Duke Power

D.M. JAMIL
Vice President

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October 24, 2005

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

Subject: Duke Energy Corporation
Catawba Nuclear Station, Units 1 and 2
Docket Numbers 50-413 and 50-414
Proposed Technical Specification Amendment
Technical Specification 3.5.2, Emergency Core Cooling System; 3.6.6, Containment Spray System; 3.6.17, Containment Valve Injection Water System; 3.7.5, Auxiliary Feedwater System; 3.7.7, Component Cooling Water System; 3.7.8, Nuclear Service Water System; 3.7.10, Control Room Area Ventilation System; 3.7.12, Auxiliary Building Filtered Ventilation Exhaust System; & 3.8.1, AC Sources - Operating

References: Letters from Duke Energy Corporation to NRC, same subject, dated November 16, 2004, May 3, 2005, July 6, 2005, September 13, 2005, and October 6, 2005

The reference letters collectively comprise Duke Energy Corporation's license amendment request submittal to allow the "A" and "B" Nuclear Service Water System (NSWS) headers for each unit to be taken out of service for up to 14 days each for system upgrades.

On October 13, 2005, a Request for Additional Information (RAI) was transmitted by NRC to Duke Energy Corporation via electronic mail. This RAI was discussed in a telephone conference call that same day. The purpose of this letter is to formally docket our response to the RAI. The attachment to this letter contains our response. The format of the response is to restate each RAI question, followed by our response.

The conclusions reached in the original determination that the amendment contains No Significant Hazards Considerations pursuant to 10 CFR 50.92, and the basis for the categorical exclusion from performing an Environmental Assessment/Impact Statement pursuant to 10 CFR 51.22(c)(9) have not been changed based on the information in the attachment to this letter.

Pursuant to 10 CFR 50.91, a copy of this letter is being sent to the appropriate State of South Carolina official.

Inquiries on this matter should be directed to L.J. Rudy at (803) 831-3084.

Very truly yours,

D.M. Jamil

LJR/s

Attachment

D.M. Jamil affirms that he is the person who subscribed his name to the foregoing statement, and that all the matters and facts set forth herein are true and correct to the best of his knowledge.

D.M. Jamil, Vice President

Subscribed and sworn to me: 10/24/05
Date

Notary Public

My commission expires: 7/2/2014
Date

SEAL

xc (with attachment):

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ATTACHMENT

CATAWBA RESPONSE TO NRC REQUEST FOR ADDITIONAL INFORMATION

(Throughout this attachment, the NRC request for additional information is highlighted in **bold type** and Catawba's response is shown in normal type.)

ATTACHMENT

1. Duke has committed to monitor NWS reports prior to commencing outage, to ensure, to the extent practicable, that any potential outbreaks of severe weather are factored into the schedule. Under what severe weather conditions or forecast conditions would the planned outage be delayed?

Duke Energy Corporation Response:

Procedure RP/0/B/5000/030, "Severe Weather Preparations," governs actions that Catawba would take in the event that either sustained high speed winds (greater than 50 mph for greater than 15 minutes) or ice accumulation (greater than 0.25 inch) is forecast for the site. This procedure is implemented by the Operations organization with the concurrence of the Station Manager or Duty Station Manager. If either of the above wind or ice scenarios is forecast to occur during the planned nuclear service water refurbishment periods, then implementation of the planned outages would be delayed until such time that favorable weather conditions are forecast.

2. Duke identified that the development of fire scenarios involved screening the scenario if the frequency was "much smaller" than a corresponding internal events initiator. The term "much smaller" requires clarification; in addition, was consideration given to the number of scenarios screened and their cumulative quantitative impact - i.e., ten scenarios each on order of magnitude less than the internal initiator would have a cumulative risk impact equal to the internal event.

Duke Energy Corporation Response:

The screening criteria as described in the September 13, 2005 RAI were applied to only a few fire areas for the Catawba Fire PRA. These screened areas include the residual heat removal and containment spray pump rooms, the fuel building, areas containing the reactor coolant pump breakers, and the doghouses containing main feedwater isolation valves and main steam isolation valves.

Most fire areas were analyzed in more detail, until either detailed fire PRA results were obtained, or until the area risk was shown to be below 1E-08/year. Most fire areas were screened using this 1E-08/year criterion. Detailed fire PRA results were calculated for eleven of the approximate twenty-seven fire areas for each Catawba unit, with six fire areas providing cut sets above the PRA core damage frequency truncation limit of 5E-10/year.

The three most important unscreened fire scenarios in the PRA results involve shutdown from outside the control room using the standby shutdown facility. These scenarios are unaffected by maintenance of the nuclear service water system or other support systems. The large turbine building fire is estimated to be the fourth most important scenario, but is not greatly affected by nuclear service water system maintenance since steam generator cooling would not require nuclear service water cooling, and either train of nuclear service water can be used to support reactor coolant pump seal cooling and injection. Fire scenarios using either A or B train shutdown trains are much less important, with most scenarios screening with an estimated risk of less than 1E-08/year. For the two A/B train fire areas providing cut sets, the increase in risk is included in the PRA model results. These scenarios have little impact on the results due to the low frequency for a large damaging fire required to affect both the single train and the standby shutdown facility cables in the area. Most of the A or B train fire areas damage a single train of shutdown equipment, and do not affect the standby shutdown facility or the opposite train of shutdown equipment. Therefore, the cumulative impact of screened and non-screened fire scenarios is insignificant when compared to the non-fire scenarios.

3. For seismic risk, Duke states that NSWS is robust, and that seismic risk is dominated by an induced LOOP and electrical component failure. Further, the licensee identifies that the electrical systems are available during the NSWS outage, so the seismic risk is insignificant. However, two of the four EDGs rely upon the fire protection system for cooling water during the NSWS outage. Is the FPS seismically robust to maintain functionality of the EDGs? If not, has the licensee determined that seismic risk is still insignificant if two of four EDGs are unavailable due to seismically induced failure of the cooling water?

Duke Energy Corporation Response:

The seismic analysis was performed assuming that cooling provided to the diesel generators via the fire protection system would not be available. The seismic analysis was performed assuming two of the four diesel generators, as well as a train of nuclear service water/component cooling water, were out of service. The resulting seismic incremental core damage probability was approximately two orders of magnitude lower than the non-seismic probability.