

Open item 10.1: STPNOC needs to provide a valid basis to justify expansion of the 1 inch Section XI exemption to over 1 inch components.

Open item 10.2: STPNOC needs to provide an adequate engineering basis for mixing the requirements of ASME Code requirements with other code requirements. For example, STPNOC proposes to do leak tests permitted by Section XI in lieu of the construction code hydrostatic tests. Further, STPNOC proposes to use ASME allowable stress limits with commercial design and construction codes, and to eliminate impact testing and nondestructive examination.

Response:

STPNOC has revised its requested exemption with respect to the requirements for repair and replacement of LSS and NRS components and associated supports under Section XI of the ASME Code. STPNOC's revised request is described below. As this description explains, STPNOC's revised request is not based upon an expansion of the 1-inch NPS and smaller Section XI exemption to larger components. Also, STPNOC has clarified that the 'mixing' of ASME and alternate code requirements will not occur.

STPNOC's proposed exemption of LSS/NRS components from ASME Section XI repair and replacement requirements is limited to Class 2 and 3 components. STPNOC will continue to take advantage of the current provisions in Section XI, which provide relief for Class 1, 2, and 3 piping, valves, and fittings with a nominal pipe size of 1-inch or smaller, and associated supports. Section XI excludes these items from the scope of its replacement requirements and, by reference, from the requirements of ASME Section III, as long as the materials and primary stress levels are consistent with the requirements of the applicable construction code.

A. ASME Class 1 Components

STPNOC is not requesting an exemption from the repair and replacement requirements in Section XI of the ASME Code with respect to Class 1 components. Similarly, STPNOC is not requesting an exemption from the fracture toughness requirements in General Design Criteria (GDC) 31 applicable to the reactor coolant pressure boundary. Therefore, fracture toughness requirements in GDC 31 will continue to apply to applicable Class 1 components.

B. ASME Class 2 and 3 Components

STPNOC is proposing to use either of the alternatives described below for repair and replacement of ASME Class 2 and 3 components and their supports. The term 'item' below includes repairs, replacements, and fabrication and installation welds categorized as LSS or NRS.

- Alternative 1 - The repair or replacement item will meet the technical (but not the administrative) requirements of the ASME Section XI Code and of the ASME Construction Code, as incorporated in Section XI. Administrative requirements of the ASME Section XI Code include QA program, ANI contracts, repair program, replacement program, stamping, suitability evaluation, code data reports, records, and documentation. Administrative requirements of the ASME Section III Code are called out in Subsection NCA 'General Requirements' and include Code specific responsibilities, QA programs, authorizations, ANI contracts, and stamping.
- Alternative 2 – The repair or replacement item will meet the technical and administrative requirements of other nationally-recognized Codes, Standards, or Specifications suitable for the item. Examples of other nationally-recognized Codes, Standards, and Specifications are: ASME Section VIII for vessels, ANSI B31 series for piping, ANSI B16.34 for valves, API 620 for 0 -15 psi storage tanks, and API 650 for atmospheric storage tanks.

If the affected piping is categorized as LSS or NRS, the welds will also be subject to the above alternatives. Regardless of which alternative is selected, the boundary (e.g., welds) between HSS/MSS and the LSS/NRS portion of the system will continue to comply with the most limiting applicable code requirements for the associated boundary.

STPNOC is not requesting an exemption from the fracture toughness requirements in GDC 31 and 51. Therefore, regardless of which alternative is selected, Class 2 and 3 items, as applicable, will continue to be subject to the fracture toughness requirements of these GDCs. In addition, Class 2 and 3 items will meet the fracture toughness requirements specified by the original design Code.

C. Hydrostatic Pressure Tests

NRC has questioned the use of post-installation pressure test provisions from Section XI in lieu of the hydrostatic pressure test provisions for the item.

STPNOC is not proposing to perform post-installation pressure tests under ASME Code Section XI in lieu of the hydrostatic tests required by the Construction Code. Instead, the procurement process will ensure that the hydrostatic test required by the nationally-recognized Code, Standard, or Specification to which the component is constructed has been performed. If the piping in which the weld falls has been categorized as LSS or NRS, STPNOC will perform a post-maintenance leak test at operating pressures.

D. Preservice Examinations

Preservice examinations associated with repair or replacement activities on Class 1, 2, or 3 LSS/NRS components would be exempted in accordance with STPNOC's response to Open Item 3.5.