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February 17, 1994
Refer to: RC-94-0039

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

Gentlemen:

Subject: VIRGIL C. SUMMER NUCLEAR STATION
DOCKET NO. 50/395
OPERATING LICENSE NO. NPF-12
ASME SECTION XI RELIEF REQUESTS (NRR 940003)

South Carolina Electric & Gas Company (SCE&G) hereby requests relief from the ASME Section XI requirements for Class 1, 2, and 3 integrally welded attachments subject to inspection and all non-exempt snubbers required to be inspected and tested.

Attachments I and II contain the detailed identification, code requirements, proposed alternative testing, and basis for each relief request. SCE&G contends that the proposed alternative tests provide the equivalent, acceptable level of quality and safety as that provided by the Code.

Attachment I identifies a relief request for all Class 1, 2, and 3 integrally welded attachments. Specifically, SCE&G requests the option of utilizing the provisions of Code Case N-509 for Class 1, 2, and 3 integrally welded attachments. SCE&G requests that the NRC review and approve this relief request as soon as possible, but not later than June 1, 1994 in order to support on-line inspection activities scheduled to begin in June 1994.

Attachment II identifies a relief request to exempt the applicable snubbers from the requirements of IWF-5300 of the ASME Section XI and as an alternative, perform snubber examinations and testing as prescribed by Technical Specifications. SCE&G requests that the NRC review and approve this relief request as soon as possible, but no later than June 1, 1994 in order to support the on-line inspection of snubbers.

SCE&G desires relief from the above requirements so as not to create an undue hardship without a compensating increase in quality or safety.

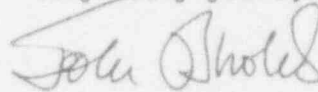
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Should you have any questions, please call Mr. David Haile at (803) 345-4322
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Very truly yours,



John L. Skolds

RRJ/JLS/nkk
Enclosure

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RR-02

**INTEGRALLY WELDED ATTACHMENT
RELIEF REQUEST (CODE CASE N-509)**

COMPONENTS:

All Class 1, 2, and 3 integrally welded attachments subject to inspection per Section XI of the 1989 Edition of the ASME Code.

CODE REQUIREMENT:

IWB-2500, IWC-2500 and IWD-2500 of the 1989 Edition of ASME Section XI requires that all integrally welded attachments that apply to the examination categories B-H, B-K-I, C-C, D-A, D-B and D-C are examined each interval.

RELIEF REQUEST:

To be allowed the option of utilizing the provisions of Code Case N-509, "Alternative Rules for The Selection and Examination of Class 1, 2, and 3 Integrally Welded Attachments Section XI, Division 1".

BASIS FOR RELIEF:

Code Case N-509 has been developed and approved (11-25-92) by the ASME as an acceptable alternative to the above requirements. This alternative is based on the optimization of support inspection which combines the focus of integrally welded attachments with overall support inspection and emphasizes those attachments associated with a deformed support member. The approval of the Code Case by ASME demonstrates the position that the current requirements are more extensive than is required to assure system integrity. Thus, SCE&G believes that applying the current Code Requirements presents an undue hardship without a corresponding increase in safety. Therefore SCE&G request approval to allow the option of applying Code Case N-509 to the 2nd ten-year interval.

CASES OF ASME BOILER AND PRESSURE VESSEL CODE

Approval Date: November 25, 1992

*See Numeric Index for expiration
and any reaffirmation dates.*

Case N-509

Alternative Rules for the Selection and Examination of Class 1, 2, and 3 Integrally Welded Attachments Section XI, Division 1

Inquiry: What alternative requirements to those of IWB, IWC, and IWD may be used to select and examine integrally welded attachments?

Reply: It is the opinion of the Committee that the following rules may be used to select and examine integrally welded attachments:

(a) This Case is limited to Examination Categories B-H, B-K-1, C-C, D-A, D-B, and D-C.

(b) Class 1, 2, and 3 component supports shall be selected for examination in accordance with IWF of the 1989 Edition with the 1990 Addenda.

(c) Except for the selection of component supports for examination all references to Section XI within this Case shall be from the edition and addenda specified in the Owner's Inservice Inspection Program.

1.0 SCOPE

These requirements apply to examination and sample selection of Class 1, 2, and 3 integrally welded attachments of vessels, piping, pumps, and valves listed in Table 2500-1 as follows:

(a) Table 2500-1, Examination Category B-K shall be used for Class 1 integrally welded attachments in Examination Categories B-H and B-K-1 of IWB.

(b) Table 2500-1, Examination Category C-C shall be used for Class 2 integrally welded attachments in Examination Category C-C of IWC.

(c) Table 2500-1, Examination Category D-A shall be used for Class 3 integrally welded attachments in Examination Categories D-A, D-B, and D-C of IWD.

1.1 Exemption Criteria

(a) The exemption criteria provided in IWB-1220, IWC-1220, and IWD-1220 may be applied to Class 1, 2, and 3 components respectively, with integrally welded attachments, required to be examined in accordance with Table 2500-1.

