

10 CFR 50.55a

5928-08-20210
October 29, 2008U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852Three Mile Island, Unit 1
Facility Operating License No. DPR-50
NRC Docket No. 50-289

Subject: Request for Relief 2008-TMI-01 to Utilize Code Case N-725

In accordance with the provisions of 10CFR50.55a(a)(3)(i), attached for your review is a proposed alternative to utilize the American Society of Mechanical Engineers (ASME) Code Case N-725, "Design Stress Values for UNS N06690 With a Minimum Specified Yield Strength of 35 ksi (240 MPa), Classes 2 and 3 Components, Section III, Division 1." Specifically, this alternative allows the use of Unified Number System (UNS) N06690 materials that have a minimum yield strength of 35 ksi and that otherwise conform to ASME Material Specification SB-167 (hot or cold worked, annealed) and SB-564 (annealed) in the TMI, Unit 1 replacement steam generator Main Feedwater (MFW) and Emergency Feedwater (EFW) riser assemblies. The TMI, Unit 1 replacement steam generator manufacturer has chosen these materials for fabrication of the MFW and EFW riser assemblies due to their resistance to Flow Accelerated Corrosion (FAC). The TMI, Unit 1 replacement steam generator manufacturer is currently manufacturing the replacement steam generators and its associated appurtenances in accordance with ASME Section III, 2001 Edition with the 2003 Addenda. This relief request is applicable to the 2001 Edition through 2003 Addenda of ASME Section III, Division 1, Subsection NC, Class 2 Components in the TMI, Unit 1 replacement steam generators.

We request your approval by July 1, 2009, in order to support the N-stamping of the vessel prior to shipment.

There are no commitments contained in this letter.

Should you have any questions concerning this letter, please contact Tom Loomis at (610) 765-5510.

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NPR

Submittal of Relief Request to Utilize Code Case N-725

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Respectfully,

Handwritten signature of Pamela B. Cowan in black ink.

Pamela B. Cowan

Director – Licensing & Regulatory Affairs

AmerGen Energy Company, LLC

Attachment: Request for Relief RR-2008-TMI-01 to Utilize Code Case N-725

cc: S. J. Collins, USNRC, Regional Administrator, Region I
D. M. Kern, USNRC, Senior Resident Inspector, TMI
P. J. Bamford, USNRC, Project Manager
File No. 08051

Attachment

Request for Relief RR-2008-TMI-01 to Utilize Code Case N-725

**Request for Relief RR-2008-TMI-01 to Utilize Code Case N-725
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1.0 ASME CODE COMPONENTS AFFECTED:

Code Class: 2
Reference: ASME Code Section III, Division 1, Subsection NC,
Class 2 Components
Description: TMI, Unit 1 Replacement Steam Generators - Main
Feedwater (MFW) and Emergency Feedwater (EFW)
Riser Assemblies
Component Number: RC-H-1A and RC-H-1B

2.0 APPLICABLE CODE EDITION AND ADDENDA:

2001 Edition through 2003 Addenda of the ASME Code Section III, Division 1, Subsection NC, Class 2 components used for manufacture of the replacement steam generators' Main Feedwater (MFW) and Emergency Feedwater (EFW) riser assemblies (see Figures 1 and 2).

3.0 APPLICABLE CODE REQUIREMENT:

The MFW and EFW riser assemblies and integrally attached material on the headers meet the requirements for Class 2 piping of the ASME Code Section III, 2001 Edition through 2003 Addenda, Division 1, Subsection NC.

4.0 REASON FOR REQUEST:

Pursuant to 10 CFR 50.55a(a)(3)(i), relief is requested to implement Code Case N-725, "Design Stress Values for UNS N06690 With a Minimum Specified Yield Strength of 35 ksi (240 MPa), Classes 2 and 3 Components, Section III, Division 1," as it relates to the TMI, Unit 1 replacement steam generator MFW and EFW riser assemblies. The allowable stress values for the chosen materials (UNS N06690, SB-167, and SB-564) were not provided in the ASME Code Section III, 2001 Edition through 2003 Addenda, Division 1, Subsection NC, for Class 2 components. Therefore, application of Code Case N-725 is necessary. These chosen materials are highly resistant to Flow Accelerated Corrosion (FAC) damage and are highly corrosion resistant.

5.0 PROPOSED ALTERNATIVE AND BASIS FOR USE

Specifically, this alternative allows the use of ASME Code Case N-725 in the TMI, Unit 1 replacement steam generator MFW and EFW riser assemblies. The use of SB-167 material in Class 1 applications has already been approved by the NRC in Regulatory Guide 1.84 by unconditional approval of Code Case N-698. Code Case N-725 provides stress values for Class 2 and 3 components that are similar to Code Case N-698.

6.0 DURATION OF PROPOSED ALTERNATIVE

This proposed alternative is applicable to the TMI, Unit 1 replacement steam generator MFW and EFW riser assemblies and is applicable for the lifetime of the component.

