

Desilication Of Green Liquor By Two Stage Causticizing

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ABSTRACT

This paper deals with the efficient removal of silica from the green liquor and to make the resulting lime sludge suitable for reburning. Generally non-wood fibrous raw materials contain nearly 10 times higher silica content when compared to wood based raw materials. In bagasse silica content is about 1.5-2.0%. In Kraft process it is converted into sodium silicate and enters into green liquor. Green liquor is the spent liquor from pulping process in the Paper manufacturing process, which can be reused by converting it into white liquor by Causticizing process by addition of lime. In this process the reacted lime can also be reused by calcination process in a lime kiln without any major problem, if the silica content of reacted lime sludge is low. In this process the lime is added in 2 stages as 25% in 1st stage and remaining 75% in the 2nd stage. The analyses of sludge and liquor samples are carried out at TNPL, Karur. From the results the percentage removal of silica in each stage is determined.

Keywords: Desilication, Causticizing, Green liquor, White liquor, Lime sludge.