



# MISSISSIPPI POWER & LIGHT COMPANY

*Helping Build Mississippi*

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June 17, 1985

NUCLEAR LICENSING & SAFETY DEPARTMENT

U. S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Washington, D. C. 20555

Attention: Mr. Harold R. Denton, Director

Dear Mr. Denton:

SUBJECT: Grand Gulf Nuclear Station  
Unit 1  
Docket No. 50-416  
License No. NPF-29  
File: 0290/M-189.1  
Pump and Valve Inservice Testing  
Program - Relief Requests  
AECM-85/0121

REFERENCES: (1) AECM-85/0019, dated January 18, 1985  
(2) AECM-85/0034, dated February 15, 1985

By letter to Mississippi Power & Light (MP&L) dated October 10, 1984, the NRC staff requested additional information pertaining to the Grand Gulf Nuclear Station (GGNS) Unit 1 Pump and Valve Inservice Testing Program (MP&L-M-189.1 Rev. 0) MP&L's response (Reference 1) to the NRC request addressed all concerns with the exception of those related to check valve testing. In Reference 2 MP&L provided proposed methods for testing check valves at GGNS Unit 1 and hand marked copies of the affected pages of Specification MP&L-M-189.1.

As a result of a recent review, MP&L has identified the need for additional relief requests and modifications to others contained in Specification MP&L M-189.1 Rev. 0. The attachment to this letter provides a complete package of all relief requests desired by MP&L. All relief requests provided in Specification MP&L-M-189.1 Revision 0 have been modified with the exception of Pump Relief Requests E12-1, E21-1 and E22-1. These are included in the attachment for completeness. The changes indicated on the handmarked pages contained in this submittal supercedes all relief requests transmitted in References (1) and (2).

MP&L plans on implementing the IST Program as modified by the relief requests contained in this submittal when GGNS Unit 1 is declared commercial, which is scheduled for July 1, 1985.

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If you have any questions, please contact this office.

Yours truly,



L. F. Dale  
Director

KED/MLC/JGC:dmm  
Attachment

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File (LCTS) (w/2)  
File (NS) (w/a)  
File (Central) (w/a) [64]

SPECIFICATION MP&L-M-189.1,  
RELIEF REQUEST SUMMARY  
OF MODIFICATIONS MADE  
WITH RESPECT TO MP&L-M-189.1, Rev. 0

RELIEF REQUEST (RR) <u>VALVES</u>	MODIFICATION
Generic RR 1	Replaced by new Generic RR 1
Generic RR 2	Revised as noted
Generic RR 3	Revised as noted
Generic RR 4	Replaced by new Generic RR 4
Generic RR 5	Replaced by new Generic RR 5
B21-1	Revised as noted
B21-2	Revised as noted
B21-3	Added
B21-4	Added
C11-1	Replaced by new RR C11-1
C41-1	Replaced by new RR C41-1
E12-1	Deleted
E12-2	Replaced by new RR E12-2
E12-3	Added
E38-1	Deleted
E51-1	Added
E51-2	Added
P41-1	Added
P42-1	Added
P75-1	Replaced by new RR P75-1
P75-2	Added
P75-3	Added
P75-4	Added

RELIEF REQUEST (RR)  
VALVES

MODIFICATION

P75-5	Added
P81-1	Replaced by new RR P81-1
P81-2	Added

PUMPS

Generic RR 1	Deleted
C41-1	Revised as noted
C41-2	Added
E12-1	No change
E12-2	Added
E21-1	No change
E21-2	Added
E22-1	No change
E22-2	Added
P75-1	Replaced by new RR P75-1
P75-2	Added
P81-1	Replaced by new RR P81-1
P81-2	Added



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GENERIC RELIEF REQUEST 1

REV. 3  
SHEET 1 OF 1

SYSTEMS: As applicable

VALVES: Containment isolation valves and secondary containment isolation valves identified in GGNS Technical Specifications Tables 3.6.4-1 and 3.6.6.2-1

CATEGORY: As applicable

CLASS: As applicable

FUNCTION: As applicable to specific valves

TEST REQUIREMENTS: Paragraphs IWV-3417(b) and IWV-3523 of Section XI require that when corrective action is required as a result of tests made during cold shutdown, the condition shall be corrected before start-up.

BASIS FOR RELIEF: For those valves specified therein, the Limiting Conditions for Operation presently contained within the GGNS Technical Specifications provide the control by which valves and/or systems are declared inoperable. They also control entry into the various operational conditions. Further controls are not necessary for these valves. Valves not under the control of the GGNS Technical Specifications will be declared inoperable should they fail ISI testing.

ALTERNATIVE TESTING: The requirements contained within GGNS Technical Specifications will control plant operations and testing with regard to out-of-service valves. For valves not addressed in the GGNS Technical Specifications, any failures will cause the affected valve(s) to be declared inoperable and corrective action to be initiated as appropriate.

REPLACED BY NEW GENERIC RR 1

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GENERIC RELIEF REQUEST 1

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SYSTEMS: A11

VALVES: A11

CATEGORY: A11

CLASS: A11

FUNCTION: As Applicable

TEST REQUIREMENTS: Paragraphs IWV-3417(b) and IWV-3523 of Section XI state that when corrective action is required as a result of a test made during cold shutdown, the condition shall be corrected before start-up.

BASIS FOR RELIEF: GGNS Technical Specification Limiting Conditions for Operation and ASME Section XI provide the control by which valves and systems are declared inoperable. Technical Specifications also control entry into the various operational conditions. Failure to meet Section XI testing criteria should not, therefore, preclude plant start-up if Technical Specifications allow start-up with that particular component inoperable. Plant safety is assured by adherence to GGNS Technical Specifications.

ALTERNATIVE TESTING: The ability to conduct plant start-up shall be governed by GGNS Technical Specifications and not by Section XI, IWV-3417(b) and IWV-3523.



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GENERIC RELIEF REQUEST 2

REV. 4  
SHEET 1 OF 1

SYSTEMS: As applicable

VALVES: All <sup>Rapid acting</sup> ~~fast-acting~~ valves with ~~short~~-stroke times less than or equal to ~~5~~ <sup>2</sup> seconds. △ 4

CATEGORY: A, B

CLASS: As applicable

TYPE: As applicable

FUNCTION: As applicable to various valves

TEST REQUIREMENTS: Comparison of most recent stroke time measurement with that of previous test per IWV-3417(a)

BASIS FOR RELIEF: Rapid acting valves have stroke times of such short duration that comparison of measurements with previous data for specified percentage increases is not indicative of degrading valve performance. With measurement of stroke times to the nearest second per IWV-3413(b), a very small increase in stroke time will result in an extremely large percentage change. Verification that valves meet a specified maximum stroke time of short duration provides adequate assurance of operability.

