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 50-287 Oconee Nuclear Station, Unit 3, Duke Power Co. 05000287

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 DENTON, H.R. Office of Nuclear Reactor Regulation, Director
 STOLZ, J.F. Licensing Branch 4

SUBJECT: Responds to NRC concerns voiced during 820104 telcon re evaluation of 10CFR50 App R standby shutdown facility fire protection requirement.

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January 25, 1982

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Attention: Mr. J. F. Stolz, Chief
Operating Reactors Branch No. 4

Subject: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287



Dear Sir:

On January 4, 1982 a telephone conversation was held between Duke Power Company engineers and the NRC staff on the subject of the evaluation of 10 CFR 50, Appendix R fire protection requirements as they relate to the Standby Shutdown Facility (SSF) at Oconee. The following are our responses to the expressed staff concerns:

1. Duke Power considers that neither source range flux monitoring nor steam generator pressure instrumentation need be provided in the SSF to assure safe shutdown in the event of fire. Source range neutron flux is only required where there is a potential for positive reactivity addition. The following reasons constitute why we conclude that this instrumentation is not required:

- a) Unit is to be held at hot standby.
- b) Control rods are inserted.
- c) RCS makeup and boration (2000 ppm) is with spent fuel pool water. This is the only source available with the existing piping design. As such, inadvertent boron dilution during operation of the SSF is not possible.

Steam generator pressure is not a control parameter (i.e., the operator does not take action or attempt to control based on this information only). Steam generator level will be used to control auxiliary feed-water flow.

2. In the original Staff Fire Protection SER, dated August 11, 1978, several measures were required to be implemented to allow cold shutdown conditions to be achieved and maintained in the event of a fire. The

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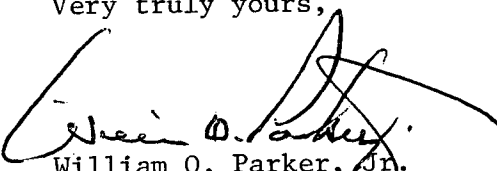
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systems involved included low pressure injection, low pressure service water and high pressure injection. In the event a postulated fire were to damage the pump motors in any one of these systems, damage control measures would be taken within the 72 hour time period to restore the system to operable status. Necessary equipment is readily available or could be obtained from within the Duke system. The specific pump motors will be stored onsite at Oconee. Duke has had experience in such repair activities and has in fact replaced at least one HPI pump motor within a 72 hour time period to allow continued plant operation. Duke considers that the necessary equipment, manpower and procedures are available to effect the requisite damage controls measures in the time allowed.

3. Prior to considering the Standby Shutdown Facility operational, the appropriate station procedures and manpower requirements will be in place.
4. The control, power instrumentation cabling required to maintain hot shutdown from the SSF Facility for each reactor unit is routed through the west penetration room to their respective devices inside containment. The SSF cables are separated from one train of the redundant hot shutdown equipment control, power and instrumentation cabling routed through the east penetration room by a three hour fire barrier as required by 10 CFR 50 Appendix R Section III.G.2a.
5. An analysis was conducted and cables re-routed to assure all SSF cable routes for control and instrumentation circuits are restricted to fire zones such that two independent methods to achieve hot shutdown conditions are separated by three hour fire barriers. The SSF hot shutdown control and instrumentation circuits are also separated from redundant associated control and instrumentation circuits by three hour barriers. (i.e., SSF cabling is routed from SSF through fire zones in cable tray containing one redundant train and its associated cables to the west penetration room; whereas, the other redundant train cabling and its associated circuits route through different fire zones from SSF cabling, in different cable tray, to the east penetration room--all means of shutting down a unit are not disabled by a fire in a single fire zone).

This information is provided in confirmation of statements made during the above telephone conference call.

Very truly yours,


William O. Parker, Jr.

RLG/php