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HL-2236
003505

June 5, 1992

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
SECOND 10-YEAR INSPECTION INTERVAL
IST PROGRAM SAFETY EVALUATION

Gentlemen:

By letter dated December 10, 1991, the NRC transmitted a Safety Evaluation (SE) on Georgia Power Company's (GPC's) Second 10-Year Inspection Interval IST Program. The SE concluded the IST program is acceptable for implementation provided the items identified in Appendix A of the SE are addressed within the time frame specified.

By letter dated May 27, 1992, GPC submitted a proposed schedule for addressing the Appendix A items which have been categorized into three tables. Table 1 included items for which GPC is in agreement with the SE. Table 2 included items for which GPC proposes to submit additional justification, and Table 3 included items which GPC intends to evaluate and provide a response by November 17, 1992.

In accordance with the submitted schedule, Enclosure 1 provides a response for the seven items included in Table 1. Enclosure 2 provides additional justification for the thirteen items included in Table 2. Copies of the revised relief requests reflecting the proposed changes are also enclosed.

Additionally, Enclosure 3 provides three relief requests proposed for addition to the IST program. Two of the relief requests (RR-V-42 and RR-V-43) are proposed to address special testing circumstances at Plant Hatch. Relief request RR-V-44 is proposed as the result of the telephone conference call on April 16, 1992.

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GPC will implement the appropriate IST program changes, as required, within 6 months of receipt of an NRC response. Should you have any questions in this regard, please contact this office.

Sincerely,

J. T. Beckham, Jr.

JKB/cr

Enclosures

cc: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

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Mr. S. D. Ebneter, Regional Administrator
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003505

ENCLOSURE 1

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
TABLE 1 ITEMS FROM APPENDIX A

ENCLOSURE 1

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DPR-57, NPF-5
TABLE 1 ITEMS FROM APPENDIX A

Background

Enclosure 1 provides a summary listing and GPC's response to the 7 items from Appendix A of the IST Program Safety Evaluation (SE) categorized by GPC as Table 1 items. Table 1 includes the Appendix A items for which GPC agrees with the SE.

Appendix A Item Number	GPC Response
A3	Item A3 concerned the status of an interim Relief Request, dated 10/8/90, regarding the use of vibration instruments that did not meet the calibration accuracy requirements of ASME Section XI. The interim relief was effective until 1/1/91. New instruments meeting the accuracy requirements are now used at Plant Hatch. As the interim relief has expired and is no longer required, no further actions are required.
A6	Relief Request RR-V-2 contained a typographical error. Valve 1E51-F007 was incorrectly referenced as 1E51-F016. The Relief Request has been revised accordingly and is attached to Enclosure 1.
A10	Relief Request RR-V-39 did not provide the closing time for the scram discharge valve (SDV) vent and drain valves and incorrectly described the operation of valves 1(2) C11-F011. The Relief Request has been revised to provide the correct information and is attached to Enclosure 1. Additional revisions to Relief Request RR-V-39 may be required depending on the final testing technique selected for the SDV vent and drain valves.
A12	Relief Request RR-V-26 specified an incorrect ASME Section XI category for the hydraulic control unit (HCU) accumulator charging water check valves. The Relief Request has been revised to correctly categorize these values as category C. A copy is attached to Enclosure 1.

TABLE 1 ITEMS FROM APPENDIX A

Item Number	GPC Response
A19	Cold shutdown justification CS-7 referenced only the high pressure coolant injection (HPCI) system but included justification for both HPCI and the reactor core isolation cooling (RCIC) system. The cold shutdown justification has been revised to reference both HPCI and RCIC. A copy is attached to Enclosure 1.
A22	Relief Request RR-V-20 specified an incorrect ASME Section XI category for the plant service water (PSW) emergency core cooling system (ECCS) room coolers air operated valves (AOV). The Relief Request has been revised to correctly categorize these valves as category B. A copy is attached to Enclosure 1.
A29	Item A29 concerned the need to submit a Relief Request for pressure testing the core spray pump minimum flow line check valves. GPC proposes to verify valve closure capability by the use of disassembly because verification by flow or pressure measurement is not practical. Relief Request RR-V-21 is attached to Enclosure 1.

ATTACHMENT TO ENCLOSURE 1

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DRP-57, NPF-5

RELIEF REQUEST

RR-V-2

SYSTEM: NA

VALVE(S): B21-F016 E41-F002 E51-F007
2B21-F016 2E41-F002 2E51-F007

CATEGORY: A

CLASS: 1 and 2

FUNCTION: NA

TEST REQUIREMENT: IWV-3423(d) requires that gate valves that have a functional differential pressure greater than 15 psi be tested for leakage in the same direction as when the valve is performing its function.

BASIS FOR RELIEF: The correct direction is to pressurize from the inboard side of the valve; however, the piping on the inboard side runs directly from the valve to the reactor vessel and cannot be pressurized for testing.

ALTERNATE TESTING: These containment isolation valves will be leak rate tested in the reverse direction as addressed in the containment leak rate test program for Type C leakage te[illegible]

RELIEF REQUEST

RR-V-39

SYSTEM: CRD

VALVE(S): C11-F010A&B, C11-F011, C11-F035A&B, C11-F037
2C11-F010A&B, 2C11-F011, 2C11-F035A&B, 2C11-F037

CATEGORY: B

CLASS: 2

FUNCTION: Scram discharge volume vent and drain valves

TEST REQUIREMENT: Establish limiting values of valve stroke time and measure individual valve stroke time per IWV-3413.

BASIS FOR RELIEF: A limiting value of stroke time can be specified for the scram discharge volume vent and drain valves and they cannot be individually stroked and timed. In order to prevent water hammer induced damage to the system during a full CRD scram, plant Technical Specifications require that system valve operation is adjusted so that the outboard vent and drain valves (F035A&B, F037) fully close at least five seconds after each respective inboard vent and drain valve (F010A&B, F011). All valves must be fully closed in less than forty-five (45) seconds for Unit 1 and sixty (60) seconds for Unit 2. Additionally, the system is adjusted so that the inboard vent and drain valves (F010A&B, F011) start to open at least five seconds after each respective outboard vent and drain valve (F035A&B, F037) upon reset of a full core scram. The valves are not equipped with individual valve control switches and cannot be individually stroke timed. Because of the adjustable nature of the valve control system, individual valve stroke timing would not provide any meaningful information for monitoring valve degradation.

System design prevents stroke timing these valves during normal operation without disabling the Reactor Protection System Scram Signal to the valves. Disabling this signal requires the installation of electrical jumpers and the opening of links in energized control circuits which increase the potential for a Reactor Scram.

