UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO THE INSERVICE TESTING PROGRAM RELIEF REQUESTS
VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION, UNITS 1 AND 2
DOCKET NUMBERS 50-338 AND 50-339

1.0 INTRODUCTION

The Code of Federal Regulations, 10 CFR 50.55a, requires that inservice testing (IST) of certain ASME Code Class 1, 2, and 3 pumps and valves be performed in accordance with Section XI of the ASME Boiler and Pressure Vessel Code (the Code) and applicable addenda, except where alternatives have been authorized or relief has been requested by the licensee and granted by the Commission pursuant to Sections (a)(3)(i), (a)(3)(ii), or (f)(6)(i) of 10 CFR 50.55a. In proposing alternatives or requesting relief, the licensee must demonstrate that: (1) the proposed alternatives provide an acceptable level of quality and safety; (2) compliance would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety; or (3) conformance is impractical for its facility. NRC guidance contained in Generic Letter (GL) 89-04, *Guidance on Developing Acceptable Inservice Testing Programs*, provides alternatives to the Code requirements determined acceptable to the staff. Alternatives that conform with the guidance in GL 89-04 may be implemented without additional NRC approval. Relief requests that conform with GL 89-04 are not evaluated in the Technical Evaluation Report (TER), though they have been reviewed to determine conformance and any concerns identified by such reviews are discussed in Appendix A, "IST Program Anomalies."

Section 10 CFR 50.55a authorizes the Commission to approve alternatives and to grant relief from ASME Code requirements upon making the necessary findings. The NRC staff's findings with respect to authorizing alternatives and granting or not granting the relief requested as part of the licensee's IST Program are contained in this Safety Evaluation (SE).

Furthermore, in rulemaking to 10 CFR 50.55a effective September 8, 1992, (see 57 Federal Register 34666), the 1989 Edition of ASME Section XI was incorporated in ¶ (b) of § 50.55a. The 1989 Edition provides that the rules for IST of pumps and valves shall meet the requirements set forth in ASME Operations and Maintenance Standards Part 6 (OM-6), "Inservice Testing of Pumps in Light-Water Reactor Power Plants," and Part 10 (OM-10), "Inservice Testing of Valves in Light-Water Reactor Power Plants." Pursuant to (f)(4)(iv), portions of editions or addenda may be used provided that all related requirements of the respective editions or addenda are met, and subject to Commission approval. Because the alternatives meet later editions of the Code incorporated in § 50.55a(b), relief is not required for those inservice tests that are conducted in accordance with OM-6 and OM-10, or portions thereof, provided all related requirements are met and Commission approval is granted. Whether all related requirements are met is subject to NRC inspection.

This SE covers Revision 7 of the IST Program relief requests submitted for the North Anna Power Station, Units 1 and 2, in a Virginia Electric and Power Company, the licensee, letter dated December 16, 1993. An additional relief request for each unit was submitted in a letter dated April 26, 1994. The North Anna 1 and 2 IST Program covers the second ten-year interval, which began on December 14, 1990. Their IST Program is based on the requirements in the 1986 Edition of ASME Section XI.

2.0 EVALUATION

The Mechanical Engineering Branch, with technical assistance from Idaho National Engineering Laboratory (INEL), has reviewed the information concerning Revision 7 of the North Anna Power Station, Units 1 and 2, IST Program relief requests submitted by the licensee in letters dated December 16, 1993, and April 26, 1994. The staff adopts the evaluations and recommendations for granting relief or authorizing alternatives contained in the attached Technical Evaluation Report (TER), prepared by INEL. Table 1 of the SE lists each relief request and the status of approval.

For the North Anna Power Station, Units 1 and 2, IST Program, relief is granted from, or alternatives are authorized for, the testing requirements which have been determined to be impractical to perform, where an alternative provides an acceptable level of quality and safety, or where compliance would result in a hardship or unusual difficulty without a compensating increase in quality or safety. Appendix A of the TER summarizes the actions required of the licensee resulting from the evaluation of the new and revised relief requests. The requests which are granted or authorized are acceptable for implementation provided the anomalies identified in Appendix A of the TER are addressed within one year of the date of the SE or by the end of the next refueling outage, whichever is later. Additionally, the granting of relief is based upon the fulfillment of any commitments made by the licensee in its basis for each relief request and the alternatives proposed.

