

November 19, 1998

Mr. W. R. McCollum, Jr.
Vice President, Oconee Site
Duke Energy Corporation
P.O. Box 1439
Seneca, SC 29679

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION, LOW TEMPERATURE
OVERPRESSURE PROTECTION SETPOINTS - OCONEE NUCLEAR STATION,
UNITS 1, 2, AND 3 (TAC NOS. MA3826, MA3827, AND MA3828)

Dear Mr. McCollum:

By letter dated October 15, 1998, you requested amendments that would revise the pressure-temperature limits and the low temperature overpressure protection setpoints in the Technical Specifications for Oconee Nuclear Station, Units 1, 2, and 3.

The staff has reviewed your request and has determined that additional information is needed. Enclosed is a Request for Additional Information (RAI) concerning the low temperature overpressure protection setpoints.

The NRC staff has discussed this RAI with Mr. Robert Douglas of your staff. A target date for your response has been agreed upon to be 30 days from the date of this letter. Should a situation occur that prevents you from meeting the target date for the response, please contact me at 301-415-1472.

Sincerely,
ORIGINAL SIGNED BY:
David E. LaBarge, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket Nos. 50-269, 50-270, and 50-287

Enclosure: As stated

cc w/encl: See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in black ink, appearing to read "D. LaBarge".

David E. LaBarge, Senior Project Manager
Project Directorate II-2
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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Enclosure: As stated

cc w/encl: See next page

Oconee Nuclear Station

cc:

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REQUEST FOR ADDITIONAL INFORMATION
CONCERNING TECHNICAL SPECIFICATION CHANGES FOR
LOW TEMPERATURE OVERPRESSURE PROTECTION SETPOINTS
OCONEE NUCLEAR STATION, UNITS 1, 2, AND 3

1. Provide the Appendix G pressure-temperature (P/T) limits that apply for the first 26 effective full-power years (EFPY) at Oconee Station that the proposed low temperature overpressure protection (LTOP) setpoints are meant to protect (i.e., P/T limits under steady state reactor operation, the isothermal curve).
2. Confirm that the power-operated relief valve (PORV) setpoint of 460 psig has been determined using proper instrumentation uncertainties.
3. Provide a table that lists PORV setpoint, number of operating reactor coolant pumps, transient pressure overshoot, instrumentation uncertainties, P/T limits (110 percent of Appendix G limits), and the margin that exists for various temperatures in the region where LTOP is required. These data should show that the value of the PORV setpoint plus transient pressure increase plus instrumentation uncertainties is still below the P/T limit with sufficient margin at the entire temperature range within the area of protection.
4. Discuss the major assumptions used in your mass addition and energy addition transient analyses performed to support your design of the LTOP. Identify the assumptions in the analysis that are different from the restrictions specified in the Oconee Technical Specifications (TS).
5. ASME Code Case N-514 states that LTOP systems shall be effective at coolant temperature less than 200 °F or at the coolant temperature corresponding to a reactor vessel metal temperature less than nil-ductility reference temperature (RTndt) + 50 °F, whichever is greater. The vessel metal temperature is the temperature at a distance one-fourth of the vessel section thickness from the inside surface in the vessel beltline region. Provide values of the RTndt, the temperature difference between the reactor coolant and the metal at 1/4T, and instrumentation uncertainties assumed in calculating the proposed enable temperature of 325 °F.
6. Discuss the standard used for determining the instrumentation uncertainties applied in the design of LTOP setpoints.
7. Administrative control of reactor coolant system pressures are necessary for Babcock and Wilcox plants to assure that the operator has at least 10 minutes available to mitigate the most limiting LTOP event assuming that only one PORV fails. These controlled limits should be specified in plant TS to assure that the plant will be operated within analyzed conditions. Provide revised TS that specify these limits.

Enclosure