



Ensure Efficient Sootblowing

Application

Solid and liquid fired steam generators accumulate excess soot, the furnace walls and heat exchanger surfaces become fouled and inhibit heat transfer. The Ovation sootblower optimization solution uses an intelligent modeling tool and an expert rule set develop heat absorption models and sequences that accurately reflect the numerous interrelationships of various heat transfer sections. Once modeled, the intelligent sootblowing system delivers adaptive sequenced sootblowing control that efficiently manages cleaning media use while avoiding opacity levels, targeting ideal temperatures, and time aspects.

Strategy

Balanced Sootblowing

The sootblower optimization solution balances sootblower scheduling and heat flux of each section for best overall boiler efficiency.

Strategic Sootblower Sequences

The sootblower optimization solution develops strategic sootblowing sequences from all key aspects of dwell time, heat transfer, and thermal NOx and steam temperature impacts, ensuring that a plant only blows soot when it is needed, and only in the necessary locations.

Dynamic Calculations

The sootblower optimization solution can dynamically calculate the cleanliness factors and re-prioritize the rule set order, even while the plant is moving through load ranges.

Results

- Delivers optimal cleanliness, resulting in a 0.5% heat rate improvement
- Improves overall boiler efficiency
- Balances blowing sequences
- Minimizes unnecessary media usage
- Enhances steam temperature control
- Reduces opacity spikes

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