ALTERNATE TESTING: The valves will be exercised quarterly but not timed. The total valve sequence response time will be verified to be less than Technical Specifications requirements during each refueling outage when a complete stroke time test can be performed.

RELIEF REQUEST

RR-V-26

SYSTEM: CRD

VALVE(S): C11-HCU-115
2C11-HCU-115

CATEGORY: C

CLASS: 2

FUNCTION: Charging Water Header Check Valves

TEST REQUIREMENT: IWV-3522 requires that check valves be exercised quarterly to the position required to fulfill their safety function.

BASIS FOR RELIEF: Reverse flow closure verification of the charging water header check valves requires that the CRD pumps be stopped to depressurize the charging water header. This test can not be performed during normal operation because stopping the pumps results in loss of cooling water to all CRD mechanisms and seal damage could result. Additionally, it is impractical to perform this testing during cold shutdown because the CRD pumps supply seal and motor purge water to the RWCU system pumps. RWCU is normally maintained in operation during shutdowns to maintain reactor coolant chemistry in accordance with Technical Specification requirements.

ALTERNATE TESTING: Reverse flow closure will be verified at each refueling outage by performance of a HCU accumulator pressure decay test.

THE ALTERNATE TESTING IN THIS RELIEF REQUEST IS ADDRESSED BY GENERIC LETTER 89-04. THE TESTING OF THESE VALVES WILL BE PERFORMED IN ACCORDANCE WITH POSITION 7 OF GENERIC LETTER 89-04.

COLD SHUTDOWN JUSTIFICATION

CS-7

SYSTEM: HPCI, RCIC

VALVE(S): E41-F002, 2E41-F002
E51-F007, 2E51-F007

CATEGORY: A

CLASS: 1

FUNCTION: HPCI/RCIC Steam Supply Containment Isolation

QUARTERLY TEST REQUIREMENT: Exercise and Stroke Time

COLD SHUTDOWN TEST JUSTIFICATION: Failure in the closed position during testing would render the entire system inoperable with entry into the containment required for repair.

QUARTERLY PARTIAL STROKE TESTING: None

COLD SHUTDOWN TESTING: Exercise and Stroke Time

RELIEF REQUEST

RR-V-20

SYSTEM: Plant Service Water

VALVE(S): P41-F035A&B, P41-F036A&B, P41-F037A-D, P41-F039A&B, P41-F340, 2P41-F035A&B, 2P41-F036A&B, 2P41-F037A-D, 2P41-F039A&B, 2P41-F339A&B

CATEGORY: B

CLASS: 3

FUNCTION: Cooling Water

TEST REQUIREMENT: IWV-3413(b) requires stroke times shall be measured to the nearest second, for stroke times 10 seconds or less, or 10 percent of the specified limiting stroke time for full-stroke times longer than 10 seconds.

IWV-3417 requires that if the stroke time increases by 25 percent from the previous test for valves with full-stroke times greater than 10 seconds or 50 percent for valves with full-stroke times less than 10 seconds, the test frequency shall be increased to once each month until corrective action is taken.

BASIS FOR RELIEF: These valves are air operated valves without indicating light or control switches. Measurement of stroke times can be performed only by observation of the stem movement when the associated room cooler is placed into operation. This type of testing does not provide the accuracy required by IWV-3413(b) and IWV-3417.

ALTERNATE TESTING: A maximum stroke time which will be as short as practical will be assigned to each valve. If the measured stroke time exceeds this value, the valve will be declared inoperable.

RELIEF REQUEST

RR-V-21

SYSTEM: Core Spray

VALVE(S): E21-F036A,B
2E21-F036A,B,

CATEGORY: C

CLASS: 2

FUNCTION: Core Spray Pump Minimum Flow Line Containment Boundary

TEST REQUIREMENT: Full forward flow operability and reverse flow closure quarterly per IWV-3520

BASIS FOR RELIEF: These valves are located in the core spray pump minimum flow lines discharging to the suppression pool. Valves must open to provide minimum flow protection for the core spray pumps and close to provide containment boundary. Since there is no valve between the check valve and the suppression pool the line cannot be pressurized to ensure closure of the valve. This valve is sealed from the primary containment atmosphere because the test line terminates below the water level of the torus and the leakage is not included in the Type C local leak rate testing.

PARTIAL EXERCISING: Each valve is partial exercised open quarterly during core spray pump surveillance testing.

ALTERNATE TESTING: One valve for each unit will be disassembled, manually exercised and visually inspected each refueling outage per the guidance of GL 89-04. The valve internals will be confirmed as structurally sound (no loose or corroded parts) and the disk manually exercised to confirm full stroke capability.

If the disassembled valve is not capable of being full stroke exercised or there is binding or failure of valve internals, the remaining valve will also be disassembled, inspected and manually full stroke exercised during the same outage.

There are no test connections provided to facilitate any measurements during pump testing. Therefore partial flow testing after re-assembly is not practical. The disassembled valve will be manually exercised just prior to re-installation of the cover flange to ensure stroke open capability.

ENCLOSURE 2

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DRP-57, NPF-5
TABLE 2 ITEMS FROM APPENDIX A

ENCLOSURE 2

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DRP-57, NPF-5
TABLE 2 ITEMS FROM APPENDIX A

Background

Enclosure 2 provides a summary listing and GPC's response to the 13 items from Appendix A of the IST Program Safety Evaluation (SE) categorized by GPC as Table 2 items. Table 2 includes the Appendix A items for which GPC proposed to submit additional justification for the Relief Requests.

Appendix A Item Number	GPC Response
A1 A2	These items concern the use of the ASME OM Code in lieu of ASME Section XI for pump testing at Plant Hatch. Relief Request RR-P-6 was initially developed to apply only portions of the OM Code while still utilizing portions of ASME Section XI. Code Case N-465 allows the use of the OM code in its entirety in lieu of ASME XI. Therefore, RR-P-6 has been revised to address the use of the ASME OM Code 1990 Edition, Section ISTB for those pumps required to be tested by ASME Section XI and includes justification for portions of the OM Code which GPC requests relief. A copy of the revised Relief Request is attached to Enclosure 2.
A4	Item A4 stated Relief Request RR-P-7 did not provide sufficient detail for all system instrumentation involved. Therefore, the Relief Request has been revised to list all applicable instrumentation and to provide additional justification for each individual case. A copy of the revised Relief Request is attached to Enclosure 2.
A5	Relief Request RR-P-4 is not required if the ASME OM Code is used for pump testing at Plant Hatch. Therefore, this Relief Request has been revised to indicate its withdrawal. A copy of the revision is attached to Enclosure 2.

