

Substitution of Mazout with Coal Powder during Cement Production and Environmental Effects

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Received April 06, 2013; Accepted June 10, 2013

Abstract: Production of many productions such is cement, metals and non-metals are characterized with high temperature processes, where large amounts of energy are needed to create conditions for appropriate physical and chemical transformations of raw materials into final products. The choice of the needed energetic sources for a given process depends on technical and technological factors (fuels' heat of combustion, their chemical composition, the corresponding ignition temperatures etc.), economic factors (resource reserves, mining technical features, the price of the energy resources etc.) and environmental factors. Considering the actual ever increasing prices of all petrol derivates, attempts are being made to find possibilities to substitute mazout with other types of fuels, such as with lignite powder in Kosovo. The amount of S in lignite powder is a factor that limits the substitution of mazout with lignite as fuel. However, Kosovo lignite powder is applied as mazout substitute in several industrial experiments, which resulted in positive outcomes related to the technological process, equipments functionality and economic factors, excepting the sulphur content in lignite that was identified as an obstacle.

Key words: *cement, mazout, lignite powder, rotary furnace*

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