



**CENTERIOR  
ENERGY**

**PERRY NUCLEAR POWER PLANT**

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VICE PRESIDENT - NUCLEAR

July 31, 1991  
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U.S. Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Perry Nuclear Power Plant  
Docket No. 50-440  
Inservice Testing Program (ISTP)  
Revision 3 And Relief Requests

Gentlemen:

Enclosed for your review is Revision 3 to the Perry Nuclear Power Plant (PNPP) Pump and Valve Inservice Testing Program (ISTP), including associated relief requests.

This revision reflects the results of discussions between the NRC Staff and the Licensee in the meeting held on March 5, 6, and 7, 1991 at the Perry Plant and in the subsequent conference call on April 24, 1991, as summarized in the NRC Staff's Meeting Summary dated May 29, 1991. To assist the NRC staff in preparing a final SER, a summary of action taken by the Licensee in response to the Meeting Summary is contained in Attachment 1. In addition, a "Scope of Revision" summary is contained on page vi of the enclosed ISTP.

If you have any questions, please feel free to call.

Sincerely,

Michael D. Lyster

MDL:CJF:njc

Attachment

cc: USNRC Project Manager  
USNRC Resident Inspector Office  
USNRC Region III  
EG&G Idaho

Operating Companies  
Cleveland Electric Illuminating  
Toledo Edison

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PERRY NUCLEAR POWER PLANT, UNIT 1  
PUMP AND VALVE INSERVICE TESTING PROGRAM  
ACTION TAKEN IN RESPONSE TO MARCH 5-7 MEETING SUMMARY

1. VALVE TESTING PROGRAM

- A.1.1. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-19 to provide justification for testing between a pair of valves, with leakage limits based on the smallest valve limit in the group (reference ISTP, Rev. 3, page 3-63).

Note that the Licensee has adhered to the NRC staff's caution to ensure that this test method is limited to penetrations that only involve two valves, with the exception of penetrations P313 and P314. Due to system piping/valve configuration constraints, the Licensee proposes to test penetrations P313 and P314 with 3 barrier valves in the test boundary rather than 2. However, the leakage limit is still based on the smallest valve limit for the group.

- A.1.2. The Licensee has complied with the Meeting Summary Response. For the twelve (12) penetrations that are exceptions, the Licensee has revised Relief Request VR-19 to provide justification for the leakage limits, which are based on penetration size or technical specification limits (reference ISTP, Rev. 3, page 3-63 through 3-67).

- A.2. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-26 to address each valve, or group of valves, separately; and to provide justification for why it is impractical to perform partial or full flow testing quarterly, or during cold shutdown, as applicable. The Licensee has also provided an explanation for why a part-stroke exercise cannot be performed for the check valves after reassembly is complete, where applicable (reference ISTP, Rev. 3, page 3-75).

- A.3. No further action required by Licensee.

- A.4. No further action required by Licensee.

- A.5. No further action required by Licensee.

- A.6. The Licensee has complied with the Meeting Summary Response by changing the "LK" (PIV) classification to "LD" (other) in the ISTP Valve Test Table for the appropriate relief valves (reference ISTP, Rev. 3, pages 3-111 through 3-243).

- A.7. The Licensee has complied with the Meeting Summary Response. Relief Request VR-12 has been deleted (reference ISTP, Rev. 3, page 3-53). The manual valves previously identified in Relief Request VR-12 have been retained in PNPP's ISTP Valve Test Table with valve test frequency requirements changed from quarterly (Q) to refueling outage (RO). These valves have been identified and documented as being beyond-design-basis event valves (outside IST scope) by addition of Note 1 to the ISTP Valve Test Table (reference ISTP, Rev. 3, page 3-243).
- In addition, the Licensee has added Notes 2 through 5 to PNPP's ISTP Valve Test Table to identify and document additional non-Code testing that is performed for reasons other than satisfying Technical Specification 4.0.5 (ASME Code Section XI) (reference ISTP, Rev. 3, page 3-243).
- B.1. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-13 to augment the justification for not exercising valves 1B21-F001 and -F002 on a quarterly basis (reference ISTP, Rev. 3, page 3-30).
- B.2. No further action required by Licensee.
- B.3. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-5 to implement fail-safe stroke testing of the main steam isolation valves (MSIVs) during cold shutdowns (reference ISTP, Rev. 3, page 3-22).
- B.4. The Licensee has complied with the Meeting Summary Response by retaining Relief Request VR-11 in the IST program. The MSIV solenoid control valves will be stroked with the MSIVs as provided in Relief Request VR-11 (reference ISTP, Rev. 3, page 3-52).
- B.5. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-20 to include the MSIV accumulator supply check valves and to provide additional justification for exercising these valves on a cold shutdown frequency (reference ISTP, Rev. 3, page 3-37).
- B.6. No further action required by Licensee.
- B.7. The Licensee has resolved the open item in the Meeting Summary Response by submitting new Relief Request VR-40. The Licensee has determined that Non-ADS-SRV accumulator check valves are required to be tested in the closed position. Relief Request VR-40 provides justification for testing these valves closed at a refueling outage frequency (reference ISTP, Rev. 2, page 3-100).
- B.8. No further action required by Licensee.
- B.9. Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-22 (reference ISTP, Rev. 3, page 3-71).

