

## Operating Principles Fuel Oil, Coal and Biomass Power Plants

### TRAINING OBJECTIVE

Understand the functioning of a fuel-oil, coal and biomass-fired power station.

Understand the functioning of the various hardware components.

### PEDAGOGY

- Theoretical and practical training on the client's installations
- Use of videos and industrial examples
- Individual testing of knowledge at the end of the course

**Length of the course:** 4 days

### TRAINING PROGRAM

- The presentation and the characteristics of a thermal power plant
- The major economic balances for a thermal power plant
- The simplified flow diagram of a thermal plant
- Identifying key materials (KKS and ECS)
- The operating principles and technology of main materials (fuel processing, combustion chamber, boiler, steam turbine, condenser, cooling system, heater stations, air-smoke circuit, auxiliary circuits, etc.)
- Normal values for the operating parameters
- The thermodynamic cycle of steam and extractions steam
- The different energy transformations
- Fluctuations in performance and efficiency of the installation and its main components
- The different start-up and shutdown and behaviour of key equipment
- Operating principles
- The production / consumption balance
- Environmental constraints subject to different operations of the facility
- The risks of failure of major components
- Maintenance principles