



## **AVAILABLE AND EMERGING TECHNOLOGIES FOR REDUCING GREENHOUSE GAS EMISSIONS FROM THE PULP AND PAPER MANUFACTURING INDUSTRY**

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Steam trap improvement.

A new steam trap design is the venturi orifice steam trap, which is better suited for varying loads than traditional mechanical steam traps. One mill in Europe changed 25 steam traps to the new type on a coating battery, which resulted in energy costs savings of nearly \$200,000, with a payback period of 2.5 months. Other projects saved 11 percent on steam demand in preheater and end corrugator rolls (10 steam traps), and a 30 percent on a flute machine. (Kramer 2009)