TABLE 2 ITEMS FROM APPENDIX A

Item Number	GPC Response
	Due to the application of the OM Code for pump testing via Relief Request RR-P-6, all other Relief Requests which affect pump testing must be revised to address the applicable OM paragraphs in lieu of the ASME Section XI paragraphs. Therefore, editorial changes have been made to Relief Requests RR-P-2 and RR-P-3. Relief Request RR-P-5 has been withdrawn because the present testing methodology satisfies the OM Code requirements. Copies of these Relief Requests are also attached to Enclosure 2.
A8	Item A8 stated that blanket application of the Technical Specifications during plant startup to valves which are only tested on a cold shutdown or refueling outage frequency is not appropriate. GPC's position is that plant startup will be governed by the Technical Specifications. Therefore, Relief Request RR-V-4 has been revised to clarify the application of the Technical Specifications for valves which fail the ASME Section XI testing during cold shutdown or refueling. A copy of the revised Relief Request is attached to Enclosure 2.
A9	Relief Request RR-V-11 was developed to test the Safety Relief Valve (SRV) vacuum breakers on a frequency determined by their function (i.e., pressure relief and automatic depressurization system or pressure relief and low-low-set). The Relief Request was granted provided all SRV vacuum breakers are tested at each cold shutdown. The Relief Request has been revised to specify testing (i.e., visual inspection and force push test) at each cold shutdown if the drywell is de-inerted. A copy of the revised Relief Request is attached to Enclosure 2.
A16 A18	These items concerned reverse flow closure testing of numerous check valves which provide containment boundary in the jockey pump, HPCI and RCIC systems. All of the subject valves are containment isolation valves but do not require Appendix J leak rate

TABLE 2 ITEMS FROM APPENDIX A

Item Number	GPC Response
	testing because the pipe lines are postulated to remain covered with water during all accident conditions. Reverse flow closure testing was initially proposed at refueling outages in lieu of quarterly or at cold shutdown. However, the ability to perform the proposed testing at cold shutdown was questioned. RR-V-30A has been revised to provide additional information relative to the frequency of testing for these valves and is attached to Enclosure 2.
A17	Item A17 concerned partial flow exercising of the HPCI torus suction check valves after reassembly. The valves are disassembled and inspected periodically as an alternative to full flow exercising per ASME Section XI. Currently, no practical method exists to partially exercise these valves after reassembly. Relief Requests RR-V-7 and RR-V-12 have been revised to provide additional justification. Copies of the proposed Relief Requests are attached to Enclosure 2.
A21	Item A21 concerned reverse flow closure testing of the Unit 1 Reactor Water Cleanup (RWCU) system return check valves at cold shutdown. Relief Request RR-V-18 has been revised to provide additional justification for testing these valves at refueling only. A copy of the revised Relief Request is attached to Enclosure 2.
A25	Relief Request RR-V-25 did not clearly describe the frequency of testing for the Plant Service Water (PSW) pump discharge check valves. The present testing is in compliance with the ASME Code. Relief Request RR-V-25 has been revised to more clearly explain the actual testing implemented. A copy of the revised Relief Request is attached to Enclosure 2.
A27	Cold Shutdown Justification CS-4 was developed to justify testing the PSW to Turbine Building Supply Valves at cold shutdown in lieu of quarterly. The

TABLE 2 ITEMS FROM APPENDIX A

Item Number	GPC Response
	justification provided was questioned relative to quarterly testing. Therefore, CS-4 has been revised to provide additional justification for testing at cold shutdown. A copy of the proposed revision is attached to Enclosure 2.
A28	The wording of Note 10 in the IST program was unclear in that it did not address partial flow exercising of check valves that are disassembled for IST after they are reassembled. Note 10 has been revised to provide clarification. Specific Relief Requests will be submitted for any check valve disassembled for IST that cannot be partially exercised with flow after reassembly. Any additional Relief Requests will be submitted within 6 months of receipt of a response from the NRC.

ATTACHMENT TO ENCLOSURE 2

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DRP-57, NPF-5

PUMP RELIEF REQUEST

RR-P-6

SYSTEM: Standby Liquid Control
Residual Heat Removal
Residual Heat Removal Service Water
Core Spray
High Pressure Coolant Injection
Reactor Core Isolation Cooling (optional)
Plant Service Water

PUMP(S):

1(2)C41-C001A,B	1(2)E11-C002A-D
1(2)E11-C001A-D	1(2)E21-C001A,B
1(2)E41-C001	1(2)E51-C001 (optional)
1(2)P41-C001A-D	2P41-C002

CLASS: 2 and 3

TEST REQUIREMENT: Perform pump IST in accordance with ASME Section XI Subsection IWP

BASIS FOR RELIEF: It has been recognized within the industry that the OM Code requirements for pump IST are more suitable than those of ASME XI IWP. (Reference Code Case N-465.)

ALTERNATE TESTING: The testing requirements of the OM Code 1990, Section ISTB will be utilized for pump IST for those pumps required to be tested by ASME Section XI except as identified in the continuation sheet.

The RCIC system is included for information purposes only. The RCIC pump is not required to be tested in accordance with ASME XI.

VIBRATIONAL POINTS

In lieu of the requirements of ISTB 4.6.3 vibration measurements will be taken on each pump as outlined below.

a. On centrifugal pumps measurements will be taken in a plane approximately perpendicular to the rotating shaft in two orthogonal directions. These measurements shall be taken on each accessible pump bearing housing. Measurements shall also be taken in the axial direction on each accessible pump thrust bearing housing. If no pump bearing housings are accessible due to pump design or physical interference, then the measurements will be taken at the accessible location that gives the best indication of lateral/axial pump vibration. This location is either on the pump casing, the motor bearing casing, or the motor casing.

b. On vertical line shaft pumps measurements will be taken in a plane approximately perpendicular to the rotating shaft in two orthogonal directions in the area of the upper pump bearing housing. Thrust measurements will not be taken since measurements on top of the motor would be of limited benefit and would require installation of special ladders or scaffolding due to the height of the assembly for the RHR (Unit 1 only), Core Spray (Unit 1 only), RHRSW and PSW pumps. Even with ladders or scaffolding, access is still limited due to interferences and personnel safety is of concern. The Standby Diesel Service Water Pump is equipped with a cooling fan in the top of the motor and a thin baffle plate prevents meaningful axial measurements.

