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

Edwin I. Hatch Nuclear Plant Units 1 and 2
Joseph M. Farley Nuclear Plant Units 1 and 2
Vogtle Electric Generating Plant Units 1 and 2
10 CFR 50.46 ECCS Evaluation Model Annual Report for 2020

Ladies and Gentlemen:

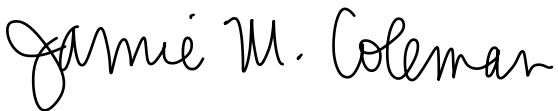
Southern Nuclear Operating Company (SNC) is the licensed operator for the Edwin I. Hatch Nuclear Plant (HNP) Units 1 and 2, the Joseph M. Farley Nuclear Plant (FNP) Units 1 and 2, and the Vogtle Electric Generating Plant (VEGP) Units 1 and 2. The requirements of 10 CFR 50.46(a)(3)(ii) include an annual report by licensees of changes to, or errors in, acceptable emergency core cooling system (ECCS) models that affect the temperature calculation and the estimated effect of changes or errors on the limiting ECCS analysis. Accordingly, the report required by 10 CFR 50.46(a)(3)(ii) for HNP Unit 1 is provided in the enclosure to this letter.

There were no changes or errors to report for 2020 for the HNP Unit 2, FNP Units 1 and 2, and VEGP Units 1 and 2 ECCS models that affected PCT; thus, no reports are required for those units.

The resulting peak cladding temperatures (PCT) for HNP Units 1 and 2, FNP Units 1 and 2, and VEGP Units 1 and 2 continue to meet the criterion of 10 CFR 50.46(b)(1) (i.e., $\leq 2200^{\circ}\text{F}$).

This letter contains no NRC commitments. If you have any questions, please contact Jamie Coleman at 205.992.6611.

Respectfully submitted,



Jamie M. Coleman
Licensing Manager

JMC/tle

Enclosure: Edwin I. Hatch Nuclear Plant Unit 1
10 CFR 50.46 ECCS Evaluation Model Annual Report for 2020

cc: Regional Administrator, Region II
NRR Project Manager – HNP, FNP, VEGP 1 & 2
Senior Resident Inspector – HNP, FNP, VEGP 1 & 2
NRR Project Manager – HNP, FNP, VEGP 1 & 2
RType: CGA02.001

**Edwin I. Hatch Nuclear Plant Units 1 and 2
Joseph M. Farley Nuclear Plant Units 1 and 2
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Enclosure

**Edwin I. Hatch Nuclear Plant Unit 1
10 CFR 50.46 ECCS Evaluation Model Annual Report for 2020**

Edwin I. Hatch Nuclear Plant Unit 1

Table 1-1a – TRACG-LOCA Summary of Changes / Errors (2020)¹ (GNF2, GNF3)	
Description	Estimated Effect (Δ PCT, °F)
TRACG radiation heat transfer calculation ² (Reference 1)	+35

Table 1-1b – TRACG-LOCA Cumulative Impact of Changes / Errors¹		
Description	GNF2 Δ PCT (°F)	GNF3 (LUAs) Δ PCT (°F)
Changes/Errors Affecting PCT Previously Reported (See Notes)	0	0
Summary of Changes/Errors Affecting PCT (2020) (References 1 and 2)	35	35
Cumulative Total	35	35

Notes:

1. HNP Unit 1 Cycle 29, which ended in February 2020, was the final use of the SAFER/PRIME-LOCA methodology for HNP Unit 1. There were no errors affecting PCT to report for SAFER/PRIME-LOCA. HNP Unit 1 Cycle 30, which started in March 2020, is the first use of TRACG-LOCA methodology for HNP Unit 1. TRACG-LOCA was already in use for HNP Unit 2 starting in March 2019 (Reference 2).
2. The “TRACG radiation heat transfer calculation” error is applicable to TRACG-LOCA. It was previously reported for HNP Unit 2 in Reference 2. There were no changes to report for 2020 for HNP Unit 2 regarding the TRACG-LOCA methodology in addition to those previously reported in Reference 1.

References:

1. GE Hitachi 10 CFR 50.46 Notification Letter 2019-02, dated March 21, 2019
2. Letter from Cheryl A. Gayheart to USNRC (NL-20-0630), ML20176A577, “Edwin I. Hatch Nuclear Plant Units 1 and 2, Joseph M. Farley Nuclear Plant Units 1 and 2, Vogtle Electric Generating Plant Units 1 and 2, 10 CFR 50.46 ECCS Evaluation Model Annual Report for 2019,” dated June 19, 2020