



February 16, 2004

NRC-04-017
10CFR50.55a

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

KEWAUNEE NUCLEAR POWER PLANT
DOCKET 50-305
LICENSE No. DPR-43

Inservice Testing Program Project

- References: 1) Letter from Kyle A. Hoops (NMC) to US NRC dated September 21, 2001 (Adams Accession NO. ML012710313)
- 2) Letter from Thomas Coutu (NMC) to US NRC dated August 14, 2003 (Adams Accession NO. ML032320522)

Nuclear Management Company, LLC (NMC), the licensee for Kewaunee Nuclear Power Plant (KNPP) has performed a comprehensive design basis review and revision of the Inservice Testing (IST) Program at KNPP. This effort was in response to various internal Quality Assurance audits as well as NRC inspections that identified potential weaknesses and areas for improvement. The Commission was previously informed of KNPPs proposed plan for implementing the IST Improvement Project (reference 1).

IST Program revision Q was submitted to the Commission as documented in reference 2. Following review of the submittal a teleconference between the NRC reviewer and the NMC was held on October 30th, 2003. As a result of this discussion the NMC is submitting an additional five relief requests and changing two relief requests previously submitted. The discussion also identified the need to submit a letter requesting Commission approval to use a later ASME Code edition for relief valve testing, which is submitted seperately.

The following summarizes relief request status:

Pump relief request PRR-01 has been revised to allow component cooling flow to be established through an available RHR heat exchanger versus RHR heat exchanger 1B. NRC review and approval is not requested since the relief was previously approved for the third ten-year interval and the change is not technical in nature.

A047

Pump relief request PRR-02 has not changed since submittal of revision Q. NRC review and approval is not requested since the relief was previously approved for the third ten-year interval.

Pump relief request PRR-03 has been created to allow quarterly pump tests for the safety injection pumps to be performed using a fixed resistance non-instrumented recirculation path. NRC review and approval is not requested since similar relief was previously approved for the third ten-year interval and the request is consistent with Generic Letter 89-04 position 9. PRR-03 removes the auxiliary feedwater pumps from the scope of the previously approved relief request, as quarterly full flow testing is practical. The request notes that operability testing of the auxiliary feedwater pumps may be performed utilizing the minimum flow recirculation lines pursuant to OM Code allowables of para. 4.5.

Valve relief request VRR-01 has not changed since submittal of revision Q. NRC review and approval is not requested since similar relief was previously approved for the third ten-year interval. VRR-01 includes the removal of certain thermal relief valves from the scope of the previously approved relief request.

Valve relief request VRR-02 has not changed since submittal of revision Q. Similar relief was previously approved for the third ten-year interval for valve CVC-7. The application of this relief to RHR-8A, RHR-8B, SD-3A and SD-3B requires NRC review and approval.

Valve relief request VRR-03 has been revised to identify that the service water make-up to the spent fuel pool components are outside the scope of 10 CFR 50.55a and therefore NRC approval is not required. This determination agrees with previous revisions of the Kewaunee IST program and was addressed for the third ten-year interval by NRC Safety Evaluation Report dated July 15, 1994.

Valve relief request VRR-04 has not changed since submittal of revision Q. NRC review and approval is not requested since the relief was previously approved for the third ten-year interval.

Valve relief request VRR-05 has not changed since submittal of revision Q. NRC review and approval is not requested since the relief was previously approved for the third ten-year interval.

Valve relief request VRR-06 was created to obtain Commission approval to utilize test requirements set forth in subsequent editions of the Code as allowed by 10 CFR 50.55a(f)(4)(iv). The application of this relief requires NRC review and approval.

Valve relief request VRR-07 was created to establish a two year exercise frequency for manual valves and obtain Commission approval to utilize test requirements set forth in

subsequent editions of the Code as allowed by 10 CFR 50.55a(f)(4)(iv). The application of this relief requires NRC review and approval.

Valve relief request VRR-08 establishes a sample disassembly and inspection program for the service water pump discharge check valves on a periodicity not determined by refueling outages. The relief request is in accordance with guidelines provided in Generic Letter 90-04 position 2 as further supported by NUREG 1482 Appendix A. NRC review and approval of this relief is requested.

Valve relief request VRR-09 establishes a sample disassembly and inspection program for the service water supply to turbine driven auxiliary feedwater pump check valves. NRC review and approval is not requested since relief was previously approved for the third ten-year interval and the request is consistent with Generic Letter 89-04 position 2.

