



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

Docket No. 50-269

NOV 12 1974

K. R. Goller, Assistant Director for Operating Reactors, L

REVIEW OF RELOAD REPORT AND REVISED TECHNICAL SPECIFICATIONS FOR  
OCONEE 1 (TAR-1160)

Plant Name:	Oconee, Unit 1
Docket No.:	50-269
Responsible Branch and Project Manager:	ORB-1 L. McDonough
Technical Review Branch Involved:	Core Performance Branch
Requested Completion Date:	October 25, 1974
Description of Review:	Evaluation of proposed changes to Technical Specifications for Oconee 1 Reload (Cycle 2) and the supporting document (BAW-1409)

Duke Power Company has submitted proposed Technical Specification changes for the first reload of Oconee Unit 1 with a supporting B&W report (BAW-1409). In response to a Technical Assistant Request from Operating Reactors Branch, the following comments and questions are submitted.

The submittal was reviewed with particular attention to the areas of revised safety analyses, design criteria and safety margins, adherence to both the Interim and Final Acceptance Criteria, changes in the Technical Specifications, and generic considerations (e.g., fuel densification). The following statements summarize the results of our review.

Report BAW-1409 discusses the reanalysis of the two limiting accidents of Cycle 1 - rod ejection and LOCA. The staff has determined in telephone conversations with the applicant and the vendor that all accidents were considered for Cycle 2, but were not reported since the input parameters for these accidents changed in a manner which increased the margin of safety compared to the Cycle 1 analysis. We conclude that the safety analyses are acceptable provided that satisfactory responses are forthcoming from the applicant to the comments in the enclosure.

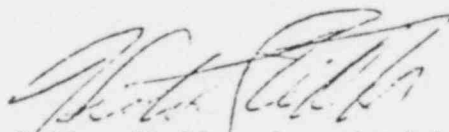
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A verbal commitment has been given by the vendor and the applicant to provide assurance that both the Interim and Final Acceptance Criteria have been considered and that operating and safety limits have been established within the restrictions of both sets of criteria. Provision of such assurance will be satisfactory evidence of compliance with this requirement.

Technical Specification changes have been reviewed and are found to be acceptable provided that satisfactory responses are forthcoming to the comments in the enclosure.

The densification analysis presented in BAW-1409 is found to be acceptable provided that satisfactory responses are given to the comments in the enclosure.



Victor Stello, Jr., Assistant Director  
for Reactor Safety  
Directorate of Licensing

Enclosure:  
Request for Additional  
Information

cc: S. Hanauer  
F. Schroeder  
A. Giambusso  
W. McDonald  
R. Purple  
L. McDonough  
D. Ross  
P. Check  
S. Varga  
E. Leins  
W. Brooks

ENCLOSURE  
Request for Additional Information

BAW-1409

1. It is not clear that both the Interim Acceptance Criteria (IAC) and Final Acceptance Criteria (FAC) were considered in establishing the proposed operating and safety limits. During the time the staff is reviewing the B&W ECCS evaluation model, it is necessary to operate within the limits of Technical Specifications derived from both IAC and FAC analyses. Provide assurance that both sets of criteria have been considered in the determination of the Oconee Unit 1 reload Technical Specifications.
2. In Table 2.2, the power Doppler coefficient at BOC and EOC and the moderator coefficient at HFP are too low in absolute magnitude by a factor of 100 due to the presence of a superfluous % designation in the units of these quantities. Provide a revised Table 2.2.
3. Table 2.3 is confusing in that some of the worth reduction values are given in terms of the amount to be subtracted and others are given in terms of the worth after the reduction has been made. Provide a revised Table 2.3 to remove the ambiguity.
4. In view of the lower boron worth in Cycle 2 in comparison to that in Cycle 1, provide assurance that the reactivity control system still satisfies GDC-26 of 10 CFR 50, Appendix A.
5. Provide clarification in regard to the establishment of different limiting heat generation rates (Kw/ft) for three of the assemblies. Why are these assemblies different? Into which positions in the core will these assemblies be placed?
6. Indicate the location of the bottom of the fuel stack on Figures 3.1 and 3.2.
7. Indicate the meaning of the dashed line marked "Power Level Cutoff" on Figure 3.5. As it stands, this might be interpreted as the maximum operating power.
8. Clarify the status of the hashed area (i.e., "restricted or permissible") on Figure 3.6.

9. Provide separate 2- and 3-pump withdrawal limits on the left side of Figure 3.7, or if these limits are identical, so indicate.
10. Provide a comparison of maximum predicted axial, radial, local, and overall nuclear peaking factors between Cycle 1 and Cycle 2.
11. Since this first reload for the Oconee class of reactors, provide a commitment to submit a report on the results of the startup physics tests.

PROPOSED TECHNICAL SPECIFICATIONS

12. In Section 2.1, the manner in which the W-3 and BAW-2 correlations are used to establish DNBR limits are unclear. The bulk of this section asserts that the W-3 correlation with a DNBR limit of 1.3 was used for Oconee Units 1, 2, and 3. The last paragraph asserts that the BAW-2 correlation with a DNBR limit of 1.32 was used for Oconee Unit 1. Provide clarification of this contradiction.
13. Correct the eighth line from the bottom in the last paragraph of Section 2.1. This line should read "..... level that DNB will not."
14. Clearly indicate on each figure (Figures 2.1-1A, 2.1-3A, 2.3-1A, and 3.5.2-3A) which are the operating regions and which the restricted regions.
15. Indicate the meaning of the dashed line labeled "Power Level Cutoff" in Figure 3.5.2-1A1.