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50-287 OCONEE NUCLEAR STATION, UNIT 3, DUKE POWER CO. 05000287
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LEE,W.S. DUKE POWER CO.
RECIP.NAME RECIPIENT AFFILIATION
DENTON,H.R. OFFICE OF NUCLEAR REACTOR REGULATION

SUBJECT: SUPPL 790425 LTR & PROVIDES ADDL INFO RE INSTALLATION OF AUTOMATIC STARTING FEED-WATER SYS & DEVELOPMENT & IMPLEMENTATION OF OPERATING PROCEDURES FOR INITIATING & CONTROLLING EMERGENCY FEEDWATER.

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APR 30 1979

April 26, 1979

DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242



Mr. Harold R. Denton
Director
Office of Nuclear Reactor Regulation
USNRC
Washington, DC 20555

Re: OCONEE NUCLEAR STATION
DOCKET NOS. 50-269, 50-270 and 50-287

Dear Mr. Denton,

Supplementing my letter of April 25, 1979 and providing additional information responsive to Staff safety concerns identified as items a. through e. on page 1-7 of the ONRR Status Report to the Commission of April 25, 1979, Duke Power Company proposes following actions:

a. Install automatic starting of the interconnected emergency feedwater system so that all three pumps will receive a start signal from any affected unit, and test the system for stability.

b. Develop and implement operating procedures for initiating and controlling emergency feedwater independent of ICS control.

c. Implement a hard-wired control-grade reactor trip on loss of main feedwater and/or turbine trip.

d. Complete analyses for potential small breaks and develop and implement operating instructions to define operator action.

e. Station in the control room an additional full-time SRO (or previously licensed SRO with TMI training) for each operating unit to assist with guidance and possible manual action in case of transients until items a. through d. are completed.

A001 S/O ADD: LIST

Oconee Unit 3 will be shutdown on April 28, 1979, in advance of its annual refueling, and will not be restarted until item a. through d. are completed.

Another Oconee unit will be shutdown on May 12, 1979 if item a. through d. have not been previously accomplished and will remain shutdown until completion of items a. through d.

The remaining Oconee unit will be shutdown on May 19, 1979 if item a. through d. have not been previously accomplished and will remain shutdown until completion of items a. through d.

The sequential shutdown of the 3 units is most important for a number of reasons. As a safety consideration, with one unit in a shutdown mode its emergency feedwater capability is available for use by the other units with no requirement on its own unit. Each emergency feedwater pump is sized for 150% of its unit's requirements. We also need to arrange for hard-to-get fuel oil (which Duke seldom uses and has no allocation for this contingency) which may be necessary to operate combustion turbines to replace Oconee generation. With one very large generator and a number of others now in forced outage, sequential shutdown will reduce the potential for involuntarily interrupting power supply to the public.

Duke further commits to additional improvements in assuring safety related to items a. through e. the same Staff report as follows:

a. For even greater assurance of emergency feedwater supply, we are proceeding with two motor driven pumps for each Oconee unit as more particularly described as Part III in W. O. Parker's letter to you of yesterday. We will be submitting this system concept and analyses to your Staff for review.

b. The failure mode and effects analysis of ICS is underway with high priority by B&W and will be submitted as soon as practicable.

c. These trips will be revised to safety grade.

d. A more complete description of the transient analyses is provided in the attached entitled "Guidelines for the Development of Operational Procedures for Safe Management of Small Breaks in the Reactor Coolant System Pressure Boundary."

e. We will continue operator training and drilling of response procedures as a part of our ongoing program to assure the high state of readiness described by the I&E staff to the Commission yesterday.

We are confident that these steps will meet your Staff concerns and provide additional assurance of public safety.

Sincerely,

W. S. Lee
President

April 26, 1979

# GUIDELINES FOR THE DEVELOPMENT OF OPERATIONAL PROCEDURES FOR SAFE MANAGEMENT OF SMALL BREAKS IN THE REACTOR COOLANT SYSTEM PRESSURE BOUNDARY

Operational guidelines will be prepared for the safe handling of small breaks as an extension of and addition to previously issued guidelines and IE Bulletin 79-05A. These guidelines will include provisions for operator recognition of small breaks and discrimination of other accidents which might produce similar symptoms.

The guidelines will include expected system response insofar as required to assure effective operator understanding and action. The guidelines will include necessary precautions and will describe those actions which the operator must take to assure safe management and mitigation of small break events, including natural circulation cooling where it is predicted to occur in the course of the accident.

These guidelines will specifically cover cases in which RCS stabilization will occur with a partially filled reactor coolant system for both the case with the reactor coolant pumps on and the reactor coolant pumps off. Delay in the initiation of auxiliary feedwater up to 20 minutes will be considered. System conditions covered will assume availability of ECCS systems at full design flow in the event that auxiliary feedwater is not available or with single failure in the ECCS systems in the event that auxiliary feedwater is available.

The guidelines will be based on existing analyses and by specific additional computer calculations. These calculations will be performed to define system response to re-start of reactor coolant pumps in a partially filled system and response of the partially filled system to re-start of auxiliary feedwater.

These guidelines will be developed by B&W and reviewed by the NRC staff in time for implementation of the corresponding procedures by Duke Power Company on or before May 15, 1979.

APRIL 26, 1979