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RC-00-0363

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

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION (VCSNS)
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
REQUEST FOR REVISION TO ASME BOILER AND PRESSURE VESSEL CODE, SECTION XI RELIEF REQUEST (NRR 00-0259)

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Reference:
1. NRC (F. J. Hebdon) letter to SCE&G (G. J. Taylor) dated April 11, 1996 (TAC NO. M94364)
2. G. J. Taylor letter (RC-96-0089) to Document Control Desk dated March 27, 1996
3. G. J. Taylor letter (RC-95-0315) to Document Control Desk dated December 20, 1995

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South Carolina Electric & Gas Company (SCE&G) hereby submits a request to revise the relief request granted by TAC NO. M94364 (Reference 1) for using alternatives to the requirements of ASME Code, Section XI regarding Class 1 and 2 insulated pressure retaining bolted connections which receive VT-2 Visual Examination during the performance of system Pressure Testing. The revision consists of relocating the listing of individual components identified as subject to the boric acid inspections to the VCSNS Boric Acid Leak Detection Program for ASME Code Class 1 and 2 Bolted Connections.

The relief request submitted by Reference 2 and addended by Reference 3 sought to allow alternatives to the requirements of Section XI, IWA-5242(a). This relief request does not vary from Reference 2 and is reiterated in the attached.

The attached relief request contains the Code requirements, proposed alternative testing, and basis for relief. As noted by References 2 and 3, this request is modeled after Code Case N-533, expanded to include specified Class 2 connections inside containment. This relief is to exempt the applicable Class 1 and 2 pressure retaining bolted connections that are insulated, in systems borated for the purpose of reactivity control. Specifically, SCE&G requests to exempt the applicable connections from the requirements of ASME code, Section XI, IWA-5242(a), which specifies that insulation must be removed from pressure retaining bolted connections for VT-2 visual examination during the performance of System Pressure Testing. The listing of components subject to this relief request shall be relocated to the VCSNS Boric Acid Leak Detection Program for ASME Code Class 1 and 2 Bolted Connections. This program will be maintained within VCSNS program document GTP-304, Inservice Inspection System Pressure Testing. Changes to this program would only occur through the 10CFR50.59 review process.

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As an alternative, SCE&G shall remove the insulation and conduct the VT-2 visual examination of pressure retaining bolted connections on applicable Class 1 connections once per refueling outage at static or atmospheric pressure. Applicable Class 2 connections will be similarly inspected once each inspection period during a refueling outage. Insulation will then be reinstalled and upon repressurization of a bolted connection, a four-hour hold time will be utilized to assess potential leakage.

SCE&G contends that the proposed alternative testing provides the equivalent acceptable level of quality and safety as that provided by the Code. SCE&G is submitting the attached relief requests in accordance with 10CFR50.55a(a)(3)(i).

The relief request is included as attachment to this letter.

Should you have any questions, please call Mr. Jim Turkett at (803) 345-4047 or Mr. David Haile at (803) 345-4322.

Very truly yours,

Stephen A. Byrne

JT/SAB/dr

Attachments:

c: N. O. Lorick
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RTS (NRR 00-0259)
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DMS (RC-00-0363)

South Carolina Electric & Gas Co. (SCE&G)
Virgil C. Summer Nuclear Station (VCSNS)
Relief Request

Subject:

Removal of insulation from pressure retaining bolted connections, in systems borated for the purpose of reactivity control, during system pressure testing.

Components Identification:

System: Reactor Coolant
Chemical and Volume Control
Residual Heat Removal
Safety Injection

Components: Insulated pressure retaining bolted connections inside containment which receive a VT-2 visual examination and are normally tested in a high temperature and elevated radiation environment. Code Class 1 and Class 2 components are identified and maintained in the VCSNS Boric Acid Leak Detection Program for ASME Code Class 1 and 2 Bolted Connections.

ISI Class: 1 and 2

Current Code Requirement:

ASME Code, Section XI, IWA-5242(a) requires that, for systems borated for the purpose of controlling reactivity, insulation shall be removed from pressure retaining bolted connections for visual examination VT-2.

Alternative Requirement:

It is proposed that insulated bolted connections inside containment on Class 1 systems that are borated for the purpose of controlling reactivity be examined each refueling outage at atmospheric or static pressure. The examination will be performed with insulation removed. Similarly, insulated bolted connections on Class 2 systems inside containment that are borated for the purpose of controlling reactivity will be examined once each examination period. In addition to the preceding, all of the piping and components associated with these Class 1 and 2 systems inside containment will be examined at their required frequencies and under the conditions specified in IWA-5000, IWB-5000 and IWC-5000, with the exception of the removal of insulation from the bolted connections. These examinations will be performed utilizing a four hour hold time.

Basis for Relief:

Inside containment, the referenced systems are tested in an environment that is hazardous to personnel. Ambient temperature is between 100 and 120 degrees Fahrenheit. Personnel must manipulate undesirable work platforms such as ladders against components that could be in excess of 500 degrees Fahrenheit. Removing and reinstalling insulation under these conditions is difficult to perform and is not considered to be consistent with the ALARA (as low as reasonably achievable) concept when compared to the proposed alternative requirements.

The following supports this position:

1. The ASME issued Code Case N-533 to provide an alternative to the removal of insulation at bolted connections for Class 1 systems.

2. Surry Power Station was granted relief from the referenced Code Section in NRC letter #95-404 dated 07/19/95.

3. Pre-existing boric acid leaks will be detected at atmospheric or static pressures due to residue deposits.

4. A four hour hold time will ensure that boric acid leaks that may develop during the outage will be identified during the VT-2 examination performed prior to startup.

5. The alternate examination will not be applied to post repair/replacement activities on bolted connections.

6. Relief granted to V.C. Summer Nuclear Station through TAC M94364, April 11, 1996.

Relocation of the component identification list to plant program documents will allow VCSNS to expeditiously change the program through the 10CFR50.59 review process without having to submit a new request for relief each time a change to the program is needed.