

January 27, 1994

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

Mr. J. W. Hampton
Vice President, Oconee Site
Duke Power Company
P. O. Box 1439
Seneca, South Carolina 29679

Dear Mr. Hampton:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING TOPICAL REPORT
DPC-NE-3003-P "MASS AND ENERGY RELEASE AND CONTAINMENT RESPONSE
METHODOLOGY"(TAC NOS. M87258, M87259, AND M87260)

By letter dated August 11, 1993, Duke Power Company (DPC) submitted Topical Report DPC-NE-3003-P for review. This report describes the DPC methodology for the calculation of containment temperature and pressure responses to high energy line breaks inside containment for the Oconee facilities. In order to complete our review, additional information, as indicated in the enclosure, is required. Your response to the enclosed questions is requested within 45 days of the date of this letter. If you have questions regarding this matter, please contact me at (301) 504-1495.

This requirement affects fewer than ten respondents and, therefore, it is not subject to Office of Management and Budget review under P.L. 96-511.

Sincerely,

Original signed by:
L. A. Wiens, Project Manager
Project Directorate II-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

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P PDR

Enclosure:
Request for Additional
Information

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Mr. J. W. Hampton
Duke Power Company

Oconee Nuclear Station

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ENCLOSURE

REQUEST FOR ADDITIONAL INFORMATION
OCONEE TOPICAL REPORT DPC-NE-3003-P

1. Figure 2.4-2 (page 2-52) of the topical report presents comparative results of the FATHOMS and CONTEMPT large break LOCA analysis. Please clarify whether the CONTEMPT analysis is a new confirmatory analysis performed using the same input data and assumptions as the FATHOMS analysis, or is the older FSAR analysis discussed in Section 2.4.3.
2. As described in Section 4.4.2 (page 4-15), high point vents are opened at 7200 seconds into the 0.005 ft² SB-LOCA analysis. Is the HPV effluent included or accounted for in the break flow for purposes of containment mass and energy release analysis?
3. ANS-56.4-1983, paragraph 3.3, states that "a spectrum of break areas shall be analyzed to assure that the highest primary containment peak pressure and temperature have been determined." Your analyses encompass a single break size. Provide a rationale for concluding that the 34-inch MSL-DEGB containment response is limiting.
4. Referring to Section 5.3 "SG Pressure" (page 5-5), the lower OTSG pressure is non-conservative for break flow and enthalpy. Have any sensitivity studies been performed to examine its effect, or any compensating bias applied to the results? Explain the reason for the modeling problem.
5. Referring to Section 5.3 "Steam Generator Operating Level" (page 5-5), explain how the numbers add-up to 55,000 lbm and why the numbers are inconsistent with FSAR 15.13.4.
6. Regarding "Fission Heat," in Section 5.4 (page 5-7), are *all* or *n minus 1* rods assumed to insert?
7. Regarding "Limiting Single Failure," in Section 5.4 (page 5-11), identify what other single-failures were considered. Indicate whether the proposed plant modifications intended to eliminate the operator action requirement to terminate FW addition involve or could create new single-failure concerns.
8. Regarding "ICS" (page 5.11) in Section 5.4, please provide additional justification or rationale for neglecting the effect of rod motion.
9. Regarding MSLB containment analyses, explain if and how revaporization is considered?

10. Section 6.4.6.5 (page 6-44) of the topical report states that SB-LOCAs require a reduction in the containment spray actuation setpoint and opening of the boron dilution flowpath for acceptable containment response. Please explain the extent to which these requirements have been implemented.
11. Section 6.4.5 (page 6-35) of the report indicates a spray initiation setpoint of 20 psig (plus delay). Section 6.5.5. (page 6-47) indicates 30 psig (plus delay). Please clarify the spray initiation setpoint.
12. The EQ envelope depicted in the report for MSLB (e.g., figures 6.5-2, 6.5-5) is different than that depicted for LOCAs (e.g., figures 6.3-4, 6.4-1). Explain the discrepancy. Also, indicate what "case-by-case" analyses have been performed to confirm the acceptability of the MSLB responses with respect to EQ requirements.