# framatome

# A Suite of Training

Transferring Knowledge to the Next Generation of Nuclear Workers

Nuclear power plants are in the midst of an aging workforce, retirements and a loss of knowledge from decades of plant experience. For those plants that began operation in the 1960s and 1970s, the first wave of retirements has already occurred. A transfer of knowledge is valuable to those organizations that can plan for it.

### The Issue

Multiple studies reveal that the nuclear industry is undergoing a significant loss of knowledge as baby-boomers retire and take their 20+ years of knowledge and experience with them. Downsizing within utilities can aggravate the issue, compressing the time over which normal turnover would occur and leaving the remaining staff underprepared for the work ahead. This can result in poorer quality, missed commitments and requirements, and eventually safety/regulatory concerns.

### **How Can We Help You?**

### A Suite of Training Modules:

Framatome has developed a suite of training modules to upgrade our engineering qualification program. This was done by implementing INPO's ACAD requirements and processes for the development of a formal engineer qualification training program. Now, Framatome is offering these modules, to be provided by qualified Framatome engineers, to your staff to transfer some of the same industry knowledge to your engineering, procurement, maintenance, and planning staffs.

### **ASME Training:**

This three (3) day training session, provided at your plant or offered at an Framatome designated location, introduces trainees to the proper understanding of the ASME code and its uses. This training covers Sections II, III, V, and XI, with capabilities to expand to IX of the Code. This list of training offers all of a nuclear plant's ASME needs, employs the benefit of our world-class training organization, and offers hands-on experience to provide our customers with the highest value possible.





### **Expertise and Knowledge:**

Framatome has the privilege of employing the chairpersons of several Code section committees, who not only have a great depth of understanding of the Code, but also apply this knowledge on a daily basis. These experts bring real-world examples of Code application to the classroom providing trainees with invaluable years of knowledge and experience. The individuals sent to administer the training have extensive experience in ASME component design, fabrication, repair / replacement, and installation, in both leadership and contributing roles.



## Framatome's experts have participation and in many cases, leadership, in the following ASME Code Committees:

- · BPV III Standards Committee
- · Working Group on Design Methodology
- · Subcommittee on Design
- · Special Committee on Interpretations
- Subgroup Component Design
- · Subgroup Design Methods
- · Working Group on Vessels
- Working Group Environmental Fatigue Evaluation Methods
- Special Working Group on Industry Experience for New Plants
- · Working Group on Environmental Effects
- · Special Working Group on Regulatory Interface
- · Working Group on Probabilistic Methods in Design
- Special Working Group on Honors and Awards
- · Working Group on Supports
- · Subgroup Materials, Fabrication, and Examination
- · Working Group on Design Methodology
- Special Working Group on Advanced Light Water Reactors
- · Special Committee on Interpretations
- · Subgroup Design Methods

### **Our Approach:**

By design, Framatome training is developed per the TSD process as outlined in ACAD 85-006, and aligns with the requirements of ACAD 98-004. With over 30 years of experience with NSSS Plant Modifications and Component Replacements, Framatome has the knowledge of the correct code for the application for all classes of piping (Class 1, 2, & 3). Framatome engineered solutions to NSSS and ASME Class 1 systems and components have won NEI Top Industry Practice (TIP) awards in 2013 and 2014 for novel and innovative approaches.

### **Benefits to You**

- Framatome has performed modification-associated design and analyses for many Combustion Engineering (CE),
  Westinghouse, General Electric and B&W designed plants.
- Modifications range from large components, such as steam generators, reactor vessel heads and pressurizers to minor piping reroutes and modifications.
- Real-world examples of Code application to the classroom providing trainees with invaluable years of knowledge and experience.

### Other training modules including:

- IEEE
- · Setpoints
- · Commercial Grade Dedication
- · Environmental Qualification
- · Reactor Theory
- Rad Assessment
- · Systems/Components

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