- B.10. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-20 by augmenting the justification to indicate that alternate train testing is identified in PNPP Technical Specifications, which has previously been reviewed and approved by the NRC staff during the technical specification approval process (reference ISTP, Rev. 3, page 3-68).
- C.1. The Licensee has complied with the Meeting Summary Response. The Control Rod Drive Hydraulic System scram discharge volume vent and drain valves previously identified on Relief Request VR-33 have been reclassified as Category B valves (reference ISTP, Rev. 3, page 3-134). Relief Request VR-33 has been deleted (reference ISTP, Rev. 3, page 3-89).
- C.2. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-6 to verify closure of the Control Rod Drive Hydraulic System (C11) charging water check valves on a refueling outage frequency (reference ISTP, Rev. 3, page 3-46).
- C.3. The licensee has complied with the Meeting Summary Response by retaining Relief Request VR-24 in PNPP's IST program as a means of documenting the NRC Staff's evaluation (reference ISTP, Rev. 3, page 3-73).
- D.1. No further action required by Licensee.
- D.2. No further action required by Licensee.
- D.3. The Licensee has complied with the Meeting Summary Response. Relief Request VR-12 has been deleted (reference ISTP, Rev. 3, page 3-53). The manual valves previously identified in Relief Request V-12 have been retained in PNPP's ISTP Valve Test Table with valve test frequency requirements changed from quarterly (Q) to refueling outage (RO). These valves have been identified and documented as being beyond-design-basis event valves (outside IST scope) by addition of Note 1 to the ISTP Valve Test Table (reference ISTP, Rev. 3, page 3-243).  
  
In addition, the Licensee has added Notes 2 through 5 to PNPP's ISTP Valve Test Table to identify and document additional non-Code testing that is performed for reasons other than satisfying Technical Specification 4.0.5 (ASME Code Section XI) (reference ISTP, Rev. 3, page 3-243).
- D.4. The Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-25 and reclassifying valve 1C41-F520 as "AC-Passive" in PNPP's ISTP Valve Test Table (reference ISTP, Rev. 3, pages 3-74 and 3-140).
- E.1. The Licensee has complied with the Meeting Summary Response by supplementing Cold Shutdown Justification CS-18 to clarify the basis for the cold shutdown justification (reference ISTP, Rev. 3, page 3-35).

- E.2. No further action required by Licensee.
- F.1. Valves 1E12-F011A and -F011B are penetration barrier valves to penetration P105 and P407 respectively. These penetrations are among the twelve penetrations that are exceptions (i.e., those penetrations for which individual valve leak rate testing is impractical). For the twelve penetration that are exceptions, the Licensee has revised Relief Request VR-19 by providing justification for the leakage limit which is based on penetration size (reference ISTP, Rev. 3, page 3-63 through 3-67).
- F.2. The Licensee has complied with the Meeting Summary Response by deleting valves 1E12-F026A and -F026B from cold Shutdown Justification CS-16 (reference ISTP, Rev. 3, page 3-33). These valves will be tested quarterly (reference ISTP, Rev. 3, pages 3-145 and 3-155).
- F.3. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-16 to indicate that these valves do not perform a PIV function and to add that temperature monitoring has been used successfully to identify leakage in the past (reference ISTP, Rev. 3, page 33). CS-16 has been retained in the IST program because not all valves identified in CS-16 have been determined to be passive valves.
- F.4. No further action required by Licensee.
- F.5. No further action required by Licensee.
- F.6. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-21 to provide additional justification for forward-flow testing check valves 1E12-F084A, -F084B, F084C, -F085A, -F085B, and F085C on a cold shutdown frequency (reference ISTP, Rev. 3, page 3-38).

