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United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

**REQUEST FOR CHANGE TO TECHNICAL SPECIFICATION 3.5.1,
"ACCUMULATORS," USING THE CONSOLIDATED LINE ITEM IMPROVEMENT
PROCESS
SALEM GENERATING STATION - UNIT 1 AND UNIT 2
DOCKET NO. 50-272 AND 50-311
FACILITY OPERATING LICENSE NO. DPR-70 AND DPR-75**

In accordance with the provisions of 10 CFR 50.90, PSEG Nuclear, LLC (PSEG) hereby transmits a request for amendment of the Technical Specifications (TS) for Salem Generating Station Unit 1 and Unit 2.

The proposed amendment would extend the allowed outage time from 1 hour to 24 hours for ACTION requirements a, and b, of the Salem Generating Station Technical Specification (TS) 3.5.1, "Accumulators." The change is consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-370, "Risk Informed Evaluation of an Extension to Accumulator Completion Times for Westinghouse Plants." The availability of this technical specification improvement was announced in the *Federal Register* on March 12, 2003, as part of the consolidated line item improvement process (CLIIP).

Attachment 1 provides a description of the proposed change and confirmation of applicability. Attachment 2 provides the existing TS pages marked-up to show the proposed change. Attachment 3 provides the existing TS Bases pages marked-up to reflect the proposed change (for information only). Changes to the TS Bases will be provided in a future update in accordance with this proposed change.

PSEG requests approval of this proposed license amendment by September 9, 2005 to support Salem Generating Station Unit 1 refueling outage 1R17. PSEG requests implementation within 60 days of receipt of the approved amendment.

Pursuant to the requirements of 10 CFR 50.91, a copy of this application, with enclosures, is being provided to the designated New Jersey State Official.

A001

Should you have any questions regarding this request, please contact Mr. Michael Mosier at (856) 339-5434.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on 3/4/05
(Date)

Sincerely,



Tom Joyce
Site Vice President
Salem Generating Station

- Attachments:
1. Description and Assessment
 2. Proposed Technical Specification Changes
 3. Proposed Technical Specification Bases Changes

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**SALEM GENERATING STATION - UNIT 1 AND UNIT 2
DOCKET NO. 50-272 AND 50-311
CHANGE TO TECHNICAL SPECIFICATION
3.5.1, "ACCUMULATORS"**

DESCRIPTION AND ASSESSMENT

1.0 DESCRIPTION

The proposed License amendment extends the allowed outage time from 1 hour to 24 hours for ACTION requirements a, and b, of the Salem Generating Station Technical Specification (TS) 3.5.1, "Accumulators."

The change is consistent with NRC approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF-370, "Risk Informed Evaluation of an Extension to Accumulator Completion Times for Westinghouse Plants."¹ The availability of this technical specification improvement was announced in the *Federal Register* on March 12, 2003, as part of the consolidated line item improvement process (CLIP).

2.0 ASSESSMENT

2.1 Applicability of Published Safety Evaluation

PSEG Nuclear, LLC (PSEG) has reviewed the safety evaluation published on July 15, 2002 (67 FR 46542) as part of the CLIP. This verification included a review of the NRC staff's evaluation as well as the supporting information provided to support TSTF-370 (i.e., WCAP-15049-A, "Risk-Informed Evaluation of an Extension to Accumulator Completion Times," dated May 18, 1999). PSEG has assessed Salem Generating Station Probabilistic Risk Assessment (PRA) model differences from the PRA models in WCAP-15049-A and concluded that the differences do not impact the conclusions of WCAP-15049-A. The justifications presented in the TSTF proposal and the safety evaluation prepared by the NRC staff are applicable to Salem Generating Station Unit 1 and Unit 2

¹ Salem Generating Station Unit 1 and Unit 2 have not adopted Standard Technical Specifications (STS); therefore, the requirements for Condition B of STS 3.5.1, "Accumulators," referenced in TSTF-370, are actually addressed by Salem Generating Station ACTION requirements for TS 3.5.1. Regulatory Issue Summary 2000-06, "CLIP for Adopting STS Changes for Power Reactors", permits adoption of CLIP changes for Licensees that have not converted to STS, but have determined that the TSTF is applicable to their facility.

and justify this amendment for the incorporation of the changes into the Salem Generating Station Technical Specifications.

2.2 Optional Changes and Variations

PSEG is not proposing any significant variations or deviations from the technical specification changes described in TSTF-370 or the NRC staff's model safety evaluation published on July 15, 2002.

3.0 REGULATORY ANALYSIS

3.1 No Significant Hazards Determination

PSEG has reviewed the proposed no significant hazards consideration determination published on July 15, 2002, (67 FR 46542) as part of the CLIP. PSEG has concluded that the proposed determination presented in the notice is applicable to Salem Generating Station Unit 1 and Unit 2 and the determination is hereby incorporated by reference to satisfy the requirements of 10 CFR 50.91(a).

3.2. Verification and Commitments

There are no new regulatory commitments associated with this proposed change.

4.0 ENVIRONMENTAL EVALUATION

PSEG has reviewed the environmental evaluation included in the model safety evaluation published on July 15, 2002, (67 FR 46542) as part of the CLIP. PSEG has concluded that the NRC staff's findings presented in that evaluation are applicable to Salem Generating Station Unit 1 and Unit 2 and the evaluation is hereby incorporated by reference for this application.