   It is recognized in the industry that the vibration testing of this type of pump has been of limited benefit for degradation detection due to the problems inherent with the design of the pumps. The hydraulic testing requirements of the OM Code should provide adequate detection of pump degradation.

c. On reciprocating pumps, a measurement will be taken on the bearing housing of the crankshaft, approximately perpendicular to both the crankshaft and the line of the plunger travel. (As required by the OM Code.)

VIBRATION ACCEPTANCE CRITERIA

In lieu of the requirements of TABLE ISTB 5.2-2a, ranges for vibration acceptance criteria for smooth running pumps will be as outlined below.

Small absolute changes in vibration for smooth running pumps (e.g. $\leq$.075 in./sec.) would potentially result in Alert and Required Action Ranges being declared for exceeding the 2.5Vr or 6Vr limits even though the pump is operating satisfactorily.

The Alert Range for smooth running pumps will be > 0.19 to 0.45 in./sec. and the Required Action Range starts at any value above 0.45 in./sec.

FREQUENCY RESPONSE RANGE OF VIBRATION INSTRUMENT

In lieu of the requirements of ISTB 4.6.1(f), the vibration measuring instrument frequency response range will be as outlined below.

An I.R.D. Model 810 is utilized for IST vibration measurements. This instrument has a frequency response range of 5.8 - 2,000 HZ for displacement measurement and 5.8 - 10,000 HZ for velocity measurement.

The OM Code requires that the response range be one-third pump operating speed to at least 1000 Hertz. All pumps at Plant Hatch except the Standby Liquid Control (SBLC) Pumps operate at ≥ 1150 RPM nominal, therefore the frequency response range of the I.R.D Model 810 is acceptable. The SBLC Pumps operate at 370 RPM (6.2 HZ), therefore the vibration instrument frequency response range does not satisfy the code requirement for these pumps.

It would be impractical to require different types of vibration equipment for different pumps in the IST program from an implementation stand point. Therefore Plant Hatch proposes to utilize the existing equipment for vibration measurement on the Standby Liquid Control Pumps for consistency in the IST program. These pumps are only placed in operation for required testing and therefore see very little service which would result in pump degradation.

In addition, the site maintenance department has the capability to perform spectral analysis with computerized equipment which would satisfy the frequency response range requirement of OM. Therefore, if IST vibration measurements ever fall within the ALERT or ACTION Range, site maintenance department data will be utilized for evaluation of the operability/condition of these pumps. The maintenance vibration analysis program was not developed to meet the same quality assurance requirements as the IST program, however past history has proven the program to be very effective in the monitoring and detection of vibration problems on rotating equipment at Plant Hatch.

PUMP RELIEF REQUEST

RR-P-7

SYSTEM: Residual Heat Removal, Core Spray, High Pressure Coolant Injection, Reactor Core Isolation Cooling and Plant Service Water Systems

PUMP(S): 1(2)E11-C002A-D 1(2)E21-C001A,B 1(2)E41-C001
1(2)E51-C001 2P41-C001A-D

CLASS: 2

TEST REQUIREMENT: ASME OM Code, 1990, Section ISTB 4.6.1 and Table ISTB 4.6.1-1 define the required accuracy and full-scale range for each instrument used to measure the test parameters.

BASIS FOR RELIEF: The original installed instrumentation associated with these pumps was not designed with the instrument accuracy and ranges of OM Code ISTB Table 4.6.1-1 taken into consideration. The actual instrument ranges and loop accuracies are itemized on the attached sheets. These attached sheets provide information relative to the range, individual accuracy and total loop accuracy of those instruments that do not satisfy the OM requirements.

ALTERNATE TESTING: Test gages calibrated to ± 0.5 % accuracy will be utilized for RHR and Core Spray pump inlet pressure measurement. For all other pump parameters the installed instrumentation will be utilized. The installed instrumentation should provide data that is sufficiently accurate to allow assessment of pump condition and to detect pump degradation.

See continuation sheets for individual evaluations and data relevant to accuracy of each instrument loop.

The RCIC System is included for information purposes only. The RCIC pump is not required to be tested in accordance with ASME XI.

INSTRUMENT	RANGE	TEST RANGE	ALLOWABLE RANGE	ACCURACY
1E11-PI-R003A-C	0-600 psig	≈ 182 psig	0-546 psig	± 2 % (2)
1E11-FI-R603A(B)	0-25000 gpm	≈ 7700 gpm	0-23100 gpm	± 2.5 % (2)
1E21-PI-R600A(B)	0-500 psig	≈ 290 psig	0-870 psig	± 2.8 %
1E41-SI-R610	0-6000 rpm	≈ 3810 rpm	0-11430 rpm	± 2 % (1)
1E41-PI-R004	15"HG-100 psig	≈ 27 psig	0-81 psig	± 1 % (2)
1E41-FI-R613	0-5000 gpm	≈ 4250 gpm	0-12750 gpm	± 2.5 %
1E51-SI-R610	0-6000 rpm	≈ 4250 rpm	0-12750 rpm	± 2 % (1)
1E51-PI-R002	15"HG-100 psig	≈ 24 psig	0-72 psig	± 1 % (2)
1E51-FI-R613	0-600 gpm	≈ 400 gpm	0-1200 gpm	± 2.5 %
2E11-PI-R003A-D	0-600 psig	≈ 186 psig	0-558 psig	± 2 % (2)
2E11-FI-R603A(B)	0-25000 gpm	≈ 7850 gpm	0-23550 gpm	± 2.3 % (2)
2E21-PI-R600A(B)	0-500 psig	≈ 308 psig	0-924 psig	± 2.1 %
2E41-SI-R610	0-6000 rpm	≈ 3800 rpm	0-11400 rpm	± 2 % (1)
2E41-PI-R004	15"HG-100 psig	≈ 30 psig	0-90 psig	± 1 % (2)
2E41-FI-R613	0-5000 gpm	≈ 4250 gpm	0-12750 gpm	± 2.9 %
2E51-SI-R610	0-6000 rpm	≈ 4250 rpm	0-12750 rpm	± 2 % (1)
2E51-PI-R002	15"HG-100 psig	≈ 30 psig	0-90 psig	± 1 % (2)
2E51-FI-R613	0-600 gpm	≈ 400 gpm	0-1200 gpm	± 2.9 %
2P41-PI-R306A-D	0-300 psig	≈ 121 psig	0-363 psig	± 2.1 %

NOTES:

1. An electronic speed element provides a signal to the speed indicator which is calibrated to ± 2 % of full scale. Therefore speed indication should satisfy the requirements of TABLE ISTB 4.6.1-1.

