

# Advanced Quality Control (AQC)- In DIP

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## ABSTRACT

In view of the increasing environmental concerns and raw material availability, recycled fiber is increasingly being used as a raw material for many paper, board and tissue grades. Recycled fiber degrades in its properties after each recycling process and hence creating the real tough task for the papermakers. The challenges a papermaker confronts when using recycled paper as a fiber source are many. How to cope with variability of fiber types, inks, contaminants and still maintain high yield of fiber for final products are the most acute. Importantly, keeping production costs to an optimum level at the same time is a challenge for the production line.

A new process control system has been developed to reduce the impact of the deterioration of recycled raw material. The control system uses a mill wide approach to minimize the cost of paper brightness. The incremental cost of brightness for the multiple brightening agents used in the deinking process is determined by performing plant tests and analyzing historical data. The brightening agents evaluated include magazine content, peroxide, caustic, silicate, soap, hydrosulphite, and optical brightener. This information is used to configure the control system. A production advisory system has also been implemented which helps the operators set production targets that maintain the required inventory while minimizing the impact on pulp quality.