ALTERNATIVE TESTING:

When stroke times of rapid acting valves are measured, the only criterion for determining acceptability will be the specified maximum stroke time ~~of 2 seconds~~. For valve stroke times exceeding 2 seconds, the requirements specified under IWV-3417 will be met.

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GENERIC RELIEF REQUEST 3

REV. 3  
SHEET 1 OF 1

SYSTEMS: As applicable

VALVES: All fail-safe valves denoted AFS under actuator type on the valve summary listing sheets

CATEGORY: As applicable

CLASS: As applicable

FUNCTION: As applicable

TEST REQUIREMENTS: ~~Paragraph IWV-3415 Section XI~~  
*FAIL SAFE VALVES SHALL BE TESTED BY OBSERVING THE VALVE OPERATION UPON LOSS OF ACTUATOR POWER (IWV-3415)*

BASIS FOR RELIEF: Valve that have a fail-safe requirement at GGNS will normally be cycled once every 92 days, unless otherwise relieved. This test will accomplish the intent of the fail-safe test, because normal valve movement is achieved by means of interrupting motive force to the valve.

ALTERNATIVE TESTING: Fail-safe provisions will be tested at the same frequency that the valve is operability tested, but not more often than once every 3 months.

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GENERIC RELIEF REQUEST 4

REV. 3  
SHEET 1 OF 1

SYSTEMS: As applicable

VALVES: All containment isolation valves

CATEGORY: A

CLASS: As applicable to specific valves

FUNCTION: Containment isolation

TEST REQUIREMENTS: Category A valves shall be tested in accordance with Section XI, Paragraph IWV-3420.

BASIS FOR RELIEF: Containment leakage rate testing is governed by 10 CFR 50 Appendix J and GGNS Technical Specifications, Section 3/4.6.1.2. Compliance with these requirements is described in FSAR Section 6.2.6. Leak rates for individual valves are not specified, but rather leak rate criteria are determined in GGNS Technical Specifications. This testing adequately assures the isolation capabilities of these valves.

ALTERNATIVE TESTING: Containment isolation valve leak testing (with the exception of identified pressure isolation valves) will be performed in accordance with FSAR Section 6.2.6.

REPLACED BY NEW GENERIC RR 4

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GENERIC RELIEF REQUEST 4

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SYSTEMS: As Applicable

VALVES: ~~Containment Isolation Valves Identified in GGNS Technical Specification Table 3.6.4-1~~

CATEGORY: A or A, C

CLASS: 1 or 2

FUNCTION: As Applicable

TEST REQUIREMENTS: Subarticle IWV-3420 requires that Category A valves be leak tested and that such tests shall be conducted at least once every 2 years. Methods for measuring the amount of seat leakage are specified. The test medium shall be specified by the owner.

BASIS FOR RELIEF: In accordance with GGNS Technical Specifications 4.5.1.2(d), (f), (g), (h), (i), and (j) and 4.6.1.9.2, containment isolation valves are required to be leak rate tested in accordance with 10 CFR 50, Appendix J, using the methods and provisions of ANSI N45.4-1972. The requirements and methods contained in Appendix J and ANSI N45.4 meet the intent of Section XI although the frequencies, requirements, and test methods are somewhat different. In addition, Appendix J specifies the test medium for each valve.

ALTERNATIVE TESTING: Leak testing of containment isolation valves shall be performed in accordance with GGNS Technical Specifications. Individual valve leakage permissibles shall be analyzed and corrective action taken in accordance with paragraphs IWV-3426 and IWV-3427 in addition to the requirements of GGNS Technical Specifications.



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GENERIC RELIEF REQUEST 5

REV. 3  
SHEET 1 OF 1

~~SYSTEMS: As applicable~~

~~VALVES: General~~

~~CATEGORY: As applicable~~

~~CLASS: As applicable~~

~~FUNCTION: As applicable~~

~~TEST REQUIREMENTS: Test equipment in accordance with Section XI frequency requirement.~~

~~BASIS FOR RELIEF: With one loop out of service in a system, it is not desirable to test the redundant loop per ISI requirements, because such testing may increase the chance of failure in a condition where back-up equipment is not available. Also, these situations will be governed by the GGNS Technical Specifications.~~

~~ALTERNATIVE TESTING: Testing will be suspended on equipment in an operable loop when there is a redundant loop out of service as governed by the GGNS Technical Specifications.~~

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GENERIC RELIEF REQUEST 5

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SYSTEMS: As Applicable

VALVES: As Applicable

CATEGORY: As Applicable

CLASS: As Applicable

FUNCTION: As Applicable

TEST REQUIREMENTS: ASME Section XI, Subsection IWP and IWV

BASIS FOR RELIEF: Numerous cold shutdowns of relatively short duration can occur between refueling outages. Section XI requirements cannot be allowed to govern the length of frequent cold shutdowns by commencing inservice testing each time. Also, sufficient time is needed to make scheduling arrangements, appropriate valve line-ups, and system adjustments prior to testing. Therefore, some time limit for the beginning of testing must be chosen.

ALTERNATIVE TESTING: Inservice testing shall commence no later than 48 hours after cold shutdown condition is achieved and will continue until all test are completed or the plant is ready to return to power. When planned shutdowns are long enough to complete all required testing, exception to this start time may be taken.



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RELIEF REQUEST B21-1: NUCLEAR BOILER SYSTEM

REV. 3  
SHEET 1 OF 1

VALVES: F010A (M-1077A,E-7)  
F010B (M-1077A,B-7)  
F032A (M-1077A,E-8)  
F032B (M-1077A,B-8)

CATEGORY: C

CLASS: 1

TYPE: Check

FUNCTION: Feedwater inboard and outboard isolation valves

TEST REQUIREMENTS: ~~Exercise every 3 months~~ *CHECK VALVES SHALL BE EXERCISED AT LEAST ONCE EVERY 3 MONTHS (IWW-3521).*

BASIS FOR RELIEF: To verify that check valves F010A and B and F032A and B move to the closed position would require stopping all flow to the vessel through the valve being tested. Since these lines complete the flow path to the vessel for the shutdown cooling mode of the residual heat removal system, the reactor core isolation cooling system, and the reactor water cleanup system, it is necessary to maintain flow path integrity in virtually all modes of plant operation. Only during extended outages such as refueling will it be possible to stop flow to the vessel through the valve being tested.

ALTERNATIVE TESTING: These check valves will be leak rate tested in the closed position each refueling.