Program changes involving new or revised relief requests should be submitted to NRC for review. New or revised relief requests that meet the positions stated in GL 89-04, Attachment 1, should be submitted to the NRC but may be implemented provided the guidance in GL 89-04, Section D, is followed. Program changes that add or delete components from the IST Program should also be periodically provided to the NRC.

3.0 CONCLUSION

The North Anna Power Station, Units 1 and 2, IST program requests for relief from the Code requirements have been reviewed by the staff with the assistance of its contractor, INEL. The TER provides INEL's evaluation of these relief requests. The staff has reviewed the TER and concurs with the evaluations and recommendations for granting relief or authorizing alternatives. A summary of the relief request determinations is presented in Table 1 which also includes

the status of previously granted requests. The authorizing of alternatives or granting of relief is based upon the fulfillment of any commitments made by the licensee in its basis for each relief request and the alternatives proposed. The implementation of IST Program and relief requests is subject to inspection by NRC.

The NRC has identified a number of generic deficiencies that affect plant safety and have frequently appeared as IST programmatic weaknesses. These are addressed by GL 89-04. In that letter, the staff delineated positions that describe deficiencies and explained alternatives to the ASME Code that the staff considers acceptable. If alternatives are implemented in accordance with the relevant position in the generic letter, the staff has determined that relief should be granted pursuant to 10 CFR 50.55a(g)(6)(i) [now (f)(6)(i)] on the grounds that it is authorized by law, will not endanger life or property or the common defense and security, and is otherwise in the public interest. In making this determination, the staff has considered the burden on the licensee that would result if the requirements were imposed.

For any relief granted pursuant to GL 89-04 the staff (with technical assistance from INEL) has reviewed the information submitted by the licensee to determine whether the proposed alternative follows the relevant position in the generic letter. If an alternative conforms to a position of the generic letter, it is listed as having been approved pursuant to GL 89-04 in Table 1 of the SE. Any anomalies in the relief request are addressed in the TER and identified in Table 1.

The licensee should refer to the TER, Appendix A, for a discussion of recommendations identified during the review. The licensee should address each recommendation in accordance with the guidance therein. The IST Program relief requests are acceptable for implementation provided the anomalies identified in Appendix A are addressed within one year of the date of this SE or by the end of the next refueling outage, whichever is later. The licensee should respond to the NRC within one year of the date of this SE describing actions taken, actions in progress, or actions to be taken, to address each of these items.

The staff concludes that the relief requests as evaluated and modified by this SE will provide reasonable assurance of the operational readiness of the pumps and valves to perform their safety-related functions. The staff has determined that granting relief pursuant to 10 CFR 50.55a (f)(6)(i) and authorizing alternatives pursuant to 10 CFR 50.55a (a)(3)(i) or (a)(3)(ii) is authorized by law and will not endanger life or property, or the common defense and security and is otherwise in the public interest. The approval of the use of later editions of the Code incorporated in 10 CFR 50.55a(b) is authorized pursuant to 10 CFR 50.55a(f)(4)(iv). In granting relief pursuant to 10 CFR 50.55a(f)(6)(i), the staff has considered the impracticality of performing the required testing and the burden on the licensee if the requirements were imposed.

