

# Utilization Of Lignin As A Source Of Industrial By-Product To Improve Economics Of Agro Based Mills

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## ABSTRACT

Lignin is one of the most abundant renewable resources available as a by-product of pulping process. Most of the lignin obtained from kraft pulping of woody raw material is burned in recovery boilers to fulfill a part or most of energy requirement of the mill. However In the absence of a viable chemical recovery in agro-based pulp and paper mills , un-till last decades, black liquor rich laden effluent was drained as waste ,there by causing severe problems of pollution in these pulp and paper mills.

With imposition of CREP and as per notification / guidelines issued by MOEF, Central Pollution Control Board has permitted the adoption of lignin removal process (LRP) as one of the option to achieve zero discharge and meeting desired Pollution Control Norms. With the adoption of LRP in these small Agro based Pulp& Paper mills (bellow 50 tpd) large quantities of lignin was available as waste biomass. As a result large continent of lignin is available as waste bio mass which if utilized effectively could become a valuable source for various industrial applications. The present article covers the efforts of CPPRI in this direction.