After evaluating the optional test methods suggested in the Meeting Summary Response, the Licensee has resolved the open item by revising Relief Request VR-26 to include the check valves and to provide justification for verifying these valves in the closed position by sample disassembly and inspection as part of the "AP" (Alternate Position) test (reference ISTP, Rev. 3, page 3-79).

- F.7.        The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-34 to provide for the addition of a 25% maximum time extension to the 2 year leak test frequency requirement of IWV-3422 (reference ISTP, Rev. 3, page 3-90).
- F.8.        The Licensee has complied with the Meeting Summary Response by changing the "LK" (PIV) classification to "LD" (other) in the ISTP Valve Test Table for relief valves 1E12-F017A, -F017B, -F017C, -F036, 1E21-F031 and 1E22-F014 (reference ISTP, Rev. 3, pages 3-150, 3-156, 3-160 and 3-162).
- F.9.        The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-14 to clarify the hardships involved in testing valve 1E12-F019 at cold shutdown (reference ISTP, Rev. 3, page 3-55).
- F.10.       The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-19 to clarify that valves 1E12-F037A and -F037B are interlocked to prevent their operation when the RCS is above 135 psi and to identify the potential adverse consequences of overriding the interlock for test purposes (reference ISTP, Rev. 3, page 3-36).
- F.11.       No further action required by Licensee.
- F.12.       The Licensee has complied with the Meeting Summary Response. Relief Request VR-36 has been revised to indicate that, due to the valve lift check design, there is no practical method to measure the force or torque required to stroke valves 1E12-F041A, -F041B and -F041C (reference ISTP, Rev. 3, page 3-94).
- F.13.       The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-13: (1) to better identify the impracticality of performing the testing of valves 1E12-F050A and -F050B quarterly, (2) to clarify the hardships involved with testing both trains of RHR system during cold shutdown (extensive flushing which would generate large amounts of waste water), and (3) to request relief for performance of reverse flow closure leak verification by testing at refueling outage frequency (reference ISTP, Rev. 3, page 3-54). Note also that the valve category designation for valves 1E12-F050A and -F050B has been corrected and is now identified as "AC" in the ISTP Valve Test Table and in Relief Request VR-13 (reference ISTP, Rev. 3, page 3-153 and 3-54).
- F.14.       The Licensee has complied with the Meeting Summary Response by deleting Cold Shutdown Justification CS-17 (reference ISTP, Rev. 3, page 3-34). Valve 1E12-F105 will be exercised quarterly during power operation (reference ISTP, Rev. 3, pages 3-153).

- F.15. The Licensee has complied with the Meeting Summary Response by deleting valve 1E12-F550 from Relief Request VR-18 and by adding a justification to Relief Request VR-34 for not exercising valve 1E12-F550 open and closed quarterly during power operations or during cold shutdown (reference ISTP, Rev. 3, pages 3-25 and 3-90).
- F.16. The Licensee has complied with the Meeting Summary Response by reclassifying valves 1E12-F558A and -F558B as "AC Passive" in the ISTP Valve Test Table (reference ISTP, Rev. 3, page 3-154).
- F.17. No further action required by Licensee.
- G.1. The Licensee has complied with the Meeting Summary Response by deleting Cold Shutdown Justification CS-17 (reference ISTP, Rev. 3, page 3-34). Valve 1E21-F001 will be tested quarterly (reference ISTP, Rev. 3, page 3-159).
- G.2. The Licensee has complied with the Meeting Summary Response by supplementing Relief Request VR-36 to indicate that, due to the valve lift check design, there is no practical method to measure the force or torque required to stroke valve 1E21-F006 (reference ISTP, Rev. 3, page 3-94).
- G.3. No further action required by Licensee.
- G.4. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-21 to provide additional justification for forward-flow testing check valves 1E21-F033 and -F034 on a cold shutdown frequency (reference ISTP, Rev. 3, page 3-38).

After evaluating the optional test methods suggested in the Meeting Summary Response, the Licensee has resolved the open item by revising Relief Request VR-26 to include check valve 1E21-F033 and to provide justification for verifying this valve in the closed position by sample disassembly and inspection as part of the "AP" (Alternate Position) test (reference ISTP, Rev. 3, page 3-79).