Principal Contributor: Patricia Campbell

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Pump P-1	N.A.	Section XI, IWP-3100 and -3300: Bearing temperature and vibration measurement	All pumps in the IST program	Measure vibration velocity.	Alternative authorized pursuant to 10CFR50.55a(a)(3)(i) in the SE dated 9/17/93
Pump P-2		Withdrawn			
Pump P-3		Withdrawn			
Pump P-4	N.A.	Replaced by non-Code alternative testing description PNC-1			
Pump P-5	2.2.1.1	Section XI, IWP-3400(a): Test frequency requirements	Residual heat removal (RHR) pumps: 1(2)-RH-P-1A and -1B	Test these pumps during refueling outages.	Relief granted pursuant to 10CFR50.55a(f)(6)(i) with provision.
Pump P-6		Withdrawn			
Pump P-7		Withdrawn			
Pump P-8		Withdrawn			
Pump P-9	2.3.1.1	Section XI, IWP-3100: Measure inlet and differential (d/p) pressures	Service water pumps: 1(2)-SW-P-1A and -1B	Monitor pump discharge pressure and use it in place of d/p to monitor for pump degradation. Inlet pressure will not be measured.	Alternative authorized pursuant to 10CFR50.55a(a)(3)(ii) with provision.
Pump P-10	2.3.1.2	Section XI, IWP-3100: Measure inlet and differential (d/p) pressures	Service water pump: 1(2)-SW-P-4	Monitor pump discharge pressure and use it in place of d/p to monitor for pump degradation. Inlet pressure will not be measured.	Alternative authorized pursuant to 10CFR50.55a(a)(3)(ii)
Pump P-11		Withdrawn			

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Pump P-12	2.4.1.1	Section XI, IWP-3100 and -3110: Establish reference flow rate or d/p	Component cooling pumps: 1(2)-CC-P-1A and -1B, and Service water pumps: 1(2)-SW-P-1A, -1B, and -4	Tests pumps using as found flow rate and d/p. Compare measurements to acceptance criteria based on a reference curve generated from data from at least five points of operation,	Relief granted pursuant to 10CFR50.55a(f)(6)(i) with provisions.
Pump P-13	2.1.1.1	Section XI, IWP-4110: Instrument accuracy requirements	Various pumps in the IST program .	Use flow rate and differential pressure instruments whose total loop accuracies are greater than $\pm 2\%$.	Alternative authorized pursuant to 10CFR50.55a(a)(3)(ii) with provision.
Pump P-14		Withdrawn			
Pump P-15	2.5.1.1	Section XI, IWP-3400 and -3500: Test frequency and duration	Boric acid transfer pumps: 1-CH-P-2A, -2B, -2C, and -2D	Place the pumps on the recirculation loop for three minutes and then direct full flow to the RCS for two minutes. [illegible] data will be recorded when flow is directed to the RCS.	Relief for test frequency granted pursuant to 10CFR50.55a(f)(6)(i). Alternative for test duration approved pursuant to 10CFR50.55a(f)(4)(iv)
Pump P-16	2.1.2.1	Section XI, Table IWP-3100-1:	All pumps in the IST program.	If a pump is already in operation when the plant test is conducted, only running inlet pressure will be measured.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv) ,
Valve V-1		Withdrawn			
Valve V-2		Withdrawn			
Valve V-3	3.3.1.1	Section XI, IWV-3521: Test frequency requirements	Component cooling water to RCP auxiliaries check valves: 1-CC-84, -119, and -154 (2-CC-78, -115, and -152)	Exercise for operability each refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv) , provided all related requirements are met.
Valve V-4		Withdrawn			

NORTH ANNA POWER STATION UNITS 1 AND 2
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SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-5		Withdrawn			
Valve V-6		Withdrawn			
Valve V-7		Withdrawn			
Valve V-8		Withdrawn			
Valve V-9	N.A.	Section XI, IWV-3411: Test frequency	Reactor coolant seal water return isolation valves: 1-CH-MOV-1380, -1381, (2-CH-MOV-2380, and -2381)	Exercise at cold shutdown when RCS pressure is above 100 psig.	Relief granted pursuant to 10CFR50.55a(f)(6)(i) in the SE dated 9/17/93
Valve V-10	3.5.2.1	Section XI, IWV-3521: Test frequency requirements	Charging water isolation check valves: 1-CH-322, -330, -336, -358, -380, and -402 (2-CH-260, -284, -308, -331, -332, and -335)	Exercise for operability every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-11		Withdrawn			
Valve V-12		Withdrawn			
Valve V-13		Withdrawn			
Valve V-14		Withdrawn			
Valve V-15		Withdrawn			
Valve V-16	3.9.1.1	Section XI, IWV-3521: Test frequency requirements	Fire protection supply to containment check valve: 1-FP-272 (2-FP-79)	Exercise for operability every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-17		Withdrawn			
Valve V-18		Withdrawn			
Valve V-19		Withdrawn			

