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July 9, 1990

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

SUBJECT: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
ASME Section XI Relief Request
Number I-00018, Revision 1
AECM-90/0124

This submittal requests relief from the requirements of ASME Section XI, in accordance with 10CFR50.55a(g)(5)(iii). A revision to a previously approved relief request is attached.

Relief Request I-00018 Revision 1 addresses additional components for which relief is requested. Also, a valve number was corrected in the description of one component and another component was deleted since an associated valve was found to be locked open during plant startup. A summary of changes to Table 1 of the relief request made by this revision is provided in Attachment 1.

The Grand Gulf Nuclear Station Inservice Inspection (ISI) program is required to be updated every ten years to the latest edition of ASME Section XI approved by the NRC. The initial update of the GGNS program will begin in 1994 and be implemented in 1995. At that time, the testing proposed by the attached relief request revision is scheduled to become a part of the GGNS ISI program. Use of a later edition of ASME Section XI at this time will allow our resources to be spent on other activities, as well as potentially reducing the downtime of Emergency Core Cooling Systems, during the refueling outages prior to 1995.

Your review and approval of this request is requested prior to October 1, 1990, in order to allow planning for the upcoming refueling outage. If additional information is required to support your review, please advise.

Yours truly,

W. T. Cottle

WTC:mtc
Attachments

cc: (See Next Page)

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Summary of Revision 1 Changes - Relief Request I-00018

"Pressure Testing of Category B-P Pressure Retaining Components"

Relief Request Revision 1 Item No.	Change Requested	Reason for Change/Comments
NA	Delete Item	Item No. 1 in Revision 0. The associated valve is locked open during restart, therefore relief is not appropriate.
11	Correct Description	Item No. 7 in Revision 0. The valve number is corrected to Q1C41-F222.
33 &34	Changed to two Items	Item No. 17 in Revision 0. This was made into two separate items in Revision 1 for clarity.
-	-	To preserve system order in Revision 1, the following Items from Revision 0 were re-numbered:
1	Re-number Item	Item No. 3 in Revision 0.
3	Re-number Item	Item No. 5 in Revision 0.
5	Re-number Item	Item No. 6 in Revision 0.
7	Re-number Item	Item No. 9 in Revision 0.
16	Re-number Item	Item No. 10 in Revision 0.
28	Re-number Item	Item No. 11 in Revision 0.
29	Re-number Item	Item No. 15 in Revision 0.
30	Re-number Item	Item No. 16 in Revision 0.
32	Re-number Item	Item No. 14 in Revision 0.
38	Re-number Item	Item No. 13 in Revision 0.
39	Re-number Item	Item No. 12 in Revision 0.

Relief Request Revision 1 Item No.	Change Requested	Reason for Change/Comments
6,9,10,12-15,17-27,31, and 35-37	Add Items	Relief is requested for components in addition to those approved by Revision 0, due to the hardship of testing and to attempt to decrease Emergency Core Cooling Systems downtime during refueling outages. Relief would allow system leak testing in accordance with [illegible] Edition, Summer 1983 Addenda of ASME Section XI rather than the 1977 Edition, Summer 1979 Addenda. The items added by Revision 1 were determined by review of the current configuration of the entire reactor coolant pressure boundary, including some systems not addressed for Revision 0. The components added by Revision 1 include some high/low pressure interface piping.

Relief Request Number I-00018 Revision 1

"Pressure Testing of Category B-P

Pressure Retaining Components"

Pages Following:

6 Pages Relief Request - Revision 1

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UNIT 1
RELIEF REQUEST I-00018 REVISION 1

PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

I.	Component:	Class 1 pressure retaining components, Examination Category B-P (see table 1).
II.	Code:	The pressure retaining components within this category are designed and fabricated to ASME Section III, class 1 requirements. Applicable inservice inspections are performed in accordance with ASME Section XI, 1977 Edition through and including the Summer 1979 Addenda.
III.	Code Requirements:	Class 1 pressure retaining components, category B-P, are required to receive a system leakage test (IWB-5221) each refueling outage, and a system hydrostatic test (IWB-5222) each inspection interval.
IV:	Information to support the determination that the code requirements are impractical:	ASME Section XI, 1977 Edition, Summer 1979 Addenda, Table IWB-2500-1, category B-P, note 1, requires the test boundary for both the system leakage and the hydrostatic test to include the entire reactor coolant system. This boundary, as defined, requires portions of piping to be pressure tested that are isolated by normally closed valves. To accomplish testing of the isolated piping, extensive efforts are required that may include the installation of mechanical jumpers, initiation of false signals to open valves or the erection of independent water and pressure sources. Later editions of ASME Section XI have redefined the test boundary for the system leakage test.

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PRESSURE TESTING
OF
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PRESSURE RETAINING COMPONENTS

Note 1 of IWB-2500-1, Category B-P has been revised to address only the system leakage test and to redefine the test boundary as:

"The pressure retaining boundary during the system leakage test shall correspond to the reactor coolant system, with all valves in the normal position, which is required for normal reactor operation startup. The VT-2 examination shall, however, extend to and include the second closed valve at the boundary extremity."

V. Specific Relief Requested:

Permission is requested to perform system leakage testing of the class 1 boundary as described by ASME Section XI, 1983 Edition, Summer 1983 Addenda, Table IWB-2500-1, Category B-P. This request applies only to the system leakage test and not to the hydrostatic test required each interval. Table 1 lists the portions of the systems that are examined by the VT-2 method but excluded from pressurization.

