

Modified Conventional Batch Cooking (MCBC) - A Step Towards AOX Reduction

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ABSTRACT

Indian paper industry is more than a century old industry. The industry had seen many ups and downs with economic and environmental issues. Industry is now emerging strongly to face global competitiveness inspite of lack of funds to adopt advanced technologies. "In Charter on "Corporate Responsibility for Environmental Protection" (CREP) guidelines, control of AOX is one of the major environmental challenges before the Indian pulp and paper industry for its sustainability. The environmental challenges related to AOX generation have already been over come by pulp and paper mills in developed countries by adoption of new fiber line incorporating modern pulping and bleaching technologies. However Indian pulp & paper industry is still at cross roads due to its inability to adopt these modern technologies due to low scales of operation, use of mixed raw materials, and high capital investment. For techno-economical reasons, the industry has to think towards indigenously developed low cost system to minimize the AOX generation.

Development of indigenus system with a prime objective to minimize the AOX generation at source i.e before bleaching, which is very difficult to achieve in conventional batch cooking system followed by oxygen delignification without affecting the quality of pulp to meet CREP requirement.

Looking into ecology and economic conditions, the Indian paper mills require improved/modified cooking system i.e Modified conventional batch cooking (MCBC) followed by oxygen delignification in case they are unable to afford modern cooking system for minimizing the AOX generation because of their high capital cost.

Keywords:Batch Cooking, AOX, Bleaching, Chlorine, Pulp, Oxygen Delignification, Alkali Charge, Temperature, Digester, Cooking cycle etc.