

DRAFT

SUPPLEMENTAL INFORMATION NEEDED

LICENSE AMENDMENT REQUEST TO ADD

HIGH FLUX TRIP FOR 3 REACTOR COOLANT PUMP OPERATION

DUKE ENERGY CAROLINAS, LLC

OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

DOCKET NOS. 50-269, 50-270, AND 50-287

The Nuclear Regulatory Commission (NRC) staff has reviewed the application submitted by Duke Energy Carolinas, LLC (the licensee) requesting a license amendment to add a Reactor Protective System Nuclear Overpower – High Setpoint trip (high flux trip) for 3 reactor coolant pump (RCP) operation to the Technical Specifications (TS) for the Oconee Nuclear Station, Units 1, 2, and 3 (ONS) by letter dated May 19, 2015,¹ and concluded that the information delineated below is necessary to enable the staff to make an independent assessment regarding the acceptability of the proposed license amendment request (LAR) in terms of regulatory requirements and the protection of public health and safety and the environment.

Pursuant to the *Code of Federal Regulations* (10 CFR) Part 50.90, whenever a holder of an operating license desires to amend the license, application for the amendment must be filed with the Commission, as specified in 10 CFR 50.4(b)(1), as applicable, fully describing the changes desired, and following as far as applicable, the form prescribed for original applications.

Please provide the following information to allow the NRC staff to make an independent assessment regarding the acceptability of the amendment request:

1. A more in-depth discussion on which regulatory criteria are applicable to the LAR. The LAR cited 10 CFR 50.36 as its regulatory basis. 10 CFR 50.36 states that limiting conditions for operation (LCO's) must be established for items meeting one of the four criteria cited in the regulation. Specifically, provide which of the 50.36 criteria are applicable to the proposed new setpoint, and a discussion of whether the existing TS requirements are sufficient to ensure operation within the bounds of the accident analysis.
2. The regulatory basis for the new reactor trip. Please describe which regulations the new reactor trip intended to comply with (e.g., 10 CFR Part 100, GDC 10 or alternative criteria that establish the Oconee licensing basis).
3. A description of the accident analysis that demonstrates the 80.5 % reactor trip setpoint is adequate to meet the applicable AAO/Accident acceptance criteria. The description should be at a level consistent with the description of accidents in the FSAR and include the

¹ Agencywide Documents Access and Management System Accession No. ML15146A056.

analysis codes and methods, key analysis assumptions as well as the applicable acceptance criteria.

4. A sample calculation that shows the uncertainty determination in the elements of the setpoint calculations for the high flux trip.
5. The procedure name and number that will be used by control room operators to manually insert the high flux trip setpoint when going from 4 RCP operation to 3 RCP operation. Please also describe how this procedure accomplishes the setpoint changes to avoid overpower operation or spurious trips.
6. An explanation of how the 80.5% RTP high flux trip setpoint will be verified to be applicable to each new reactor core loading.

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