Public Service
Electric and Gas
Company

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United States Nuclear Regulatory Commission
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**REQUEST FOR CHANGE TO TECHNICAL SPECIFICATIONS
TURBINE DRIVEN AUXILIARY FEEDWATER PUMP TESTING
SALEM GENERATING STATION NOS. 1 AND 2
FACILITY OPERATING LICENSES DPR-70 AND DPR-75
DOCKET NOS. 50-272 AND 50-311**

Gentlemen:

In accordance with 10CFR50.90, Public Service Electric & Gas (PSE&G) Company requests a revision to the Technical Specifications (TS) for the Salem Generating Station Unit Nos. 1 and 2. In accordance with 10CFR50.91(b)(1), a copy of this submittal has been sent to the State of New Jersey.

The proposed TS changes contained herein represent changes to Specification 3/4.7.1.2 "Auxiliary Feedwater System." These changes revise the eighteen month surveillances performed on the system's pumps and valves to account for testing of the turbine driven Auxiliary Feedwater pump which can only be performed in higher modes when sufficient secondary steam pressure exists.

This request satisfies commitments in Licensee Event Report 272/96-005-05 pertaining to this topic.

The proposed changes have been evaluated in accordance with 10CFR50.91(a)(1), using the criteria in 10CFR50.92(c), and PSE&G has concluded that this request involves no significant hazards considerations.

The basis for the requested change is provided in Attachment 1. A 10CFR50.92 evaluation with a determination of no significant hazards consideration is provided in Attachment 2. The marked up TS pages affected by the proposed changes are provided in Attachment 3.

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Upon NRC approval of this proposed change, PSE&G requests that the amendment be made effective on the date of issuance, but provide for implementation prior to entry into Mode 3 from the current outages for Units 1 and 2, respectively. Because this change was identified recently and is needed prior to entry into Mode 3 on Salem Unit 2, PSE&G is requesting an expedited review. Entry into Mode 3 is presently scheduled for late December, 1996.

Should you have any questions regarding this request, we will be pleased to discuss them with you.

Sincerely,

Affidavit
Attachments (3)

C Mr. H. J. Miller, Administrator - Region I
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Mr. C. Marschall (X24)
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STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

L. F. Storz, being duly sworn according to law deposes and says:

I am Senior Vice President - Nuclear Operations of Public Service Electric and Gas Company, and as such, I find the matters set forth in the above referenced letter, concerning Salem Generating Station, Units 1 and 2, are true to the best of my knowledge, information and belief.

Louis F. Storz

Subscribed and Sworn to before me
this 24th day of October, 1996

Kimberly Jo Brown
Notary Public of New Jersey

KIMBERLY JO BROWN
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires April 21, 1998

My Commission expires on _____

SALEM GENERATING STATION UNIT NOS. 1 AND 2
FACILITY OPERATING LICENSES DPR-70 AND DPR-75
DOCKET NOS. 50-272 AND 50-311
CHANGE TO TECHNICAL SPECIFICATIONS
TURBINE DRIVEN AUXILIARY FEEDWATER PUMP TESTING

BASIS FOR REQUESTED CHANGE

REQUESTED CHANGE AND PURPOSE

The proposed Technical Specification (TS) changes contained herein represent changes to Specifications 3/4.7.1.2, "Auxiliary Feedwater System" to revise 18 month Auxiliary Feedwater (AFW) surveillance requirement 4.7.1.2.c.1 pertaining to the verification of each automatic valve in the motor driven pump flow path and to revise surveillance requirement 4.7.1.2.c.2 pertaining to the verification that each AFW pump starts automatically upon receipt of a test signal.

Surveillance requirement 4.7.1.2.c.1 is being revised to state that each AFW automatic valve that is not locked, sealed or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal. The present Technical Specification (TS) requirement includes only those automatic valves in the motor driven AFW pumps' flow path. This change ensures that the automatic valve that allows inlet steam to the turbine driven AFW pump (TDAFWP) is included in the surveillance.

Surveillance requirement 4.7.1.2.c.2 is being revised to include a note that the provision of Specification 4.0.4 is not applicable to the testing of the TDAFWP, provided the pump actuation surveillance is performed within 24 hours after secondary side pressure is greater than 680 psig. This will allow the plant to enter into operational Mode 3 to perform the required pump test, which can only be performed in the higher modes, when appropriate plant conditions exist.

