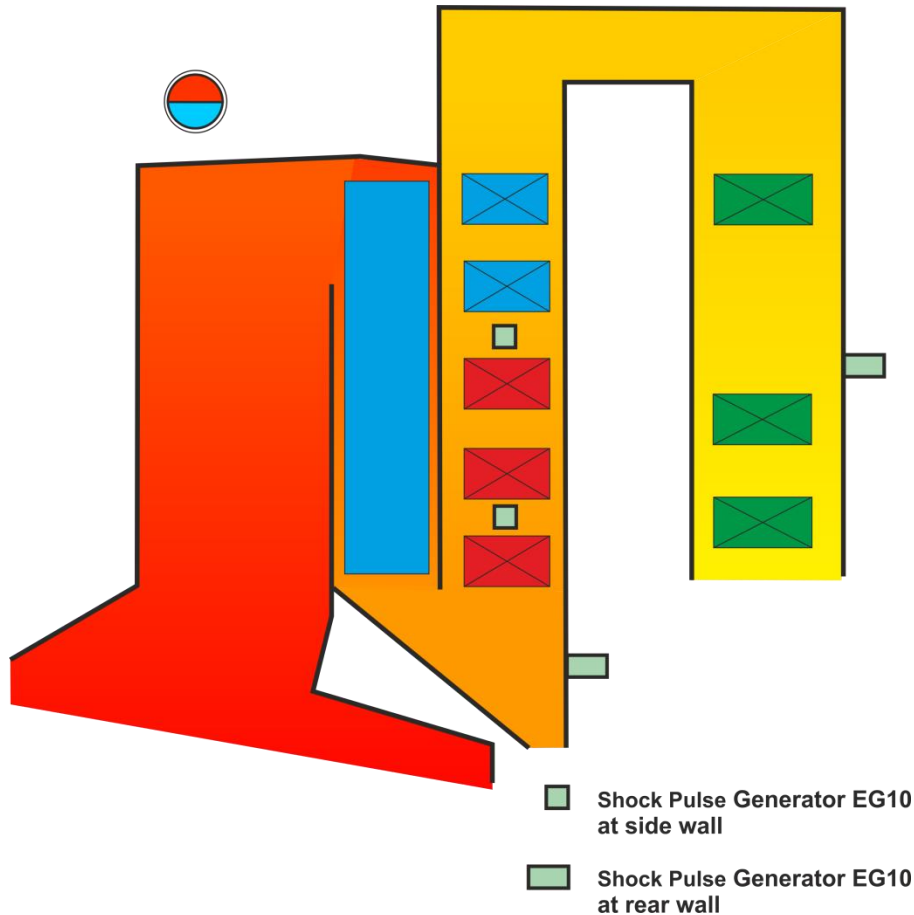


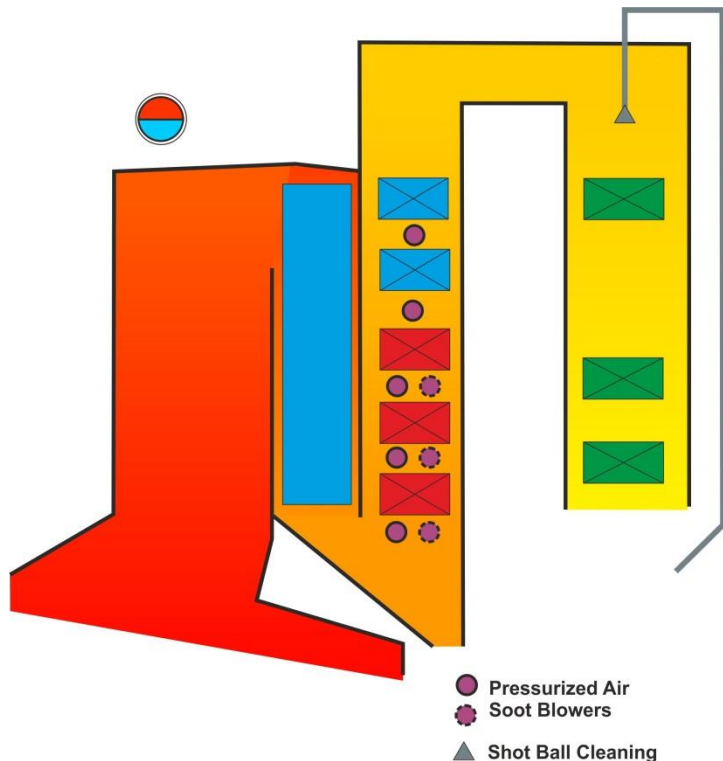
Reference Example: EfW plant Lucerne (B 3) / Switzerland (2009-2014)