7.0 PRECEDENTS

None

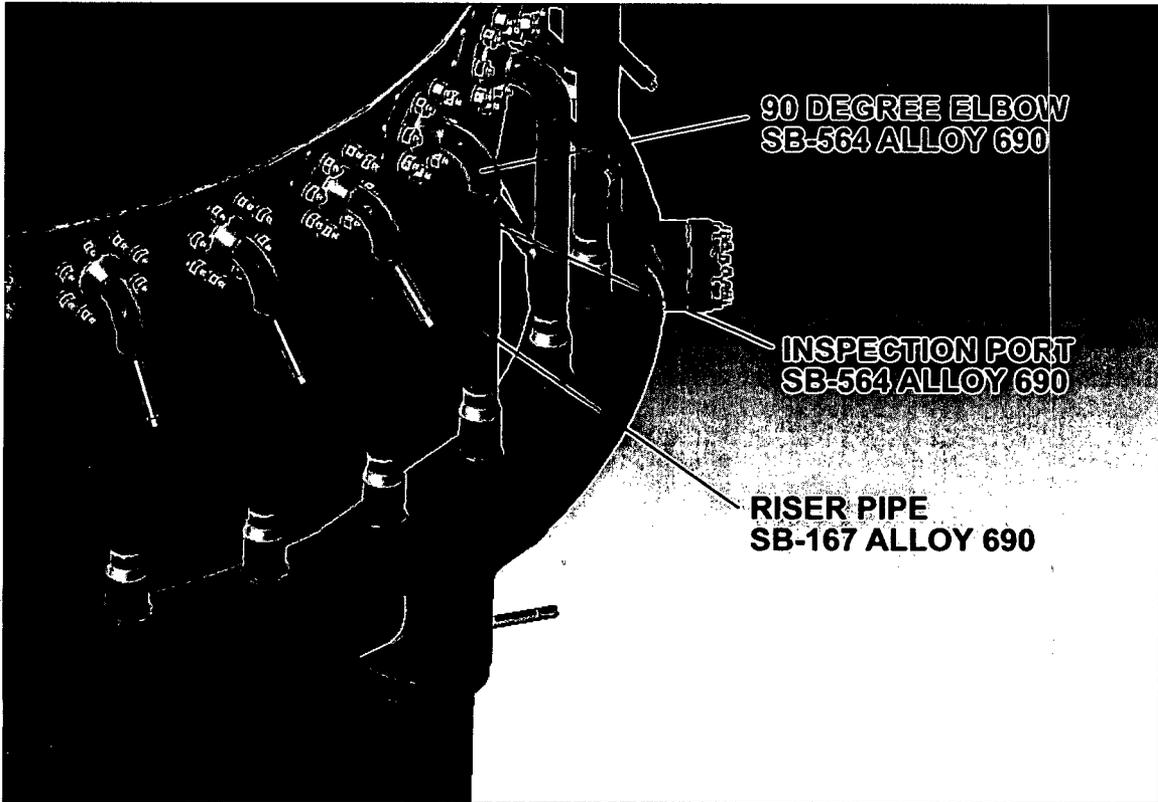


FIGURE 1
Main Feedwater Header

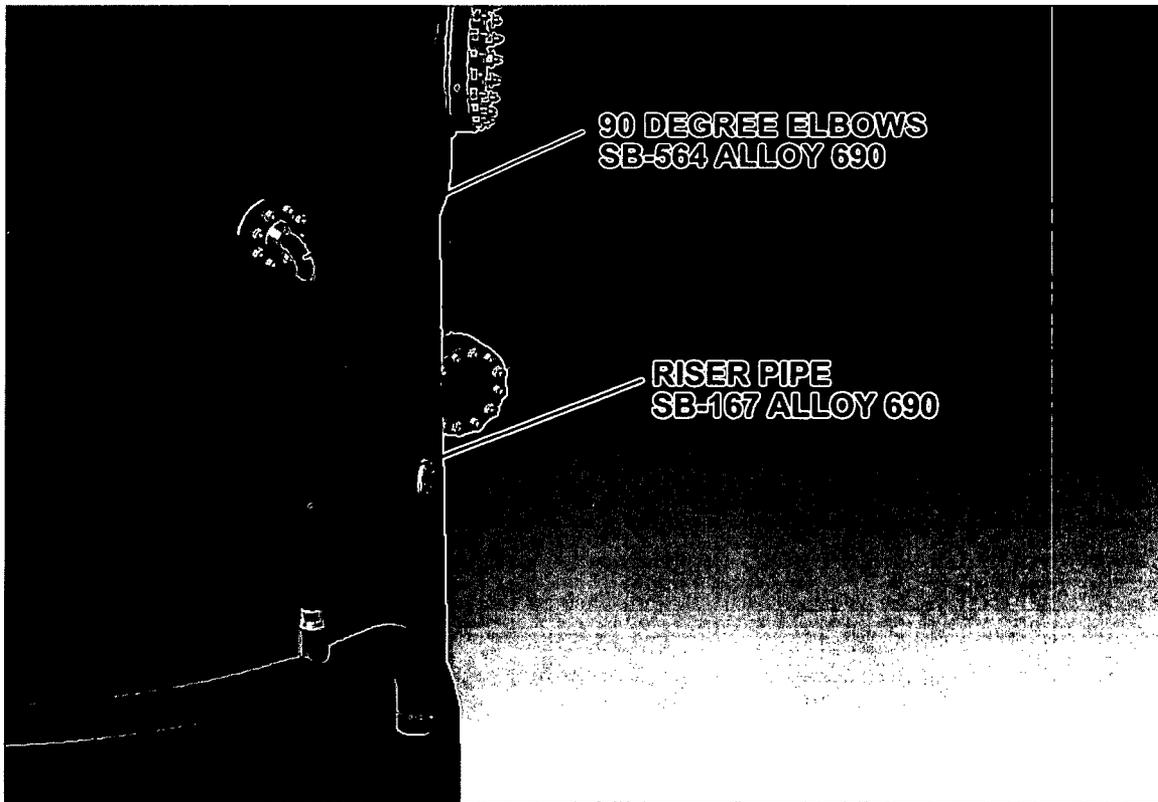


FIGURE 2
Emergency Feedwater Header