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DUKE POWER

December 2, 1992

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555

Subject: Catawba Nuclear Station, Units 1 and 2
Docket Nos. 50-413 and 50-414
Operating License Amendments
Accumulator Tank Level and Pressure Instrumentation

Attached are proposed license amendments to the Catawba Nuclear Station Facility Operating Licenses for Units 1 and 2, NPF-35 and NPF-52, respectively.

The attachment outlines proposed amendments that would remove license conditions 2.C.(12)(a) and 2.C.(8)(a) from operating licenses NPF-35 and NPF-52 respectively. These license conditions require Duke Power to provide qualified accumulator discharge instrumentation prior to startup following the seventh refueling outage for Unit 1 and prior to startup following the sixth refueling outage for Unit 2. Removal of these license conditions is based on an April 8, 1992 letter from the NRC, as supplemented on April 27, 1992, which states that the NRC has concluded that Regulatory Guide 1.97, Rev. 2, Category 3 qualified instrumentation is acceptable for cold leg accumulator level and pressure monitoring instrumentation. As indicated in Catawba Final Safety Analysis Report Section 1.8.1.29, the current Catawba cold leg accumulator instrumentation meets the requirements for Regulatory Guide 1.97, Revision 2, Category 3 instrumentation.

Pursuant to 10 CFR 50.91 (b)(1) the appropriate South Carolina State Official is being provided a copy of this amendment request.

Very truly yours,

M. S. Tuckman

CRL/LICCND,CLA

Attachment

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U. S. Nuclear Regulatory Commission
December 2, 1992
Page 2

xc: Mr. S. D. Ebnetter
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U. S. Nuclear Regulatory Commission
December 2, 1992
Page 3

M. S. Tuckman, being duly sworn, states that he is Vice President of Duke Power Company, Catawba Nuclear Site; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this revision to the Catawba Nuclear Station Facility Operating License, License Nos. NPF-35 and NPF-52; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

M. S. Tuckman

M. S. Tuckman, Vice President

Subscribed and sworn to before me this 2nd day of Dec, 1992.

James H. Jackson

Notary Public

My Commission Expires:

Nov 21, 2000

ATTACHMENT

DUKE POWER COMPANY
CATAWBA NUCLEAR STATION, UNITS 1 AND 2

Proposed License Amendments To
Facility Operating Licenses NPF-35 And NPF-52
License Conditions 2.C.(12)(a) And 2.C.(8)(a)

Requested Amendments

Remove Facility Operating License NPF-35 License Condition 2.C.(12)(a) which reads as follows:

Prior to startup following the seventh refueling outage, Duke Power Company shall provide qualified accumulator discharge instrumentation.

Remove Facility Operating License NPF-52 License Condition 2.C.(8)(a) which reads as follows:

Prior to startup following the sixth refueling outage, Duke Power Company shall provide qualified accumulator discharge instrumentation.

Background

Supplement 1 to NUREG-0737 - Requirements for Emergency Response Capability (Generic Letter 82-33) included additional clarification regarding Regulatory Guide 1.97, Revision 2. By letter dated September 26, 1983, Duke Power Company provided the information concerning the exceptions to conformance to the regulatory guide. Pending completion of the Staff's review of the Catawba design for conformance to the guidance of the regulatory guide, the operating licenses for Catawba Unit 1 and Unit 2 were conditioned to require that modifications be completed to provide compliance with the regulatory guide unless the exceptions were reviewed and approved by the staff before startup following the first refueling outage. The items identified were:

- (a) Reactor coolant system cold leg water temperature
- (b) Containment sump water level
- (c) Residual heat removal heat exchanger outlet temperature
- (d) Accumulator tank level and pressure
- (e) Steam generator pressure
- (f) Containment sump water temperature
- (g) Chemical and volume control system makeup flow and letdown flow
- (h) Emergency ventilation damper position
- (i) Area radiation
- (j) Plant airborne and area radiation

Ms. Elinor G. Adensam's letter of August 6, 1985 transmitted a draft Technical Evaluation Report (TER) regarding Catawba's conformance to Regulatory Guide 1.97, Rev. 2. The TER also requested additional justification for some of the exceptions

taken by Duke. By letter dated October 22, 1985, Duke provided the requested information. In Supplement 5 to the Catawba Safety Evaluation Report dated February 1986, the Staff approved all of the exceptions except for accumulator level and pressure, requiring that Duke designate either level or pressure as the key variable to be upgraded. This position was incorporated into the operating license (NPF-35) for Catawba Unit 1 on January 17, 1985 and into the operating license (NPF-52) for Catawba Unit 2 on May 15, 1986.

By letter dated March 25, 1986, Duke requested additional technical justification from the Staff in order for Duke to be able to evaluate the merits of the Staff's requirement. The NRC's letter dated July 27, 1990 responded to Duke's March 25, 1986 letter by stating that the Staff was continuing to generically review the need for environmentally qualified Category 2 instrumentation to monitor accumulator tank level and pressure. This letter also stated that no further plant specific action was required and that the NRC would inform Duke as to whether or not the existing Catawba instrumentation is acceptable when the generic review was completed.

In a letter dated April 8, 1992, the NRC provided Catawba with a Safety Evaluation entitled "Accumulator Pressure and Level Instrumentation: Relaxation of Regulatory Guide 1.97 Environmental Qualification Requirements". This evaluation concluded that Category 3 qualified accumulator instrumentation was acceptable and that Catawba could apply for removal of the accumulator level and pressure instrumentation license conditions. As indicated in Catawba Final Safety Analysis Report Section 1.8.1.29, the current Catawba cold leg accumulator instrumentation meets the requirements for Regulatory Guide 1.97, Revision 2, Category 3 instrumentation.

Discussion

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).

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/2B1, 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 Procedure 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 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 harsh environment. Providing environmental qualification for the post accident in-containment harsh environment is not necessary in that these instruments have no post-accident monitoring function.

Safety Analysis

The primary function of the accumulator pressure and level instrumentation is to monitor the preaccident status of the accumulators to assure that the passive safety system is in a ready state to serve its safety function. 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. It is therefore Duke Power Company's conclusion that the use of Category 3 qualified accumulator pressure and level instrumentation does not involve any adverse safety considerations.

Analysis of Significant Hazards Consideration

10 CFR 50.92 states that a proposed amendment involves no significant hazards consideration if operation in accordance with the proposed amendment would not:

- (1) Involve a significant increase in the probability or consequences of an accident previously evaluated; or
- (2) Create the possibility of a new or different kind of accident from any accident previously evaluated; or
- (3) Involve a significant reduction in a margin of safety.

The proposed amendment would not involve a significant increase in the probability or consequences of an accident previously evaluated because the accumulator level and pressure indications are provided for preaccident monitoring of the status of the cold-leg accumulators and as such have no effect on cause mechanisms.

The proposed amendment does not create the possibility of a new or different kind of accident from any accident previously evaluated. This proposed Technical Specification change will not cause any physical changes to the plant and the design and operation of the unit will not be affected.

The proposed amendment would not cause a significant reduction in a margin of safety. The current Category 3 instrumentation is fully qualified for its intended function of preaccident monitoring of the cold-leg accumulators.