The Licensee has removed check valve 1E21-F034 from the sample disassembly and inspection program and will develop an alternate method for verifying this valve in the closed position on a quarterly frequency (reference ISTP, Rev. 3, page 3-160).

- H.1. The Licensee has complied with the Meeting Summary Response by deleting Cold Shutdown Justification CS-17 (reference ISTP, Rev. 3, page 3-34). Valves 1E22-F001 and -F015 will be tested quarterly (reference ISTP, Rev. 3, page 3-161 and 3-162).
- H.2. The Licensee has complied with the Meeting Summary Response by supplementing Relief Request VR-36 to indicate that, due to the valve lift check design, there is no practical method to increase the force or torque required to stroke valve 1E22-F005 (reference ISTP, Rev. 3, page 3-94).
- H.3. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-21 to provide additional justification for testing check valves 1E22-F006 and -F007 on a cold shutdown frequency (reference ISTP, Rev. 3, page 3-38).
- After evaluating the optional test methods suggested in the Meeting Summary Response, the Licensee has resolved the open item by revising Relief Request VR-26 to include the check valves and to provide justification for verifying these valves in the closed position by sample disassembling and inspection as part of the "AP" (Alternate Position) test (reference ISTP, Rev. 3 page 3-79).
- H.4. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-26 to clarify the hardships involved in performing full-flow stroke testing of valve 1E22-F016 due to the radiation problems that would be encountered. Also, VR-26 was revised to note that a partial exercise is performed quarterly and after removal/reinstallation (reference ISTP, Rev. 3, page 3-77).
- I.1. The Licensee has complied with the Meeting Summary Response by rewording Cold Shutdown Justification CS-15 to remove the words that specifically stated that valves 1E32-F001A, E, J, & N, 1E32-F002 A, E, J & N, 1E32-F006, -F007, -F008 and -F009 perform a PIV function, and to provide additional justification of why quarterly testing is impractical (reference ISTP, Rev. 3, page 3-32).
- J.1.a. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-4 to augment the justification for not exercising valve 1E51-F013 quarterly during power operation, based upon the interlock between valve 1E51-F013 and the turbine steam supply to the RCIC turbine which prevents testing during plant operation (reference ISTP, Rev. 3, page 3-21).
- J.1.b. No further action required by Licensee.
- J.2. To resolve the open item in the Meeting Summary Response, the Licensee will develop an alternate method for verifying full-stroke capability of valve 1E51-F021.

- J.3. No further action required by Licensee.
- J.4. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-21 to provide additional justification for testing check valves 1E51-F061 and -F062 on a cold shutdown frequency (reference ISTP, Rev. 3, page 3-38).
- After evaluating the optional test methods suggested in the Meeting Summary Response, the Licensee has resolved the open item by revising Relief Request VR-26 to include the check valves and to provide justification for verifying these valves in the closed position by sample disassembly and inspection as part of the "AP" (Alternate Position) test (reference ISTP, Rev. 3, page 3-79).
- J.5. The Licensee has complied with the Meeting Summary Response by removing valve 1E51-F065 from Relief Request VR-36 (reference ISTP, Rev. 3, page 3-93). The Licensee will measure operating torque when exercising this valve at cold shutdown.
- J.6. The Licensee has complied with the Meeting Summary Response by supplementing Relief Request VR-36 to indicate that, due to the valve lift check design, there is no practical method to measure the force or torque required to stroke valve 1E51-F066 (reference ISTP, Rev. 3, page 3-94).
- J.7. The Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-21 (reference ISTP, Rev. 3, page 3-70). The Licensee will develop a test for valves 1E51-F079 and -F081. However, the Licensee has determined that it is not practical to test these valves on a quarterly test frequency during power operation. The Licensee has submitted Cold Shutdown Justification CS-22 to provide justification for testing these valves at cold shutdown (reference ISTP, Rev. 3, page 3-39).
- Also in accordance with the Meeting Summary Response, these valves have been added to VR-26 to verify the reverse closure function (reference ISTP, Rev. 3, page 3-80).
- J.8. As noted in the Meeting Summary Response, the steam condensation associated with the RCIC turbine exhaust drain pot is variable, and therefore it is impractical to use a flow measurement technique based on timing decreases in drain pot level in order to verify full-flow operation. There is no assigned full-flow accident flow rate for this valve. Since the condensation experienced during operation of the RCIC system during normally scheduled quarterly testing is comparable to flow during an accident, the Licensee has resolved the forward-flow portion of the open item by performing a quarterly verification that condensed water is passed through this check valve. This test avoids the need for valve disassembly to verify forward flow

