INP Reference

BASF SE – Sewage Sludge Incineration

LOCATION: Ludwigshafen, Germany

SYSTEM/TECHNOLOGY: Siemens S7, linking via Modbus to Siemens PCS 7 control system

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

INDUSTRY BRANCH/TYPE OF PLANT: Power Generation, Green Energy, Power plants, Chemical plants

CLIENT: BASF SE

PROJECT SIZE: EUR 310,000

DESCRIPTION OF DELIVERIES AND ACTIVITIES FOR AN "INP FUZZY CONTROL" COMBUSTION POWER CONTROL TO TWO STATIONARY FLUIDIZED-BED FIRING SYSTEMS

- Process engineering concept on the basis of current process data and auditing of the plant operators
- Process optimization by simulation
- Improvement in highly-sensitive process sequences
- Increase in performance
- Open and transparent control concept on the basis of multi-variable characteristic map control
- Stabilization of the oxygen content in flue gas
- Optimization of thermal combustion processes
- Saving of process resources [reduction agent]
- Use and reduction in emission limit values

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

- In 50-100% of the load cases, a significant reduction in the fluctuation range was achieved
- Largely constant oxygen content in the flue gas (+/-0.5% by volume) according to nominal value specification
- Capacity increase by reducing the oxygen content in the flue gas
- Complying with the emissions limit values of the 17th Federal Pollution Control Regulation (BImSchV)
- Smoothly running combustion process
- Reduction in strain on the involved and down-circuit units
- Reduction in the message sequence procedure
- Correction of non-homogeneous fuel batches by control methods
- Compliance with permitted temperature ranges in the fluidized bed and post-combustion chamber

POINTS OF CONTACT

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