2. Exceeds code allowable range limit of three times reference value.

COMPONENT/ ACCURACY	COMPONENT/ ACCURACY	COMPONENT/ ACCURACY	TOTAL LOOP ACCURACY PER OM ISTB 1.3
1E11-FT-N015A,B 1 %	1E11-K600A,B 1 %	1E11-FI-R603A,B 2 %	2.5 %
1E21-PT-N001A,B 2 %	1E21-PI-R600A.B 2 %	N/A N/A	2.8 %
1E41-FT-N008 1 %	1E41-K601 1 %	1E41-FI-R613 2 %	2.5 %
1E41-SI-R610	N/A	N/A	2 % (1)
1E51-FT-N003 1 %	1E51-K601 1 %	1E51-FI-R613 2 %	2.5 %
1E51-SI-R610	N/A	N/A	2 % (1)
2E11-FT-N015A,B 0 5 %	2E11-K600A,B 2 % (max.)	2E11-FI-R603A,B 1.5 %	2.3 %
2E21-PT-N001A,B 0.5 %	2E21-PI-R600A,B 2 %	N/A N/A	2.1 %
2E41-FT-N008 0.5 %	2E41-K601 2 % (max.)	2E41-FI-R613 2 %	2.9 %
2E41-SI-R610	N/A	N/A	2 % (1)
2E51-FT-N003 0.5 %	2E51-K601 2 % (max.)	2E51-FI-R613 2 %	2.9 %
2E51-SI-R610	N/A	N/A	2 % (1)
2P41-PI-R306A-D	N/A	N/A	2.1 %

See page 2 for notes.

1(2)E11-PI-R003A-D exceed the range limit of three times the reference value, however the additional gage range results in approximately 1 psig maximum allowable variance in the measured parameter. (i.e. .02 x 550 = 11 versus .02 x 600 =12)

1(2)E11-FI-R603A(B) exceed the range limit of three times the reference value and the total loop accuracy is greater than the code allowable. The instrument range was selected due to design considerations for LPCI flow rate (17,000 gpm for two pumps) whereas the IST pump test flow rate is approximately 7700 gpm. The code maximum allowable variance in measurement would be approximately 480 gpm (i.e. .02 x 24,000) and the actual maximum variance is 625 gpm (i.e. .025 x 25,000).

1(2)E11-PI-R600A(B) exceed the maximum code allowable total loop accuracy however the indicator used has a full scale range less than that allowed. The maximum code allowable variance in measurement is 17 psig (.02 x 870) for unit 1 and 18 psig for unit 2 (.02 x 924). However, by using a gage with a range less than allowed, the actual maximum allowable variance is 14 psig (.028 x 500) for unit 1 and 11 psig (.021 x 500) for unit 2. Therefore the actual accuracy is within the code allowable for the maximum allowable range.

1(2)E41-PI-R004 exceed the range limit of three times the reference value. However, the gages are calibrated to ± 1 % full scale accuracy which results in the final variance being within the maximum allowable by the code. (i.e. 1.6 psig versus 1 psig for unit 1 and 1.8 psig versus 1 psig for unit 2)

1(2)E41-FI-R613 exceed the maximum code allowable total loop accuracy however the indicator used has a full scale range less than that allowed. The maximum variance allowable by the code is 255 gpm (.02 x 12750) whereas the actual maximum variance is 125 gpm (.025 x 5000) for unit 1 and 145 gpm (.029 x 5000) for unit 2. Therefore the actual accuracy of the instrument loop is less than that allowable by the code.

1(2)E51-PI-R002 exceed the range limit of three times the reference value. However, the gages are calibrated to ± 1 % full scale accuracy which results in the final variance being within the maximum allowable by the code. (i.e. 1.4 psig versus 1 psig for unit 1 and 1.8 psig versus 1 psig for unit 2)

1(2)E51-FI-R613 exceed the maximum code allowable total loop accuracy however the indicator used has a full scale range less than that allowed. The maximum variance allowable by the code is 24 gpm (.02 x 1200) whereas the actual maximum variance is 15 gpm (.025 x 600) for unit 1 and 17 gpm (.029 x 600) for unit 2. Therefore the actual accuracy of the instrument loop is less than that allowable by the code.

2P41-PI-R306A-D exceed the maximum code allowable total loop accuracy however the indicator used has a full scale range less than that allowed. The maximum variance allowable by the code is 7 psig (.02 x 363) whereas the actual maximum variance is 6 psig (.021 x 300). Therefore the actual accuracy of the instrument loop is less than that allowable by the code.

PUMP RELIEF REQUEST

RR-P-4

Georgia Power Company has withdrawn this relief request due to the utilization of the OM Code, Section ISTB, for performance of pump inservice testing at E. I. Hatch Nuclear Plant. (See Relief Request RR-P-6) The OM Code does not require measurement of bearing lubricant level or pressure.

PUMP RELIEF REQUEST

RR-P-2

SYSTEM: Standby Liquid Control

PUMP(S): C41-C001A&B, 2C41-C001A&B

CLASS: 2

TEST REQUIREMENT: OM Code Table ISTB 4.6.1-1 requires that flow be measured within ± 2 percent of full scale.

BASIS FOR RELIEF: Instrumentation was not provided during construction to measure the required flowrate.

ALTERNATE TESTING: The system is aligned so that it forms a closed loop through the test tank. Flow is recirculated through the pump and tank until conditions stabilize, and then the system is realigned to perform the testing described below.

Flowrate is measured by the change in the standby liquid control test tank level during a two minute test period. The standby liquid control (SBLC) system is aligned so that each pump takes suction from a demineralized water source and discharges through a throttle valve adjusted to obtain a reference discharge pressure. The level of the test tank is then measured and the pump is run for two minutes. After the two minute run, the tank level is again measured. Flowrate is then determined by the following equation.

$$\text{Flow (gpm)} = \frac{\Delta \text{ Tank level (in.)} \times 4.91 \text{ gal/in.}}{2 \text{ min.}}$$

For a situation in which the flowrate is measured by instrument, a 0-100 gpm instrument would normally be used for the SBLC pump flowrate of approximately 43 gpm. The required accuracy of this instrument would be ± 2 % or ± 2 gpm. This corresponds to a ± 4 gallons total in two minutes which is equivalent to 0.81 inches level change in the test tank. Therefore, the accuracy of the measured flowrate should be well within Code allowance.

This relief request has been revised to reference the OM Code section for which relief is requested. This change was necessary due to Relief Request RR-P-6 which addresses use of Code Case N-465 to apply the OM Code for pump testing.