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-20	3.10.1.1	Section XI, IWV-3521: Test frequency requirements	Hydrogen analyzers and recombiner check valves: 1-HC-14 and -18 (2-HC-15 and -20)	Exercise closed every refueling outage and full-stroke exercise open every 18 months.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-21	3.6.1.1	Section XI, IWV-3521: Test frequency requirements	Instrument air containment isolation check valves: 1-IA-55 and -149 (2-IA-250 and -428)	Exercise for operability every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-22		Withdrawn			
Valve V-23		Withdrawn			
Valve V-24		Withdrawn			
Valve V-25		Withdrawn			
Valve V-26		Withdrawn			
Valve V-27	N.A.	Replaced by Cold Shutdown Justification CSV-42			
Valve V-28	3.4.1.1	Section XI, IWV-3521: Test frequency requirements	RCP seal standpipe containment isolation check valve: 1-RC-149 (2-RC-162)	Exercise for operability every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-29		Withdrawn			
Valve V-30		Withdrawn			
Valve V-31		Withdrawn			
Valve V-32		Withdrawn			
Valve V-33	N.A.	Section XI, IWV-3520: Test method and frequency requirements	Casing cooling pump discharge check valves: 1-RS-123 and -138 (2-RS-103 and -118)	Disassemble and inspect on a sampling basis during refueling outages.	Approved by GL 89-04, Position 2, request not evaluated in SE/TER.