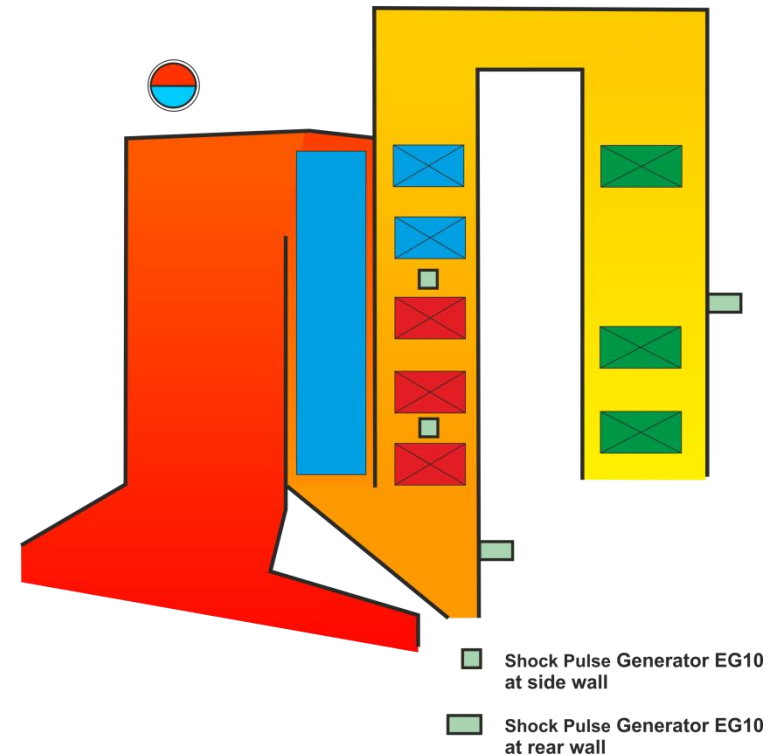
- 17 t/h steam capacity
- 2nd pass: W 3.1 x L 1.6 m
+ 4 flag shape evaporators (pitch 0.6m);
cleaned by 1 Shock Pulse Generator SPG in
3rd pass instead of manual explosion cleanings
every 2-4 months
- 3rd pass: W 3.1 x L 2.1 m
bundles: Pitch H/V/tube Dia; bundle height
EVAP1+EVAP2: 125/80/31.8mm; 1.0m
PSH1+PSH2: 125/80/31.8mm; 1.0m
FSH: 150/80/31.8mm; 1.0m,
2 SPG instead of 8 sootblowers
- 4th pass: W 3.1 x L 1.9 m
pitch H/V: 80/80; tube: 31.8mm,
bundle heights 1.3/1.5/1.6m
1 SPG instead of shot ball system
- Cleaning effect very good
- Improvements in boiler operating &
maintenance cost (all tube protectors removed;
maintenance period shortened)
- Plant supplier: Von Roll (HZI)
- Plant operator: Real Luzern
- replaced by new plant in 2015

Reference Example: EfW plant Lucerne (B 3) / Switzerland (2009-2014)

