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April 27, 1995
Refer to: RC-95-0107

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)
SUPPLEMENT 1 - REQUEST FOR ADDITIONAL INFORMATION

This letter is in response to the March 16, 1995 conference call between V.C. Summer Nuclear Station (VSCNS), VCSNS NRC project manager, and Idaho Falls [INEL] concerning relief request RR-02, Integrally Welded Attachment Relief Request (Code Case N-509) (Refer to: RC-94-0039 dated February 17, 1994 from John L. Skolds to NRC). The NRC requested VCSNS provide additional detail on hardship for the relief request, and clarify the methodology of selecting the items to be inspected when the relief request is implemented.

10CFR50.55a(3)(ii) allows the NRC to grant relief from the applicable ASME Code requirements provided the requestor demonstrates that "compliance with the specified requirements of [the applicable code] would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety."

Relief request RR-02 asks for permission to implement an ASME approved code case (N-509) in lieu of the inspection requirements for integrally welded attachments (IWAs) prescribed by the 1989 edition of Section XI, ASME Code. This code case relaxes the extent of examination for IWAs on pipe and components (excluding vessels) from a 100% inspection to a 10% inspection with additional inspections required when an unacceptable indication is discovered.

The ASME has accepted this code case as being an acceptable alternative for demonstrating the continued integrity of the IWAs. It is clear that a general hardship exists in performing a 100% inspection as compared to a 10% inspection, without an increase in the level of quality and safety. The approximate quantification of how this general hardship affects VCSNS is shown in the following table.

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The IWAs affected by this relief request are divided as follows:

<u>1983 Code Requirements</u>	<u>Code Case N-509</u>
All Class 1 Piping IWAs 10	[10% = 1]
All Class 2 Piping IWAs 189	[10% = ~19]
All Class 2 Pump IWAs 5	[10% = ~1]
All Class 3 Piping IWAs 82	[10% = ~9]
All Class 3 Pump IWAs 3	[10% = ~1]
<hr/> TOTAL 289	<hr/> [TOTAL = ~31]

Therefore, by implementing the code case it is possible to alleviate the hardship of 258 inspections, approximately an 89% reduction.

The personnel requirements for these inspections are determined by the location, operating condition, and ASME Code class of the IWA's attached system. Personnel may include scaffold builders, insulators, pipe fitters, QC inspectors, and HP technicians.

All of the aforementioned personnel are required to conduct the ten Class 1 IWA inspections (surface examinations). These inspections require an estimated 350 manhours and 375 millirem exposure, representing the most work and exposure intensive IWAs to inspect.

The Class 2 IWA required inspections (surface examinations) pose the largest potential impact due to their quantity. Of the 194 Class 2 IWAs, 41 are located inside containment and can be expected to require a work effort similar to Class 1 IWAs. Extrapolation of the Class 1 data would yield approximately 1400 manhours for the 41 Class 2 IWAs inside containment. Since these IWAs would not be located in radiation fields as intense as Class 1 IWAs, a conservative estimate of 300 millirem is assumed for the 41 Class 2 IWAs inside containment.

The remaining 153 Class 2 IWAs are located outside containment and associated with systems which may not carry radiation products. Scaffolding, insulation, HP requirements, and exposure potential would be expected to be less, yielding approximately 2400 manhours and 500 millirem for the 153 Class 2 IWAs.

The 85 Class 3 IWA inspections (visual examination) do not require the same manpower as either Class 1 or 2 IWA inspections. Most Class 3 systems are uninsulated, more accessible, and do not require weld preparation for visual

examinations. 4 manhours per Class 3 IWA inspection will be estimated, yielding 340 manhours, with no exposure.

A summary of the manpower impact of the IWA inspection is as follows:

10 Class 1 IWAs	350 manhours	375 millirem
41 Class 2 IWAs	1400 manhours	300 millirem
153 Class 2 IWAs	2400 manhours	500 millirem
85 Class 3 IWAs	340 manhours	No Exposure
TOTAL	4490 Manhours	1175 Millirem
11% of Total	493 Manhours	129 Millirem
NET IMPACT	3997 Manhours	1046 Millirem

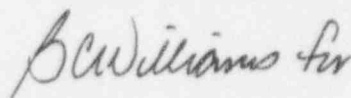
*These IWAs are located inside containment.

Therefore, an approximate quantification of the hardship propounded by the existing code requirements is represented by the "NET IMPACT" line above.

VCSNS selects its 10% sample by rounding up to the next whole number value representing 10% of the total IWAs that are within the scope of each inspection item called out by the Table 2500 requirements of Section XI, as called for in Code Case N-509.

Should you have any questions concerning this issue, please contact Mr. Michael J. Zaccone at (803) 345-4328.

Very truly yours,



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MJZ/GJT/nkk

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