capability (the Meeting Summary inferred that disassembly was utilized for open position verification) and meets the Generic Letter 89-04 Attachment 1 Item 1 requirement to pass the maximum required accident flow through the valve. Also, this line has no parallel paths through which flow could be diverted, therefore this quarterly test is considered acceptable to meet the full-stroke exercise requirement. During the April 24, 1991 conference call that is referenced in the NRC cover letter to the Meeting Summary, this position was clarified with the NRC.

The Licensee has resolved the reverse flow portion of the open item in the Meeting Summary Response by developing an AP (Alternate Position) test for valve 1E51-F047 and removing this valve from the disassembly and inspection program (reference ISTP, Rev. 3, page 3-170). However, the Licensee has determined that it is not practical to test this valve for closed position verification on a quarterly test frequency during power operation. The Licensee has submitted Cold Shutdown Justification CS-22 to provide justification for AP testing this valve at cold shutdown (reference ISTP, Rev. 3, page 3-39).

- K.1. The Licensee has complied with the Meeting Summary Response by revising Cold Shutdown Justification CS-14 to identify additional concerns associated with operation of valves 1G33-F001, -F004, -F039, -F040, -F053, and -F054 quarterly during normal operation (reference ISTP, Rev. 3, page 3-31).
- K.2. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-23 to provide additional justification for testing valves 1G33-F052A and -F052B for both forward flow verification and reverse flow closure verification on a refueling outage frequency (reference ISTP, Rev. 3, page 3-72).
- L.1. No further action required by Licensee.
- L.2. The Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-29 from the IST program (reference ISTP, Rev. 3, page 3-84). Valves 1G41-F597A and -F597B will be declared out-of-service during power operation and cold shutdown and will be tested prior to placing them back in service during refueling outages.
- M.1. The Licensee has complied with the Meeting Summary Response by identifying valves 1G43-F050A, -F050B and -F060 as receiving a "LD" leak rate test in the ISTP Valve Test Table because they are exempted from Appendix J type testing (reference ISTP, Rev. 3, page 3-180).

- M.2. The Licensee has complied with the Meeting Summary Response by: (1) deleting valve 1E12-F550 from Relief Request VR-18, (2) adding valve 1E12-F550 to Relief Request VR-34, and (3) providing an augmented justification that better identifies the hardships associated with exercising this valve on a quarterly or cold shutdown frequency (reference ISTP, Rev. 3, pages 3-62 and 3-90).
- N.1. To resolve the open item, the Licensee has revised Relief Request VR-35 to augment the justification for relief from the requirements of IWV-3417(a) for valves 1M14-F040, -F090, -F190, -F195, -F200 and -F205 (reference ISTP, Rev. 3, page 3-91). The Licensee evaluated the guidance of the OM ISTC addressing stroke timing and corrective actions specifically for these valves and did not find the guidance suitable for these valves.
- N.2. The Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-28 (reference ISTP, Rev. 3, page 3-83).
- O.1. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-37 to more clearly demonstrate that the required testing provides a hardship without a compensating increase in safety (reference ISTP, Rev. 3, page 3-96).
- P.1. The Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-31 (reference ISTP, Rev. 3, page 3-86). Although valves 1M51-F531A, -F531B, -F532A, -F532B, -F618A and -F618B are exempted by IWV-1200, these valves will be retained in the IST program for reasons other than satisfying Technical Specification 4.0.5 (ASME Code, Section XI) requirements (reference ISTP, Rev. 3, Valve Test Table, Note 4, page 3-243).
- Q.1. The Licensee has complied with the Meeting Summary Response by correcting the ISTP Valve Test Table by identifying the fail-safe (FS) test requirements for valves 1N22-F420A, -F420B, -F420C and -F420D (reference ISTP, Rev. 3, page 3-196).
- R.1. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-17 to identify why it is impractical to test valves 1B21-F032A and -F032B during cold shutdown (reference ISTP, Rev. 3, page 3-59).
- RR.1. The Licensee has complied with the Meeting Summary Response by submitting Relief Request VR-41 for valves 1P11-F545 and 1P22-F577 to identify the hardships, without a compensating increase in safety, in testing these valves for normal closed position verification (AP) at a quarterly or cold shutdown test frequency (reference ISTP, Rev. 3, page 3-101).