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RELIEF REQUEST B21-2: NUCLEAR BOILER SYSTEM

REV. 3  
SHEET 1 OF 1

VALVES: F022A, F028A (M-1077A, G-5, G-3)  
F022B, F028B (M-1077A, D-5, D-4)  
F022C, F028C (M-1077A, C-5, C-4)  
F022D, F028D (M-1077A, A-5, A-4)

CATEGORY: A

CLASS: 1

TYPE: AFS GL

FUNCTION: Main steam isolation valves

TEST REQUIREMENTS: ~~Exercise every 3 months~~ *CATEGORY A VALVES SHALL BE EXERCISED ATLEAST ONCE EVERY 3 MONTHS (IWV-3411).*

BASIS FOR RELIEF: These valves are poppet-type globe valves for which leakage requirements are very stringent. Their design requires that steam be flowing across the seat during closing to prevent scoring of the valve seat.

ALTERNATIVE TESTING: Therefore, it is desirable to do full-stroke exercising during start-up from cold shutdown at approximately 600 psig. Partial stroking of the valve shall be performed every 92 days during power operation.

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RELIEF REQUEST B21-3:  
NUCLEAR BOILER SYSTEM

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VALVES: F041A (M-1077C, F-5); F047D (M-1077C, F-6)  
F041B (M-1077C, F-6); F047G (M-1077C, F-5)  
F041C (M-1077C, F-5); F047H (M-1077C, F-6)  
F041D (M-1077C, F-6); F047L (M-1077C, G-5)  
F041E (M-1077C, F-5); F051A (M-1077C, F-5)  
F041F (M-1077C, F-6); F051B (M-1077C, F-6)  
F041G (M-1077C, F-5); F051C (M-1077C, F-5)  
F041K (M-1077C, F-6); F051D (M-1077C, F-6)  
F047A (M-1077C, F-5); F051F (M-1077C, F-6)  
F047C (M-1077C, F-5); F051K (M-1077C, F-6)

CATEGORY: B, C

CLASS: 1

TYPE: Safety/Relief Valve

FUNCTION: Main Steam Relief Valve

TEST REQUIREMENTS: Category B valves shall be exercised at least once every 3 months (IWV-3411).

BASIS FOR RELIEF: The Category C test requirements are being met. However, the Category B requirement that the valves be exercised quarterly cannot be met. Opening these valves at power would cause unnecessary transients and should a valve fail in the open position, a LOCA would result. Also, the stroke time cannot be measured due to the rapid action and lack of position indication. Furthermore, it is desirable to stroke these valves only when steam is available to prevent scoring of the seats.

ALTERNATIVE TESTING: Valves will be relief mode (power mode) operability tested during start-up after refueling.



## RELIEF REQUEST B21-4: NUCLEAR BOILER SYSTEM

SHEET 1 OF 1

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VALVES:

F100A (M-1077C, D-2)	F100L (M-1077C, D-2)
F100B (M-1077C, D-2)	F100M (M-1077C, D-2)
F100C (M-1077C, D-2)	F100N (M-1077C, D-2)
F100D (M-1077C, G-2)	F100P (M-1077C, G-2)
F100E (M-1077C, D-2)	F100R (M-1077C, G-2)
F100F (M-1077C, G-2)	F100S (M-1077C, G-2)
F100G (M-1077C, D-2)	F100T (M-1077C, G-2)
F100H (M-1077C, G-2)	F100U (M-1077C, G-2)
F100J (M-1077C, G-2)	F100V (M-1077C, D-2)
F100K (M-1077C, D-2)	F100W (M-1077C, D-2)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: Safety/Relief valve bonnet vent line discharge vacuum breaker. Opens to prevent reverse flow of water in the SRV bonnet vent line discharge piping to the suppression pool due to negative pressure caused by condensation. Closed to prevent steam discharge to the drywell during SRV packing leakage.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: There are no downstream test connections with which to monitor flow or pressure. The location of the valve is such that the disc can be manually lifted from the seat and visually observed to return to the closed position.

ALTERNATIVE TESTING: Valves will be manually tested by gently lifting the disc from the seat by use of a 3/8 inch wooden dowel and visually observing that the disc returns to the closed position each cold shutdown and refueling, but not more often than once every 3 months.



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RELIEF REQUEST C11-1:  
CONTROL ROD DRIVE SYSTEM

REV. 3  
SHEET 1 OF 1

VALVES: 114, 115, 138 (M-1081B, G-3, F-6, F-5) 126, 127 (M-1081B; G-6, G-3)

CATEGORY: C, B

CLASS: 2

TYPE: Check and Globe

FUNCTION: Provide flow path from scram accumulator to scram discharge volume to effect control rod insertion on scram signal

TEST REQUIREMENTS: Exercise every 3 months

BASIS FOR RELIEF: This group of valves is found on each of 193 control rod drive hydraulic control units. Any variation in the operability of any valve will be reflected in the associated rod's scram insertion time. Scram testing and rod insertion timing is performed as required by GGNS Technical Specifications.

ALTERNATIVE TESTING: Scram testing and rod insertion timing will be performed in accordance with GGNS Technical Specifications, Section 4.1.3.2 (reactor coolant pressure at 950 psig or greater):

- For all control rods prior to exceeding 40 percent thermal power or after a shutdown longer than 120 hours.
- Following maintenance or modification to control rod or hydraulic control system
- On 10 percent of all control rods on a rotating basis at least once per 120 days.
- For leak testing at least once every 18 months per GGNS Technical Specifications, Section 4.1.3.3.

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REPLACED BY NEW RR C11-1

RELIEF REQUEST C11-1  
CONTROL ROD DRIVE SYSTEM

VALVES: 114, 115, 138 (M-1081B, G-3, F-6, F-5) 126, 127 (M-1081B; G-6, G-3)

CATEGORY: C, B

CLASS: 2

TYPE: Check and Globe

FUNCTION:

- 114 Prevents backflow from scram discharge header into CRD piping during scram conditions if a control valve or pipe failure occurred.
- 115 Prevent backflow of accumulator or reactor water into CRD system if the CRD Pumps are off.
- 138 Prevent backflow of reactor water into CRD System if the CRD Pumps are off.
- 127 Provide exhaust path from CRD to Scram Discharge volume during a scram.
- 128 Provide flow path from CRD Pumps and accumulators to CRD during a scram.

TEST REQUIREMENTS: Category B/C valves shall be exercised at least once every 3 months (IWV-3411 and IWV-3521).

BASIS FOR RELIEF: This group of valves is found on each of 193 control rod drive hydraulic control units. Any variation in the operability of any valve will be detected by the testing currently required by GGNS Technical Specifications.

