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June 9, 1999

U.S. Nuclear Regulatory Commission Mail Station P1-37 Washington, D.C. 20555

Attention: Document Control Desk

Subject:

Grand Gulf Nuclear Station Unit 1 Docket No. 50-416 License No. NPF-29

Generic Letter (GL) 96-06, Preliminary Action Plan for Resolution

GNRO-99/00046

Gentlemen:

In response to GL 96-06 Grand Gulf Nuclear Station (GGNS) committed, in a letter dated November 4, 1997, to take appropriate action to resolve the nonconforming condition for each Containment/Drywell penetration, determined to be susceptible to overpressurization due to thermal expansion of fluid. The eighteen identified penetrations will be restored to conformance with the licensing requirements prior to restart from RFO10 (now scheduled for Fall 1999).

As we stated in our January 28, 1997 letter, an engineering evaluation of all the affected Containment/Drywell penetrations concluded they would retain their ability to perform their safety function (i.e., Containment integrity). Furthermore, we provided additional information, in a letter dated November 20, 1997, to permit the staff to continue its review of the GGNS response to GL 96-06. The information we provided included:

- 1. Summaries of the evaluations of the eighteen penetrations,
- 2. Methods of analysis, including the assumptions, and the results,
- 3. Fabrication drawings of the affected piping sections,
- Discussion on how the criteria used, for the operability evaluations, meet the licensing basis criteria for GGNS, and,
- 5. The schedule for completion of any required modification.

At the request of Mr. Pat Sekerak, GGNS now submits the following summary for planned resolution of GL 96-06, for the eighteen penetrations previously identified as being potentially susceptible to overpressurization. Please refer to Attachment 1 for the planned resolution for each penetration.

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A breakdown of the planned resolution is as follows:

Modification	Procedure	Acceptable per	Potential Modification
Required	Change	Analysis	Analysis Ongoing
5 penetrations	2 penetrations	5 penetrations	6 penetrations

Please feel free to contact Dana E. Smith at (601) 437-6434 should you have any questions or require additional information.

Yours truly,

Hughey

DES/LFD/WKH attachment: cc: (See I

(See Next Page)

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PLANNED RESOLUTIONS FOR EACH PENETRATION

Penetrations Requiring Modification

Drywell Penetration No. 331:

System Description:	Drywell Chillers Return Header
Line Number:	4"-HBB-42 & 5"SCH 160
P&ID:	M-1072B
sometric:	M-1331F
Drywell Valve (Inboard):	Q1P72F125; Gate Valve
Containment Valve (Outboard):	Q1P72F126; Gate Valve

A RFO10 modification to valve Q1P72F125 to eliminate penetration overpressurization is anticipated. As there is already an existing non-safety relief valve upstream of isolation valve Q1P72F125, no new relief valve will be added.

Drywell Penetration No. 348:

System Description: Line Number: P&ID: Isometric: Drywell Valve (Inboard): Containment Valve (Outboard): Drywell Equipment Floor drain 3" & 4"-HBB-95 & 4" Sch 160 M-1094A M-1356D Q1P45F009; Gate Valve Q1P45F010; Gate Valve

A RFO10 modification, to valve Q1P45F009 or Q1P45F010, to eliminate penetration overpressurization is anticipated. A non-safety related pressure relief path would also be provided.

Drywell Penetration No. 364:

System Description:	Floor Drain for Chemical Waste Sump Pump
	Discharge
Line Number:	1 ½"-HCB-20
P&ID:	M-1094E
Isometric:	FSK-S-1094A-004-C
Drywell Valve (Inboard):	Q1P45F096; Globe Valve
Containment Valve (Outboard):	Q1P45F097; Globe Valve

A RFO10 modification, to valve Q1P45F096 or Q1P45F097, to eliminate penetration overpressurization is anticipated. A non-safety related pressure relief path would also be provided.

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Containment Penetration No. 50:

System Description:	Containment Floor Drain
Line Number:	6"-HBB-102
P&ID:	M-1094B
Isometric:	M-1356D
Containment Valve (Inboard):	Q1P45F067; Gate Valve
Auxiliary Building Valve (Outboard):	Q1P45F068; Gate Valve

A RFO10 modification consisting of adjusting the closure time for the isolation valves will be implemented. The closure time of the valves will be adjusted to allow drainage of the piping due to gravity.

