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~~7910250-590~~ 2 P

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

OCT 16 1979

Mr. William O. Parker
Vice President - Steam Production
Duke Power Company
P.O. Box 2178
422 South Church Street
Charlotte, North Carolina 28242

REGULATORY DOCKET FILE COPY

Dear Mr. Parker:

SUBJECT: EMERGENCY FEEDWATER FLOW RATE AND STABILITY TEST FOR OCONEE 1, 2, & 3

In your letter dated August 22, 1979, you requested exemption from the flow rate and flow stability test that we required in our May 18, 1979 evaluation of your compliance with the NRC Order of May 7, 1979.

We have reviewed your request and conclude that the flow test we required in our May 18, 1979 evaluation will not be necessary provided all motor-operated pumps are available prior to three unit operation. The enclosed evaluation describes the details of our review and provides the basis for our conclusion.

As stated on page two of the enclosed evaluation, the addition of the two motor-driven pumps to each unit requires that new analyses be performed regarding a main steam line break inside containment since the peak containment pressure may be affected due to the emergency feedwater flow which is dependent on manual actions to isolate flow to the affected steam generator. In performing the analyses, you must consider the run out flow from the turbine-driven pump and one motor-driven pump. Please provide us a date by which we can expect to receive the revised analyses.

If you have any additional questions, please do not hesitate to call me.

Sincerely,

Original signed by:

Robert W. Reid, Chief
Operating Reactors Branch No. 4
Division of Operating Reactors

WR

Enclosure:
Supplement 1 to Evaluation of
Licensee's Compliance with the
NRC Order dated May 7, 1979

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SUPPLEMENT 1 TO "EVALUATION OF LICENSEE'S COMPLIANCE WITH THE
NRC ORDER DATED MAY 7, 1979 - DUKE POWER COMPANY - OCONEE NUCLEAR STATION,
UNITS 1, 2, & 3 - DOCKET NOS. 50-269, 270, AND 287" DATED MAY 18, 1979

DISCUSSION

Our staff evaluation of Duke Power Company's compliance with the Commission Order of May 7, 1979, required that the licensee demonstrate acceptable flow rates and flow stability with only two operating steam-driven emergency feedwater (EFW) pumps when all three units were operational. This test was required since the EFW system for Oconee, existing at that time, consisted of only three turbine-driven pumps which would normally be cross-connected to feed all three units. The failure of one pump would necessitate that two turbine-driven pumps be capable of supplying adequate EFW to all three units. To ensure adequate flow to all three units, we required a test to show that two pumps could meet the EFW needs for all three units.

However, since this requirement was transmitted on May 18, 1979, there has been no instance in which all three units were operating. Duke Power Company is presently modifying the EFW design at Oconee such that each unit will have a turbine-driven pump and two motor-driven pumps. Each three-pump system will be dedicated to one reactor unit and will operate with the systems not cross-connected. The modifications are complete for Unit 3 and essentially complete for Unit 1. The modifications to Unit 2 are partially complete and should be finished during the present scheduled shutdown. Duke Power Company states that, with the completion of installation of the motor-driven pumps for each unit, the operation of all three units with the cross-connected steam-driven EFW pumps will no longer be an established mode of operation, thereby making the test described above unnecessary.

The modified EFW system will include two motor-driven pumps (500 gpm) and one turbine-driven pump (1080 gpm) for each unit. All three pumps will automatically start on loss of main feedwater pumps or low feedwater pressure. A single failure of any pump could reduce the available feedwater supply to a minimum