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

Joseph M. Farley Nuclear Plant Unit 1 and 2
Edwin I. Hatch Nuclear Plant Unit 1 and 2
Vogtle Electric Generating Plant Unit 1 and 2
Response to NRC RIS 2025-02 Planned Power Uprate-Related Submittals

Ladies and Gentlemen:

On February 7, 2025, the U. S. Nuclear Regulatory Commission (NRC) issued Regulatory Issue Summary (RIS) 2025-02 to request that licensees voluntarily provide information on planned power uprate-related licensing submittals. The purpose of this information is to assist the NRC in budgeting for and allocating its resources.

Enclosed is the Southern Nuclear Operating Company (SNC) response for the plants and units referenced above. This information may be made public.

If you have any questions, please contact Ryan Joyce at 205.992.6468.

Respectfully submitted,



Jamie Coleman
Regulatory Affairs Director

efb/cmg

Enclosure: Table of SNC Estimated Power Uprate Licensing Actions

cc: Regional Administrator - Region II
NRR Project Manager - Farley, Hatch, Vogtle 1 & 2
Senior Resident Inspector - Farley, Hatch, Vogtle 1 & 2
SNC Record R-Type: CGA02.001

Table of SNC Estimated Power Uprate Licensing Actions

Plant	Power Uprate Type	Expected Schedule for Filing	Planned CLTP Increase	Power Increase from CLTP	Expected Date for Power Ascension	Related Licensing Actions with Expected Schedule for Filing
Farley Unit 1 and 2	EPU	Q3 2028	179 MWt	6.345%	U2-Q2 2031 U1-Q4 2031	AST RG 1.183 Rev 1 in Q3 2026 SFP Criticality Analysis in Q2 2027 Other Fuel/Methodology Updates in Q4 2029 24-mo fuel cycle in Q1 2032
Hatch Unit 1 and 2	EPU	Q2 2027	156 MWt	5.563%	U2-Q1 2029 U1-Q1 2030	MELLLA+ in Q2 2027
Vogtle Unit 1 and 2	EPU	Q4 2028	124.4 MWt	3.431%	U1-Q4 2030 U2-Q2 2031	AST RG 1.183 Rev 1 in Q2 2025 SFP Criticality Analysis in Q2 2026 Other Fuel/Methodology Updates in Q2 2027 4 RCCAs and 24-month fuel cycle in Q2 2030

NOTES:

Joseph M. Farley Nuclear Plant Unit 1 and 2

Licensing Action: Extended Power Uprate (EPU)

Estimated Submittal Date: Q3 2028

Requested NRC Approval Date: Q3 2029

Planned MWt increase from Current Licensed Thermal Power (CLTP) of 2821 MWt is 179 MWt. Proposed LTP is 3000 MWt.

(The planned increase is still being evaluated and may change.)

Planned Percentage Increase from CLTP: 6.345%

Expected Date for Power Ascension at Up-rated Conditions: May 2031 (Unit 2); October 2031 (Unit 1)

Related Significant Licensing Actions:

- 1) Alternate Source Term (AST) Update to RG 1.183 Rev 1 to facilitate Incremental Extension of Burnup Limit – Submit Q3 2026
- 2) Spent Fuel Pool (SFP) Criticality Analysis Update – Submit in Q2 2027
- 3) Other Fuel and Methodology Updates – Advanced Doped Pellet Technology (ADOPT) Fuel Pellets; Incremental Extension of Burnup Limit; Full Spectrum Loss of Coolant Accident (FSLOCA) evaluation model update; Fuel Rod Performance Analysis and Design code (PAD5) model update; Control Rod Ejection Accident with three-dimensional analysis (3D Rod Ejection) model update per NRC R.G. 1.236; Locked Reactor Coolant Pump Rotor Accident with three-dimensional analysis (3D Locked Rotor) model update – Submit Q4 2029 combined with the Farley EPU License Amendment Request (LAR)
- 4) 24-month fuel cycle - Submit in Q2 2034

Edwin I. Hatch Nuclear Plant Unit 1 and 2

Licensing Action: EPU

Projected Submittal Date: Q2 2027

Requested Approval Date: Q2 2028

Planned MWt increase from CLTP of 2804 MWt is 156 MWt. Proposed LTP is 2960 MWt

Planned Percentage Increase from CLTP: 5.563%

Expected Date for Power Ascension at Upgraded Conditions: February 2029 (Unit 2); February 2030 (Unit 1)

Related Significant Licensing Actions:

- 1) Maximum Extended Load Line Limit Analysis Plus (MELLLA+) (combined with EPU LAR Submittal)
- 2) Steam Dryer (SD) Replacement (Unit 1 SD installed at CLTP via 50.59 in Q1 2028; Unit 2 SD installed at EPU conditions via EPU LAR in Q1 2029)

Vogtle Electric Generating Plant Unit 1 and 2

Licensing Action: EPU

Projected Submittal Date: Q4 2028

Requested Approval Date: Q4 2029

Planned MWt increase from CLTP of 3625.6 MWt is 124.4 MWt. Proposed LTP is 3750 MWt.

Planned Percentage Increase from CLTP: 3.431%

Expected Date for Power Ascension at Upgraded Conditions: October 2030 (Unit 1); April 2031 (Unit 2)

Related Significant Licensing Actions:

- 1) AST Update to RG 1.183 Rev 1 to facilitate Incremental Extension of Burnup Limit – Submit Q2 2025
- 2) SFP Criticality Analysis Update – Submit Q2 2026
- 3) Fuel and Methodology Updates – Transition from Optimized Fuel Assembly (OFA) to Robust Fuel Assembly (RFA); ADOPT Fuel Pellets; AXIOM Fuel Rod Cladding, Incremental Extension of Burnup Limit, FSLOCA evaluation update, PAD5 model update, 3D Rod Ejection model update; 3D Locked Rotor model update – Submit Q2 2027
- 4) Four New RCCAs and 24-month fuel cycle – Submit in Q2 2030