ALTERNATIVE TESTING:

- 1) Scram testing and rod insertion timing will be performed in accordance with GGNS Technical Specifications, Section 4.1.3.2 (reactor coolant pressure greater than or equal to 950 psig and, during single control rod scram time tests, the control rod drive pumps isolated from the accumulators) which will verify proper operation of the 114, 127 and 128 valves:
  - a. For all control rods prior to thermal power exceeding 40% of rated thermal power following core alterations or after a reactor shutdown that is greater than 120 days,
  - b. For specifically affected individual control rods following maintenance on or modification to the control rod or control rod drive system which could affect the scram insertion time of those specific control rods, and
  - c. For at least 10% of the control rods, on a rotating basis, at least once per 120 days of power operation.

RELIEF REQUEST C11-1  
CONTROL ROD DRIVE SYSTEM

Page 2

ALTERNATIVE  
Testing Cont

2) Testing of the 138 valves will be accomplished by the individual rod scram time testing which will be performed on all rods after each refueling. This test requirement is more limiting than (1).c. in which any one rod is required to be tested only once each thirty months.

3) Testing of the 115 valves will be performed per Technical Specification 4.1.3.3.b.2<sub>x</sub> by securing the CRD pump and determining the time interval until the individual accumulator low pressure alarms occur.



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RELIEF REQUEST C41-1:  
STANDBY LIQUID CONTROL SYSTEM

REV. 3  
SHEET 1 OF 1

VALVES: F006, F007 (M-1082, E-7, E-8)

CATEGORY: C

CLASS: 1

TYPE: Stop check, check

FUNCTION: Drywell isolation; open for SLC injection

TEST REQUIREMENTS: Exercise every 3 months

EXPLANATION: To verify valve opening would require SLC injection, which is unacceptable during plant operation or cold shutdown.

ALTERNATIVE TESTING: Exercise once every 18 months per GGNS Technical Specifications surveillance requirements, Section 4.1.5(d).

REPLACED BY NEW RR C41-1

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RELIEF REQUEST C41-1: STANDBY LIQUID CONTROL SYSTEM

SHEET 1 of 1

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VALVES: F006, F007 (M-1082, E-7, E-8)

CATEGORY: C

CLASS: 1

TYPE: Stop check, check

FUNCTION: Drywell isolation; open for SLC injection

TEST REQUIREMENTS: Exercise every 3 months

BASIS FOR RELIEF: To verify valve opening requires SLC injection of demineralized water which would require firing of the squib valves and their subsequent replacement. Due to the lack of installed test connections, testing of the F007 check valve in the closed direction would require use of reactor pressure. Due to both personnel and plant safety considerations, this is not desirable.

ALTERNATIVE TESTING: These valves will be tested to the open position each refueling during SLC injection required by Technical Specifications. The required flowrate will be verified by monitoring the SLC test tank level change. F006 will be tested closed using its handwheel quarterly and F007 will be disassembled and inspected during each refueling outage.



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RELIEF REQUEST E12-1: RESIDUAL HEAT REMOVAL SYSTEM REV. 3  
SHEET 1 OF 1

~~VALVES: F098 (M-1061D,G-5)~~  
~~CATEGORY: C~~  
~~CLASS: 2~~  
~~TYPE: Check~~  
~~FUNCTION: Cross-connect standby service water to RHR system~~  
~~TEST REQUIREMENTS: Exercise every 3 months~~  
~~BASIS FOR RELIEF: To verify that check valve F098 moves to the open position would require flow from the standby service water system into the RHR system. Such a flow path will significantly degrade the water quality of the RHR system and the suppression pool. (The standby service water system is chemically treated to control the growth of algae.) Modifying the valve to accommodate an external disk exercising device has been investigated and found to be impractical. Disk movement verification using ultrasonic or radiographic equipment was also considered but found to be unacceptable. These methods would also require flow and, therefore, would introduce chemically active and poor quality water into the RHR system and suppression pool.~~

ALTERNATIVE TESTING:

Initially disassemble check valve when RHR Loop B is depressurized and drained during the first regularly scheduled refueling outage. Subsequent valve disassemblies will be determined from the results of the initial valve disassembly.

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UNIT 1



INSERVICE INSPECTION PROGRAM  
PUMP AND VALVE

RELIEF REQUEST E12-2: RESIDUAL HEAT REMOVAL SYSTEM

REV. 3  
SHEET 1 OF 1

~~VALVES: F103A, F103B (M-1085B,D-7; M1085A,C-4)  
 F104A, F104B (M-1085B,D-7; M1085A,C-4)  
 CATEGORY: C, A  
 CLASS: 2  
 TYPE: Stop check  
 FUNCTION: Vacuum breaker check valves on the discharge line from the  
 RHR heat exchanger relief valves  
 TEST REQUIREMENTS: Exercise every 3 months  
 BASIS FOR RELIEF: These valves cannot be tested closed. There are no test  
 connections between the valves and the suppression pool.  
 ALTERNATIVE TESTING: These valves will be disassembled and their discs examined  
 for free movement every refueling outage.~~

REPLACED BY NEW RR E12-2

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RELIEF REQUEST E12-2: RESIDUAL REMOVAL SYSTEM

SHEET 1 OF 1

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VALVES: F103A, F104A (M-1085B, D-7, D-7)  
F103B, F104B (M-1085A, C-4, C-4)

CATEGORY C, A

CLASS: 2

TYPE: Stop Check

FUNCTION: Vacuum breaker check valves on RHR steam condensing line, relief valve discharge line to the suppression pool.

TEST REQUIREMENT: Exercise every 3 months

BASIS FOR RELIEF: There is no feasible method for testing these valves in the open direction. There are no downstream test connections where a vacuum gauge could be installed or where pressurized air flow could be observed. Pressurizing the lines to a pressure at which air bubbles could be observed in the suppression pool would require a test pressure well in excess of the expected operating differential pressure and in any case would be a leak test rather than an operational test.

In addition, due to the Humphrey Issue concerning suppression pool heat loading, GCNS is not allowed to use the steam condensing mode of RHR. Therefore, these valves will not be required to function in the open direction until the Humphrey Issue is resolved.

ALTERNATIVE TESTING: These valves will not be tested to the open position until the Humphrey Issue is resolved and the steam condensing mode of RHR is required to be operable. If the operability of the steam condensing mode becomes a requirement, these valves will be disassembled during each refueling outage.

In addition, these valves will be tested closed at the normal quarterly frequency.

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VALVES: F273 (M-1085A, B-5)  
F274 (M-1085B, D-5)  
F278 (M-1085A, C-5)

CATEGORY C

CLASS: 2

TYPE: Stop Check

FUNCTION: Open to allow jockey pump minimum cooling flow.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: No accurate means exist to verify that the valve is full open (i.e., passing the required safety flow). There are no flow elements or flow points installed in the RHR jockey pump minimum flow lines.

