



South Texas Project Electric Generating Station P.O. Box 289 Wadsworth, Texas 77483

May 8, 2003  
NOC-AE-03001529  
10CFR50.55a

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852

South Texas Project  
Units 1 and 2  
Docket Nos. STN 50-498 and STN 50-499  
Request for Approval of ASME Section XI Code Case N-516-2 for the  
Second Ten-Year Inservice Inspection Interval (Relief Request RR-ENG-2-30)

Pursuant to 10CFR50.55a(a)(3)(i), STP Nuclear Operating Company (STPNOC) hereby requests NRC approval of ASME Section XI Code Case N-516-2, "Underwater Welding," for use at the South Texas Project. Code Case N-516-2 has been conditionally accepted by the NRC in Draft Regulatory Guide DG-1091. The details of the 10CFR50.55a request are attached.

STPNOC requests approval on an expedited basis by May 22, 2003, based on the schedule for reinstallation of the core barrel in the Unit 1 reactor pressure vessel during the current forced outage. Prior to approval of this request, STPNOC might perform underwater welding in accordance with Code Case N-516-2 to support removal of the Unit 1 core barrel.

If there are any questions regarding this request, please contact Michael S. Lashley at (361) 972-7523 or me at (361) 972-7902.

A handwritten signature in black ink, appearing to read 'T. J. Jordan', is written over a white background.

T. J. Jordan  
Vice President  
Engineering & Technical Services

jtc

Attachment: 10CFR50.55a Relief Request RR-ENG-2-30

STI: 31605580

A047

cc:  
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**10CFR50.55a Relief Request RR-ENG-2-30****Proposed Alternative  
in Accordance with 10 CFR 50.55a(a)(3)(i)****--Alternative Provides Acceptable Level of Quality and Safety--****1. ASME Code Components Affected**

Pressure-retaining components or component supports, including appurtenances, subassemblies, parts of a component, and core support structures, subject to repair by underwater welding or items subject to installation as replacements by underwater welding.

**2. Applicable Code Edition and Addenda**

American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 1989 Edition with no Addenda.

**3. Applicable Code Requirement**

IWA-4000 of Section XI does not address underwater welding. However, Code Case N-516-2, "Underwater Welding, Section XI, Division 1," includes alternative procedure, performance, and filler metal qualifications, and alternative examination requirements to those contained or referenced in IWA-4000 for use when the welding is performed underwater.

**4. Reason for the Request**

Approval of Code Case N-516-2 is requested for applications of underwater welding during the second ten-year inservice inspection interval at the South Texas Project. The need for approval is associated with contingency underwater welding related to removal of the core barrel from the Unit 1 reactor pressure vessel during the current forced outage.

**5. Proposed Alternative and Basis for Use**

STP Nuclear Operating Company (STPNOC) requests relief from the requirements of IWA-4000 in accordance with 10CFR50.55a(a)(3)(i) in order to perform underwater welding for repairs or for installation of replacement items. IWA-4000 of the Section XI code of record at the South Texas Project does not address underwater welding.

STPNOC requests NRC approval of ASME Section XI Code Case N-516-2 for use at South Texas on the basis that it provides an acceptable level of quality and safety.

The NRC documented their conditional acceptance of Code Case N-516-2 in Draft Regulatory Guide DG-1091 (Proposed Revision 13 of Regulatory Guide 1.147) published in December 2001. However, neither proposed Revision 13 nor the proposed rulemaking to reference this revision in 10CFR50.55a has been issued.

The NRC accepted Code Case N-516-2 subject to the following limitation in addition to the conditions specified in the Code Case:

When welding is to be performed on high neutron fluence Class 1 material, then a mockup, using material with similar fluence levels, is to be welded to verify that adequate crack prevention measures were used.

STPNOC will comply with this limitation as applicable. If alternative or additional limitations are imposed by the NRC for use of Code Case N-516-2, STPNOC will also comply with those limitations as applicable.

6. Duration of Proposed Alternative

This relief request will be implemented during the second ten-year inservice inspection interval of South Texas Project Units 1 and 2. The use of Code Case N-516-2 is requested until the NRC publishes the Code Case in a future revision of Regulatory Guide 1.147.