



THERMAL IMPACT GROUP LTD

STEAM SPECIALISTS

This case study was carried out at a:
Water Treatment Plant

Study

The Water treatment facility operates 2 sludge drying lines, each requiring significant energy input in the form of steam, supplemented by oil or gas as auxiliary fuels in the incinerator. Line 1 had previously been fitted with brand new fully functional mechanical traps and later swapped for CEELOCs for performance comparison. Line 2 operated with older correctly functioning mechanical traps and had additional operational challenges, such as sludge build-up around the dryer. These traps were replaced with CEELOCs.

Daily consumption of steam, oil and gas were collected, and the following results were obtained and verified:

1. **Line 1** - Steam consumption reduced from 3.19 t/hr to 2.28 t/hr equal to approximately 0.9 t/hr reduction (approx. 28% following CEELOC installation).
2. **Line 1** - Oil consumption reduced from 79.8 L/hr to 43.5 L/hr (approx. 45% reduction following CEELOC installation) due to improved dryer performance.
3. **Line 2** - Significant steam reduction of 1.5 t/hr recorded after CEELOCS installed.
4. **Line 2** - Gas consumption decrease in lance gas usage of 60,000 m³/month was consistent with improved dryer performance.

Results

Line 1 Steam

28%

A reduction in steam consumption of 28%.

Oil Usage

45%

A saving of 28% for steam usage in Line 1.

Line 2 Steam

1.5
tonne/hour

A reduction in steam consumption of 1.5 tonnes per hour.

Line 2 Gas Saving

60,000
m³/month

A monthly gas saving of 60,000 m³.

