

2010 Title: Evaluation of Water Flow in Floor Tubes of Recovery Boilers with

a Decanting Hearth

Authors: Allan Walsh, Marcel Berz, and Steve Campbell, all with Jansen.

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ABSTRACT:

The paper presents results from the application of Jansen's ultrasonic flow monitoring (UFM) technique to measure water velocities in wall and floor tubes of eight different recovery boilers with decanting hearths. The nature of the design of these boilers is such that front and rear wall tubes that are closest to the side walls (so called corner tubes) will generally receive less heat flux than other wall tubes, thereby resulting in lower circulating water flow. This could potentially have a detrimental impact on water/steam circulation conditions. The paper provides a discussion and assessment of these potentially detrimental effects.