This change also eliminates the reference to performing the surveillance during shutdown since the testing of the TDAFWP cannot be performed in the shutdown modes.

BACKGROUND

Surveillance requirement 4.7.1.2.c.2 is performed to verify that the AFW pumps will start in the event of any accident or transient that generates an Engineered Safety Feature Actuation System (ESFAS) signal by demonstrating that each AFW pump starts

automatically upon receipt of each actuation test signal. For the AFW pumps, this is accomplished in part by performing the channel functional tests detailed in TS Table 4.3-2, which ensures acceptable pump actuation signal circuitry, in combination with an additional manual start test. For the motor driven pumps, all tests can be performed in the shutdown condition. For the TDAFWP, the motive force, steam, is not available until secondary steam pressure is capable of starting the turbine. Therefore, manual start of the TDAFWP, and satisfaction of the surveillance requirement cannot be performed until the plant is in higher modes.

As documented in several recent Licensee Event Reports (LERs), Salem Generating Station has initiated a Technical Specification Surveillance Improvement Program (TSSIP) which is presently reviewing the adequacy of TS surveillance implementation. Recently, TSSIP project personnel discovered that completion of the automatic start test of the TDAFWP is not performed prior to entry into Mode 3 as sufficient steam pressure does not exist in the lower modes of operation. The TS surveillance requirement stipulates that the test is to be performed during shutdown and does not provide for changing modes of operation by taking exception to TS 4.0.4.

It was concluded in LER 272/96-005-05 that Salem could not conform with the existing TS surveillance requirement for the TDAFWP and that the proposed request is necessary to correct the TS.

JUSTIFICATION OF REQUESTED CHANGES

The current automatic valve surveillance ensures that each air operated discharge valve from the motor driven AFW pump opens, based upon pump discharge pressure, to ensure flow is initiated to the respective steam generator when a motor driven pump starts. The proposed change will retain this requirement, but will expand the scope to include the TDAFWP start-stop valve. Though proper operation of the automatic start-stop valve is ensured by successful performance of the pump actuation test, the valve surveillance can be performed in the lower modes independent of the pump test. The proposed change will not change the intent of the existing testing, but will clarify the two tests by identifying one surveillance requirement as a valve test and the other surveillance requirement as a pump test.

Other AFW System air operated valves in the flowpath to the steam generators do not receive actuation signals and, therefore, do not require surveillance testing in accordance with TS 4.7.1.2.c.1.

The proposed surveillance requirement for the AFW pump testing also does not change the intent of the current testing, but provides more flexibility by allowing automatic starts based upon actual or simulated actuation signals rather than solely a test signal. Testing of each actuation test signal remains ensured by the performance of the channel functional tests in accordance with Table 4.3-2 and the pump start test required by surveillance 4.7.1.2.c.2.

Testing of each AFW pump remains in the surveillance requirement; however, a note will be added to permit testing within 24 hours after secondary steam generator supply pressure is greater than 680 psig. This added note is consistent with the changes that were approved by NRC in Amendments 165 for Salem Unit 1 and 146 for Salem Unit 2 which added the same note for the 92 day surveillance, 4.7.1.2.b.2, which tests the TDAFWP's ability to develop the necessary discharge pressure.

As stated previously, the exception to Specification 4.0.4 is required to allow entry into Mode 3, Hot Standby, prior to testing the TDAFWP because there is insufficient steam pressure to perform the test in lower modes. The use of alternate methods for supplying steam to the TDAFWPs, such as the use of the House Heating Boiler, is not feasible without performing plant modifications.

Testing of the TDAFWP automatic starts in Mode 3, within 24 hours of reaching 680 psig, ensures testing is performed in a timely manner after attaining the required steam pressure. Performing the test in Mode 3 does not impose a significant safety impact since the testing is performed at the earliest opportunity with the plant at the zero load conditions. These conditions are analogous to those maintained after a plant trip, when the TDAFWP is required to perform its safety function of supplying feedwater to the steam generators.