PUMP RELIEF REQUEST

RR-P-3

SYSTEM: RHR Service Water, Plant Service Water, Standby Diesel Generator Service Water

PUMPS: E11-C001A-D, P41-C001A-D, 2E11-C001A-D, 2P41-C001A-D, 2P41-C002

CLASS: 2 and 3

TEST REQUIREMENT: OM Code Table ISTB 4.6.1-1 requires that pressure be measured within ± 2 percent of full scale.

BASIS FOR RELIEF: No inlet pressure instrumentation is provided.

ALTERNATE TESTING: Inlet pressure is determined for this group by measuring the river level at the intake structure. The differential pressure is then:

$$\Delta P = P_o + (114.5 \text{ ft} - \text{River Water Level}) \times 0.433$$

where ΔP is the differential pressure and P_o is the outlet pressure. This method of measurement is well within the code requirements for the determination of the differential pressure.

This relief request has been revised to reference the OM Code section for which relief is requested. This change was necessary due to Relief Request RR-P-6 which addresses use of Code Case N-465 to apply the OM Code for pump testing.

PUMP RELIEF REQUEST

RR-P-5

Georgia Power Company has withdrawn this relief request due to the utilization of the OM Code, Section ISTB, for performance of pump inservice testing at E. I. Hatch Nuclear Plant. (See Relief Request RR-P-6) The OM Code only requires measurement of discharge pressure and flow rate for positive displacement pumps.

RELIEF REQUEST

RR-V-4

SYSTEM: Various

VALVE(S): Valves exercised only during cold shutdown or refueling

CATEGORY: A, B, C, and AC

CLASS: 1, 2, and 3

FUNCTION: Various

TEST REQUIREMENT: IWV-3417(b) and IWV-3523 indicate that when corrective action is required as a result of tests made during cold shutdown, the condition shall be corrected before startup.

BASIS FOR RELIEF: The Technical Specifications provide the requirements and plant conditions necessary for plant startup.

ALTERNATE TESTING: The Technical Specifications shall be utilized to determine the status of the plant required for startup. However, assurance will be made that if the plant is started up from the cold shutdown or refueling mode with a component being inoperable due to corrective action as required by IWV-3417(b) or IWV-3523, a mode of operation that would prevent performance of the post corrective action testing will not be entered into.

RELIEF REQUEST

RR-V-11

SYSTEM: Main Steam

VALVE(S): B21-F037A-H, J-L B21-F110A,C,G,H
2B21-F037A-H, K-M 2B21-F110B,D,F,G

CATEGORY: C

CLASS: 3

FUNCTION: Main Steam Relief Valve Discharge Vacuum Breaker

TEST REQUIREMENT: Verify opening quarterly per IWV-3521

BASIS FOR RELIEF: These normally closed check valves (vacuum breakers) are located in containment and therefore are inaccessible during power operation or cold shutdowns when the containment is inerted.

ALTERNATE TESTING: Vacuum breakers will be tested at cold shutdown if the containment is de-inerted and at refueling outages except that testing need not be performed more often than quarterly.

These valves are tested by visually inspecting each disc, ensuring that the disc moves freely, and by determining the opening force required to unseat the disc.

RELIEF REQUEST

RR-V-30A

SYSTEM: Core Spray, RCIC, HPCI

VALVE(S): E21-F044A,B, E41-F021, E41-F022, E41-F040, E41-F046, E41-F049, E51-F001, E51-F002, E51-F021, E51-F028, E51-F040
2E21-F044A,B, 2E41-F021, 2E41-F022, 2E41-F040, 2E41-F046, 2E41-F049, 2E51-F001, 2E51-F002, 2E51-F021, 2E51-F028, 2E51-F040

CATEGORY: C

CLASS: 2

FUNCTION: Containment Isolation Barrier

TEST REQUIREMENT: Reverse flow closure quarterly or at cold shutdown per IWV-3520

BASIS FOR RELIEF: These valves function as containment isolation barriers. The only viable means of proving closure is by performing a leak rate or pressure test. To perform the tests quarterly would require removing the associated systems from operation. To perform the tests at cold shutdown poses additional requirements on testing and operations personnel involved in other shutdown related activities.

Since these valves only provide a containment barrier function and allowable leakage limits are significantly greater than allowed for containment isolation valves, and the fact that these valves are not exposed to severe operating conditions which would promote rapid degradation, leak rate or pressure testing at a refueling outage frequency will provide sufficient test results to ensure a margin of safe component operability.

Appendix J testing requirements were deleted in 1988. Review of testing and maintenance history since that time does not indicate any abnormal failure rate or maintenance requirements for these valves.

1(2)E21-F044A,B: These valves are located in the jockey pump recirculation line back to the suppression pool. Performing the pressure test quarterly would require removing the associated jockey pump(s) from service and would likely result in not maintaining the associated train of RHR and Core Spray piping full of water as required by Technical Specifications. This would result in unnecessary ECCS unavailability and potential entries into Technical Specification 3.0.3. Per Technical Specifications the RHR and Core Spray Systems are normally required to be

operable during brief periods of cold shutdown. This testing can be safely and efficiently performed during refueling outages.

1(2)E41-F021 and F049 - Turbine Exhaust to suppression pool check valves
1(2)E41-F022 and F040 - Turbine Exhaust Drain to suppression pool check valves
1(2)E41-F046 - Minimum flow line to suppression pool check valve

Testing any of these valves quarterly during power operation will result in removing the HPCI system from the operable condition and would cause unnecessary safety system unavailability. To perform the required valve line ups, equipment set up and perform the test would take approximately eight (8) hours for each test. Performing the tests at cold shutdown poses additional test requirements on testing and operations personnel already involved in other shutdown activities. Because HPCI is a standby system which is normally only operated during surveillance testing, these valves do not experience service conditions which would promote rapid degradation.

1(2)E51-F001 and F040 - Turbine Exhaust to suppression pool check valves
1(2)E51-F002 and F028 - Turbine Exhaust Drain to suppression pool check valves
1(2)E51-F021 - Minimum flow line to suppression pool check valve

Testing any of these valves quarterly during power operation will result in removing the RCIC system from the operable condition and would cause unnecessary system unavailability. To perform the required valve line ups, equipment set up and perform the test would take approximately eight (8) hours for each test. Performing the tests at cold shutdown poses additional test requirements on testing and operations personnel already involved in other shutdown activities. Because RCIC is a standby system which is only operated during surveillance testing, these valves do not experience service conditions which would promote rapid degradation.

ALTERNATE TESTING: Reverse flow closure at each refueling outage by performance of a leak rate test similar to an Appendix J type test. The equipment utilized for this testing allows measurement of the leakage rate from the test boundary and trending of any significant changes in leakage characteristics. Testing at a frequency commensurate with that prescribed by 10 CFR 50, Appendix J is appropriate considering the containment isolation function of the valves in question.

