

1995 **Title:**                    **Operating a Recovery Boiler at Reduced Solids Throughput; Downsizing Creates New Challenges**

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**ABSTRACT:**

In recent years, the availability of recycled fibers for the pulp mill has increased to the point where many kraft liner board or paper mills today produce several hundred tons per day of recycled fiber pulp. Often, this has led to reduced production of virgin kraft pulp from wood chips, and consequently, black liquor flow rates to the recovery boiler(s) has reduced significantly.

Downsizing the recovery boiler below maximum rated capacity (MCR) has introduced undesirable process-related effects and economic ramifications for the recovery boiler and powerhouse areas. In this paper the following effects will be discussed:

- Increased demands for supplemental fuel.
- Increased potential for accelerated corrosion.
- Lower thermal and reduction efficiencies.
- Increased soot blowing steam usage.
- Boiler cycling to control liquor inventory.
- Increased emissions of air pollutants.