



ENVIRONMENTAL TECHNOLOGY

Counterproductive flush water in 15 evaporator pumps leads to big savings

During an energy audit at a Canadian pulp and paper plant, AESSEAL® identified 15 packed evaporator area pumps that needed upgrading to mechanical seals. This was due to the packing flush water diluting the black liquor in a process designed to remove excess water and concentrate the liquor so it can be used as fuel in their recovery boiler.

As a result of the excess water due to the use of packing, frequent maintenance and pump replacements were required and because of this, the recovery boiler efficiency was negatively impacted. As the mill was evaporator limited, reduced through-put and efficiency on the recovery boiler resulted in reduced pulp production rates.

AESSEAL® recommended the use of the FIDC™ dual seal and 25L water management systems as these require little or no regular maintenance or adjustments for up to 5 years or more and is perfect for these relatively easy low pressure applications.

With the implementation of these seals and systems from packing, virtually all of the dilution water was eliminated. At the time of the audit and recommendations, it was predicted there would be a 2 month ROI, and \$689,191 CAD (US\$549,733) of annual savings. Four years later, there has been a saving \$2,756,763 CAD (US\$2,198,932 / €1,963,866) which includes the evaporation and maintenance savings.

In addition, as a result of the new systems in places, the AES water management systems are conservatively saving 26.5 million gallons of water per year.

‘Huge money and water savings’

Industry:	Pulp & Paper
Product:	FIDC™ & Water Management Systems
Application:	Evaporator Pump
Water savings:	26.5 million gallons each year
Savings:	\$2,756,763 CAD (US\$2,198,932)
Reference N.O:	CS0026



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