Evaluation of fly ash form co-combustion of coal and Petroleum coke for use in Concrete.

Abstrak

An investigation of fly ash (FA) produced from various blend of coal and petroleum coke (pet coke) fired at Belledune Generating Station New Brunswick , Canada, was conducted to establish its performance relative to FA derived from coal-only combustion and its compliance with CSA A3000. The FA samples were beneficiated by an electrostatic separation process to produce samples for testing with a range of loss-on-ignition (LOI) values. The results of these studies indicate that the combustion of pet coke results in very little inorganic residue (for example, typically less than 0,5% ash) and the main impact on FA resulting from the co-combustion of coal and up to 25% pet coke is an increase in the unburned carbon content and LOI Values. The testing of FA after benification indicates that FA produced from fuels with up to 25% pet coke performs as good as FA produced from the same coal without pet coke.