Note that the Meeting Summary Response incorrectly identified valve 1P22-F577 as 1P11-F577.

- S.1. No further action required by Licensee.
- T.1. No further action required by Licensee.
- T.2. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-39 to demonstrate the hardship in testing valves P42-F260A, -F260B, -F265A and -F265B quarterly or during cold shutdown and that there is no compensating increase in safety (reference ISTP, Rev. 3, page 3-98).
- U.1. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-7: (1) to provide additional justification for not exercising valves 1P43-F055, -F140, -F215, -F355, -F400 and -F410 quarterly, and (2) to require testing during cold shutdowns when both recirculation pumps are secured, with the added provision that the recirculation pumps need not be secured solely for the purpose of testing (reference ISTP, Rev. 3, page 3-48).
- U.2. The Licensee has complied with the Meeting Summary Response by adding valve 1P43-F721 to Relief Request VR-17, and by including a justification for not testing this valve quarterly or during cold shutdowns (reference ISTP, Rev. 3, page 3-60).
- V.1. The Licensee has complied with the Meeting Summary Response by deleting check valves 1P45-F0502A, -F502B and -F506 from Relief Request VR-26 (reference ISTP, Rev. 3, page 3-75). These valves will be tested quarterly (reference ISTP, Rev. 3, page 3-208).
- V.2. The Licensee has complied with the Meeting Summary Response by deleting Relief Request VR-12 from the IST program (reference ISTP, Rev. 3, page 3-53). Valves 1P45-F530B and -F536B have been retained in the ISTP Valve Test Table with valve test frequency changed from quarterly (Q) to refueling outage (RO) frequency (reference ISTP, Rev. 3, page 3-210). These valves have been identified and documented as being beyond-design-basis event valves (outside IST scope) by addition of Note 1 to the ISTP Valve Test Table (reference ISTP, Rev. 3, pages 3-210 and 3-243).
- Additional non-code testing that is performed for reasons other than satisfying Technical Specification 4.0.5 (ASME Section XI) has been identified and documented in the ISTP Valve Test Table by addition of Notes 2 through 5 (reference ISTP, Rev. 3, page 3-243).
- V.3. No further action required by Licensee.
- W.1. No further action required by Licensee.
- W.2. No further action required by Licensee.

- W.3. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-17 to include additional justification for not testing check valve 1P50-F539 quarterly or during cold shutdown (reference ISTP, Rev. 3, page 3-59).
- X.1. The Licensee has complied with the Meeting Summary Response by submitting new Relief Request VR-41 which identifies the hardships, without a compensating increase in safety, associated with testing valve 1P51-F530 quarterly (reference ISTP, Rev. 3, page 3-101).
- X.2. The Licensee has complied with the Meeting Summary Response by: (1) deleting Relief Request VR-16, (2) adding valve 1P52-F550 to Cold Shutdown Justification CS-20, and (3) augmenting the justification for not testing this valve quarterly (reference ISTP, Rev. 3, pages 3-58 and 3-37).
- X.3. The Licensee has complied with the Meeting Summary Response by deleting Cold Shutdown Justification CS-7 (reference ISTP, Rev. 3, page 3-24). Valves 1P52-F200 and -F646 will be exercised and stroke time tested quarterly (reference ISTP, Rev. 3, page 3-219).
- X.4. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-15: (1) to provide justification for testing the 1P53 valves at the six month Technical Specification surveillance requirement frequency, and (2) to indicate the hardship involved with performing this testing quarterly, without a compensating increase in safety, if the Code required testing was performed (reference ISTP, Rev. 3, page 3-56).
- X.5. No further action required by Licensee.
- X.6. The Licensee has complied with the Meeting Summary Response by adding the air supply valves for the drywell personnel airlock seals to Relief Request VR-15 in order to request relief from the quarterly test requirements and to provide justification for testing on a Technical Specification surveillance requirement frequency (i.e., 6 months or cold shutdown). Cold Shutdown Justification CS-12 has been deleted from the IST program (reference ISTP, Rev. 3, pages 3-29 and 3-56).
- X.7. The Licensee has complied with the Meeting Summary Response by deleting Cold Shutdown Justification CS-8 from the IST program (reference ISTP, Rev. 3, page 3-25). Valves 1P57-F015A, -F015B, -F020A and -F020B will be tested quarterly (reference ISTP, Rev. 3, page 3-228). Valves 1P57-F524A and -F524B have been added to Cold Shutdown Justification CS-20 and will be exercised during cold shutdowns (reference ISTP, Rev. 3, page 3-37).