Elimination of the wording "during shutdown," in reference to the time in which the surveillance is performed, is considered editorial and is proposed for consistency with the change made to the pump surveillance requirement. Testing of the TDAFWP cannot be performed in the shutdown modes.

The proposed changes in this request are consistent with the applicable 18 month surveillances specified in Limiting Condition for Operation 3.7.5, "Auxiliary Feedwater (AFW) System," contained in NUREG-1431, "Standard Technical Specifications - Westinghouse Plants," Rev. 1, dated April 7, 1995. Additional wording was added for consistency with other existing surveillance requirements.

CONCLUSIONS

The proposed changes will allow the desired testing to be performed when appropriate plant conditions exist. The changes submitted by this request do not change the intent of the testing which is currently performed in accordance with the Salem TSs and are consistent with industry practices.

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10CFR50.92 EVALUATION

Public Service Electric & Gas (PSE&G) has concluded that the proposed changes to the Salem Generating Station Unit Nos. 1 and 2 Technical Specifications (TS) do not involve a significant hazards consideration. In support of this determination, an evaluation of each of the three standards set forth in 10CFR50.92 is provided below.

REQUESTED CHANGE

The proposed Technical Specification (TS) changes contained herein represent changes to Specifications 3/4.7.1.2, "Auxiliary Feedwater System" to revise the 18 month Auxiliary Feedwater (AFW) surveillance requirements 4.7.1.2.c.1 to state that each AFW automatic valve that is not locked, sealed or otherwise secured in position, actuates to the correct position on an actual or simulated actuation signal. Surveillance requirement 4.7.1.2.c.2 is being revised to include a note that the provision of Specification 4.0.4 is not applicable to the testing of the turbine driven Auxiliary Feedwater pump (TDAFWP) provided the pump actuation surveillance is performed within 24 hours after secondary side pressure is greater than 680 psig. This change also eliminates the reference to performing the surveillance during shutdown since the testing of the TDAFWP cannot be performed in the shutdown modes.

BASIS

1. *The proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.*

   The changes proposed on the testing of components in the AFW System do not affect the operation of the equipment during conditions when they are required to perform their safety function. No physical changes to the plant result from the proposed changes made to the surveillance requirements. The AFW System is used as a backup system upon loss of main feedwater which is analyzed as a Condition II event in the UFSAR and as such, does not impact the probability of an accident.

Testing is being performed with the plant in the condition in which the automatic initiation signals would result, that is, with the plant in Hot Standby. The changes do not impact the availability of the AFW System in providing feedwater to the steam generators. The 24 hour duration to perform testing is sufficiently short that it is considered unlikely that a condition requiring AFW initiation would occur with the TDAFWP unable to feed the generators. For such an occurrence, however, the motor driven AFW pumps would be available to mitigate the consequences of the event. This time is less than the 72 hour allowed outage time for an inoperable TDAFWP in Modes 1-3.

Therefore, the consequences of an accident previously evaluated are not significantly increased.

2. *The proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.*

The proposed changes do not involve any modifications to existing plant equipment, do not alter the function of any plant systems, do not introduce any new operating configurations or new modes of plant operation, nor change the safety analyses. Testing of the TDAFWP in Mode 3, Hot Standby, will not impact auxiliary feedwater capability or impact the ability to maintain Reactor Coolant temperature. The proposed changes will, therefore, not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. *The proposed change does not involve a significant reduction in a margin of safety.*

The changes to the valve surveillance does not decrease the scope of the existing testing, but will clarify the automatic valves to be included.

The time in which testing is performed, within 24 hours of reaching 680 psig steam generator pressure, ensures that testing is performed in a timely manner after attaining the required steam pressure. This does not impose a significant safety impact since the testing is performed with the plant at the zero load conditions prior to increasing reactor power.

Elimination of the wording "during shutdown," in reference to the time in which the surveillance is performed, is considered editorial and is proposed for consistency with

the change made to the pump surveillance requirement.

All changes are consistent with the intent of Salem's current TS and with the 18 month surveillances specified in NUREG-1431, Revision 1.

The proposed change, therefore, does not involve a significant reduction in a margin of safety.

CONCLUSION

Based on the above, PSE&G has determined that the proposed changes do not involve a significant hazards consideration.