RELIEF REQUEST

RR-V-7

SYSTEM: HPCI

VALVE: E41-F045

CATEGORY: C

CLASS: 2

FUNCTION: HPCI Pump Suction (Alternate source from suppression pool)

TEST REQUIREMENT: Verify forward flow operability quarterly per IWV-3522(a)

BASIS FOR RELIEF: This normally closed check valve is located on the HPCI pump suction line from the suppression pool. The valve does not experience flow during any normal mode of reactor operation or shutdown conditions or during HPCI pump surveillance testing. The normal suction source for the HPCI pump is the condensate storage tank (CST) for periodic surveillance testing and ECCS injection. The pump suction transfers to the suppression pool upon indication of a low water level in the CST which would only occur during an extended HPCI injection because 100,000 gallons of water are always maintained in the CST for ECCS usage.

Forward flow exercising this valve would require aligning the HPCI pump suction to the suppression pool and discharging to the CST. This flow path would significantly degrade the water quality in the CST.

ALTERNATE TESTING: Every second refueling outage the valve will be disassembled, manually exercised and visually inspected to confirm that the valve is capable of full stroking and that its internals are structurally sound (no loose or excessively corroded parts). This frequency is considered adequate to detect degradation which would prevent the valve from meeting its safety function. The valve remains in the closed position in a torus water environment and does not experience flow which could cause wear. Additionally, past inspections have shown little, if any, degradation other than the expected minor corrosion.

Generic Letter 89-04 requires that a partial flow test be performed on check valves that are disassembled prior to their return to service. There is no possible flow path available for partial flow testing this check valve that would not introduce suppression pool water into the HPCI

system piping or back to the CST. This is a simple swing check valve (Powell Fig. 1561-WE) which does not require removal of the valve internals to perform a manual stroke test or visual inspection. Even if exercising/inspection resulted in valve repairs, the valve could still be manually stroked after the internals were reinstalled in the valve. Therefore, full stroke capability of the valve is ensured prior to installation of the bonnet cover.

RELIEF REQUEST

RR-V-12

SYSTEM: HPCI

VALVE: 2E41-F045

CATEGORY: C

CLASS: 2

FUNCTION: HPCI Pump Suction (Alternate source from suppression pool)

TEST REQUIREMENT: Verify forward flow operability quarterly per IWV-3522(a)

BASIS FOR RELIEF: This normally closed check valve is located on the HPCI pump suction line from the suppression pool. The valve does not experience flow during any normal mode of reactor operation or shutdown conditions or during HPCI pump surveillance testing. The normal suction source for the HPCI pump is the condensate storage tank (CST) for periodic surveillance testing and for ECCS injection. The pump suction transfers to the suppression pool upon indication of a low water level in the CST which would only occur during an extended HPCI injection because 100,000 gallons of water are always maintained in the CST for ECCS usage.

Forward flow exercising this valve would require aligning the HPCI pump suction to the suppression pool and discharging to the CST. This flow path would significantly degrade the water quality in the CST.

ALTERNATE TESTING: Every second refueling outage the valve will be disassembled, manually exercised and visually inspected to confirm that the valve is capable of full stroking and that its internals are structurally sound (no loose or excessively corroded parts). This frequency is considered adequate to detect degradation which would prevent the valve from meeting its safety function. The valve remains in the closed position in a torus water environment and does not experience flow which could cause wear. Additionally, past inspections have shown little, if any, degradation other than the expected corrosion.

Generic Letter 89-04 requires that a partial flow test be performed on check valves that are disassembled prior to their return to service. There is no possible flow path available for partial flow testing this valve that would not introduce suppression pool water into the HPCI system

piping or back to the CST. This is a simple swing check valve (Walworth No. 534) which does not require removal of the valve internals to perform a manual stroke test or visual inspection. Even if exercising/inspection resulted in valve repairs, the valve could still be manually stroked after the internals were reinstalled in the valve. Therefore, full stroke capability of the valve is ensured prior to installation of the bonnet cover.

RELIEF REQUEST

RR-V-18

SYSTEM: Reactor Water Cleanup

VALVE(S): G31-F039, G31-F203

CATEGORY: AC

CLASS: 1

FUNCTION: RWCU Return Line Containment Isolation

TEST REQUIREMENT: Quarterly reverse flow closure per IWV-3522(a)

BASIS FOR RELIEF: These normally open check valves are located in the RWCU return flow path to the reactor vessel via each feedwater line. To establish the necessary test boundary for each of these valves will require closure of the manual feedwater valve, B21-F011A(B), which is located inside primary containment. Entry into primary containment is not possible during normal operation due to the nitrogen inerted atmosphere.

To perform the test during cold shutdown would require the same test boundary as above. Therefore, performing the test would require; de-inertion of the primary containment, multiple personnel entries into a potential high radiation exposure area, valve manipulations, set up of test equipment, actual test performance, evaluation of test results, re-establishment of normal system alignments and Technical Specification required nitrogen inertion of the containment upon startup. The minimum estimated time to perform such testing, not including time to de-inert and re-inert the containment, is eight hours. Therefore, due to the problems associated with an inerted containment, multiple personnel containment entries to support the tests, ALARA concerns and the actual test duration, performance during cold shutdown seems unwarranted.

ALTERNATE TESTING: The check valve will be confirmed to close each refueling outage during the local leak rate tests.

RELIEF REQUEST

RR-V-25

SYSTEM: Plant Service Water

VALVE(S): P41-F311A-D
2P41-F311A-D

CATEGORY: C

CLASS: 3

FUNCTION: Pump discharge check valve

TEST REQUIREMENT: Reverse flow closure per IWV-3522(a).

BASIS FOR RELIEF: There are no direct means to verify closure of these valves.

ALTERNATE TESTING: Closure must be verified to ensure that flow from an operating pump on the train is not diverted back through a non-operating pump and thereby degrading the performance of the operating pump.

Closure of each valve is confirmed quarterly during service water pump testing. Each pump in each train is tested individually for IST. During the pump test, the discharge check valve on the idle pump is proven to be closed sufficiently to perform its safety related function by satisfactory performance of the pump being tested and by visual observation that the idle pump is not rotating backwards.

NOTE: Opening of each check valve is verified by the associated pump satisfying its Technical Specification required flow.

