

DEC 15 2017

Docket Nos.: 50-348  
50-364  
72-42

NL-17-2018

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

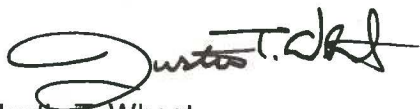
Joseph M. Farley Nuclear Plant Units 1 and 2  
Report of Changes to Emergency Plan and Summary of 50.54(q) Analysis

Ladies and Gentlemen:

In accordance with 10 CFR 50.54(q)(5) and 10 CFR 72.44(f), Southern Nuclear Operating Company (SNC) hereby submits descriptions of changes to the emergency plan and a summary of the analysis demonstrating that the changes do not reduce the effectiveness of the plan. The emergency plan continues to meet the requirements in 10 CFR 50 Appendix E and the planning standards of 10 CFR 50.47(b). A description of the changes and a summary of the 50.54(q) analysis is enclosed.

This letter contains no NRC commitments. If you have any questions, please contact Ken McElroy at (205) 992-7369.

Respectfully submitted,

Justin T. Wheat  
Nuclear Licensing Manager

jtw/efb/cbg

Enclosure:

1. Description of Emergency Plan Changes and Summary of 50.54(q) Analysis

cc: NRC Regional Administrator, Region II  
NRC NRR Project Manager – Farley  
NRC Senior Resident Inspector – Farley  
Alabama - State Board of Health – Director of Radiation Control  
SNC Records RTYPE: CFA04.054

**Joseph M. Farley Nuclear Plant Units 1 and 2**  
**Report of Changes to Emergency Plan and Summary of 50.54(q) Analysis**

**Enclosure 1**

**Description of Emergency Plan Changes and Summary of 50.54(q) Analysis**

Description of Emergency Plan Changes and Summary of 50.54(q) Analysis

On November 22, 2017, Joseph M. Farley Nuclear Plant (FNP) implemented the Emergency Action Level (EAL) scheme based on NEI 99-01 Revision 6 (Rev 6) that was approved by the NRC in a Safety Evaluation (SE) on March 16, 2017. In addition to the transition from NEI 99-01 Rev. 4 to Rev. 6, FNP implemented a design change to steam generator relief and safety valve radiation monitors RE-60A, RE-60B, and RE-60C, and the turbine driven auxiliary feedwater pump steam exhaust radiation monitor RE-60D.

SNC has written a 50.54(q) evaluation for EAL scheme changes supplemental to and associated with the Rev 6 transition and the radiation monitor changes (i.e. elimination of R-60s and upgrade to R-29B), including: making the definition of Owner Controlled Area consistent across the EALs; alignment of the EALs with the approved Standard Emergency Plan by removing the State of Florida, an ingestion pathway State only, as an initial point of notification for an emergency declaration; and changes to support human factoring and alignment of procedures with the SNC Fleet Procedures Writers Guide.

In addition, SNC has written a 50.54(q) evaluation to remove EAL #2.b from CS1 and remove EAL #1.a from CG1 because the reactor water level instrumentation at Farley is such that a level approximating the top of the active fuel (118-119 feet) cannot be determined during Cold Shutdown and Refueling modes. This instrument reading was incorrectly added to SNC's license amendment request in response to an NRC request for additional information on the subject of reactor water level indication. Because the temporary water level indication can only be accurately read to 121 feet 7 inches, SNC subsequently determined that this does not approximate the top of the active fuel. This change, which removes an unreadable instrument level, restores full compliance with the NEI 99-01 Rev. 6 scheme as originally submitted to the NRC before the RAI response. Therefore, the change is not a reduction in effectiveness.

These changes were evaluated in accordance with 10 CFR 50.54(q)(3), and SNC determined that the changes do not reduce the effectiveness of the FNP emergency plan. The FNP emergency plan continues to meet the requirements in 10 CFR 50 Appendix E and the planning standards of 10 CFR 50.47(b).