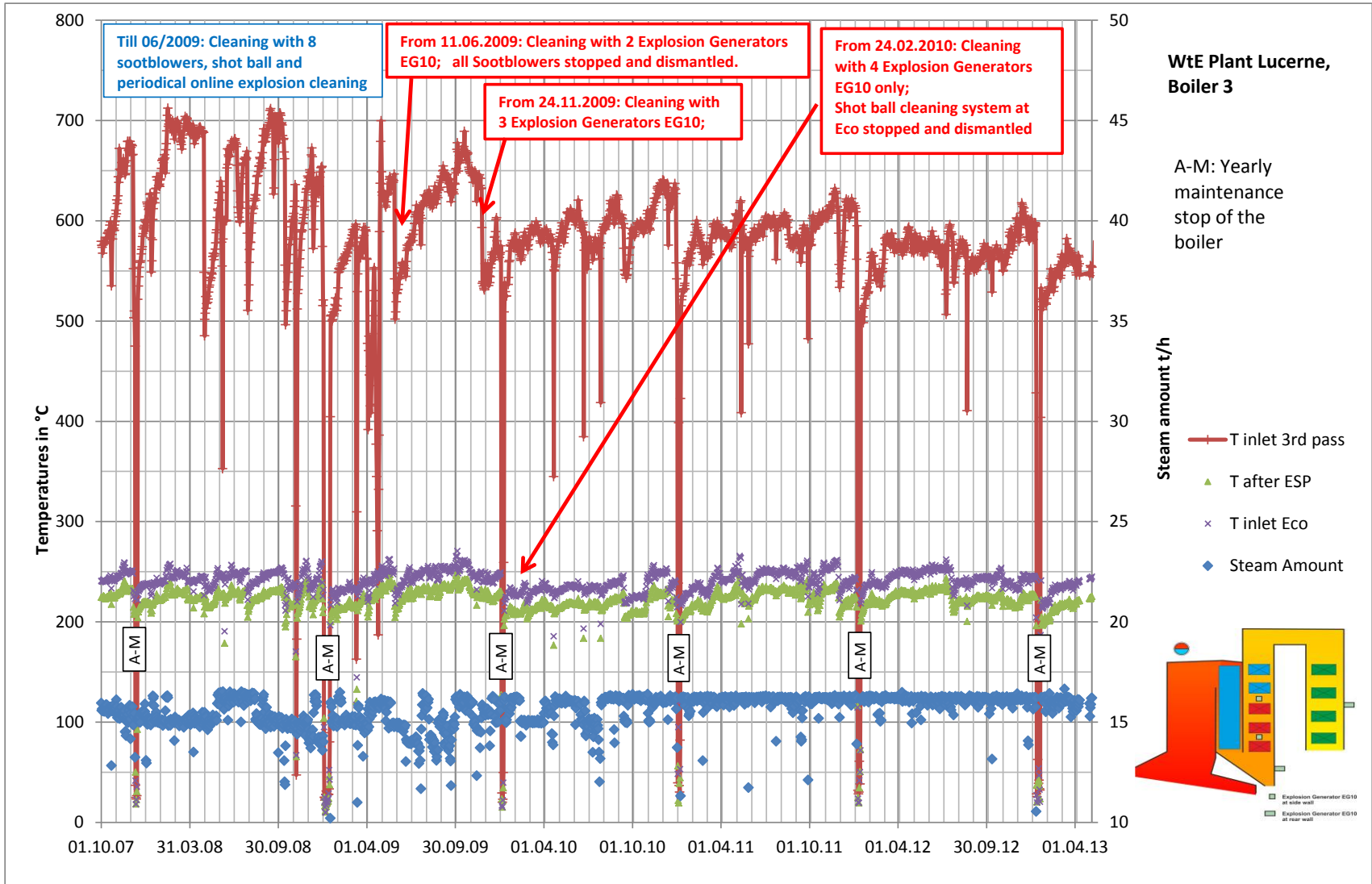
Before 2009:
Cleaning by 8 sootblowers,
1 shot ball cleaning system and
manual explosion cleaning



