



1990 **Title:** **Water Circulation in Recovery Boilers**
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ABSTRACT:

Adequate flow of water through the boiler heat absorbing circuits is necessary to cool tube materials. Water circulation in kraft recovery boilers occurs naturally due to the density differences between the water in the supply tubes (downcomers) and the steam/water mixture in the heat absorbing tubes (risers). Several factors (heat absorption patterns, circuit capacity, steam drum internals, etc.) affect the rate of water circulation. Changes in boiler operations (increased solids input, degraded combustion conditions, etc.) can lead to changes in circulation rates and should be fully investigated to determine the potential for reduced circulation and minimize the occurrence of tube failures.