

ULTIMA

Introduction to severe accident management

Duration: 3.5 days (24.5 hours)

Language: French – English

Participants: 10 – 15

Location: Paris, other location on request

Level: Expert

Contact: formation.reacteurs@framatome.com

You are:

An engineer willing to understand the different physical phenomena and strategies envisaged in case of severe accident

Design, safety or operation engineers, trainers and members of the crisis technical support center

Prerequisites:

Theoretical knowledge of nuclear power and operation of PWR¹ plants

During the training you will:

- Study physical phenomena related to the melting of a nuclear core
- Look over the actions implemented to mitigate the consequences of an accident
- Understand the organization set up to mitigate the consequences of an accident

After the training, you will be able to:

- Describe the phenomenology of severe accident
- Identify the purpose of the strategy applied during a scenario including damage to the core
- Explain the origins and evolution of the strategies proposed in the OSSA²

¹ Pressurized water reactor

² Operating Strategy for Severe Accident

Course strengths:

- This training consists of lectures, practical exercise and a tour of the Framatome crisis center

Program

- Introduction and severe accident competencies
- Severe accident safety approach
- Severe accident physics – 1st part: in-vessel phenomena
- TMI³ accident presentation
- Severe accident physics – 2nd part: ex-vessel phenomena
- Behavior of aerosols and iodine
- Presentation of severe accident mitigation systems
- Framatome crisis center tour
- Presentation of Fukushima accident
- Level 2 PSA⁴ and its applications
- OSSA presentation and practical exercise

³ Three-Mile-Island

⁴ Probabilistic Safety Assessment