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 STOLZ, J. F.      Operating Reactors Branch 4

SUBJECT: Forwards response to 821210 order re NUREG-0737, Item II.F.2, "Instrumentation to Detect Inadequate Core Cooling." Design approval of sys described in encl requested prior to final design & procurement efforts initiated. *586 KPB*

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March 10, 1983

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

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

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

Dear Sir:

By letter dated December 10, 1982, the NRC issued an Order for Modification of License which requested certain actions of Duke Power Company on Oconee Nuclear Station with respect to Instrumentation to Detect Inadequate Core Cooling, NUREG-0737, Item II.F.2. Within this order, there was no acknowledgment of the fact that Duke Power had previously responded to all Staff documents that requested information which are referred to in this Order. For instance, in response to the Orders issued in 1979, Duke provided several responses which were reflected in the Staff Safety Evaluation Report of April 7, 1980. In response to the October 31, 1980 NRC letter, Duke submitted substantial information in response to Action Plan Item II.F.2 by letter dated January 2, 1981. Following this, Duke met with the NRC Staff in May 1981 to discuss the concept of a hot leg level measurement system and by letter dated May 25, 1982 Duke submitted a design proposal for instrumentation to detect inadequate core cooling. None of these interactions were reflected in the Order.

Inasmuch as Duke had previously responded to all NRC requirements with respect to this issue, and in view of the fact that the NRC Staff had not advised Duke of the status of review of these submittals until a February 1, 1983 letter, Duke considers that the issuance of the Order of December 10, 1982 was unnecessary and inappropriate. Nevertheless, please find attached the Duke response to the Order.

Attachment I provides summary responses to Section III of the Order, with further details provided in Attachments II, III. Attachment II provides a system design description, which was previously submitted and which is preferred by Duke Power. Attachment III provides a system description that is considered by Duke to conform to the Staff's interpretation of NUREG-0737, Item II.F.2 requirements. Both system descriptions are offered to allow the pros and cons of each to be technically evaluated. Upon completion of the technical evaluations, the actual benefit of each total system may be assessed. The relative costs of each system are also included from which a cost-benefit analysis can be made. In order to optimize real benefit with respect to cost incurred, some compromise to the explicit NRC requirements is necessary.

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Mr. Harold R. Denton, Director  
March 10, 1983  
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It is not apparent that the Staff requirements of full hot leg level and reactor vessel head level will provide the "substantial, additional protection which is required for the public health and safety", as required by the Commission's own regulation, 10 CFR 50, §50.109, over and above that protection which would be provided by the system design proposed by Duke Power in Attachment II of this letter.

In view of the Staff's desire to assure that an acceptable system is installed, Duke requests that the NRC provide design approval prior to Duke initiating final design and procurement efforts.

Duke Power encourages the NRC Staff to review the technical information provided herein and would like to discuss the details of the system designs further should the Staff have any questions. Suitable meeting arrangements should be made through normal licensing channels.

Very truly yours,



Hal B. Tucker

RLG/php  
Attachment

cc: Mr. William J. Dircks  
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Oconee Nuclear Station