From 2009 till 2014 (replaced by new plant in 2015)
Cleaning by 4 Shock Pulse Generators EG10 /
EG10L
Boiler width: 3.1m, 2nd pass: panel evaporators
Sootblowers and shot ball system dismantled



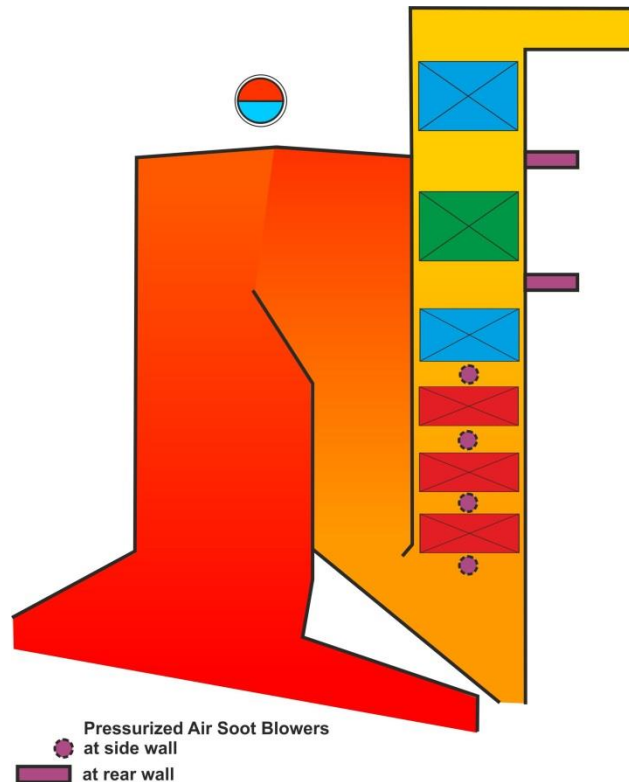
Reference Example: EfW plant Lucerne (B 3) / Switzerland (publishable)



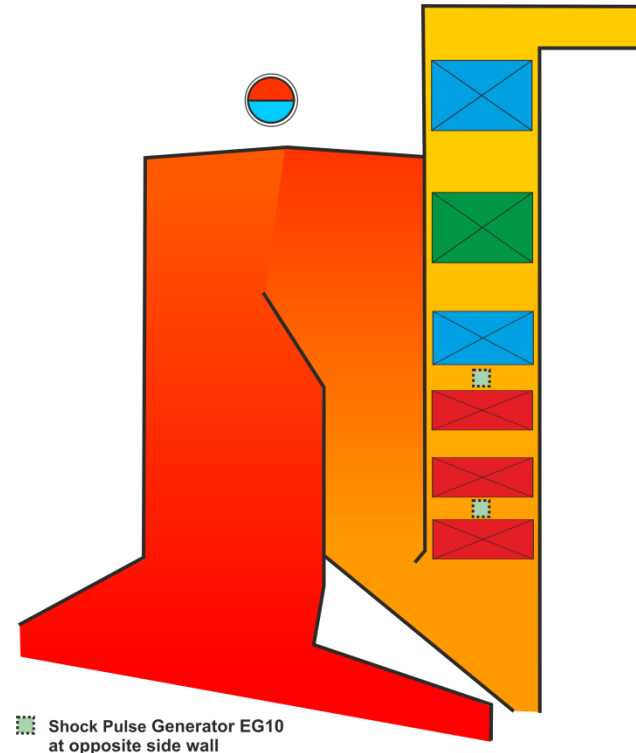
Reference Example: EfW plant Lucerne (B 1 + B2) / Switzerland (2009-2014)



Before 2009:
Cleaning by 6 soot blowers and
manual explosion cleanings



From 2009 till 2014 (replaced by new plant in 2015):
Cleaning by 2 Shock Pulse Generators EG10
All sootblowers dismantled
Boiler width: 3.1m



Reference Example: EfW plant Lucerne (B 2) / Switzerland (2009-2014)