With respect to relief valve testing at Kewaunee; the request for Commission approval to use ASME 1998 Code, 2000 Omb addenda, Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants", will be submitted as a separate letter.

If there are any questions or if additional information is required, please contact Gerald Riste at (920) 388-8424 or Tim Smith at (920) 388-8660.



Thomas Coutu
Site Vice-President, Kewaunee Plant
Nuclear Management Company, LLC

TMS

cc- Administrator, Region III, USNRC
Project Manager, Kewaunee Nuclear Power Plant, USNRC
Senior Resident Inspector, Kewaunee Nuclear Power Plant, USNRC
Electric Division, PSCW

Enclosure 1) KNPP IST Program Relief Requests PRR-01, PRR-03, VRR-03, VRR-06, VRR-07, VRR-08 and VRR-09.

ENCLOSURE 1

NUCLEAR MANAGEMENT COMPANY, LLC
KEWAUNEE NUCLEAR PLANT
DOCKET 50-305

February 16, 2004

Letter from Thomas Coutu (NMC)

To

Document Control Desk (NRC)

Inservice Testing Program Project

Relief Requests

PRR-01, PRR-03, VRR-03, VRR-06, VRR-07, VRR-08 and VRR-09.

12 Pages Follow

PUMP RELIEF REQUEST - PRR-01

System: Component Cooling Water
Service Water

Components: CCW Pumps 1A, 1B
SW Pumps 1A1, 1A2, 1B1, 1B2

Code Class: 3

Function: The component cooling water and service water pumps perform the safety-related function of providing heat removal from essential safety-related equipment during accident conditions.

Code Requirement: Paragraph 5.2 of OM-6 details the pump parameters that must be measured or observed at least once every 3 months. It includes a requirement that either flow rate or differential pressure be held constant while measuring the other required parameters.

Alternate Testing: Service water pump performance measurements are made with the flow condition of nominal flow during power operations. Component cooling water pump performance measurements are made with the flow condition of nominal flow during power operation plus flow through an available RHR heat exchanger. Flow measurements are made from a computer point and differential pressures are calculated and recorded. The differential pressure is compared to that predicted by the pump curve for the measured flow rate. Action levels have been established based on the deviation from the predicted pump curve values. This method of establishing Action levels is consistent with paragraph 6.1 of OM-6.

The following elements are used in developing and implementing the reference pump curves and is consistent with NRC guidance provided in Section 5.2 of NUREG-1482:

1. The data used to develop the pump acceptance criteria curves have been compared to the manufacturer supplied pump curves and the comparison does validate the proper operation of the pumps.
2. The instruments used to measure the operating characteristics of the pumps meet the 2% accuracy requirements stated in Table 1 of OM-6.
3. The pump curves are based on six data points.
4. The six data points chosen are beyond the "flat" portion of the curve in the region in which the pump is normally operating. The range of data points is within or as near as practicable to design basis flow rates.
5. KNPP Technical Specifications and the Updated Safety Analysis Report were reviewed to ensure that the pump curves do not conflict with any operability criteria.
6. The vibration levels do not vary significantly over the operating range of the pump therefore, one set of vibration acceptance criteria will be used.

PUMP RELIEF REQUEST - PRR-01

7. An inservice test is performed on all equipment within the scope of the IST plan following repair, replacement, or performance altering maintenance to determine new acceptance criteria or revalidate the old acceptance criteria prior to returning the equipment to service.

Basis For Relief:

Pursuant to 10 CFR 50.55a(f)(6)(i), relief is being requested on the basis that conformance to Code requirements is impractical for the facility.

The component cooling water pumps operate during a variety of flow rates, differential pressure conditions, and system demands resulting in the inability to easily establish a stable flow rate or differential pressure for evaluation against reference values. Varying the flow rate of the component cooling water pumps is impractical during normal plant operation due to the potential of creating transients in the reactor coolant pumps, which could cause a plant trip. The Code required test method would be an undue burden in that damage to plant equipment could occur as well as a plant transient/trip. The alternative testing can provide an adequate level of assurance of operational readiness of the component cooling water pumps without creating adverse conditions.

The service water pumps operate during a variety of flow rates, differential pressure conditions and system demands resulting in the inability to easily establish a stable flow rate or differential pressure for evaluation against reference values. Varying the flow rate of the service water pumps is impractical during normal plant operation due to the potential loss of adequate flow to various components dependent upon service water for cooling water flow and heat removal. The potential interruption of cooling water flow to these components is burdensome and could result in a reactor transient or a trip.