Note that the Meeting Summary Response incorrectly identified valves 1P57-F524A and -F524B as 1P57-F024A and -F024B.

- X.8. The Licensee has complied with the Meeting Summary Response by reclassifying check valves 1P57-F555A, -F555B, -F556A and -F556B as "AC-Passive" in the ISTP Valve Test Table (reference ISTP, Rev. 3, pages 3-228 and 3-229).
- X.9. No further action required by Licensee.
- Y.1. The Licensee has complied with the Meeting Summary Response by submitting Relief Request VR-41 for valve 1P86-F528 which identifies the hardships, without a compensating increase in safety, in testing this valve quarterly (reference ISTP, Rev. 3, page 3-105).
- Z.1. The Licensee has complied with the Meeting Summary Response by revising Relief Request VR-32 to clarify how the standby diesel generators' starting air valves are tested (as related to Div. 1 and Div. 2). In addition, the Licensee has indicated in the description of alternate testing that the air roll testing may not be performed on an operable standby diesel if the other standby diesel is inoperable, as this is a requirement of PNPP Facility Operating License NPF-58, Attachment 2 (reference ISTP, Rev. 3, page 3-87).
- Z.2. In accordance with the Meeting Summary Response, the Licensee is pursuing a design modification to allow Code required testing of check valves 1R44-F503A, -F503B, -F504A, -F504B, 1E22-F538A and -F538B. In the interim, the Licensee has submitted new Relief Request VR-43 for these valves to request relief from the quarterly test frequency requirement and to require valve disassembly and inspection on a refueling outage frequency (reference ISTP, Rev. 3, page 3-107). When the design modification is completed, Relief Request VR-43 will be withdrawn.
- Z.3. The Licensee has complied with the Meeting Summary Response by adding valves 1E22-F541A and -F541B to the ISTP Valve Test Table and to Relief Request VR-32 (reference ISTP, Rev. 3, pages 3-237 and 3-88).
- AA.1. No further action required by Licensee.
- AA.2. As noted in the Meeting Summary Response and the cover letter that forwarded the Meeting Summary, the Licensee agrees that these valves do not perform a safety function in the closed position, and therefore do not need to be verified in the closed position. These valves will be removed from the disassembly and inspection program. Also as noted in the cover letter, siphon breaker valve opening will be verified on a quarterly basis by observing that the pump impellers cease to rotate when the diesel fuel oil transfer pumps are secured.
- BB.1. The Licensee has complied with the Meeting Summary Response by adding valves 1R46-F504A and -F504B to the ISTP Valve Test Table (reference ISTP, Rev. 3 page 3-240).

## 2. PUMP TESTING PROGRAM

1. The Licensee has complied with the Meeting Summary Response by revising Relief Request PR-3 to indicate that the standby liquid control pumps use roller bearings and therefore are not concerned with vibrations that are fractional of rotating speed (reference ISTP, Rev. 3, page 2-10).
2. The Licensee has complied with the meeting Summary Response by revising Relief Request PR-12 to discuss the vibration measurement instrument ranges and measurement methodologies used at PNPP (reference ISTP, Rev. 3, page 2-19).
3. The Licensee has complied with the Meeting Summary Response by deleting Relief Requests PR-7, PR-8 and PR-11 and by deleting the applicable portions of Relief Request PR-4 (reference ISTP, Rev. 3 pages 2-11, 2-14, 2-15 and 2-18).
4. The Licensee has complied with the Meeting Summary Response by withdrawing Relief Request PR-10 (reference ISTP, Rev. 3, page 2-17). The Licensee and NRC agreed that this Relief Request was unnecessary since the Code required frequency for RCIC pump testing is "within 1 week after the plant is returned to normal operation" (IWP-3400), whereas the Technical Specifications are more restrictive since they require the Specification 4.0.5 test (the Code-required test) to be performed within 12 hours after reaching 920-1045 psig (normal operation for this test is considered to be when the plant reaches steam dome pressures between 920 and 1045 psig).
5. The Licensee has complied with the Meeting Summary Response by withdrawing Relief Requests PR-7, PR-8 and PR-11 and by deleting the applicable portions of Relief Request PR-4 (reference ISTP, Rev. 3, pages 2-11, 2-14, 2-15 and 2-18).
6. No further action required by Licensee.