PROPOSED TECHNICAL SPECIFICATION CHANGES (MARK-UPS)

The following Technical Specification for Salem Generating Station Unit 1 and Unit 2, Facility Operating License DPR-70 and DPR-75, is affected by this change request:

<u>Technical Specification</u>	<u>Page</u>
3.5.1	3/4 5-1

3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

ACCUMULATORS

LIMITING CONDITION FOR OPERATION

3.5.1 Each reactor coolant system accumulator shall be OPERABLE with:

- a. The isolation valve open,
- b. A contained volume of between 6,223 and 6,500 gallons of borated water,
- c. A boron concentration of between 2,200 and 2,500 ppm, and,
- d. A nitrogen cover-pressure of between 595.5 and 647.5 psig.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

- a. With one accumulator inoperable, except as a result of a closed isolation valve or boron concentration outside the required limits, restore the inoperable accumulator to OPERABLE status within ~~one~~ ²⁴ hours or be in HOT SHUTDOWN within the next 12 hours.
^
- b. With one accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in HOT STANDBY within one hour and be in HOT SHUTDOWN within the next 12 hours.
- c. With the boron concentration of one accumulator outside the required limits, restore the boron concentration to within the required limits within 72 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than or equal to 1000 psig within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1 Each accumulator shall be demonstrated OPERABLE:

- a. At least once per 12 hours by:
 1. Verifying the water level and nitrogen cover-pressure in the tanks, and
 2. Verifying that each accumulator isolation valve is open.

* Pressurizer Pressure above 1000 psig.

3/4.5 EMERGENCY CORE COOLING SYSTEMS (ECCS)

ACCUMULATORS

LIMITING CONDITION FOR OPERATION

3.5.1 Each reactor coolant system accumulator shall be OPERABLE with:

- a. The isolation valve open,
- b. A contained volume of between 6223 and 6500 gallons of borated water,
- c. A boron concentration of between 2200 and 2500 ppm, and
- d. A nitrogen cover-pressure of between 595.5 and 647.5 psig.

APPLICABILITY: MODES 1, 2 and 3*.

ACTION:

- a. With one accumulator inoperable, except as a result of a closed isolation valve or boron concentration outside the required limits, restore the inoperable accumulator to OPERABLE status within ~~one~~ ²⁴ hours or be in HOT SHUTDOWN within the next 12 hours.
^
- b. With one accumulator inoperable due to the isolation valve being closed, either immediately open the isolation valve or be in HOT STANDBY within one hour and be in HOT SHUTDOWN within the next 12 hours.
- c. With the boron concentration of one accumulator outside the required limits, restore the boron concentration to within the required limits within 72 hours or be in at least HOT STANDBY within the next 6 hours and reduce pressurizer pressure to less than or equal to 1000 psig within the next 6 hours.

SURVEILLANCE REQUIREMENTS

4.5.1 Each accumulator shall be demonstrated OPERABLE:

- a. At least once per 12 hours by:
 1. Verifying the water level and nitrogen cover-pressure in the tanks, and
 2. Verifying that each accumulator isolation valve is open.

* Pressurizer Pressure above 1000 psig.

PROPOSED CHANGES TO TS BASES PAGES

The following Technical Specifications Bases for Salem Unit 1 and Unit 2, Facility Operating License DPR-70 and DPR-75, are affected by this change request:

TS Bases
3/4.5.1

Page
B 3/4 5-1

3/4.5 EMERGENCY CORE COOLING SYSTEMS

BASES

3/4.5.1 ACCUMULATORS

The OPERABILITY of each RCS accumulator ensures that a sufficient volume of borated water will be immediately forced into the reactor core through each of the cold legs in the event the RCS pressure falls below the pressure of the accumulators. This initial surge of water into the core provides the initial cooling mechanism during large RCS pipe ruptures.

The limits on accumulator volume, boron concentration and pressure ensure that the assumptions used for accumulator injection in the safety analysis are met.

The accumulator power operated isolation valves are considered to be "operating bypasses" in the context of IEEE Std. 279-1971, which requires that bypasses of a protective function be removed automatically whenever permissive conditions are not met. In addition, as these accumulator isolation valves fail to meet single failure criteria, removal of power to the valves is required.

The limits for operation with an accumulator inoperable for any reason except an isolation valve closed minimizes the time exposure of the plant to a LOCA event occurring concurrent with failure of an additional accumulator which may result in unacceptable peak cladding temperatures. **The 24 hours allowed to restore an inoperable accumulator to OPERABLE status is justified in WCAP-15049-A, Revision 1, dated April 1999.** If a closed isolation valve cannot be immediately opened, the full capability of one accumulator is not available and prompt action is required to place the reactor in a mode where this capability is not required.

3/4.5.2 and 3/4.5.3 ECCS SUBSYSTEMS

The OPERABILITY of two independent ECCS subsystems ensures that sufficient emergency core cooling capability will be available in the event of a LOCA assuming the loss of one subsystem through any single failure consideration. Either subsystem operating in conjunction with the accumulators is capable of supplying sufficient core cooling to limit the peak cladding temperatures within acceptable limits for all postulated break sizes ranging from the double ended break of the largest RCS cold leg pipe downward. In addition, each ECCS subsystem provides long term core cooling capability in the recirculation mode during the accident recovery period.

The limitation for a maximum of one safety injection pump or centrifugal charging pump to be OPERABLE and the Surveillance Requirement to verify all safety injection pumps except the allowed OPERABLE pump to be inoperable below 312°F provides assurance that a mass addition pressure transient can be relieved by the operation of a single POPs relief valve.

3/4.5 EMERGENCY CORE COOLING SYSTEMS

BASES

3/4.5.1 ACCUMULATORS

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