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-34		Withdrawn			
Valve V-35 (Unit 1)		Withdrawn			
Valve V-35 (Unit 2)	N.A.	Section XI, IWV-3411: Test frequency	Safety injection valves: 2-SI-MOV-2836, -2869A, -2869B, -2890A, and -2890B	Full stroke exercise and verify reverse flow closure at refueling outages, not to exceed 24 months.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-36		Withdrawn			
Valve V-37 (Unit 1) Valve V-38 (Unit 2)	N.A.	Section XI, IWV-3521 and -3522: Test method and frequency	Low head SI pump suction check valves from containment sump: 1(2)-SI-1, 1-SI-16, and 2-SI-21	Performing sample disassembly and inspection.	Approved by GL 89-04, Attachment 1, Position 2, in the SE dated 9/17/93
Valve V-37 (Unit 2)	N.A.	Section XI, IWV-3411: Test frequency	Safety injection valves: 2-SI-MOV-2867C, -2867D, -2890C, and -2890D	Full stroke exercise and verify reverse flow closure at refueling outages, not to exceed 24 months. Approved pursuant to (f)(4)(iv)	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-38 (Unit 1) Valve V-39 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency	Safety injection check valves: 1(2)-SI-9, 1-SI-18, -26, 2-SI-19, and -32	Partial stroke with mini-flow quarterly and full-stroke exercise at refueling outages.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-39 (Unit 1) Valve V-40 (Unit 2)	3.2.2.2	Section XI, IWV-3521: Test frequency requirements	RWST supply to charging pump suction check valve: 1-SI-47 (2-SI-18)	Part-stroke exercise open during cold shutdowns and full-stroke open and closed every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-40 (Unit 1) Valve V-41 (Unit 2)	3.2.1.1	Section XI, IWV-3521: Test frequency requirements	SI accumulator make-up and nitrogen supply check valves: 1-SI-106 and -110 (2-SI-132 and -136)	Exercise for operability every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-41 (Unit 1) Valve V-42 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Various safety injection check valves	Exercise open and closed at refueling outages.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-42 (Unit 1) Valve V-43 (Unit 2)	3.2.2.3	Section XI, IWV-3521: Test frequency requirements	SI accumulator discharge and cold leg injection check valves: 1-SI-125, -127, -142, -144, -159, and -161 (2-SI-151, -153, -168, -170, -185, and -187)	Exercise at refueling outages using flow and verify a full-stroke using nonintrusive techniques. During the first outage, all valves will be verified using nonintrusives. During subsequent outages, one valve from each group will be verified using nonintrusives. If the nonintrusive techniques cannot be used to verify a full-stroke exercise, one valve from each group will be disassembled and inspected on a sampling basis every other refueling outage.	Relief granted with provision pursuant to 10CFR50.55a(f)(6)(i).
Valve V-43 (Unit 1) Valve V-44 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Various safety injection check valves	Full stroke open and reverse flow closure at refueling outages.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-44 (Unit 1) Valve V-45 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Various safety injection check valves	Full stroke open and reverse flow closure at refueling outages.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-45 (Unit 1) Valve V-46 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Service water check valves: 1-SW-114, -116, -120, -130, -140, -150, 2-SW-68, -70, -74, -84, -94, and -104	Exercise at refueling outages not to exceed 24 months.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-46 (Unit 1) Valve V-47 (Unit 2)	3.8.1.1	Section XI, IWV-3521: Test frequency requirements	Condenser air removal check valve: 1-VP-12 (2-VP-24)	Exercise for operability every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-47 (Unit 1) Valve V-48 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Charging pump discharge checks: 1-CH-254, -267, -279, 2-CH-178, -193, and -208	Partial stroke open and verify closure quarterly. Full stroke exercise every refueling outage.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-48 (Unit 1) Valve V-49 (Unit 2)		Withdrawn			
Valve V-49 (Unit 1) Valve V-50 (Unit 2)		Withdrawn			
Valve V-50 (Unit 1) Valve V-51 (Unit 2)	N.A.	Section XI, IWV-3522: Test method	Containment atmosphere cleanup check valves: 1-HC-5 and 2-HC-7	Partial stroke exercise quarterly. Perform sample disassembly & inspection at refueling outages.	NRC approval is not required for these non-Code valves. Addressed in the SE dated 9/17/93
Valve V-51 (Unit 1) Valve V-52 (Unit 2)		Withdrawn			
Valve V-52 (Unit 1) Valve V-53 (Unit 2)		Withdrawn			
Valve V-53 (Unit 1) Valve V-54 (Unit 2)	3.2.2.1	Section XI, IWV-3521: Test frequency requirements	LHSI pump seal water supply check valves: 1-SI-4 and -21 (2-SI-6 and -29)	Exercise to the closed position every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-54 (Unit 1) Valve V-55 (Unit 2)	N.A.	Section XI, IWV-3417(a): Stroke time acceptance criteria	Various rapid acting valves.	Assign maximum stroke time of 2 seconds.	Approved by GL 89-04, Attachment 1, Position 6, in the SE dated 9/17/93
Valve V-55 (Unit 1) Valve V-56 (Unit 2)	N.A.	Replaced by non-Code alternative testing description VNC-4			
Valve V-56 (Unit 1) Valve V-57 (Unit 2)		Withdrawn			
Valve V-57 (Unit 1) Valve V-58 (Unit 2)	3.4.2.1	Section XI, IWV-3411: Test frequency requirements	The reactor vessel head vent valves listed in the IST program.	Exercise for operability every cold shutdown when the RCS is depressurized.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv) , provided all related requirements are met.
Valve V-58 (Unit 1) Valve V-60 (Unit 2)		Withdrawn			
Valve V-59	3.1.1.1	Section XI, IWV-3426: Test frequency requirements	The containment isolation valves listed in the IST program.	Group these valves and leak test them as a group. Assign a permissible leak rate to the entire group.	Relief granted pursuant to 10CFR50.55a(f)(6)(i).
Valve V-60 (Unit 1) Valve V-61 (Unit 2)	N.A.	Section XI, IWV-3427(b): Leakage rate corrective actions	All valves subject to leakage tests	None	Approved by GL 89-04, Attachment 1, Position 10, in the SE dated 9/17/93
Valve V-61 (Unit 1) Valve V-67 (Unit 2)		Withdrawn			

