

### MVA Prague – Waste Incineration System

**LOCATION:** Prague, Czech Republic

**SYSTEM/TECHNOLOGY:** Siemens S7, link-up via Modbus to Emerson Delta V control system

**SERVICES:** Commissioning, Project management, Documentation, Basic-engineering and pre-engineering, Detail engineering, Installation supervision

**INDUSTRY BRANCH/TYPE OF PLANT:** Power Generation, Waste incineration systems

**CLIENT:** Prazske Sluzby a.s.

**PROJECT SIZE:** EUR 600,000

#### TASK

- Increase in the load from 25 Mg/h to 35 Mg/h
- Increase in the waste throughput by 18 %
- Significant increase in availability
- Compliance with the emissions values of Federal Pollution Control (BlmSch)
- Low operating times of the backup burners
- Low steam fluctuations in relation to a setpoint specification

#### DESCRIPTION OF DELIVERIES AND ACTIVITIES OF "INP FUZZY CONTROL" COMBUSTION POWER CONTROLS ON 4 LINES (ROLL STAND FIRING)

- Process engineering concept on the basis of current process data and auditing of the plant operators
- Process optimization by modelling and simulation
- Improvement in highly-sensitive process sequences
- Specifications for modified operating concepts
- Use of fuel for energy production (210,000 tonnes/year domestic waste)
- Increase in performance
- Open and transparent control concept on the basis of multi-variable characteristic map control
- Stabilization of the steam output and oxygen content in the flue gas
- Optimization of thermal combustion processes
- Saving operating substances (reduction agent)
- Use and reduction in emission limit values

#### TARGETS/KEY FIGURES OF THE "INP FUZZY CONTROL" COMBUSTION POWER CONTROLS

#### POINTS OF CONTACT



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## INP Reference

- Significantly lower fluctuation ranges were achieved under all load cases
- Largely constant oxygen content in the flue gas
- Significant reduction in CO peaks
- Smoothly running combustion process
- Reduction in strain on the involved and down-circuit units
- Reduction in the message sequence procedure
- Non-homogeneous waste batches are evened out