ALTERNATIVE TESTING: Valves will be disassembled during each refueling outage.  
*The requirements for subsequent valve disassemblies will be determined from the results of the initial valve disassembly.*



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RELIEF REQUEST E38-1:  
FEEDWATER LEAKAGE CONTROL SYSTEM

REV. 3  
SHEET 1 OF 1

E38-1 VALVES: F002A (M-1112, F-6)  
F002B (M-1112, E-6)  
F003A (M-1112, C-6)  
F003B (M-1112, B-6)

CATEGORY: C

CLASS: 2

TYPE: Stop Check

FUNCTION: Closed to feedwater pressure, open to control feedwater leakage following isolation valve closure.

TEST REQUIREMENTS: Exercise every 3 months

BASIS FOR RELIEF: To pass flow through the check valve, to demonstrate opening, would require an interruption of feedwater, RHR, and RWCU, which all tie together downstream of subject check valve. This would put the plant in an unsafe condition.

ALTERNATE TESTING: Exercise during refueling

*REPLACED BY COMMENT E38-2*

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RELIEF REQUEST E51-1: REACTOR CORE ISOLATION COOLING SYSTEM

SHEET 1 OF 1

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VALVES: F030 (M-1083A, B-5)

CATEGORY: C

CLASS: 2

TYPE: Check

FUNCTION: Suction check valve from the suppression pool prevents flow from the Condensate Storage Tank (CST) to the suppression pool if RCIC system were secured with the suppression pool suction valve (F031) open.

TEST REQUIREMENTS: Exercise every 3 months

BASIS FOR RELIEF: To test this valve open with full flow through the valve would require pumping suppression pool water to the CST which would contaminate the CST. (There is no test return line to the suppression pool for the RCIC system). Passing flow back to the suppression pool through the minimum flow line would at most pass only 10% of full flow through the valve.

ALTERNATIVE TESTING: The valve will be disassembled and its disk examined for free movement during each refueling outage. The valve will be tested closed at the code required frequency.

*same sentence as E 12-3*

RELIEF REQUEST E51-2: REACTOR CORE ISOLATION COOLING

SHEET 1 OF 1

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VALVES: F065 (M-1083A, F-7)

CATEGORY: C

CLASS: 2

TYPE: Check

FUNCTION: Prevent reverse feedwater flow open for RCIC injection.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IYW-3520).

BASIS FOR RELIEF: To test this valve would require RCIC injection at power conditions. This is undesirable for the following reasons:

- Injection of relatively cold water from the CST would cause thermal stresses on RCIC and feedwater piping.
- Injection of oxygenated water from the CST would result in an increase in reactor oxygen levels which would lead to increased radiation levels and corrosion rates.
- RCIC suction line flued heads in the auxiliary building penetrations have a low temperature limit of 60°F.

This limit could be violated during cold weather conditions as the CST is outdoors.

ALTERNATIVE TESTING: Exercise within 14 days after exceeding 135 psig reactor pressure when returning to power upon completion of refueling.

RELIEF REQUEST P41-1: STANDBY SERVICE WATER SYSTEM

SHEET 1 of 1

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VALVES: F174 (M-1061D, H-3)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: Prevent backflow from the Standby Service Water System to the Turbine Building Cooling Water System.

TEST REQUIREMENT: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: Testing this valve closed by use of an upstream test connection would require either securing all plant air compressors or switching the source of cooling to construction water which would necessitate a temporary alteration of the system.

ALTERNATIVE TESTING: Valve will be disassembled and its disk examined for free movement during each refueling outage.

RELIEF REQUEST P42-1: COMPONENT COOLING WATER

SHEET 1 OF 1

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VALVES: F200A (M-1063A, G-3)  
F200B (M-1063A, F-4)  
F201A (M-1063A, F-8)  
F201B (M-1063A, E-7)

CATEGORY: B

CLASS: 3

TYPE: Motor operated butterfly

FUNCTION: Isolate the spent fuel pool heat exchangers from the standby service water system.

TEST REQUIREMENTS: Category B valves shall be exercised at least once every 3 months (IYW-3411).

BASIS FOR RELIEF: These valves are required by a license condition to be locked closed. This is because the SSW system is not capable of providing sufficient flow for the fuel pool heat exchangers.

ALTERNATIVE TESTING: These valves will be verified to be locked closed every 31 days as required by Technical Specification 4.7.1.1(a)(2). No other testing will be performed until system modifications are made to provide sufficient flowrate capability. These modifications are scheduled for the first refueling outage.



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RELIEF REQUEST P75-1:  
STANDBY DIESEL GENERATOR SYSTEM

REV. 4  
SHEET 1 OF 1

VALVES: All auxiliary system components except starting air storage tank relief valves (M-1070A, B, C, D)

CATEGORY: B, C

CLASS: 3

TYPE: Gate, globe, check, stop check, automatic vent, 3-way, relief valve

FUNCTION: Valves for which relief is sought are found in the following standby diesel generator auxiliary systems: compressed air, fuel oil, jacket water, and lube oil.

TEST REQUIREMENTS: Exercise-test every 3 months

BASIS FOR RELIEF: These auxiliary systems (and their components) are an integral part of the standby diesel generator system. They are, therefore, operability tested every 31 days (or less) on a staggered test basis (refer to GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1).

At the least frequent interval referenced above, standby diesel generator auxiliary system components are tested more often than required by ASME Section XI. The failure of any of those valves to perform any intended function will be immediately identified by the failure of the associated diesel generator to meet the appropriate GGNS Technical Specifications.

ALTERNATIVE TESTING: Operability test every 31 days (or less) on a staggered test basis in accordance with GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1.



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RELIEF REQUEST P75-1:  
STANDBY DIESEL GENERATOR SYSTEM

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VALVES: F507A, B (M-1070C, D-6, D-6)  
F507C, D (M-1070D, D-6, D-6)  
F508A, B (M-1070C, C-5, D-6)  
F508C, D (M-1070D, C-5, D-6)

CATEGORY: B

CLASS: 3

TYPE: Solenoid Operated Gate Valves

FUNCTION: Start/Stop diesel starting air flow

TEST REQUIREMENTS: Category B valves shall be exercised at least once every 3 months (IWV-3411) and the stroke time measured (IWV-3413[b])

BASIS FOR RELIEF: These valves are rapid acting (stroke time is less than 2 seconds) and have neither local nor remote position indication.

