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March 25, 1986

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

Attention: Mr. B. J. Youngblood, Project Director
PWR Project Directorate No. 4

Re: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414

Dear Sir:

On December 17, 1982, Generic Letter 82-33 (Supplement 1 to NUREG-0737) was issued by the NRC. This letter included additional clarification regarding Regulatory Guide 1.97, Revision 2. By letter dated September 26, 1983, Duke Power Company (Duke) responded, identifying twenty exceptions and deviations. On August 6, 1985, the NRC transmitted a draft Technical Evaluation Report (TER). The draft TER concluded that twelve of the twenty deviations to Regulatory Guide 1.97 were justified and requested additional justification for the remaining eight exceptions. On October 22, 1985, Duke responded to the Staff's request. In Supplement 5 to the Catawba Safety Evaluation Report, the Staff found the identified deviations acceptable, except for accumulator tank level and pressure. As a result the Staff required Duke to designate either level or pressure as the key variable to directly indicate accumulator discharge and, before startup from the next refueling outage, provide instrumentation for that variable that is qualified per the provisions of 10 CFR 50.49.

In our October 22, 1985 response, it was noted that the primary function of the accumulator pressure and level instrumentation is to monitor the pre-accident status of the accumulators to assure that this passive safety system is in a ready state to serve its safety function. The only safety function of the accumulator tank is to empty upon rapid, uncontrolled depressurization of the primary system. Accumulator tank level and pressure are not referenced in any emergency procedure covering design basis events which may cause a harsh environment. No operator actions in these procedures are based on accumulator indications. The only operator action involving the accumulator portion of the Safety Injection System is to isolate the accumulator when the primary system pressure is below 1000 psig and primary system conditions indicate that the accumulator inventory is not needed to make up lost Reactor Coolant System volume. That action is based on system pressure for which fully qualified instruments are provided (see variable sheet A-1, from the original response to RG 1.97).

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Cold leg accumulator tank pressure is used in certain emergency procedures which deal with events beyond the design basis of Catawba. These procedures are EP/1C5, Loss of Emergency Coolant Recirculation, EP/31, Inadequate Core Cooling, and EP/2B2, Degraded Core Cooling. In these procedures, accumulator pressure is used to determine when to isolate the accumulator after it has emptied. In an internal NRC document, H. B. Clayton to D. L. Ziemann, "Meeting Summary, Westinghouse Owners' Group and Westinghouse Emergency Operating Procedures Guidelines", February 24, 1982, the NRC acknowledged that "for some accident sequences, non-safety-grade equipment and instrumentation is needed and this is reflected in the guidelines". The use of cold leg accumulator pressure in the above mentioned McGuire and Catawba emergency procedures is in accordance with this philosophy.

Therefore, it is Duke's position that the accumulator tank level and pressure are not key variables for any design basis events which result in a harsh environment. Providing environmental qualification for the post accident in-containment harsh environment should not be required in that the instruments have no post-accident safety function nor provide any required post accident monitoring function.

In Section 7.5.2.1 of Supplement 5 to the Catawba Safety Evaluation Report the Staff responded as follows:

"The staff disagrees. It is necessary to have knowledge of the status of these tanks during a loss-of-coolant accident (LOCA) in order to monitor whether they have discharged their contents into the reactor coolant system."

This rather brief evaluation by the Staff doesn't provide sufficient technical basis for Duke to justify the replacement of the 16 level or pressure transmitters at Catawba and a like number at McGuire, where the Staff has taken a similar position. Therefore, in order for Duke to evaluate the merits of the Staff's requirement to provide qualified accumulator level or pressure indication, it is requested that the Staff provide the following information:

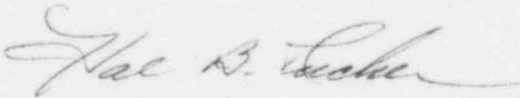
- (1) The NRC has reviewed and approved Revision 0 of the Westinghouse Owners Group Emergency Response Guidelines (ERG's) and is in the process of reviewing Revision 1 of the ERG's. These ERG's are the basis of the Catawba emergency procedures. Therefore, please identify by reference to appropriate ERG's how accumulator level or pressure is used in the management of a design basis accident.
- (2) Assuming the operator had qualified accumulator level or pressure indications, what post-LOCA actions would the operator be able to take based on this information?
- (3) What would be the effect of the operator actions in (2) above on the course and consequences of a LOCA?

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- (4) Would the replacement of the 16 accumulator level or pressure transmitters provide a substantial increase in the overall protection of the public health and safety or common defense and security? Please explain.
- (5) Would the direct and indirect costs of replacing the accumulator level or pressure transmitters be justified in view of any increased protection identified in (4) above? Please explain.

Based on receipt of responses to the above questions, it is anticipated that Duke would either propose an implementation schedule or pursue the issue further through the NRC's appeal process.

Very truly yours,



Hal B. Tucker

ROS:slb

xc: Dr. J. Nelson Grace, Regional Administrator
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NRC Resident Inspector
Catawba Nuclear Station