Note:

This relief request combines previously approved relief requests IST-RR-11 and IST-RR-27. IST-RR-11 was previously approved for the Third 10-Year Interval via NRC Safety Evaluation Report dated July 15, 1994 with acceptance of anomaly resolution via NRC Safety Evaluation Report dated April 16, 1996. IST- RR-27 was previously approved for the Third 10-Year Interval via NRC Safety Evaluation Report dated April 16, 1996.

PUMP RELIEF REQUEST - PRR-03

System: Safety Injection

Components: SI Pumps 1A, 1B

Code Class: 2

Function: The safety injection pumps perform the safety-related function of providing high head safety injection flow to the RCS for emergency core cooling to minimize fuel damage and the release of fission products. The system also accomplishes the safety related function of bringing the plant to a safe shutdown condition subsequent to a steam line break and steam generator tube rupture.

Code Requirement: Paragraph 5.2 of OM-6 details the pump parameters that must be measured or observed at least once every 3 months. It includes a requirement that flow rate be measured.

Alternate Testing: As allowed by paragraph 3.2 of OM-6 a pump can be tested in a bypass loop. These pumps are operated at least once every 3 months and tested using a fixed resistance non-instrumented recirculation path.

Quarterly pump tests will be performed using the non-instrumented recirculation path with pump differential pressure and vibration measurements recorded. The pumps will also be tested at a substantial flow rate during refueling shutdown with flow rate, differential pressure and vibration measurements recorded.

Basis for Relief: Pursuant to 10 CFR 50.55a(f)(5)(iii), relief is being requested on the basis that conformance to Code requirements is impractical for the facility.

GL 89-04, Position 9, Pump Testing Using Minimum-Flow Return Lines With or Without Flow Measuring Devices, identifies that for quarterly pump testing where flow can only be established through a non-instrumented minimum-flow path during quarterly pump testing and a path exists at cold shutdown or refueling outages to perform a test of the pump under full or substantial flow conditions, the staff has determined the increased interval is an acceptable alternative to the Code requirements. This is contingent upon pump differential pressure, flow rate, and bearing vibration measurements are taken during this testing and that quarterly testing also continues measuring at least pump differential pressure and vibration.

Note: Similar relief for the auxiliary feedwater pumps and safety injection pumps was previously approved for the third ten year interval as IST-RR-5 via NRC Safety Evaluation Report dated July 15, 1994. Following steam generator replacement it was determined that auxiliary feedwater pump testing could be performed on a quarterly basis. This testing requires a plant backdown.

Operability testing of the Auxiliary Feedwater pumps may be performed utilizing the minimum flow recirculation lines pursuant to OM Code allowables of para. 4.5. KNP considers sufficient data exists from years of quarterly IST utilizing the minimum flow recirculation lines to provide reasonable assurance that the pumps are capable of performing their

PUMP RELIEF REQUEST - PRR-03

design safety function following pump, driver or support system maintenance without the necessity of performing reduced power full flow testing.

Minimum flow recirculation testing will NOT be used to verify pump operability following pump overhaul or maintenance to the pump rotating element.

VALVE RELIEF REQUEST - VRR-03

System: Service Water
Spent Fuel Pool Cooling

Valve(s): SW-1497 SW-1501

Category: B (SW-1497) Code Class: 3
C (SW-1501)

Function: These valves perform an active safety function as defined within the scope of the ASME OM Code. The valves must be capable of changing position subsequent to aligning emergency makeup supply line from service water to the spent fuel pools. KNPP fuel pools provide a large heat absorption capacity precluding the necessity for redundancy of any active components within the Spent Fuel Pool Cooling system. During the unlikely event of a loss of heat removal or a sudden loss of pool inventory, service water is credited as the qualified makeup supply source (re: NRC SER for Amendment No. 150, January 23, 2001)

Code Requirement: Active Category A and B valves shall be tested nominally every 3 months except as provided by paras. 4.2.1.2, 4.2.1.5, and 4.2.1.7. (para. 4.2.1.1)
Check valves shall be exercised nominally every 3 months except as provided by paras. 4.3.2.2, 4.3.2.3, 4.3.2.4, and 4.3.2.5. (para. 4.3.2.1)

Alternate Testing: To verify full stroke capability of check valve SW-1501, the valve will be disassembled and inspected at intervals not to exceed 60 months using Generic Letter 89-04 as guidelines. Subsequent to reassembly, partial-stroke exercise cannot be performed, as it would introduce service water into the spent fuel pool cooling system. If inability of the valve disk to reach the full-stroke position is noted in the inspection, the condition will be corrected and the frequency of valve disassembly/inspection will be increased to every other refueling outage. More frequent disassembly could result in maintenance induced failures.

