

## Electrical Drawings and Systems of a Power Plant

### TRAINING OBJECTIVE

Reminders on the running of the various electric systems comprising the installations of the power plant in order to realize operating acts.

**People concerned:** operators and technicians

### PEDAGOGY

Theoretical and practical training based on:

- Installations of the power plant itself
- Drawings of the electric systems
- Files of the installations

**Length of the course:** 5 days.

### TRAINING PROGRAM

**At the end of the course, the trainees must be able to:**

**Electric systems in direct current 125 V and 48 V:**

- Understand the global functioning of the system
- Recognise the various components of this system, their features and place them within the installations of the power plant
- Describe the various configurations and functions of each element from the electrical drawings
- Refresher module on the prerequisites concerning every operations on elements during the electrical lockouts

**Emergency LV power sources:**

- Understand the permutation automatism of the electric sources

**Mechanical and electrical protections of the generator, the alternator and the energy grid:**

- Quote the mechanical protections of generating sets, explain their principles of action and quote the limit values of alarm and engine stop, as well as the behaviour in case of defect

**The electric parameters of the alternator:**

- Refresher module on the main electric parameters which determine the functioning of the alternator
- Reminder on the normal conditions necessary for the manual coupling of a synchronous machine
- Explain the notion of statism and its effects on the production/consumption balance