# SCG Banpong

Application: Waste-to-Energy boiler
Efficiency solution: Infrasound Cleaning
Cleaning area: Economizer

## General info

Plant: Banpong power station
Boiler: Andritz BFB
Fuel: Waste
Capacity: 9.6 MWel

## Installation

Type: APX2000
Year of installation: 2023
Country: Thailand

## Situation description

SCG Banpong used shot cleaning in their Economizer at 10-minute intervals. The damage this caused became apparent after an inspection of the Economizer revealed heavy erosion on the tube bundles. These needed to be rapidly replaced to prevent leakages and avoid the risk of an unplanned shutdown.

The purpose of installing Infrasound Cleaning from Heat Management was to reduce, or preferably eliminate, the existing shot cleaning system, prolonging the tube life while maintaining cleaning efficiency.

The target was to reduce shot cleaning by 2/3 (67%), i.e., to every 30 minutes. After being evaluated for a year, it is now clear that infrasound cleaning allows for a reduction in the use of shot cleaning by as much as every 3 hours, corresponding to a 94 % reduction.



*Figure 1. ECO-tubes 2023*



*Figure 2. ECO-tubes 2024*



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Results

- Operational data has shown that the **average differential pressure**, **flue gas temperature**, and calculated **heat transfer coefficient** are comparable to the values before using infrasound cleaning.

- **The Customer maintains the option to increase cleanability at the cost of wear**. Further tests indicate slight increases to heat transfer coefficient and flue gas differential temperature when shot cleaning is used once per hour rather than every 3 hours.

- **Significant wear reduction**, due to 94 % less shot cleaning.

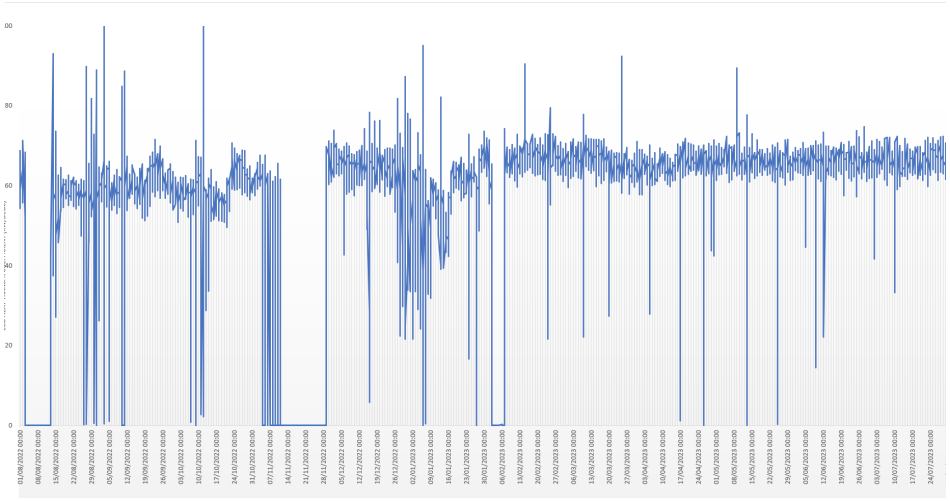


*Figure 3. ECO heat transfer coefficient (KW/DEGC), 1 year period before infrasound cleaning was installed.*

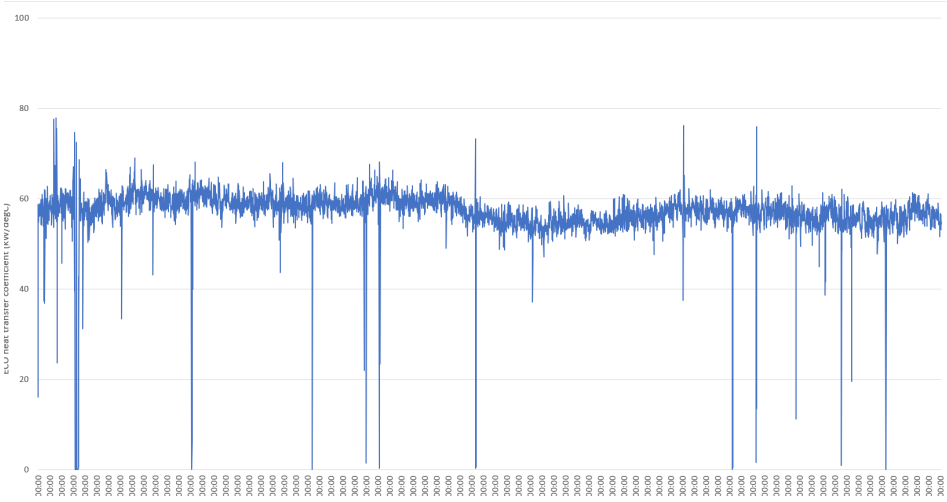


*Figure 4. ECO heat transfer coefficient (KW/DEGC), 1 year period after infrasound cleaning was installed.*



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