This adjustment is contingent upon NRC approval of a limited application of revised source terms as contained in a letter dated November 3, 1998. This submittal is currently under NRC review. The proposed change includes a relaxation of the isolation times for valves Q1P45F067 and Q1P45F068.

Containment Penetration No. 51:

System Description:	Containment Equipment Floor Drain
Line Number:	6"-HBB-101
P&ID:	M-1094B
Isometric:	M-1355D
Containment Valve (Inboard):	Q1P45F061; Gate Valve
Auxiliary Building Valve (Outboard):	Q1P45F062; Gate Valve

A RFO10 modification consisting of adjusting the closure time for the isolation valves will be implemented. The closure time of the valves will be adjusted to allow drainage of the piping due to gravity.

This adjustment is contingent upon NRC approval of a limited application of revised source terms as contained in a letter dated November 3, 1998. This submittal is currently under NRC review. The proposed change includes a relaxation of the isolation times for valves Q1P45F061 and Q1P45F062.

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Penetrations Requiring Procedural Changes

Drywell Penetration No. 330:

System Description:	CCW Return
Line Number:	8"-HBB-37
P&ID:	M-1063B
Isometric:	M-1333C
Drywell Valve (Inboard):	Q1P42F116; Gate Valve
Containment Valve (Outboard):	Q1P42F117; Gate Valve

The isolation valves for this penetration currently receive no automatic closure signal. However the operator has the option to close the valves manually. Therefore a change to the appropriate alarm response instructions will be implemented. The change will consist of requiring the operator to close only one valve when isolating Component Cooling Water (CCW). No modification is required for this penetration.

Drywell Penetration No. 333:

System Description:	Reactor Recirculation / Condensate
	Refueling Water Storage & Transfer to
	RPV
Line Number:	4"-HBB-111 & 5"Sch XXS
P&ID:	M-1078A
Isometric:	M-1336F
Drywell Valve (Inboard):	Q1B33F204; Gate Valve
Containment Valve (Outboard):	Q1B33F205; Gate Valve

Since this line is only used during plant outages, operating procedures will be changed to require draining the line prior to isolation during normal power operation. No modification is required for this penetration.

Penetrations Found Acceptable per Analysis

Containment Penetration No. 43:

System Description:
Line Number:
P&ID:
Isometric:
Containment Valve (Inboard):
Auxiliary Building Valve (Outboard):

RWCU Blowdown to Condenser. 4" & 6"-EBB-1 M-1079 M-1342F Q1G33F028; Gate Valve Q1G33F034; Gate Valve

Piping and valves have been qualified using Subsection NC of the ASME Code, Section III. No modification is required for this penetration.

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Containment Penetration No. 47:

System Description:	Reactor Recirculation / PASS
Line Number:	3⁄4"-DCB-50
P&ID:	M-1078A
Isometric:	FSK-S-1078A-135-C
Containment Valve (Inboard):	Q1B33F128; Globe Valve
Auxiliary Building Valve (Outboard):	Q1B33F127; Globe Valve

Piping has been qualified using Appendix F of the ASME Code, Section III. Valves have been qualified using Subsection NC of the ASME Code, Section III. No modification is required for this penetration.

Containment Penetration No. 54:

System Description:	Reactor Well Refueling Water
Line Number:	12"-HBB-4
P&ID:	M-1088C
Isometric:	M-1351A
Containment Valve (Inboard):	Q1G41F201; Gate Valve
Auxiliary Building Valve (Outboard):	Q1G41F053; Gate Valve

Piping and valves have been qualified using Subsection NC of the ASME Code, Section III. No modification is required for this penetration.

