

April 24, 2025

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50-424 50-425

NL-25-0081

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

Edwin I. Hatch Nuclear Plant – Units 1 and 2
Vogtle Electric Generating Plant – Units 1 and 2
30-Day 10 CFR 21 Report – ETAP Software Error in Transient Stability Program

In accordance with 10 CFR 21.21(d)(3)(ii), Southern Nuclear Operating Company (SNC) is hereby submitting the enclosed written report of a defect identified in the Transient Stability program of the Operations Technology, Inc. (OTI) ETAP software. The impacted software was supplied and used for safety related applications at Edwin I. Hatch Nuclear Plant (HNP) and Vogtle Electric Generating Plant (VEGP). This information was initially reported to the Nuclear Regulatory Commission on March 26, 2025 (ML25085A382). The information provided in the Enclosure of this letter meets the reporting requirements of 10 CFR 21.21(d)(4).

The NRC Senior Residents at HNP and VEGP have been notified.

This letter contains no NRC commitments. If you have any questions, please contact Amy Chamberlain at 205.992.6361.

Sincerely,



Jamie M. Coleman
Regulatory Affairs Director

JMC/cbg/kmo

Enclosure: SNC Form Containing Information Required by 10 CFR 21.21(d)(4)

cc: NRC Regional Administrator
NRC Senior Resident Inspector – Hatch and Vogtle 1&2
RTYPE: AA1.003

Edwin I. Hatch Nuclear Plant – Units 1 and 2
Vogtle Electric Generating Plant – Units 1 and 2
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Enclosure

SNC Form Containing Information Required by 10 CFR 21.21(d)(4)

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(i) Name and address of the individual or individuals informing the Commission.

Ms. Jamie Coleman
Southern Nuclear - Regulatory Affairs Director
3535 Colonnade Parkway
Birmingham, AL 35243

(ii) Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.

Edwin I. Hatch Nuclear Plant (HNP)
Units 1&2
11028 Hatch Pkwy N
Baxley, Georgia 31513

Vogtle Electric Generating Station (VEGP)
Units 1&2
7821 River Road
Waynesboro, Georgia 30830

The Transient Stability Analysis module in ETAP software releases 14.0.0N to 22.0.2N and 22.5.0C.

(iii) Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.

Operation Technology, Inc. (OTI)
ETAP Group of Companies
17 Goodyear
Irvine, California 92618

(iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

In the ETAP Transient Stability Analysis module, in the case of motor bus transfer analysis, the plot and the report of Bus Voltage Angle and the plot of Bus Voltage/Hz difference are incorrect when certain conditions that are defined in the ERCA-24-003 Rev. 1 report are all met.

In reviewing the HNP and VEGP calculations that utilized the Transient Stability Analysis module, Southern Nuclear Operating Company (SNC) determined that false favorable results of the bus transfer could result in major degradation of essential safety-related equipment if the error was not caught. These bus transfer analyses studies are established for:

1. Assuring the pre-closure voltage on the transferred 1E bus is < 1.33V/Hz. This V/Hz criterion is a guide to determine if safety-related equipment would be damaged during the transfer.
2. Assuring the safety-related bus transfer does not trip relays protecting the unit Start-up Transformers (SAT), bus overcurrent relays, or transformer differential relays.
3. Assuring a non-safety-related bus transfer does not cause actuation of Loss of Offsite Power (LOOP) relays, Degraded Voltage Relays (DVR), or prevent starting of any safety-related motors.

(v) The date on which the information of such defect or failure to comply was obtained.

March 21, 2025

(vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

Southern Nuclear has identified two calculations for HNP and two calculations at VEGP that utilized the impacted Transient Stability Analysis module for bus transfer analyses; however, none of these calculations created false favorable results of the bus transfer that would have adversely impacted essential safety-related equipment at HNP or VEGP.

(vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

Even though none of the calculations utilized by HNP or VEGP created false favorable results as a result of Transient Stability Analysis module error, SNC has addressed the impacted calculations to implement the ETAP software/modeling workarounds as noted in ERCA-24-003 Rev. 1. These calculations were completed as part of a station specific non-physical design change. The software/modeling workarounds to ETAP are considered as-built; therefore, they are incorporated by default for any future use of these calculations.

(viii) Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

Impacted licensees should refer to ETAP ERCA-24-003 Rev. 1, dated July 10, 2024, for additional information and recommended work arounds.