

SYSTEMA

Illustration on 1300MWe PWR¹

Training path: SYSTEMA/ ELECTRA/ PHYSICA/ OPERA

Duration: 5 days (35 hours)

Language: French – English

Participants: 08 – 12

Location: Paris, others locations on requests

Level: Advanced

Contact: formation.reacteurs@framatome.com

You are:

A business engineer involved in 1300MWe PWR
An engineer involved in studies related to the normal or accidental 1300MWe PWR operation
An engineer or technician involved in the 1300MWe PWR operation or maintenance

Prerequisites:

Basic theoretical knowledge of nuclear and PWR operation

During the training you will:

- Study the operating condition of 1300MWe PWR
- Understand the design of 1300MWe PWR

After the training, you will be able to:

- Describe the architecture and design principles of 1300MWe PWR
- Distinguish the different operation phases of the 1300MWe PWR in normal, incidental and accidental operating situation

Course strengths:

- Involvement of specialists and experts
- Use of simulator
- Knowledge sharing
- Wide topics range from normal to accidental operation

Program

Theoretical classes:

- Primary circuit (reminders)
- Auxiliary systems
- EPR specificities
- The main regulation chains
- Mode A and Mode G control
- Safeguard systems
- Principles and sizing of the NSSS² protection

Applications on simulator:

- From cold shutdown at RHR³ conditions to cold shutdown on SG⁴
- Houseload operation
- Load follow (mode A and mode G)
- Systems in operation during LOCA⁵
- Systems in operation during SGTR⁶

² Nuclear Steam Supply System

³ Reactor Heat Removal

⁴ Steam Generator

⁵ Loss of Coolant Accident

⁶ Steam Generator Tube Rupture

¹ Pressurized Water Reactor