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MEMORANDUM FOR: Robert W. Reid, Chief  
Operating Reactors Branch #4, DL  
FROM: W. V. Johnston, Chief  
Core Performance Branch, DSI  
SUBJECT: OCONEE UNIT 3, RELOAD FOR CYCLE 6 (TACS 42816)

Plant Name: Oconee Nuclear Station, Unit No. 3  
Docket No.: 50-287  
Originating Branch: Operating Reactors Branch No. 4  
and Project Manager: M. Fairtile  
Review Branch: Reactor Physics Section, Core Performance Branch  
and Reviewer: W. L. Brooks  
Status: Complete

The Reactor Physics Section of the Core Performance Branch has reviewed the application of Duke Power Company to reload the Oconee Unit 3 reactor and operate it for Cycle 6. Our review was concerned with changes in Technical Specifications brought about by changes in the LOCA-related requirements on the linear heat rate as a function of core elevation.

We find the proposed changes acceptable. Our evaluation is enclosed.

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Original signed by:

W. V. Johnston, Chief  
Core Performance Branch  
Division of Systems Integration

Enclosure:  
As Stated

cc: D. F. Ross  
T. Novak  
L. Rubenstein  
M. Fairtile  
D. Fieno  
W. Brooks

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\*See previous record copy for concurrences

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SURNAME	WBrooks*ib	DFieno*	WVJohnston				
DATE	01/09/81	01/12/81	01/ /81				

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EVALUATION OF OCONEE 3 CYCLE 6 RELOAD

The Reactor Physics Section of the Core Performance Branch has reviewed the effect on the rod insertion limit and axial imbalance limiting conditions of operation caused by the reduction in allowable heat generation rate at the bottom of the core due to the TAFY-TACO conversion. In order to meet the reduced limit on the power in the lower half of the core during the first 50 effective full power days of the cycle the allowable negative imbalance has been reduced, the amount of control rod insertion allowed at full power has been decreased and the amount of permitted withdrawal of the axial power shaping rods has been reduced. All of these actions are in a direction to reduce the power at the bottom of the core. The techniques used to obtain the revised limiting conditions of operation are the same as have been previously used to obtain limiting operating conditions. On the basis of our review, which is discussed above, we conclude that the revised Technical Specifications are acceptable.

A further Technical Specification (3.5.2.9) specifies that the curves shown in the various Specifications shall be valid only to the end of the nominal cycle length (in spite of the open ended nature, e.g., Figure 3.5.2-1C3 which is designated for use after  $200 \pm 10$  EFPD).

However, use of these curves would be permitted after the end of the nominal cycle if analyses are performed which confirm their suitability. Such use would not, therefore, involve a Technical Specification change. If analyses failed to confirm the suitability of the curves, a Technical Specification change would have to be obtained to continue operation beyond the nominal cycle length. We find this approach to be acceptable.