(b) Class 1, 2, and integrally welded attachment examinations performed as a result of component support deformation cannot be credited under the requirements of IWB-2411 or IWB-2412, IWC-2411 or IWC-2412, and IWD-2411 or IWD-2412, respectively.

1.2 Inspection Schedule

Class 1, 2, or 3 integrally welded attachments selected for examination by sample selection criteria in accordance with Table 2500-1, Examination Categories B-K, C-C, and D-A, shall meet the requirements of IWB-2411 or IWB-2412, IWC-2411 or IWC-2412, or IWD-2411 or IWD-2412, respectively.

1.3 Additional and Successive Examinations

(a) Class 1, 2, and 3 additional and successive examination requirements of IWB-2430 and IWB-2420 for Class 1, IWC-2430 and IWC-2420 for Class 2 and 3 as applicable, shall be applied to integrally welded attachments whose examinations reveal flaws or relevant conditions that exceed the acceptance standards of IWB-3000, IWC-3000, and IWD-3000, respectively.

(b) When integrally welded attachments are examined as a result of identified component support deformation and the results of these examinations exceed the applicable acceptance standards listed above, additional or successive examinations shall be performed when determined necessary based on an evaluation by the Owner.

TABLE 2500-1
EXAMINATION CATEGORIES

EXAMINATION CATEGORY B-K, INTEGRAL ATTACHMENTS FOR CLASS 3 VESSELS, PIPING, PUMPS, AND VALVES						
Item No.	Parts Examined ^a	Examination Requirements/ Fig. No.	Examination Method	Acceptance Standard	Extent of Examination ^{b,c}	Frequency of Examination ^d
B10.10	Pressure Vessels Integrally Welded Attachments	IWB-2500-13, -14, and -15	Surface ^e	IWB-3516	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ^f
B10.20	Piping Integrally Welded Attachments	IWB-2500-13, -14, and -15	Surface	IWB-3516	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ^f
B10.30	Pumps Integrally Welded Attachments	IWB-2500-13, -14, and -15	Surface	IWB-3516	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ^f
B10.40	Valves Integrally Welded Attachments	IWB-2500-13, -14, and -15	Surface	IWB-3516	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ^f

NOTES:

- (1) Examination is limited to those integrally welded attachments that meet the following conditions:
 - (a) the attachment is on the outside surface of the pressure retaining component;
 - (b) the attachment provides component support as defined in NF-1110; and
 - (c) the attachment weld joins the attachment either directly to the surface of the component or to an integrally cast or forged attachment to the component.
- (2) The extent of the examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination.
- (3) Selected samples of integrally welded attachments shall be examined each inspection interval.
- (4) In the case of multiple vessels of similar design, function and service, only one integrally welded attachment of only one of the multiple vessels shall be selected for examination.
- (5) For piping, pumps, and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination under the 1990 Addenda, IWF-2510 shall be examined.
- (6) Examination is required whenever component support member deformation (e.g., broken, bent, or pulled out parts) is identified during operator refueling, maintenance, examination, inservice inspection, or testing.
- (7) For the configuration shown in Fig. IWB-2500-14, a volumetric examination of volume A-B-C-D from side (B-C) of the circumferential welds may be performed in lieu of the surface examination of surfaces A-D and B-C.

TABLE 2500-1 (CONT'D)
EXAMINATION CATEGORIES

EXAMINATION CATEGORY C-C, INTEGRAL ATTACHMENTS FOR CLASS 2 VESSELS, PIPING, PUMPS, AND VALVES						
Item No.	Parts Examined ¹	Examination Requirements/ Fig. No.	Examination Method	Acceptance Standard	Extent of Examination ^{2,3}	Frequency of Examination ⁴
C3.10	Pressure Vessels Integrally Welded Attachments	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ⁵
C3.20	Piping Integrally Welded Attachments	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ⁵
C3.30	Pumps Integrally Welded Attachments	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ⁵
C3.40	Valves Integrally Welded Attachments	IWC-2500-5	Surface	IWC-3512	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval ⁵

NOTES:
 (1) Examination is limited to those integrally welded attachments that meet the following conditions:
 (a) the attachment is on the outside surface of the pressure retaining component;
 (b) the attachment provides component support as defined in NF-1110; and
 (c) The attachment weld joins the attachment either directly to the surface of the component or to an integrally cast or forged attachment to the component.
 (2) The extent of the examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination.
 (3) Selected samples of integrally welded attachments shall be examined each inspection interval.
 (4) In the case of multiple vessels of similar design, function and service, only one integrally welded attachment of only one of the multiple vessels shall be selected for examination.
 (5) For piping, pumps, and valves, a sample of 10% of the welded attachments associated with the component supports selected for examination under the 1990 Addenda, IWF-2510 shall be examined.
 (6) Examination is required whenever component support member deformation (e.g., broken, bent, or pulled out parts) is identified during operation, refueling, maintenance, examination, inservice inspection, or testing.