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-62 (Unit 1) Valve V-63 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirement	Component cooling water check valves: 1-CC-546, -559, -572, 2-CC-276, -289, and -302	Verify reverse flow closure at refueling outages not to exceed 24 months.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-63 (Unit 1) Valve V-64 (Unit 2)	3.7.1.1	Section XI, IWV-3521: Test frequency requirements	Service water pump discharge check valves: 1-SW-3 and -10 (2-SW-3 and -10)	Part-stroke exercise open quarterly and full-stroke open and closed every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv), provided all related requirements are met.
Valve V-64 (Unit 1) Valve V-65 (Unit 2)	N.A.	Replaced by non-Code alternative testing description VNC-2			
Valve V-65 (Unit 1) Valve V-66 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Component cooling water check valves: 1-CC-111, -146, -181, 2-CC-107, -144, and -181	Verify reverse flow closure at refueling outages	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-66 (Unit 1) Valve V-67 (Unit 2)	N.A.	Section XI, IWV-3417(a): Stroke time corrective actions	All power operated valves	Utilize stroke time acceptance criteria per ASME/ANSI OMa Part 10.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-67 (Unit 1) Valve V-68 (Unit 2)	N.A.	Section XI, IWV-3521: Test frequency requirements	Outside recirculation and quench spray check valves: 1-RS-18, -27, 2-RS-20, -30, 1-QS-11, -19, 2-QS-11, and -22	Exercise at refueling outages.	Approved pursuant to 10CFR50.55a(f)(4)(iv) in the SE dated 9/17/93
Valve V-68 (Unit 1) Valve V-69 (Unit 2)		Withdrawn			

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-69 (Unit 1) Valve V-70 (Unit 2)	3.1.2.1	Section XI, IWV-3427(a): Leak rate test corrective action requirements	All CIVs in the IST program	Allow an evaluation of CIV leakage rates that are above the allowable leakage limits as long as the overall containment leakage is less than $0.6L_a$. If the containment leakage rate will remain below $0.6L_a$ until the next Type C tests, the valve with the high leakage rate need not be repaired or replaced.	Alternative approved pursuant with 10CFR50.55a(a)(3)(ii) with provision.
Valve V-70 (Unit 1) Valve V-71 (Unit 2)	3.3.1.2	Section XI, IWV-3521: Test frequency requirements	Component cooling water supply to RHR heat exchangers check valves: 1-CC-193 and -198 (2-CC-194 and -199)	Part-stroke exercise open quarterly and full-stroke open and closed every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv) , provided all related requirements are met.
Valve V-71 (Unit 1) Valve V-72 (Unit 2)		Withdrawn			
Valve V-72 (Unit 1) Valve V-73 (Unit 2)	3.5.1.1	Section XI, IWV-3521: Test frequency requirements	Charging pump suction from volume control tank check valve: 1-CH-215 (2-CH-153)	Exercise to the closed position every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv) , provided all related requirements are met.
Valve V-73 (Unit 1) Valve V-74 (Unit 2)	N.A.	Section XI, IWV-3520: Test method and frequency requirements	Auxiliary service water pump discharge check valve: 1-SW-22 (2-SW-24).	Part-stroke exercise open quarterly and disassemble and inspect each reactor refueling outage.	Approved by GL 89-04, Position 2, request not evaluated in SE/TER.

NORTH ANNA POWER STATION UNITS 1 AND 2
SAFETY EVALUATION TABLE 1
SUMMARY OF RELIEF REQUESTS

Relief Request Number	TER Section	Section XI Requirement	Equipment Identification	Proposed Alternate Method of Testing	NRC Action
Valve V-74 (Unit 1) Valve V-75 (Unit 2)	3.11.1.1	Section XI, IWV-3521: Test frequency requirements	RHR pump discharge check valves: 1-RH-7 and -15 (2-RH-7 and -15)	Exercise to the open and closed positions every refueling outage.	Alternative approved pursuant to 10CFR50.55a(f)(4)(iv) , provided all related requirements are met.
Valve V-75 (Unit 1) Valve V-76 (Unit 2)	3.1.3.1	Section XI, IWV-3427(a): Leak rate test corrective action requirements	The RWST isolation valves listed in the IST program	Allow an evaluation of RWST isolation valve leakage rates that are above the allowable leakage limits for individual valves as long as the overall leakage rate to the RWST is less than the limit. Valves with high leakage rates need not be repaired or replaced if the evaluation indicates that the overall leakage rate will remain below the limit until the next tests.	Alternative authorized pursuant to 10CFR50.55a(a)(3)(ii) with provisions.