### ATTACHMENT 1 : ADDITIONAL DISCUSSIONS - INTERIM RELIEF LETTER

#### PUMPS

- PR-2      The Licensee has complied with the Meeting Summary by revising Relief Request PR-2 to clarify the point that PNPP's procedures are consistent with Generic Letter 89-04, Attachment 1, Item 8 (reference ISTP, Rev. 3, page 2-9).

- PR-4 The Licensee has complied with the Meeting Summary by modifying Relief Request PR-4 to reflect that the Licensee has obtained instrumentation that meets Code requirement accuracy (reference ISTP, Rev 3, page 2-11).
- PR-7 The Licensee has complied with the Meeting Summary by deleting Relief Request PR-7 (reference ISTP, Rev. 3, page 2-14).
- PR-8 The Licensee has complied with the Meeting Summary by deleting Relief Request PR-8 (reference ISTP, Rev. 3, page 2-15).
- PR-10 The Licensee has complied with the Meeting Summary by deleting Relief Request PR-10 (reference ISTP, Rev. 3, page 2-17).
- PR-11 The Licensee has complied with the Meeting Summary by deleting Relief Request PR-11 (reference ISTP, Rev. 3, page 2-18).

#### VALVES

- VR-1 The Licensee has complied with the Meeting Summary by referencing revised Technical Specification 3.0.4 in Relief Request VR-1 (reference ISTP, Rev. 3, page 3-40).
- VR-6 The Licensee has complied with the Meeting Summary by revising Relief Request VR-6 to request relief to perform the reverse flow closure verification at a refueling outage frequency (reference ISTP, Rev. 3, page 3-46).
- VR-11 The Licensee has complied with the Meeting Summary by removing the MSIV air supply check valves from Relief Request VR-11 and adding them to Cold Shutdown Justification CS-20. In addition, Relief Request VR-41 has been submitted to provide justification for reverse direction (AP-alternate position) testing on a refueling outage frequency.
- VR-15 The Licensee has complied with the Meeting Summary by revising Relief Request VR-15 to allow testing of the containment personnel airlock valves on a 6 month basis as required by PNPP Technical Specifications and to indicate the hardship involved in performing the valve exercise tests quarterly without a compensating increase in safety (reference ISTP, Rev. 3, page 3-56).

Note that Relief Request VR-15 has also been revised to provide similar relief for the drywell personnel airlock valves.

Note also that reverse flow closure of the containment and drywell personnel airlock valves on a refueling outage frequency has been addressed in Relief Request VR-27, not in Relief Request VR-15 (reference ISTP, Rev. 3, page 3-81).

- VR-16 The Licensee has complied with the Meeting Summary by deleting Relief Request VR-16. Valve 1P52-F550 has been added to Cold Shutdown Justification CS-20 and will be tested during cold shutdowns (reference ISTEP, Rev. 3, pages 3-58 and 3-37)
- VR-26 The Licensee has complied with the Meeting Summary. Relief Request VR-26 has been revised to address each valve or group of valves separately. Justification has been provided in the Relief Request for why it is impractical to perform partial or full flow testing quarterly, or during cold shutdown, as applicable. In addition, an explanation has been provided for why a part-stroke exercise cannot be performed for the check valves after reassembly is complete, if applicable (reference ISTEP, Rev. 3, page 3-75).
- VR-32 The Licensee has complied with the Meeting Summary by revising Relief Request VR-32 to clarify how the diesel generator air start valves are tested, as related to Div. 1 and Div. 2 (reference ISTEP, Rev. 3, page 3-87).

#### NORMAL POSITION VERIFICATION TESTING OF CHECK VALVES

For check valves whose normal position verification testing is not conducted quarterly during power operations, the Licensee has either provided new Relief Requests/Cold Shutdown Justifications or added the normal position verification to existing relief requests/cold shutdown justifications. In addition, the Licensee has revised the ISTEP Valve Test Table to identify the corresponding relief requests/cold shutdown justifications for each check valve in the ISTEP program whose normal position verification testing is not conducted quarterly.

In accordance with the Meeting Summary, the Licensee requests 180 days to finalize all test procedures following the NRC Staff's issuance of the final SER to PNPP's ISTEP program.