

Fossil-fired Power Plant Control Loop Principles

TRAINING OBJECTIVE

Understand the principles and the control parameters of a fossil-fired, fuel-oil, coal and biomass-fired power station.

Length of the course: 3 days

PEDAGOGY

- Theoretical training
- Practical training on images and schemata
- Practise manual operation
- Practical training on a simulator

TRAINING PROGRAM

- The principles of the control loop
- The characteristics of a stable or unstable system
- Operating in open and closed loops
- The role of an enslavement loop
- The role of the different components of a closed or open loop
- The behaviour of the different actions of a PID controller
- The different types of regulation and examples (speed, flow, temperature, level, etc.)
- The different regulations of the unit (speed turbine, electric power, inlet pressure, fuel temperature, superheated steam temperature, steam temperature reheated, HP/MP/LP bypass, drum levels, steam flow boilers, tank levels, air flow, pressure or depression combustion chamber, etc.)
- Analysis of operation of these control loops
- Reading control diagrams
- Operating in manual mode rather than in automatic mode
- Sharing feedback