COLD SHUTDOWN JUSTIFICATION

CS-4

SYSTEM: Plant Service Water

VALVE(S): P41-F310A-D
2P41-F316A-D

CATEGORY: B

CLASS: 3

FUNCTION: Turbine Building Supply Shutoff

QUARTERLY TEST REQUIREMENT: Exercise and Stroke Time

COLD SHUTDOWN TEST JUSTIFICATION: The individual service water supply trains combine into a common header prior to entry into the turbine building. During normal operation at least three service water pumps are required to provide cooling water to the safety and non-safety related loads.

Closure of one of these normally open valves in any sequence during normal operation would decrease flow to the turbine building equipment by a minimum factor of one-third and a maximum factor of two-thirds. A decrease in cooling water flow of this magnitude could cause increased temperatures for components necessary for power operation and result in a required power reduction, forced shutdown or plant trip.

If one of these valves was to fail in its safety related position (Closed) during exercising, increased temperatures and a resultant plant shutdown would most certainly occur.

QUARTERLY PARTIAL STROKE TESTING: None. The valve circuity does not allow partial closure of this valve.

COLD SHUTDOWN TESTING: Exercise and Stroke Time

Nuclear Plant - Units 1 and 2
Valve Inservice Test Program

NOTES

1. Closure of this pump discharge check valve is proven during pump surveillance testing. There are two pumps on each train; therefore, when one pump is being tested the other is not operating. For the pump being tested to pass the required flowrate, the discharge check valve on the non-operating pump must close to prevent diverted flow. If the valve remained open, the pump test would be unsuccessful.

2. Required flow is verified to be passing through the line during quarterly pump testing or normal operation which proves that the check valve opens.

3. The CRD cooling water check valves are exercised to their safety-related position (closed) during weekly CRD exercise tests (notch in/notch out). Insertion of CRD verifies that the required pressure boundary is intact, and therefore, the check valve is closed.

4. (Not used)

5. This check valve will be verified to open quarterly during pump testing by observation of free flow through the sight glasses located downstream of the check valve. The closed position is not safety-related.

6. (Not used)

7. Each fuel oil transfer pump is tested quarterly using an ultrasonic flow instrument to measure the flow. The flow rate required for the valve to fulfill its safety-related function will be verified. The discharge piping from each Diesel Fuel Oil Transfer Pump is supplied with two check valves in series. There are two pumps located in each 40,000 gallon storage tank which pump into a single discharge line into the associated Day Tank. Satisfactory performance of a fuel oil transfer pump test also proves closure of at least one of the in-series check valves on the associated idle transfer pump.

8. (Not used)

9. This containment isolation valve is not leak rate tested due to the line its on terminating below the water level of the torus. No leakage test is necessary to satisfy Appendix J requirements as the torus is postulated to have at least a 30 day supply of water.

10. Full-stroke capability of these check valves cannot be proven; therefore, valves will be disassembled in accordance with G.L. 89-04. Valves will be partially exercised with flow after reassembly where practical. Relief requests will be developed for valves that cannot be partial exercised with flow after reassembly.

ENCLOSURE 3

PLANT HATCH - UNITS 1, 2
NRC DOCKETS 50-321, 50-366
OPERATING LICENSES DRP-57, NPF-5
PROPOSED RELIEF REQUESTS

RELIEF REQUEST

RR-V-42

SYSTEM: 1B21, 2B21

VALVES: 1B21-F022A,B,C,D and 1B21-F028A,B,C,D
2B21-F022A,B,C,D and 2B21-F028A,B,C,D

CATEGORY: A

CLASS: 1

FUNCTION: Main Steam Isolation Valves (MSIVs)

TEST REQUIREMENT: Relief is requested from applying the requirements of IWV-3413(a) and IWV-3417(a) to the main steam isolation valves.

BASIS FOR RELIEF: IWV-3413(a) requires that the Owner specify the limiting value of full-stroke time for each power operated valve. For all valves, except the MSIV's, which require stroke timing this limiting value is a maximum allowable stroke time. However, the design basis for the MSIVs imposes a minimum and a maximum allowable stroke time of 3 to 5 seconds respectively. Therefore the MSIVs have a 2 second window of acceptable operating times. Applying a 50% increase limit from the previous test to a valve which must stroke in a 2 second window is impractical. When the criteria of IWV-3413(b) are also applied, valves with stroke times of $\leq$ 10 seconds only require timing to the nearest second, then the requirements of IWV-3417(a) become even more impractical.

ALTERNATE TESTING: The MSIVs will be stroke timed during cold shutdown per Cold Shutdown Justification CS-9 and their closing time will be confirmed to be between 3 seconds and 5 seconds. As soon as it is recognized that an MSIV does not meet this criteria, it will be declared inoperable and the applicable Technical Specification Action statement entered.

RELIEF REQUEST

RR-V-43

SYSTEM: 1C51, 2C51

VALVES: 1C51-Shear A,B,C,D
2C51-Shear A,B,C,D

CATEGORY: AD

CLASS: 2

FUNCTION: TIP System Outboard Isolation

TEST REQUIREMENT: IWV-3421 requires Category A valves to be leak tested and IWV-3422 requires a leak test frequency of at least every 2 years.

BASIS FOR RELIEF: These valves are explosive actuated shear valves. The shear valve isolates the TIP tubing by shearing the tube and TIP drive cable, and by jamming the sheared ends of the tubing into a teflon coating on the shear valve disc. Thus the shear valves cannot be local leak rate tested without destroying the drive tube.

ALTERNATE TESTING: Each lot of shear valves is sample leakage tested by the manufacturer prior to delivery.

RELIEF REQUEST

RR-V-44

SYSTEM: Various

VALVE(S): Various

CATEGORY: A, B, C, AC (as applicable)

CLASS: 1, 2, and 3 (as applicable)

FUNCTION: Various

TEST REQUIREMENT: Perform applicable IWV required testing at cold shutdown

BASIS FOR RELIEF: The ASME OM Code - 1990 Edition, paragraph ISTC 4.2.2(g) provides acceptable guidance for testing of valves which are justifiably tested at cold shutdown frequency.

ALTERNATE TESTING: Testing of valves that is justified on a cold shutdown testing frequency will be performed per the OM Code paragraph ISTC 4.2.2(g) as outlined below.

a. Testing will commence as soon as cold shutdown is achieved, but no later than 48 hours after shutdown, and continue until complete or the plant is ready to return to power.

b. Completion of all valve testing is not a pre-requisite to return to power.

c. Any testing not completed during one cold shutdown should be performed during any subsequent cold shutdowns starting from the last test performed at the previous cold shutdown.

d. For planned cold shutdowns, where ample time is available and testing of all valves identified for cold shutdown test frequency in the IST program will be accomplished, exceptions to the 48 hours may be taken.