

PROFESSIONAL DEVELOPMENT COURSE

ASME SECTION III DESIGN OF CLASS 1 COMPONENTS

(Excluding Piping)

OBJECTIVE:

At the completion of the course, the participant will have gained a working knowledge of what forms the basis of the Design Requirements given in Section III Division 1 of the ASME Code for Class 1 Components.

NOTE: Piping is excluded. It is a separate 2-day course covering design requirements for Class 1, 2 & 3.

CONTENTS: A two-day course consisting of the following:

DAY 1:

The first day will cover (approximate timing based on questions and discussion)

SESSION 1

- Certification Requirements
- Design Specification

SESSION 2

Design Criteria, basis for NB-3200 rules

SESSION 3

 NB-3200 Definitions, Pressure Design, Design Limits

SESSION 4

NB-3200 Primary & Secondary Stress Limits

DAY 2:

The second day will cover (approximate timing based on questions and discussion)

SESSION 5

NB-3200 Shakedown, Fatigue

SESSION 6

- NB-3200 Inelastic Design
- NB-3300 Vessel Design

SESSION 7

NB-3500 Valve Design

SESSION 8

NB-3400 Pump Design

WHO SHOULD ATTEND?

This course is directed towards Class 1 component designers and those personnel in operations at Nuclear Power Stations who are required to interact with designers and understand the design documents associated with the Class 1 components. Those attending should have a reasonable degree of familiarity with the Code and its application. This is a development course in the design requirements of Section III, Division 1 for experienced personnel. It will allow persons required to certify Design Reports to count this course as part of their experience base in accordance with Appendix XXIII of Section III, Division I. A prerequisite for this course is the ASME Section III - Overview course which introduces participants to the overall basic philosophy of Section III, Division 1 of the ASME Boiler and Pressure Vessel Code.

EXPECTATIONS:

Course participants with adequate experience will have attained the following by the end of the course:

- 1. The ability to identify where specific Design Requirements can be found within the Code Section.
- 2. The ability to discuss the various types of stress limits associated with the various types of Design; vessel, piping valves etc.
- 3. The ability to discuss in detail the certification requirements associated with the Design Specification.
- 4. A clear understanding as to their responsibilities with respect to review and certification of the design report.