Consistent with the exercise frequency of SW-1501, full-stroke exercising of manual valve SW-1497 will be performed at intervals not to exceed 60 months. If the valve fails to exhibit the required change of obturator position it shall be declared inoperable and repaired or replaced.

Basis For Relief: Pursuant to 10 CFR 50.55a(f)(6)(i) and (a)(3)(ii), relief is being requested on the basis that conformance is impractical for the facility and compliance with the specified requirements of the Code would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

The spent fuel pool cooling system is in continuous operation to remove residual heat generated by the stored spent fuel. Exercising these valves to their active safety positions would require either terminating spent fuel pool cooling water flow or aligning service water to the spent fuel pool cooling system. Either of these activities would have an adverse impact on plant safety.

Terminating cooling water flow for the short term would have no adverse impact, but under worst case conditions, being a full core offload, analysis has demonstrated that there would be at least 8.3 hours available for

VALVE RELIEF REQUEST - VRR-03

corrective actions prior to the spent fuel pool boiling, and a minimum of 48.5 hours before the water boils to below the minimum shielding depth (10 feet above the racks). These calculations were based on maximum heat loads; however, under less severe heat loads, more frequent termination of cooling water flow than that specified in alternative testing is inadvisable due to the lack of redundancy in the spent fuel cooling system. The intrusion of service water impurities into the spent fuel pool would result in upsetting water chemistry and the potential of damaging the integrity of the stored fuel rods.

The service water supply valves, SW-1497 and SW-1501, are in a relatively mild environment with extremely limiting factors to contribute to valve degradation. Satisfying all testing requirements for these valves simultaneously is preferred. It should be noted that makeup water is available from various sources and that service water would be used as a last resort, but pursuant to the guidelines of NUREG-0800, Standard Review Plan (SRP) 9.1.3.III.1.f, service water is the designated seismic category 1 makeup system. Furthermore, approval of this relief request will allow the specified alternative tests to be performed a reasonable length of time (less than 8 weeks) prior to a refueling outage to take advantage of the low heat load demand on the spent fuel pool cooling at that time.

Note:

Similar relief request was previously submitted for the Third 10-Year Interval and specifically stated that the SW-1501 was outside the scope of 10 CFR 50.55a. The relief request was added to address an NRC concern identified during inspection 92-019. The previous request for relief was addressed by NRC Safety Evaluation Report dated July 15, 1994 as IST-RR-25. This relief request adds the upstream manual isolation valve SW-1497, which is also outside the scope of 10 CFR 50.55a. NRC review and approval of this relief request is not required.

VALVE RELIEF REQUEST – VRR-06

System(s): Auxiliary Feedwater
Valve(s): MU-311A MU-311B MU-311C
Category(s): C Code Class: 3
Function: These check valves are located in the AFW pump suction supply lines from the CST. The valves have no safety function in the open direction. The CSTs are the initial suction supply source to the AFW pumps primarily due the higher quality of condensate water. However, the CSTs are non-seismic and are non-safety-related. Due to the CST being the initial suction supply source to the AFW pumps forward exercising of these checks shall be considered an augmented test requirement in the IST program and performed as good engineering judgement. These check valves perform an active safety function in the closed direction. Upon depletion of CST inventory or when the CSTs are unavailable, the suction supply for the AFW pumps is provided by the service water system. When the AFW pumps are aligned to the service water system for a suction supply source, these Class 3 to non-Code boundary barrier check valves close to prevent the service water supply from being diverted to the CST.

Code Requirement: Check valves shall be exercised nominally every 3 months except as provided by paras. 4.3.2.2, 4.3.2.3, 4.3.2.4, and 4.3.2.5. (para. 4.3.2.1)

Alternate Testing: Full stroke capability of the valves will be verified during refueling outages by disassembly in accordance with the guidelines provided in ISTC-4.5.4(c) of OMa-1996. As an alternative, closure capability may be verified by non-intrusive methods. Full stroke exercising in the forward direction is accomplished during quarterly pump testing.

Partial Stroke Testing: Partial stroke exercising would require the same activities as full stroke exercising.

