framatome

Primary Circuit Mechanical Stress Validation

This lecture will present the heavy components of a nuclear power plant's primary circuit (RPV: Reactor Pressure Vessel, RPV Cover Head, SG: Steam Generator, Pressurizer), describe general requirements of code RCC-M, analyze a Steam Generator stress report. It will also provide a presentation of Framatome's pole of excellence in Mechanics (Framatome Mechanical Calculation Center, CCBOU)

Duration: 3h30

Language: English

Participants: 10 to 30

Location: classroom

Niveau 1 Basics

Prerequisites: None

Your profile

Master 1-2 level student in a partnering university, wishing to learn about Primary Circuit mechanical stress validation.

During the training, you will:

- Discover heavy components: RPV Cover Head, Pressurizers, Steam Generator
- Understand general organization and requirements of RCC-M
- Analyze the Steam Generator stress report
- Discover "Centre Calculs Bourgogne" (CCBOU), pole of excellence in mechanics in Framatome's Saint Marcel site

After the training, you will be able to:

- Describe heavy components: RVP Cover Head, Pressurizers, Steam Generator
- Present general organization of RCC-M
- Capable to identify damages and failure
- Analyze stress classification
- Describe the properties of materials to be used in design
- Define different operating conditions
- Understand the analysis in 1st, 2nd, 3rd, 4th category conditions and fatigue behavior in crack-like discontinuities
- Understand the Steam Generator stress report
- Present « Centre Calculs Bourgogne » (CCBOU)

Advantages

- Face-to-face training
- Use case analysis: examples of Steam Generator stress reports

Content

Theoretical module:

- Discovering Saint Marcel heavy components
- RCCM B3200 mechanical analysis
- Content and example of a stress report
- Presentation « Centre Calculs Bourgogne » (CCBOU)

Evaluation

- None

FRAMATOME EDUCATION PROGRAM
FRAMATOME ACADEMY