VI. Reasons why relief should be granted:

Request for altering the class 1 system leakage test boundaries as discussed herein should be granted for the following reasons:

1. All components excluded from the system leakage test are designed, fabricated, installed and tested to the requirements of ASME Section III, Subsection NB (class 1).

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PRESSURE TESTING
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PRESSURE RETAINING COMPONENTS

2. The components excluded from the system leakage test are subjected to the system hydrostatic test once each interval.

3. DELETED

4. This request for relief, if approved, would be consistent with the current NRC approved edition of ASME Section XI (1983 Edition, Summer 1983 Addenda).

VII. Alternate Testing: None

VIII. NRC discussion statement for the approval of revision 0:

10CFR50.55a(g)(3)(v) permits updating to the requirements of later approved editions and addenda of the ASME Code, or portions thereof, which are incorporated by reference in paragraph 50.55a(b), subject to the limitations and modifications listed therein. Based on the staffs evaluation, it is concluded that the Licensee is permitted to update to later editions and addenda of the Code and that compliance with the specific requirements of Section XI (77S79) would result in hardship or unusual difficulties without a compensating increase in the level of quality and safety. Therefore, relief is granted as requested.

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PRESSURE TESTING
OF
CATEGORY B-P
PRESSURE RETAINING COMPONENTS

TABLE 1

ITEM	SYSTEM	LINE CLASS	DESCRIPTION
1	B21	1" DBA-87	LINE DOWNSTREAM OF Q1B21-F136B
2	B21	1" DBA-87	LINE DOWNSTREAM OF Q1B21-F136A
3	B33	2" DCA-24	LINE DOWNSTREAM OF Q1B33-F051A
4	B33	2" DBA-42	LINE DOWNSTREAM OF Q1B33-F029
5	B33	2" DCA-24	LINE DOWNSTREAM OF Q1B33-F051B
6	C41	1 1/2" DCA-3	LINE DOWNSTREAM OF Q1C41-F219
7	C41	3/4" DCA-33	LINE DOWNSTREAM OF Q1C41-F219
8	C41	1" DCA-31	LINE DOWNSTREAM OF Q1C41-F210
9	C41	1 1/2" DCA-2	LINE UPSTREAM OF Q1C41-F222
10	C41	1" DCA-34	LINE UPSTREAM OF Q1C41-F222
11	C41	3/4" DCA-4	LINE UPSTREAM OF Q1C41-F222
12	C41	1" DCA-34	LINE DOWNSTREAM OF Q1C41-F218
13	C41	3/4" DCA-4	LINE DOWNSTREAM OF Q1C41-F026

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PRESSURE RETAINING COMPONENTS

TABLE 1

ITEM	SYSTEM	LINE CLASS	DESCRIPTION
14	E12	6" DBA-32	LINE UPSTREAM OF Q1E51-F066
15	E12	1" DBA-80	LINE UPSTREAM OF Q1E51-F066
16	E12	1" DBA-80	LINE DOWNSTREAM OF Q1E12-F344
17	E12	14" DBA-28	LINE UPSTREAM OF Q1E12-F041B
18	E12	1" DBA-81	LINE UPSTREAM OF Q1E12-F041B
19	E12	1" DBA-81	LINE DOWNSTREAM OF Q1E12-F236
20	E12	20" DBA-64	LINE DOWNSTREAM OF Q1E12-F009
21	E12	14" DBA-29	LINE UPSTREAM OF Q1E12-F041A
22	E12	1" DBA-4	LINE DOWNSTREAM OF Q1E12-F223
23	E12	12" DBA-38	LINE UPSTREAM OF Q1E12-F041C
24	E12	1" DBA-79	LINE UPSTREAM OF Q1E12-F041C
25	E12	1" DBA-79	LINE DOWNSTREAM OF Q1E12-F234
26	E21	14" DBA-1	LINE UPSTREAM OF Q1E21-F006

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CATEGORY B-P
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TABLE 1

ITEM	SYSTEM	LINE CLASS	DESCRIPTION
27	E21	1" DBA-31	LINE UPSTREAM OF Q1E21-F006
28	E21	1" DBA-31	LINE DOWNSTREAM OF Q1E21-F207
29	E22	12" DBA-5	LINE DOWNSTREAM OF Q1E22-F005
30	E22	14" DBA-5	LINE UPSTREAM OF Q1E22-F005
31	E22	1" DBA-78	LINE UPSTREAM OF Q1E22-F005
32	E22	1" DBA-78	LINE DOWNSTREAM OF Q1E22-F218
33	E38	1 1/2" DBA-87	LINE UPSTREAM OF Q1E38-F002A
34	E38	1 1/2" DBA-87	LINE UPSTREAM OF Q1E38-F002B
35	E51	10" DBA-24	LINE DOWNSTREAM OF Q1E51-F063
36	E51	1" DBA-34	LINE DOWNSTREAM OF Q1E51-F076
37	G33	6" DBA-86	LINE DOWNSTREAM OF Q1G33-F250
38	G33	1" DBA-86	LINE DOWNSTREAM OF Q1G33-F241
39	G33	3/4" DBA-82	LINE DOWNSTREAM OF Q1G33-F002