VALVE RELIEF REQUEST – VRR-06

Basis For Relief: Pursuant to 10 CFR 50.55a(a)(3)(i), relief is being requested on the basis that the proposed alternative provides an acceptable level of quality and safety.

10 CFR 50.55.a(f)(4)(iv) allows test requirements set forth in subsequent editions of codes and addenda approved for use in 10CFR50.55a(b) to be adopted provided all related provisions or requirements are met and subject to Commission approval. Effective November 22, 1999 ASME Code 1995 edition and 1996 Addenda was incorporated into 10CFR50.55a(b).

These check valves are not provided with downstream test connections or position indication. Flow exercising these valves in the reverse direction quarterly during power operation, during cold shutdowns and refueling outages is not practical. Flow exercising requires abnormal alignment of the AFW system by the manipulation of various manual valves and requires extensive flushing of the AFW system piping subsequent to closure of the service water supply valves. This activity is necessary to prevent contamination of CST inventory and also minimizes the potential for chemistry problems in the feedwater system. The intrusion of impure service water to the feedwater system could result in unnecessarily subjecting the steam generators to premature degradation due to inadequate feedwater chemistry. The potential consequences and the actions necessary to perform reverse exercising of the CST supply check valves are undesirable and impractical without a commensurate increase in the level of valve reliability. The only practical means of verifying closure capability of these check valves is by disassembly or by performing a radiographic examination test (RT) on the valve body to demonstrate the valve disk is in the closed position. Performing this type of testing activity quarterly during power operation or during cold shutdowns is impractical without providing a commensurate increase in the level of valve reliability. Performing this type of test activity during cold shutdown is also impractical due to the use of temporary test equipment or component disassembly and could delay plant restart.

VALVE RELIEF REQUEST – VRR-07

System: Various

Valve(s): Various Active Manual Isolation Valves

Category: B

Code Class: 2 and 3

Function: Manual isolation valves which are required to change position in order to accomplish a safety function as defined within the scope of the ASME OM Code.

Code Requirement: Active Category A and B valves shall be tested nominally every 3 months, except as provided in paras. 4.2.1.2, 4.2.1.5, and 4.2.1.7. (para. 4.2.1.1)

Alternate Testing: KNPP proposes to full-stroke exercise manual valves, within the scope of the OM Code, at least once every 2 years, in lieu of the exercise interval of 3 months specified in OMa-1988, Part 10.

Basis For Relief: Pursuant to 10 CFR 50.55a(a)(3)(i), relief is being requested on the basis that the proposed alternative provides an acceptable level of quality and safety. Relief is also being requested to obtain Commission approval to use the requirements of ISTC-3540 OMB-2000.

10 CFR 50.55.a(f)(4)(iv) allows test requirements set forth in subsequent editions of codes and addenda approved for use in 10CFR50.55a(b) to be adopted provided all related provisions or requirements are met and subject to Commission approval.

Effective October 28, 2002, ASME Code OMB-2000 Addenda was incorporated into 10CFR50.55a(b). 10CFR50.55a(b)(3)(vi) clarifies the NRC position that the interval for exercising manual valves may not exceed 2 years when using the 1999 and 2000 Addenda of ISTC-3540.

Subsection ISTC-3540, Manual Valves, of the OMB-2000 addenda establishes a 5 year frequency for manual valve exercising except where adverse conditions may require more frequent exercising. Examples of adverse conditions are harsh service environment, lubricant hardening, corrosive or sediment laden process fluid, or degraded valve components.

The manual valves for which the testing applies are exposed to relatively clean process fluids and are located in environments where temperatures should not have an adverse affect on valve operability. Due to the simplicity of manual valve design, and the limited number of failure mechanisms, it is KNPPs position to use ASME Code OMB-2000 Addenda subsection ISTC-3540 as further clarified in 10CFR50.55a(b)(3)(vi) and exercise manual valves on a 2 year frequency or more frequently when exercised to accomplish a process function if performed routinely.

VALVE RELIEF REQUEST – VRR-08

System(s): Service Water

Valve(s): SW-1A1 SW-1A2 SW-1B1 SW-1B2

Category(s): C Code Class: 3

Function: These normally open check valves are located in the discharge lines from the service water pumps. The valves perform an active safety function in the open direction. The valves are required to open upon the associated pump starting to provide a path for SW flow. The worst-case condition under which the SW system is required to function would be a LOCA/LOOP with a coincidental single active failure. Under these conditions, each service train is capable of supplying 100% of the required accident cooling flow to safety-related components. The check valve also performs an augmented function in the closed direction. The valves close on reversal or cessation of flow to prevent diversion of discharge flow from the inservice pumps through an idle or out-of-service pump in lieu of being properly directed to the SW headers. This is a concern only during power operation since during an accident train operability is dependent upon two pump operation and train separation.