ALTERNATIVE TESTING: The diesel will be rolled using each air line individually. This will prove that the valve opens. The diesel will also be started using only one starting air subsystem (two starting air lines) per Technical Specification 4.8.1.1.2(a)4 which states:

Verify the diesel starts from ambient condition and accelerates to at least 441 rpm for diesel generators 11 and 12 and 882 rpm for diesel generator 13 in less than or equal to 10 seconds. The generator voltage and frequency shall be  $4160 \pm 416$  volts and  $60 \pm 1.2$  Hz within 10 seconds after the start signal. The diesel generator shall be started for this test by using one of the following signals:

- a) Manual.
- b) Simulated loss of offsite power by itself.
- c) Simulated loss of offsite power in conjunction with an ESF actuation test signal.
- d) An ESF actuation test signal by itself.

RELIEF REQUEST P75-1:  
STANDBY DIESEL GENERATOR SYSTEM

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ALTERNATIVE  
TESTING (CONT'D)

If the diesel ~~begins to roll within 2 seconds of a start-~~  
~~signal and reaches rated speed and voltage within~~  
10 seconds, the two starting air valves will have been  
demonstrated to have stroked ~~within their maximum limit-~~  
~~of 2 seconds~~ and passed full safety flow.

RELIEF REQUEST P75-2: STANDBY DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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VALVES: F077A (M-1070C, G-5) F077B (M-1070D, G-6)  
F078A (M-1070C, G-5) F078B (M-1070D, H-6)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: F077A/B open to allow discharge from the engine driven fuel oil booster pumps.  
F078A/B close to prevent short cycling of the engine driven fuel oil booster pump discharge back to the fuel oil day tank through the auxiliary fuel oil pump.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: It is not possible with the current diesel engine design to individually test these valves. However, if the indicated engine driven fuel oil pump discharge pressure is normal and if the auxiliary fuel oil pump is not operating, then this verifies F077A/B to be open and F078A/B to be closed.

ALTERNATIVE TESTING: F077A/B will be verified open and F078A/B will be verified closed during diesel engine operability testing by observing proper engine driven pump discharge pressure when the auxiliary fuel oil pump is not operating.

RELIEF REQUEST P75-3: STANDBY DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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VALVES: F045A (M-1070A, D-4) F045B (M-1070B, D-4)  
F050A (M-1070A, F-3) F050B (M-1070B, F-3)  
F059A (M-1070A, E-5) F059B (M-1070B, E-5)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: F059A/B open to allow discharge from the engine driven lube oil pumps.

F045A/B close to prevent short cycling of the engine driven lube oil pump discharge back to the lube oil sump tank.

F050A/B open to allow suction flow to the engine driven lube oil pumps and close to prevent draining of the lube oil suction piping to the lube oil sump tank.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IMV-3520).

BASIS FOR RELIEF: It is not possible with the current diesel engine design to individually test these valves. However, if the indicated engine driven lube oil pump discharge pressure is normal and if the auxiliary lube oil pump is not operating, then this verifies F050A/B to be open and F045A/B to be closed. This also verifies that F050A/B had been closed prior to operation since the suction line had to have been filled for the pump to take suction.

ALTERNATIVE TESTING: F050A/B and F059A/B will be verified open and F045A/B will be verified closed by observing proper lube oil pump discharge pressure during diesel operability testing when the auxiliary lube oil pump is not operating. This will also verify that F050A/B had been closed prior to starting the diesel.

RELIEF REQUEST P75-4: STANDBY DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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VALVES: F080A (M-1070C, E-4) F080B (M-1070D, E-4)  
F094A (M-1070A, F-3) F094B (M-1070B, F-3)  
F095A (N-1070C, D-5) F095B (M-1070D, D-5)  
F096A (M-1070C, E-4) F096B (M-1070D, E-4)  
F097A (M-1070C, D-5) F097B (M-2070D, D-5)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: F080A/B and F095A/B open to permit flow from engine lube oil inlet strainer to the main lube oil loop.

F094A/B close to prevent short cycling of engine driven lube oil pump through the pre-lube filter and lube oil heater pump back to the lube oil sump tank.

F096A/B and F097A/B open to permit flow from engine lube oil strainer to the turbocharger.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: It is not possible with the present diesel engine design to individually test these valves. However, F080A/B and F095A/B can be verified open and F094A/B verified closed by observing proper main lube oil loop pressures while the auxiliary lube oil pump is secured. F096A/B and F097A/B can be verified open/closed by observing proper turbocharger oil inlet pressure with oil flow lined up to left side/right side inlet strainers.

ALTERNATIVE TESTING: F080A/B and F095A/B will be verified open and F094A/B will be verified closed by observing proper main lube oil loop pressures while the auxiliary lube oil pump is secured.

F096A/B and F097A/B will be verified open and closed by observing proper turbocharger oil inlet pressure with oil flow lined up to first one side, and then the other side, inlet strainers.

RELIEF REQUEST P75-5: STANDBY DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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VALVES: F007A (M-1070A, B-4) F007B (M-1070B, B-4)  
F034A (M-1070A, C-4) F034B (M-1070B, C-4)  
F038A (M-1070A, C-3) F038B (M-1070B, C-4)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: F007A/B open to allow discharge from the engine driven jacket water pumps. F034A/B close to prevent short cycling of engine driven jacket water discharge back to the jacket water standpipe through the auxiliary jacket water pump. F038A/B perform the same function for the jacket water heater circulation pump.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: It is not possible with the present diesel engine design to individually test these valves. However, if indicated engine driven jacket water pump discharge pressure is normal and if the auxiliary jacket water pump is not operating, then this verifies F007A/B to be open and F034A/B and F038A/B to be closed.

ALTERNATIVE TESTING: F007A/B will be verified open and F034A/B and F038A/B will be verified closed during diesel engine operability testing by observing proper engine driven pump discharge pressure when the auxiliary jacket water pump is not operating.



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RELIEF REQUEST P81-1:  
HPCS DIESEL GENERATOR SYSTEM

REV. 4  
SHEET 1 OF 1

VALVES: All auxiliary system components EXCEPT starting air storage tank relief valves (M-1093A, B, C)

CATEGORY: B, C

CLASS: 3

TYPE: Gate, globe, check, stop check, automatic vent, 3-way, relief valve

FUNCTION: Valves for which relief is sought are found in the following HPCS diesel generator auxiliary systems: compressed air, fuel oil, jacket water, and lube oil.

TEST REQUIREMENTS: Exercise-test every 3 months

BASIS FOR RELIEF: These auxiliary systems (and their components) are an integral part of the HPCS diesel generator system. They are, therefore, operability tested every 31 days (or less) on a staggered test basis (refer to GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1).

At the least frequent interval referenced above, HPCS diesel generator auxiliary system components are tested more often than required by ASME Section XI. The failure of any of those valves to perform any intended function will be immediately identified by the failure of the associated diesel generator to meet the appropriate GGNS Technical Specifications.

