This technology is a method and system for agglomerating and processing carbonaceous fines. The process comprises powdering the carbonaceous fines, mixing the powdered carbonaceous fines with an organic liquid creating a slurry, adding a predetermined amount of an aqueous electrolyte to the slurry creating agglomerated particles, settling the large agglomerated coal fines and reagent liquor, and separating the agglomerated coal fines from the reagent liquor.

Applications

This technology can be used in the coal mining industry to remove coal, coke and more general carbonaceous fines in a much more effective manner. This can be used to eliminate fugitive coal dust that is generated during mining, conveying, transportation and storage.

Features & Benefits

The Dust Suppression System utilizes inexpensive ingredients and does not require a surfactant to work. Dust agglomerates formed are more stable and last longer than those formed by water based sprays.