



April 2, 2021

LR-N21-0032

10CFR50.59(d)(2)

U.S. Nuclear Regulatory Commission
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Salem Generating Station, Units 1 and 2
Renewed Facility Operating License Nos. DRP-70 and DRP-75
NRC Docket Nos. 50-272 and 50-311

Subject: Report of Changes, Tests, and Experiments

Pursuant to the requirements of 10CFR50.59(d)(2), Salem Generating Station, Units 1 and 2 forwards a summary of changes, tests, and experiments implemented during the period of January 1, 2019 through December 31, 2020.

There are no new commitments in this letter.

If there are any questions, please contact Thomas Cachaza at 856-339-5038.

Sincerely,

A handwritten signature in black ink that reads "Jean Fleming".

Jean Fleming – Director of Site Regulatory Compliance
PSEG Nuclear

Attachments (1)

tjc

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- C USNRC Administrator – Region 1
- USNRC Licensing Project Manager – Salem
- USNRC Senior Resident Inspector – Salem
- Ms. A. Pfaff, Manager, IV, Bureau of Nuclear Engineering
- Mr. T. Cachaza, Salem Commitment Coordinator
- Mr. L. Marabella, Corporate Commitment Coordinator

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Attachment 1
Summary of Changes, Tests, and Experiments
Salem Units 1 and 2

Adoption of TMRE (Tornado Missile Risk Evaluator) Methodology (50.59 Evaluation Number: S2020-040, SCN 20-006) FRC (Fleet Review Committee) F2020-02

The specific activities included in this UFSAR change are:

- Adoption of the TMRE Methodology utilizing the guidance in NEI 17-02 as approved by the NRC.
- NEI 17-02, Rev. 1B, has been reviewed and approved by the NRC, with documented restrictions and limitations, at Grand Gulf Nuclear Station, Unit 1 (ML19123A014, 06/18/2019). Use of the TMRE methodology to address the identified Salem nonconforming SSCs was performed in accordance with NEI 17-02 Rev. 1A and 1B, while meeting the restrictions and limitations on its use that were identified by the NRC in the Grand Gulf Safety Evaluation (SE).
- Per NEI 17-02 Rev. 1B, TMRE makes use of the licensee's internal events PRA model, which is modified to reflect the anticipated effects of the passage of a tornado over the site.
- PRA calculations have been prepared to document Salem's proposed use of TMRE methodology in accordance with the guidance of NEI 17-02 Rev. 1B, the application of TMRE PRA to evaluate exposed (i.e., nonconforming) SSCs at Salem, and Salem's compliance with the requirements of NEI 17-02 Rev. 1B.
- SC-TMRE-001 documents the methodology and results of the TMRE vulnerable SSC walkdown, SC-TMRE-002 documents the methodology and results of the TMRE missile walkdown, SC-TMRE-003 documents the methodology and results of the TMRE high wind equipment list (HWEL), SC-TMRE-004 documents the development and methodology of the TMRE PRA model development, and SC-TMRE-005 documents the quantification and results of the TMRE PRA model base case and sensitivity cases.
- Because intended application of the TMRE methodology for Salem Units 1 and 2 is the same as the application of this methodology at Grand Gulf and conforms to the limitations and restrictions of the NRC's approval in the Grand Gulf SE, changing to the TMRE methodology is not a departure from a method of evaluation described in the UFSAR used in establishing the design basis. As stated in letters dated 2/7/2020 from the NRC to the Nuclear Energy Institute, Entergy Nuclear, and NextEra Energy, licensees may use TMRE on a plant-specific basis in accordance with 10 CFR 50.59; and changing the licensing basis to incorporate the TMRE under 10 CFR 50.59 without prior NRC approval is allowed.

Implement Tavg(EOC) at Coastdown for Salem 1 and 2 (EC 80125095) FRC (Fleet Review Committee) F2020-01

The specific activities included in this Design Change Package (DCP) (80125095) are:

- The implementation of Tavg End of Cycle (EOC) Coastdown. Tavg(EOC) coastdown is an operating strategy for maximizing power generation prior to shut down for refueling. A Tavg Coastdown takes advantage of the positive reactivity that can be achieved via the large negative moderator temperature coefficient at EOC by allowing Tavg to decrease from its pre-coastdown value. This enables the plant to maintain operation at or near full power for a longer time at the end of the fuel cycle.
- Salem Units 1&2 have a full power Tavg window that is created by extrapolating the full power Tavg range of 566 °F to 577.9 °F back to the no-load Tavg of 547 °F. All current Westinghouse analyses have bounded operation within this range. Salem will maintain Tavg within the existing window throughout the proposed coastdown.
- The 10 CFR 50.59 evaluation concludes that the proposed activity does not result in a more than minimal increase in the frequency of occurrence of an accident previously evaluated in the UFSAR, does not result in more than a minimal increase in the likelihood of occurrence of a malfunction of an SSC important to safety previously evaluated in the UFSAR, does not result in more than a minimal increase in the consequences of an accident previously evaluated in the UFSAR, does not result in more than a minimal increase in the consequences of a malfunction of an SSC important to safety

previously evaluated in the UFSAR, does not create the possibility for an accident of a different type than any previously evaluated in the UFSAR and does not create a possibility for a malfunction of an SSC important to safety with a different result than any previously evaluated in the UFSAR. The proposed activity does not result in a design basis limit for a fission product barrier as described in the UFSAR being exceeded or altered. The proposed activity does not result in a departure from a method of evaluation described in the UFSAR used in establishing the design bases or in the safety analyses. Therefore, the proposed activity may be installed without prior NRC approval.