



LR-N13-0087

10CFR50.59(d)(2)

**APR 19 2013**

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Salem Generating Station, Units 1 and 2  
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), PSEG Nuclear LLC (PSEG) forwards a summary of changes, tests, and experiments implemented at Salem Units 1 and 2 during the period of January 1, 2011 through December 31, 2012.

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, appearing to read "C. Fricker", written over a horizontal line.

Carl J. Fricker  
Site Vice President – Salem

Attachments (1)

- C W. Dean, Administrator – Region 1
- J. Hughey, Licensing Project Manager – Salem
- USNRC Senior Resident Inspector – Salem
- P. Mulligan, Manager, IV, Bureau of Nuclear Engineering
- T. Cachaza, Salem Commitment Coordinator
- L. Marabella, Corporate Commitment Coordinator

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

**Salem Dose Calculations Updated for Increased Control Room Envelope Unfiltered In-Leakage (Salem PORC-S2011-020)**

**Description of Activity:**

The proposed activity revised the following calculations that collectively determine Control Room (CR), Exclusion Area Boundary (EAB), Low Population Zone (LPZ), Salem Technical Support Center (TSC) and mission doses following design basis accidents (DBAs) to incorporate changes to plant parameters and dose calculation models. The changes to the calculations include the following:

- Increase unfiltered in-leakage rate for the Control Room Envelope (CRE) from 150 CFM to 275 CFM
- Decrease Engineered Safety Feature (ESF) leakage from 0.7 GPM to 0.45 GPM
- Decrease CREACS makeup rate from 2200 CFM to 2100 CFM
- Addition of a model for the dose contribution due to back leakage to the Refueling Water Storage Tank (RWST) and increasing the RWST back leakage from 100 cc/hr to 50,000 cc/hr
- Increase the iodine decontamination factor for the intact steam generator leak path (primary to secondary) from 1 to 100
- Decrease the time used in the RADTRAD release fraction and timing file for the containment relief line release model from 3.6 E-03 hr to 0.1 E-05 hr to more closely represent an instantaneous release scenario.
- Update the RADTRAD computer code from version 3.02 to version 3.03
- References to Replacement Steam Generators (RSG) are updated to reflect U/2 Steam Generators

The calculations which were revised are:

S-C-ZZ-MDC-1920 - Fuel Handling Accidents Radiological Consequences, Revision 4

S-C-ZZ-MDC-1945 - Post-LOCA EAB, LPZ, & CR Doses - Alternative Source Term (AST), Revision 0

S-C-ZZ-MDC-1946 - Post-LOCA TSC Doses - Alternative Source Term (AST), Revision 0

S-C-ZZ-MDC-1947 - Post-LOCA Vital Area Access Area Mission Doses – AST, Revision 0

S-C-ZZ-MDC-1948 - EAB, LPZ, & CR Doses - Rod Ejection Accident (REA) – AST, Revision 1

S-C-ZZ-MDC-1949 - EAB, LPZ, & CR Doses - Steam Generator Tube Rupture (SGTR) Accident – AST, Revision 1

S-C-ZZ-MDC-1950 - EAB, LPZ, & CR Doses - Main Steam Line Break (MSLB) Accident – AST, Revision 1

S-C-ZZ-MDC-1951 - EAB, LPZ, & CR Doses - RCP Locked Rotor Accident (LRA) – AST, Revision 1

S-C-ZZ-MDC-1987 - Input Parameters for Salem AST Dose Calcs, Revision 2