

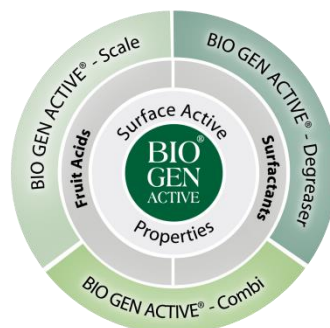


Reconditioning of boiler

Bio Gen Active® Scale 130

DESCRIPTION OF APPLICATION

Sector	Heat and Power
Application	Boiler, Limestone
Product	Bio Gen Active® Scale 130
Deposit	Limestone



BACKGROUND

A wood chip boiler producing 4650 kW (18 m³) needed reconditioning due to heavy lime scale fouling. The boiler is located at a saw mill and the produced heat is used at the saw mill and excess heat is distributed to the local community. The boiler has been in service since 1985 and had never before been cleaned. An estimate gave an average coating of ~2 mm limestone. Some areas were considerably thicker.

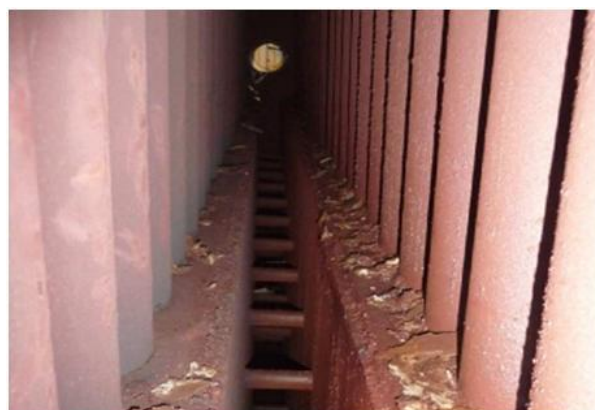
PROCEDURE

The boiler was cleaned using Bio Gen Active® Scale 130 with a small addition of Bio Gen Active® Degreaser 691. The procedure was facilitated by combining the circulation of the internal boiler and the CIP machine (Cleaning In Place). Heating can be provided either through the CIP-unit or from the boiler, the later is usually favored since this is much faster. Finally, the entire system was rinsed with large amount of water and large amount to lose lime scale collected at the bottom was rinsed out.

RESULTS

Cleaning was successful and already after few weeks, an evaluation showed major economical benefits, as well as benefits for the environment and lower energy consumption. Temperature in the boiler and exhaust gases was considerably lower. Given an energy price of ~0.04 EUR/kWh the return of investment for the cleaning was 4-5 months.

Not performing the reconditioning would have cost at least ~4000 EUR/month.



PRODUCER

Bio Gen Active AB
Sågv. 9, SE-843 41 Gällö, SWEDEN
Phone: +46 693 66 12 10
E-mail: info@biogenactive.com
>>www.biogenactive.com

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Intelligent Cleaning