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SUPP. 3 - NC

TABLE 2500-1 (CONT'D)
 EXAMINATION CATEGORIES

EXAMINATION CATEGORY D-A, INTEGRAL ATTACHMENTS FOR CLASS 3 VESSELS, PIPING, PUMPS, AND VALVES						
Item No.	Parts Examined ¹	Examination Requirements/ Fig. No.	Examination Method	Acceptance Standard	Extent of Examination ^{2,3}	Frequency of Examination ^{4,4}
D1.10	Pressure Vessels Integrally Welded Attachments	IWD-2500-1	Visual, VT-1	IWD-3000	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval
D1.20	Piping Integrally Welded Attachments	IWD-2500-1	Visual, VT-1	IWD-3000	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval
D1.30	Pumps Integrally Welded Attachments	IWD-2500-1	Visual, VT-1	IWD-3000	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval
D1.40	Valves Integrally Welded Attachments	IWD-2500-1	Visual, VT-1	IWD-3000	100% of required areas of each welded attachment	Each identified occurrence and each inspection interval

NOTES:

- (1) Examination is limited to those integrally welded attachments that meet the following conditions:
 - (a) the attachment is on the outside surface of the pressure retaining component;
 - (b) the attachment provides component support as defined in NF-1110; and
 - (c) the attachment weld joins the attachment either directly to the surface of the component or to an integrally cast or forged attachment to the component.
- (2) The extent of the examination includes essentially 100% of the length of the attachment weld at each attachment subject to examination.
- (3) Selected samples of integrally welded attachments shall be examined each inspection interval. All integrally welded attachments selected for examination shall be subject to corrosion, as determined by the Owner, such as the integrally welded attachments of the Service Water or Emergency Service Water systems. In the case of multiple vessels of similar design, function and service, the integrally welded attachments of only one of the multiple vessels shall be selected for examination. For integrally welded attachments of piping, pumps, and valves a 10% sample shall be selected for examination. This percentage sample shall be proportional to the total number of nonexempt integrally welded attachments connected to the piping, pumps, and valves, located within each system subject to these examinations.
- (4) Examination is required whenever component support member deformation (e.g., broken, bent, or pulled out parts) is identified during operation, refueling, maintenance, examination, inservice inspection, or testing.

RR-06

SNUBBER RELIEF REQUEST

COMPONENTS:

All Non-exempt snubbers required to be inspected and tested by the provisions of IWF-5300.

CODE REQUIREMENT:

Subarticle IWF-5300 of the 1989 edition of the ASME Boiler Pressure Vessel Code, Section XI requires that snubbers are to undergo inservice examination and testing per the 1988 Addenda to ASME/ANSI OM-1987, Part 4. These requirements provide the methodology and corrective actions for examining snubbers and for functional testing snubbers.

RELIEF REQUEST:

To exempt the applicable snubbers from the requirements of IWF-5300 and as an alternative, perform the required examination and testing of snubbers as prescribed by Technical Specifications.

ALTERNATE TEST:

Apply the visual examination and functional testing requirements that are prescribed by Technical Specifications (including sampling and frequency requirements) to the components identified above.

BASIS FOR RELIEF:

V. C. Summer Nuclear Station (VCSNS) is required to incorporate the 1989 edition of the ASME Code as the governing requirement for the second ten-year inservice inspection interval. These requirements contain snubber examination and testing methodologies that are nearly identical to the methodologies prescribed in the Technical Specification for examination and testing of snubbers. Having two nearly redundant sets of snubber requirements presents unnecessary confusion in sample selection, data collection, acceptance criteria, and corrective actions. These requirements will in some cases cause a duplication of test documentation. However, in other cases, additional confusion is created by the difference in snubber categories. Approximately half of the snubbers at VCSNS are required to be tested by both Technical Specifications and the ASME Code. The other half are only required to be tested by one of the requirements. Therefore, sampling becomes very confusing since some snubbers may be applicable to both requirements and others to only one. For the same reason acceptance criteria and corrective actions become difficult to apply.

One area where the requirements do not closely resemble each other is the inspection frequency changes in response to visual examination failures. The differences can cause different frequency requirements to be prescribed to a single group of snubbers as a result of the same inspection. This situation obviously would increase the possibility of applying the wrong action thus creating a nonconformance, an inoperability or even a violation of Technical Specifications. Also, the ASME has recently approved a revision to the snubber examination requirements that incorporates the Technical Specification Table for inspection frequency into Section XI. Therefore, the ASME is in agreement that these actions should not be in conflict.

In order to remove the confusion and impracticability of trying to administer such similar requirements to snubber categories that partially overlap and to remove the possibility of requiring contradicting actions to apply to the same snubber(s), VCSNS believes that meeting the requirements that are contained in the Technical Specifications for all the snubbers which apply to either category will provide sufficient testing of snubbers. Therefore, the proposed alternate test will provide an acceptable level of quality, and compliance with the Code would result in a hardship without a compensating increase in quality or safety.