ALTERNATIVE TESTING:

Operability test every 31 days (or less) on a staggered test basis in accordance with GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1.

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RELIEF REQUEST P81-1:  
HPCS DIESEL GENERATOR SYSTEM

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VALVES: F503A, F504A (M-1093B, D-4, B-4)  
F503B, F504B (M-1093C, D-6, C-6)

CATEGORY: 8

CLASS: 3

TYPE: Solenoid operated gate valves

FUNCTION: Start/Stop diesel starting air flow

TEST REQUIREMENTS: Same as Relief Request P75-1

BASIS FOR RELIEF: Same as Relief Request P75-1

ALTERNATIVE  
TESTING: Same as Relief Request P75-1



RELIEF REQUEST P81-2: HPCS DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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VALVES: F059A, F060A (M-1093B, D-2)  
F059B, F060B (M-1093C, D-8)

CATEGORY: C

CLASS: 3

TYPE: Check

FUNCTION: F059A/B open to allow engine driven oil flow to the turbochargers, closes to prevent short cycling of soakback pump flow.

F060A/B open to allow soakback pump discharge flow to the turbochargers, closes to prevent short cycling of engine driven oil flow through the soakback pump.

TEST REQUIREMENTS: Check valves shall be exercised at least once every 3 months (IWV-3520).

BASIS FOR RELIEF: It is not possible with the present diesel engine design to individually test these valves. However, F059A/B can be verified open and F060A/B can be verified closed by observing proper turbocharger inlet oil pressure when the engine is running and the soakback pump is secured.

ALTERNATIVE TESTING: F059A/B will be verified open and F060A/B will be verified closed during HPCS diesel engine operability testing by observing proper turbocharger inlet lube oil pressure when the soakback pump is not operating.



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GENERIC RELIEF REQUEST 1



REV. 3  
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SYSTEMS:	As applicable
PUMPS:	General
CATEGORY:	As applicable
CLASS:	As applicable
FUNCTION:	As applicable
TEST REQUIREMENTS:	Test equipment in accordance with Section XI frequency requirements
BASIS FOR RELIEF:	With one loop out of service in a system, it is not desirable to test the redundant loop per ISI requirements, because such testing may increase the chance of failure in a condition where back-up equipment is not available. Also, these situations will be governed by the GGNS Technical Specifications.
ALTERNATIVE TESTING:	Testing will be suspended on equipment in an operable loop when there is a redundant loop out of service as governed by the GGNS Technical Specifications.

*DELETED*

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RELIEF REQUEST C41-1:  
STANDBY LIQUID CONTROL SYSTEM

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PUMPS: C001A-A and C001B-B (M-1082, D-5, E-5)

CLASS: 2

FUNCTION: Injection of standby liquid into the reactor pressure vessel upon ~~LOCA~~ LOSS OF REACTIVITY CONTROL.

TEST REQUIREMENT: Measure inlet pressure prior to and during pump test and measure pump delta-p during pump test.

BASIS FOR RELIEF: Positive displacement pumps are not affected by changes in suction pressure, i.e., changes in suction pressure will not affect developed discharge pressure.

ALTERNATIVE TESTING: Utilize pump discharge pressure reading in lieu of pump inlet and delta-p measurement once pump has been started for pump test.

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RELIEF REQUEST C41-2: STANDBY LIQUID CONTROL SYSTEM

SHEET 1 OF 1

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PUMPS: C001A-A and C001B-B (M-1082, D-5, E-5)

CLASS: 2

FUNCTION: Injection of standby liquid control (SLC) into the reactor pressure vessel upon loss of reactivity control.

TEST REQUIREMENT: Measure pump flowrate during testing.

BASIS FOR RELIEF: There is no installed flow instrumentation with which to measure flow.

ALTERNATIVE TESTING: Pump flowrate will be tested by monitoring the SLC test tank level drop.



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RELIEF REQUEST E12-1:  
RESIDUAL HEAT REMOVAL SYSTEM

REV. 3  
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PUMPS: C003C-B (M-1085A, C-6)  
C003A-A (M-1085B, C-4)  
C003B-B (M-1085A, A-7)

CLASS: 2

FUNCTION: These jockey pumps operate continuously during normal plant operation to keep the main ECCS pump discharge piping full of water.

TEST REQUIREMENTS: Measure inlet pressure, differential pressure, flow rate, vibration amplitude, and bearing temperature every 3 months.

BASIS FOR RELIEF: The jockey pumps' function is to keep the main ECCS pump discharge piping full of water until the main ECCS pump is started. The listed ECCS pumps operate continuously whenever their respective ECC systems are in operable condition; therefore, the assessment of operation readiness of these pumps is not required. Adequate means exist to verify that these pumps are continuously performing their required function. Each jockey pump is provided with continuous indication of operation via lights in the Control Room. The pressure in the jockey pump discharge piping is continuously monitored, and an annunciator alarms in the Control Room if the discharge pressure drops below a preset value. By GGNS Technical Specification Section 4.5.1.a.1, operators are required to verify every 31 days that the main ECCS pump discharge piping is filled with water by venting the piping at a high point vent.

ALTERNATIVE TESTING:

No alternative testing is considered necessary. Vibration amplitude and bearing temperature will continue to be measured on these pumps as required by ASME Section XI.

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RELIEF REQUEST E12-2: RESIDUAL HEAT REMOVAL SYSTEM

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PUMPS: C002A (M-1085B, B-4)  
C002B (M-1085A, B-7)  
C002C (M-1085A, C-7)

CLASS: 2

FUNCTION: Provide emergency water makeup in the event of a LOCA

TEST REQUIREMENTS: Measure inlet pressure, differential pressure flowrate, vibration amplitude, and bearing temperature every 3 months.

BASIS FOR RELIEF: ASME Section XI, Article IWP-4310 states, "The temperature of all centrifugal pump bearings outside the main flow path...shall be measured at points selected to be responsive to changes in the temperature of the bearing..." All of the lower bearings are, therefore, exempt from testing. However, this is not true of the upper pump bearing which is above the main flow path. It is not possible with the present pump design to measure the upper pump bearing temperature as there are no thermocouple leads into the bearing and the nearest point at which a portable contact pyrometer could be used is outside the bearing cavity and more than 6 inches from the bearing.

ALTERNATIVE TESTING: No alternative bearing temperature testing method is possible with the present pump design. Inlet pressure, differential pressure, flowrate, and vibration amplitude will continue to be tested as required by ASME Section XI.



