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March 31, 2003
RC-03-0074

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U. S. Nuclear Regulatory Commission
Washington, DC 20555

Ladies and Gentlemen:

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

South Carolina Electric and Gas Company (SCE&G) hereby submits the two attached requests for using alternatives to the requirements of ASME Code, Section XI regarding welding qualification records and qualification of welders and welding operators for VCSNS.

These requests will allow alternatives to the requirements of Section XI, IWA-4400, regarding owner and repair organization qualification of welders and welding processes. SCE&G has determined that the proposed alternatives will provide an acceptable level of quality and safety.

The NRC has previously approved a similar request on November 25, 1998, by TAC No. MA 0711. Additionally, ASME Code, Section XI, 1998 Edition through 2000 Addenda provides the same parameters as the Code Cases cited in this request and has been accepted by the NRC. SCE&G will be updating to the 1998 Edition for the next interval.

Detailed descriptions of these proposed alternatives, including bases for relief, are included as attachments to this letter. SCE&G requests timely NRC review and approval of this request so that appropriate changes to the VCSNS Welding Program can be completed to support implementation during refueling outage 14 (RF14), currently scheduled for October 2003.

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SCE&G is submitting the attached relief requests in accordance with 10CFR50.55a(a)(3)(i).

Should you have any questions, please call Mr. Mel Browne at (803) 345-4141.

Very truly yours,



Stephen A. Byrne

JT/SAB/dr
Attachments

c: N. O. Lorick
N. S. Carns
T. G. Eppink (w/o Attachment)
R. J. White
L. A. Reyes
K. R. Cotton
K. M. Sutton
General Managers
NRC Resident Inspector
A. R. Caban
W. R. Higgins
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File (810.19-2)
DMS (RC-03-0074)

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

RR-II-13

Subject:

This relief request provides alternate requirements for the qualification of welding and brazing processes required by Subsection IWA of ASME Code, Section XI, 1989 Edition (henceforth Section XI).

Components:

ASME Code Class 1, 2, and 3 Components at VCSNS.

Code Requirement:

IWA-4400 (a) requires that all welding shall be performed in accordance with Welding Procedure Specifications that have been qualified by the Owner or repair organization to the requirements of the codes specified in the Repair Program, in accordance with IWA-4120.

Relief Request:

Relief is requested from IWA-4400 to use Code Case N-573, Transfer of Procedure Qualification Records Between Owners, Section XI, Division 1.

Alternate Test:

In accordance with 10 CFR 50.55a(a)(3)(i), SCE&G proposes to use Code Case N-573, Transfer of Procedure Qualification Records Between Owners.

Basis for Relief:

The basis for this relief is to implement ASME Code Case N-573, which eliminates the redundancy currently required by the Code for each organization to independently qualify all welding procedures. Code Case N-573 recognizes and addresses this redundancy and proposes an alternative that maintains an acceptable level of quality and safety.

Each licensee is required to comply with the requirements of ASME Code, Section XI for the qualification of welding and brazing procedures. Each licensee must also perform essentially the same steps to develop a Procedure Qualification Record (PQR) in compliance with the Code. An approved PQR must undergo an extensive review process to include the following or similar groups:

- Welding
- Engineering
- Quality Services
- Material Testing and Performance
- Authorized Nuclear Insurers

This redundant process imposes a manpower and expense resource hardship without any increase in quality or safety.

IWA 4400(a) requires that all welding shall be performed in accordance with Welding Procedure Specifications (WPS) that have been qualified by the Owner or Repair organization in accordance with the requirements of the codes specified in the Repair Program, per IWA-4120.

The licensee proposes the use of Code Case N-573, Transfer of Procedure Qualification Records Between Owners. This Code Case essentially allows the use of a welding or brazing procedure qualification record (PQR) qualified by one owner to be used by another owner for the development of the WPS without independent qualification. The specific requirements listed in Code Case N-573 shall be met by the Owner that performed the procedure qualification, and by the Owner intending to use the PQR. These requirements are:

- (a) The Owner that performed the procedure qualification test shall certify, by signing the PQR, that testing was performed in accordance with Section IX.
- (b) The Owner that performed the procedure qualification test certifies, in writing, that the procedure qualification was conducted in accordance with a Quality Assurance Program that satisfies the requirements of IWA-1400.

- (c) The Owner accepting the completed PQR shall accept responsibility for obtaining any additional supporting information needed for WPS development.
- (d) The Owner accepting the completed PQR shall document, on each resulting WPS, the parameters applicable to welding. Each WPS shall be supported by all necessary PQR's.
- (e) The Owner accepting the completed PQR shall accept responsibility for the PQR. Acceptance shall be documented by the Owner's approval of each WPS that references the PQR.
- (f) The Owner accepting the completed PQR shall demonstrate technical competence in application of the received PQR by completing a performance qualification test using the parameters of a resulting WPS.
- (g) The Owner may accept and use a PQR only when it is received directly from the Owner that certified the PQR.
- (h) Use of this Code Case shall be shown on the NIS-2 form documenting welding or brazing.

