

## Chemistry of Water/Steam Circuits for Conventional Fired Power Stations

### TRAINING OBJECTIVE

- Acquire the principles and understand the importance of having a good chemistry in water/steam circuits of conventional and Heat Recovery Steam Generator (HRSG) power stations
- Understand the operating constraints related to chemical parameters
- Enhance life expectancy and performance of plants by taking into account a better chemistry

### PEDAGOGY

- Theoretical training in the classroom
- Expertise and visits of customer site
- Team feedback on the management of past incidents
- Individual testing of knowledge at the end of the course

**Length of the course:** 5 days

### TRAINING PROGRAM

- Purpose of chemistry for power plants
- Basic knowledge in chemistry
- Units used in chemistry
- Metallurgy notions
- Corrosion in nuclear power plants (types, process, consequences...)
- pH, characteristics and measurement
- The impact of pH on corrosion
- The conductivity of water and its influence on corrosion
- Conductivity measurement principles
- Total and cationic conductivity
- Water demineralisation production
- Chemistry and monitoring parameters of circuits in operation
- Conditioning chemicals used against corrosion, handling and storage
- Chemical contamination and their origins
- Behaviour in case of contamination
- Conditioning during outages and their monitoring
- Water/steam circuits chemical cleaning and their monitoring
- Technology, maintenance and calibration of chemical measuring devices