Code Requirement: Check valves shall be exercised nominally every 3 months except as provided by paras. 4.3.2.2, 4.3.2.3, 4.3.2.4, and 4.3.2.5. (para. 4.3.2.1)

Alternate Testing: Full stroke capability of the valve will be verified on a nominal 18 month frequency not determined by refueling outages by valve disassembly and inspection in accordance with the guidelines provided in Position 2 of GL 89-04.

Partial Stroke Testing: Partial stroke exercising will be performed during quarterly pump testing.

Basis for Relief: Pursuant to 10 CFR 50.55a(a)(3)(i), relief is being requested on the basis that the proposed alternative provides an acceptable level of quality and safety.

Full stroke exercising these valves in the forward direction with maximum required accident flow quarterly during power operation is not practical due to the potential for equipment damage. In order to achieve required flow rates, the CCW heat exchangers would be exposed to full service water flow. Exposing the CCW heat exchangers to full service water flow results in thermal cycling and potential premature tube cracking. Additionally, full stroke exercising could upset the balance of heat removal from other plant systems. Single pump operation during cold shutdown could result in low header pressure resulting in less than adequate flow to existing heat loads. The potential consequences of full stroke exercising the SW pump discharge check valves are undesirable and impractical. The only practical means of verifying full stroke opening capability of these check valves is by disassembly or by nonintrusive methods.

VALVE RELIEF REQUEST – VRR-08

Performing this type of testing activity quarterly during power operation or during cold shutdowns is impractical without providing a commensurate increase in the level of valve reliability. Performing this type of test activity during cold shutdown is also impractical due to the use of temporary test equipment or component disassembly, which could delay plant restart.

The check valves will be disassembled and inspected on a nominal 18 month frequency, not to exceed 6 years for the group of 4 valves. This valve grouping and inspection frequency is acceptable, as described in Generic Letter 89-04, Position 2 and further supported by NUREG 1482 Appendix A.

Following check valve disassembly and inspection the check valve will be partial stroke tested.

Check valve disassembly and inspection is also performed in conjunction with the routine maintenance task for service water pump replacement. Following pump replacement a surveillance procedure is performed on the new pump to establish a pump reference curve. During this surveillance the valves are open tested under substantial flow conditions. These valve operations meet the recommended partial valve stroking after reassembly as described in GL 89-04 position 2.

VALVE RELIEF REQUEST - VRR-09

System(s): Service Water

Valve(s): SW-501A SW-501B

Category(s): C Code Class: 3

Function: These check valves are located in the supply lines from service water headers "A" and "B" to the suction of the turbine driven AFW pump. The valves perform an active safety function in the open position to provide a flow path from the service water headers to the TDAFW pump suction when CSTs inventory is depleted or unavailable. This function ensures continuous long-term makeup supply to the steam generators during various design bases accidents. These check valves also perform an active safety function in the closed direction for train separation. This function prevents the diversion of service water flow from "B" train to an idle or unavailable "A" train, or vice versa, in lieu of the pump suction.

Code Requirement: Check valves shall be exercised nominally every 3 months except as provided by paras. 4.3.2.2, 4.3.2.3, 4.3.2.4, and 4.3.2.5. (para. 4.3.2.1)

Alternate Testing: Full stroke capability of the valves will be verified during refueling outages by sample disassembly in accordance with the guidelines provided in Position 2 of GL 89-04. The valves will be partially stroked subsequent to reassembly.

Basis for Relief: Pursuant to 10 CFR 50.55a(a)(3)(i), relief is being requested on the basis that the proposed alternative provides an acceptable level of quality and safety.

Exercising this valve to the full open position quarterly during power operation or during cold shutdown would require the injection of SW into the feedwater system and ultimately the steam generators. This would upset the chemistry balance maintained in the steam generators possibly resulting in premature degradation.

Partial Stroke Testing: Partial stroke exercising is performed quarterly during the pump test by allowing SW flow through the valves while discharging to a trench via a downstream drain.

Note: This relief request was previously approved as IST-RR-24 for the Third 10-Year Interval via NRC Safety Evaluation Report dated July 15, 1994.