Compliance with these Requirements will assure the requisite level of Quality is maintained.

Implementation Schedule:

This relief will be implemented during the current second interval at VCSNS as required by ASME Code, Section XI, 1989 Edition.

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

RR-II-14

Subject:

This relief request provides alternate requirements for the qualification of welders, welding operators, brazers, and brazing operators required by Subsection IWA of ASME Code, Section XI, 1989 Edition (henceforth Section XI).

Components:

ASME Code Class 1, 2, and 3 Components at VCSNS.

Code Requirement:

IWA-4400(a) requires that all welders shall be qualified by the repair organization in accordance with the requirements of the codes specified in the Repair Program, in accordance with IWA-4120

Relief Request:

Relief is requested from IWA-4400 to use Code Case N-600, Transfer of Welder, Welding Operator, Brazer, and Brazing Operator Qualification Between Owners, Section XI, Division 1.

Alternate Test:

In accordance with 10 CFR 50.55a(a)(3)(i), SCE&G proposes to use Code Case N-600, Transfer of Welder, Welding Operator, Brazer, and Brazing Operator Qualification Between Owners.

Basis for Relief:

The basis for this relief is to implement ASME Code Case N-600, which eliminates the redundancy currently required by the Code for each organization to independently qualify all Welders, Welding Operators, Brazers, and Brazing Operator Qualifications that are currently qualified by another Owner. Code Case N-600 recognizes and addresses this redundancy and proposes an alternative, which maintains an acceptable level of quality and safety.

Each licensee is required to comply with the requirements of ASME Code, Section XI for the qualification of welders and brazers. Each licensee also must perform essentially the same steps to qualify a welder or brazer in compliance with the Code. This redundant process imposes a manpower and expense resource hardship without any increase in quality or safety.

IWA-4400(b) requires that all welders shall be qualified by the repair organization in accordance with the requirements of the codes specified in the Repair Program, per IWA-4120. The licensee proposes the use of Code Case N-600, Transfer of Welder, Welding Operator, Brazer, and Brazing Operator Qualification Between Owners. This Code Case essentially allows the use of a Welder, Welding Operator, Brazer, and Brazing Operator qualification record (WPQ/BPQ) qualified by one owner to be used by another owner without the redundancy of independent qualification. The specific requirements listed in Code Case N-600 shall be met by the Owner who performed the qualification, and by the Owner intending to use the WPQ/BPQ. These requirements are:

- (a) The Owner who performed the qualification test shall certify that testing was performed in accordance with Section IX by signing the record of Welder/Welding Operator/Brazer/Brazing Operator Performance Qualification (WPQ/BPQ).
- (b) The Owner that performed the procedure qualification test shall certify, in writing, that the qualification was conducted in accordance with a Quality Assurance Program that satisfies the requirements of IWA-1400.
- (c) The Owner accepting the WPQ/BPQ shall obtain any necessary supporting information to satisfy QW-301.4.
- (d) The Owner accepting the WPQ/BPQ shall require each welder, welding operator, brazer, or brazing operator to demonstrate proficiency by completing a renewal qualification test in accordance with QW-322.2(a) or QB-322 (b).
 - (1) When WPQ transfer involves prior groove test, the renewal test shall use a groove configuration.

- (2) When WPQ transfer involves prior fillet tests, the renewal test may use either a groove or a fillet configuration.
- (e) The Owner accepting the WQR/BPQ shall accept responsibility for the performance Qualification Test, and shall document acceptance on the WPQ/BPQ for the renewal test. This WPQ/BPQ shall reference the WPQ/BPQ supplied by the Owner that performed the qualification.
- (f) The Owner accepting the WQR/BPQ shall accept responsibility for compliance with QW-322. Acceptance shall be documented by the Owner's approval of each WPS that references the PQR.
- (g) The Owner may accept and use a WPQ/BPQ only when it is received directly from the Owner who performed the qualification.
- (h) The Owner accepting the WPQ/BPQ shall comply with the Quality Assurance requirements of IWA-4142(a).
- (i) Use of this Code Case shall be documented on the WPQ/BPQ for the renewal test in lieu of the Repair/Replacement Plan and the NIS-2 form.

Compliance with these Requirements will assure the requisite level of Quality is maintained.

Implementation Schedule:

This relief will be implemented during the current second interval at VCSNS as required by ASME Code, Section XI, 1989 Edition.