Schweizerischer Verband für UMWELTTECHNIK

Kanadevia INOVA

Fact Sheet Measure 12

Performance increase and optimisation of MSW incineration with Autaro™

TRIDEL Lausanne

Description of the measure

In order to enable increased performance in the Lausanne plant without major conversions and to significantly reduce additive consumption for the DeNOx plant, the Autaro™ combustion performance control platform has been in use since 2021. This platform, developed by Kanadevia Inova over the last few years, enables an optimised air supply in the Lausanne plant and thus an operational mode with less excess combustion air and features significant overall improvements compared to the previous state

'I. What was the trigger for the action?

Due to the increased volume of waste and the increased calorific value, the plant has at times reached its capacity limit. Lausanne was also interested in a more stable operation, reducing the additive consumption of the DeNOx plant and relieving the burden on operating personnel.

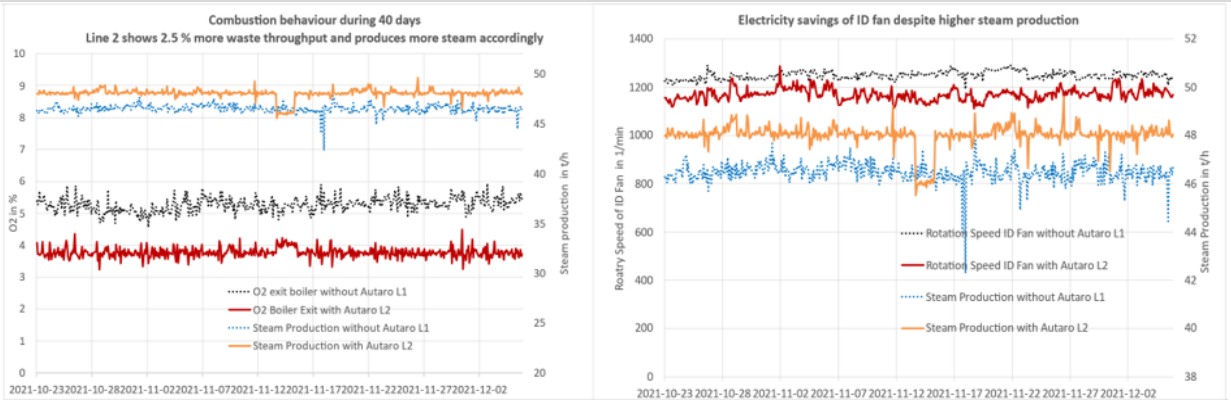
II . What are the main advantages?

- More stable steam production
- Higher waste throughput
- Lower energy consumption due to less air flow and flue gas
- Reduced DeNOx additives
- Low fly ash production

III. Conclusion

Since Autaro™ has been installed, Lausanne operation has been able to run at least 8 % higher load. The consumption of additives for the DeNOx system has been significantly reduced by 20-25 % while the performance limits of the entire plant have not even been reached.

Scheme or Picture



Pic. 1: Comparison of some improved combustion parameters with and without Autaro™

Technical Information	Before	After	Comment
Produced flow of live steam	100%	>= 108%	'corresponds to >= 50 t/h after capacity increase
Oxygen content at boiler exit, wet	approx. 5%	ca. 3.75 %	related to humid flue gas
Consumption DeNOx additives	30 kg/h	20-25 kg/h	- 20 - 25 % despite larger throughput with same burnout

Costs and Profitability	Before	After
Investment costs	-	performance related costs
Operating costs	-	reduced
Profitability	-	significantly increased

Evaluation criteria	Evaluation	Comment
Technical feasibility		Simple implementation
Duration of implementation		Several weeks, depending on retrofit requirements; sensors can also be installed
Cost-benefit ratio / profitability		low investment, more waste throughput & energy
Benefit for the environment		more electricity and district heating from waste
User satisfaction, reliability		Both management and operating personnel are very satisfied

Reference plant and contact

Tridel Lausanne, contact: info@tridelsa.ch

Description of measures developed by Kanadevia Inova AG Zurich, contact: info@kanadevia-inova.com

Specific Plant Data

180,000 t waste/year, 2 lines

Kindly supported by energieschweiz