

October 15, 2021

Docket No.: 50-364

NL-21-0921

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

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

Ladies and Gentlemen:

Pursuant to 10 CFR 50.54(q)(5), Southern Nuclear Operating Company (SNC) hereby submits descriptions of changes to the Standard Emergency Plan (SEP), including the Joseph M. Farley Nuclear Plant (FNP) Emergency Action Levels, and a summary of the analysis demonstrating that the changes do not reduce the effectiveness of the plan. The SEP and the FNP Annex to the SEP continue 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 are enclosed.

This letter contains no NRC commitments. If you have any questions, please contact Ryan Joyce at 205-992-6468.

Respectfully submitted,



Cheryl A. Gayheart  
Regulatory Affairs Director

CAG/tle

Enclosure:

Description of Standard 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 - Department of Public Health – Director, Office of Radiation Control  
SNC Records Rtype: CFA04.054

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

**Enclosure**

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

Joseph M. Farley Nuclear Plant (FNP) Unit 2 Emergency Action Level (EAL) Changes

FNP Unit 2 Radiation Monitoring System group 8B (RE15s) radiation monitors were upgraded with new technology using the Engineering Modification process to improve equipment reliability and obsolescence. Group 8B radiation monitors include Steam Jet Air Ejector (SJAE) low range monitor, intermediate range monitor, and high range monitor. The R15 radiation monitors quantify radioactivity in the SJAE exhausts at the exhaust header and at the turbine building vent duct.

The FNP Unit 2 RMS group 8B upgrade resulted in an update to the FNP Emergency Action Levels (EALs), which are by extension a part of the SNC Standard Emergency Plan. However, no direct changes to the SNC Standard Emergency Plan (SEP) or the FNP Annex to the SEP have been identified for this equipment upgrade using the 50.54(q) evaluation process. The new instruments were evaluated under the 10 CFR 50.54(q) process and were found to be as good or better than the equipment they replaced. The analysis found the instruments continue to meet regulatory requirements and that there was no reduction in effectiveness.

Conclusion

The SNC SEP, FNP Annex to the SEP, and FNP EALs continue to meet the requirements of 10 CFR 50 Appendix E and the planning standards of 10 CFR 50.47(b).