Containment Penetration No. 81:

System Description:	Reactor Recirculation / PASS
Line Number:	3⁄4"-DCB-51
P&ID:	M-1078B
Isometric:	FSK-S-1078B-127-C
Containment Valve (Inboard):	Q1B33F126; Globe Valve
Auxiliary Building Valve (Outboard):	Q1B33F125; Globe Valve

Piping and valves have been qualified using Subsection NC of the ASME Code, Section III. No modification is required for this penetration. Attachment 1 to GNRO-99/00046 Page 5 of 7

Containment Penetration No. 86:

System Description:

Line Number: P&ID: Isometric: Containment Valve (Inboard): Auxiliary Building Valve (Outboard): Makeup Water Treatment / Demineralized Water Supply 2" & 4"-HBB-155 M-0033B FSK-S-0033B-134-C Q1P21F018; Globe Valve Q1P21F017; Globe Valve

Piping has been qualified using Appendix F of the ASME Code, Section III and valves have been qualified using Subsection NC of the ASME Code, Section III. No modification is required for this penetration.

Penetrations Being Analyzed (Potential Modification)

Drywell Penetration No. 349:

System Description:	Drywell Floor Drain
Line Number:	3" & 4"-HBB-96 & 4" Sch 160
P&ID:	M-1094A
sometric:	M-1355D
Drywell Valve (Inboard):	Q1P45F003; Gate Valve
Containment Valve (Outboard):	Q1P45F004: Gate Valve

Piping has been qualified using Appendix F of the ASME Code, Section III. Valve analytical evaluations are on going with focus on the performance of the bodybonnet joint under the expected pressure and temperature. Any required structural modification to the valve would be implemented during RFO10.

Containment Penetration No. 36:

System Description:	Drywell Chilled Water Return
Line Number:	4" & 5"-HBB-40
P&ID:	M-1072B
Isometric:	M-1331F, M-1371A
Containment Valve (Inboard):	Q1P72F123; Gate Valve
Auxiliary Building Valve (Outboard):	Q1P72F122; Gate Valve

Piping has been qualified using Appendix F of the ASME Code, Section III. Valve analytical evaluations are on going with focus on the performance of the bodybonnet joint under the expected pressure and temperature. Any required structural modification to the valve would be implemented during RFO10. Attachment 1 to GNRO-99/00046 Page 6 of 7

Containment Penetration No. 39:

System Description:	Plant Chilled Water Return
Line Number:	4" & 5"-HBB-43
P&ID:	M-1109D
Isometric:	M-1353M, M-1353K
Containment Valve (Inboard):	Q1P71F149; Gate Valve
Auxiliary Building Valve (Outboard):	Q1P71F148; Gate Valve

Piping has been gualified using Appendix F of the ASME Code, Section III, Valve analytical evaluations are on going with focus on the performance of the bodybonnet joint under the expected pressure and temperature. Any required structural modification to the valve would be implemented during RFO10.

Containment Penetration No. 49:

System Description:	RWCU Filter Demineralizer / RWCU
	Backwash Transfer Pump
Line Number:	4"-HBB-152
P&ID:	M-1080B
Isometric:	M-1343C
Containment Valve (Inboard):	Q1G36F106; Gate Valve
Auxiliary Building Valve (Outboard):	Q1G36F101; Gate Valve

Piping has been qualified using Appendix F of the ASME Code, Section III. Valve analytical evaluations are on going with focus on the performance of the bodybonnet joint under the expected pressure and temperature. Any required structural modification to the valve would be implemented during RFO10.

Containment Penetration No. 58:

System Description:	FPC&CU / Upper Pool Drain Tank
Line Number:	8"-HBB-6
P&ID:	M-1088E, M-1088C
Isometric:	M-1351B, M-1351C
Containment Valve (Inboard):	Q1G41F044; Gate Valve
Auxiliary Building Valve (Outboard):	Q1G41F029; Gate Valve

Piping has been qualified using Subsection NC of the ASME Code, Section III. Valve analytical evaluations are on going with focus on the performance of the body-bonnet joint under the expected pressure and temperature. Any required structural modification to the valve would be implemented during RFO10.

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Containment Penetration No. 84:

System Description:

Line Number: P&ID: Isometric: Containment Valve (Inboard): Auxiliary Building Valve (Outboard): Floor Drain for Chemical Waste Sump Pump Discharge 3"-HCB-19 M-1094E M-1357D Q1P45F098; Gate Valve Q1P45F099; Gate Valve

Piping has been qualified using Appendix F of the ASME Code, Section III. Valve analytical evaluations are on going with focus on the performance of the bodybonnet joint under the expected pressure and temperature. Any required structural modification to the valve would be implemented during RFO10.