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

June 6, 2000
NOC-AE-00000535
File No.: G09.16
10CFR50.55a

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

South Texas Project
Units 1 and 2
Docket Nos. STN 50-498, STN 50-499
Request for Relief from ASME Boiler and Pressure Vessel Code Section XI
Table IWE-2500-1, Item No. E8.20 (Relief Request RR-ENG-IWE-05)

In accordance with the provisions of 10CFR50.55a(a)(3)(ii), the South Texas Project requests relief from the requirements of ASME Section XI Code, Table IWE-2500-1, Examination Category E-G, Item Number E8.20. Bolt torque or tension tests are required for bolted connections that have not been disassembled and reassembled during the inspection interval. Compliance with this requirement would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The attached relief request includes a discussion of the basis and justification for the relief request and an implementation schedule.

The South Texas Project requests Nuclear Regulatory Commission review and approval of this relief request by September 1, 2000.

If there are any questions, please contact either Mr. M. S. Lashley at (361) 972-7523 or me at (361) 972-7902.

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PLW
Attachment: Request for Relief from ASME Boiler and Pressure Vessel Code Section XI Table IWE-2500-1, Item No. E8.20 (Relief Request RR-ENG-IWE-05)

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RGN-001

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U. S. Nuclear Regulatory Commission
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REQUEST FOR RELIEF FROM ASME BOILER AND PRESSURE VESSEL CODE SECTION XI TABLE IWE-2500-1, ITEM NO. E8.20 (RELIEF REQUEST RR-ENG-IWE-05)

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI 1992 Edition through 1992 Addenda

A. Components for Which Exemption is Requested:

(a) Name: Pressure-retaining bolting.

(b) Function: Ensure pressure-retaining integrity of the Class MC metal components.

(c) Class: ASME Code Class MC

B. Code Requirement from Which Relief is Requested:

ASME Section XI Code, Table IWE-2500-1, Examination Category E-G, Item Number E8.20, requires that a bolt torque or tension test be conducted on bolted connections that have not been disassembled and reassembled during the inspection interval.

C. Basis for Relief from Code Requirements:

ASME Section XI Code, Table IWE-2500-1, Examination Category E-G, Item No. E8.20, requires bolt torque or tension tests for those bolted connections that have not been disassembled and reassembled during the inspection interval. Compliance requires de-tensioning and subsequent re-torquing of bolts in connections for which acceptable leak-tight performance has been verified through 10CFR50, Appendix J, Type B testing. This constitutes a hardship or unusual difficulty without a compensating increase in the level of quality and safety.

D. Alternate Examination:

The following examinations and tests required by Subsection IWE ensure the structural integrity and the leak-tightness of Class MC pressure-retaining bolting:

(1) Exposed surfaces of bolted connections receive a VT-1 visual examination in accordance with the requirements of Table IWE-2500-1, Examination Category E-G, Item No. E8.10.

(2) Bolted connections shall meet the pressure test requirements of Table IWE-2500-1, Examination Category E-P, Item E9.40, and 10CFR50, Appendix J, Type B.

E. Justification for Granting Relief:

Compliance with the requirements of Table IWE-2500-1 Examination Category E-G, Item No. E8.20 requires that bolting be de-tensioned and then re-torqued or re-tensioned. This activity is considered a maintenance activity which potentially affects the sealing characteristics of the penetration connection and would require a 10CFR50, Appendix J, Type B test prior to de-tensioning and following re-tensioning.

Containment penetrations are tested for leakage in accordance with 10CFR50 Appendix J, Type B. Satisfactory performance of the Type B test proves that the bolt torque or tension is adequate to ensure the leak rate is within acceptable limits. The torque or tension value of bolting only becomes an issue if the leak rate is excessive. Once a bolt is torqued or tensioned, it is not subject to dynamic loading that could result in significant change. In addition, exposed surfaces of bolted connections require a VT-1 visual examination in accordance with the requirements of Table IWE-2500-1, Examination Category E-G, Item No. 8.10, once each inspection interval pursuant to IWE-2400. Therefore, Appendix J testing and VT-1 visual inspection are adequate to demonstrate that the bolting design function is met.

Based upon the above, application of Item No. E8.20 to the South Texas Project constitutes a hardship or unusual difficulty without a compensating increase in the level of quality and safety, and warrants relief under 10CFR50.55a(a)(3)(ii).

F. Implementation Schedule:

The South Texas Project requests Nuclear Regulatory Commission approval of this relief request by September 1, 2000, for implementation during the first inspection interval of the IWE Program.