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REV. 3  
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RELIEF REQUEST E21-1:  
LOW PRESSURE CORE SPRAY SYSTEM

PUMPS: C002-A (M-1087, E-6)  
CLASS: 2  
FUNCTION: Same as E12C003C-B  
TEST REQUIREMENTS: Same as E12C003C-B  
BASIS FOR RELIEF: Same as E12C003C-B  
ALTERNATIVE TESTING: Same as E12C003C-B

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RELIEF REQUEST E21-2: LOW PRESSURE CORE SPRAY SYSTEM

SHEET 1 OF 1

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PUMPS: E21-C001A (M-1087, D-3)

CLASS: 2

FUNCTION: Main LPCS pump. Provide flow for system operation.

TEST REQUIREMENTS: Same as E12-C002

BASIS FOR RELIEF: Same as E12-C002

ALTERNATIVE  
TESTING: Same as E12-C002





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REV. 3  
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RELIEF REQUEST E22-1:  
HIGH PRESSURE CORE SPRAY SYSTEM

PUMPS: C003-C (M-1086, C-6)  
 CLASS: 2  
 FUNCTION: Same as E12C003C-B  
 TEST REQUIREMENTS: Same as E12C003C-B  
 BASIS FOR RELIEF: Same as E12C003C-B  
 ALTERNATIVE TESTING: Same as E12C003C-B

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RELIEF REQUEST E22-2: HIGH PRESSURE CORE SPRAY SYSTEM

SHEET 1 OF 1

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PUMPS: E22-C001C (M-1086, E-6)  
CLASS: 2  
FUNCTION: Main HPCS pump. Provide flow for system operation.  
TEST REQUIREMENTS: Same as E12-C002  
BASIS FOR RELIEF: Same as E12-C002  
ALTERNATIVE TESTING: Same as E12-C002



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RELIEF REQUEST P75-1:  
STANDBY DIESEL GENERATOR SYSTEM

REV. 3  
SHEET 1 OF 1

~~PUMPS: C002A-A (M-1070A, G-7)  
C002B-B (M-1070B, G-7)  
C003A-N (M-1070A, G-4)  
C003B-N (M-1070B, G-4)~~

~~CLASS: 3~~

~~TYPE: Centrifugal, positive displacement, gear~~

~~FUNCTION: Pumps for which relief is sought are found in the fuel oil auxiliary system.~~

~~TEST REQUIREMENTS: Test every 3 months~~

~~BASIS FOR RELIEF: These auxiliary systems (and their components) are an integral part of the standby diesel generator system. They are therefore operability tested every 31 days (or less) on a staggered test basis (refer to GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1).~~

~~At the least frequent interval referenced above, standby diesel generator auxiliary system components are tested more often than required by ASME Section XI. The failure of any of these pumps to perform any intended function will be immediately identified by the failure of the associated diesel generator to meet the appropriate GGNS Technical Specifications.~~

~~ALTERNATIVE TESTING: Operability test every 31 days (or less) on a staggered test basis in accordance with GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1.~~

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RELIEF REQUEST P75-1: STANDBY DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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PUMPS: CO02A, B (M-1070A, G-7, M-1070B, G-7)

CLASS: 3

TYPE: Centrifugal

FUNCTION: Fuel Oil transfer pumps. Transfer fuel oil from the storage tank to the day tank.

TEST REQUIREMENTS: Measure inlet pressure, discharge pressure, differential pressure, flowrate, vibration amplitude, and bearing temperature every 3 months.

BASIS FOR RELIEF: These pumps are submerged in the storage tank and are, therefore, inaccessible for measuring pump vibration and bearing temperature.

ALTERNATIVE TESTING: No alternative vibration or bearing temperature testing is possible with current plant design. Pressure and flowrate will be measured as required by ASME Section XI.

RELIEF REQUEST P75-2: STANDBY DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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PUMPS: C002A, B (M-1070A, G-7, M-1070B, G-7)

CLASS: 3

TYPE: Centrifugal

FUNCTION: Fuel oil transfer pumps. Transfer fuel oil from the storage tank to the day tank.

TEST REQUIREMENTS: Measure inlet pressure, discharge pressure, differential pressure, flow rate, vibration amplitude, and bearing temperature once every 3 months.

BASIS FOR RELIEF: There is no installed flow instrumentation with which to measure flowrate.

ALTERNATIVE TESTING: The flowrate will be observed by monitoring the level change in the day tank when transferring fuel oil to the day tank with the diesel engine shut down.



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RELIEF REQUEST P81-1:  
HPCS DIESEL GENERATOR SYSTEM (M-1093A, B, C)

REV. 3  
SHEET 1 OF 1

~~PUMPS: C001-C (1093A, B-4)  
C004A-C (1093B, B-4)  
C004B-C (1093C, B-6)  
C005A-C (1093B, C-5)  
C005B-B (1093C, D-5)~~

~~CLASS: 3~~

~~TYPE: Centrifugal, positive displacement, gear~~

~~FUNCTION: Pumps for which relief is sought are found in the following HPCS diesel generator auxiliary systems: fuel oil and lube oil.~~

~~TEST REQUIREMENTS: Test every 3 months~~

~~BASIS FOR RELIEF: These auxiliary systems (and their components) are an integral part of the HPCS diesel generator system. They are therefore operability tested every 31 days (or less) on a staggered test basis (refer to GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1).~~

At the least frequent interval referenced above, HPCS diesel generator auxiliary system components are tested more often than required by ASME Section XI. The failure of any of these pumps to perform any intended function will be immediately identified by the failure of the associated diesel generator to meet the appropriate GGNS Technical Specifications.

ALTERNATIVE  
TESTING:

Operability test every 31 days (or less) on a staggered test basis in accordance with GGNS Technical Specifications, Sections 4.8.1.1.2 and 4.8.1.2, and Table 4.8.1.1.2-1.

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RELIEF REQUEST P81-1: HPCS DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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PUMPS: CO01C (M-1093A, B-4)  
CLASS: 3  
TYPE: Centrifugal  
FUNCTION: Same as Relief Request P75-1  
TEST REQUIREMENTS: Same as Relief Request P75-1  
BASIS FOR RELIEF: Same as Relief Request P75-1  
ALTERNATIVE TESTING: Same as Relief Request P75-1

RELIEF REQUEST P81-2: HPCS DIESEL GENERATOR SYSTEM

SHEET 1 OF 1

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PUMPS: CO01C, (M-1093A, B-4)  
CLASS: 3  
TYPE: Centrifugal  
FUNCTION: Same as Relief Request P75-2  
TEST REQUIREMENTS: Same as Relief Request P75-2  
BASIS FOR RELIEF: Same as Relief Request P75-2  
ALTERNATIVE TESTING: Same as Relief Request P75-2