DUKE POWER COMPANY

POWER BUILDING, BOX 33189, CHARLOTTE, N. C. 28242

W. H. OWEN
EXECUTIVE VICE PRESIDENT
ENGINEERING & CONSTRUCTION

(704) 373-4120

September 2, 1983

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

Attention: Ms. E. G. Adensam, Chief
Licensing Branch No. 4

Re: McGuire Nuclear Station
Docket Nos. 50-369, 50-370

Dear Mr. Denton:

Attached is a proposed license amendment to the Technical Specifications for Facility Operating Licenses NPF-9 and NPF-17. This amendment concerns the Auxiliary Building Filtered Ventilation Exhaust System. The attached safety analysis and analysis of significant hazards considerations conclude that the proposed change does not involve a significant hazards consideration and does not adversely affect the health and safety of the public.

It is requested that this change be handled as an emergency change pursuant to 10 CFR 50.91. The situation described in the attachment could not have been avoided since the sample results were received on September 2, 1983. This carbon sample was being analyzed to comply with Technical Specification 4.7.7.b.2) which requires a sample every 18 months. There was no reason to expect the sample results to be above the 1 percent limit since no flow goes through the carbon bed during normal operation. Consequently, Duke Power Company does not create the situation to take advantage of the emergency provision of 10 CFR 50.91.

Failure to grant the requested change will involve the derating of McGuire Unit 1 by forcing the unit to remain in a shutdown condition for an additional 36 hours. With the requested change, Unit 1 will be maintained in a hot standby condition while the carbon in the filter unit is changed (approximately a three-day process). Without the requested change, Unit 1 will be required to go to cold shutdown while the carbon in the filter unit is changed. With the unit in hot standby, plant start-up can commence virtually immediately once the work on the filter unit is completed. With the unit in cold shutdown, the plant must be heated up to full pressure and temperature before plant start-up can commence. Under optimum conditions with no problems occurring, this heat-up requires approximately 36 hours. Thus, without the requested change, McGuire Unit 1 will be forced to remain shutdown for an additional 36 hours. An equally important reason for granting the proposed change is that one thermal cycle would be avoided. This has real benefits in terms of availability, component lifetime and safety.

B001
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w/check
$4,400.00

Pursuant to 10 CFR 170.22, we propose that this request involves a Class III license amendment for McGuire Unit 1 and a Class I amendment for McGuire Unit 2. Accordingly, a check for $4,400 is enclosed. This amendment has been reviewed and determined to have no adverse safety or environmental impact.

Very truly yours,

Warren H. Owen

Warren H. Owen

GAC/php

Attachments

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Mr. Dayne Brown, Chief
Radiation Protection Branch
Division of Facility Services
Department of Human Resources
P. O. Box 12200
Raleigh, North Carolina 27605

Mr. W. T. Orders
NRC Resident Inspector
McGuire Nuclear Station

WARREN H. OWEN, being duly sworn, states that he is Executive Vice President of Duke Power Company; that he is authorized on the part of said Company to sign and file with the Nuclear Regulatory Commission this revision to the McGuire Nuclear Station Technical Specifications, Appendix A to License Nos. NPF-9 and NPF-17; and that all statements and matters set forth therein are true and correct to the best of his knowledge.

Warren H. Owen

Warren H. Owen, Executive Vice President

Subscribed and sworn to before me this 2nd day of September, 1983.

Sue C. Sherrill

Notary Public

My Commission Expires:

September 20, 1984

Justification and Safety Analysis

The proposed amendment would allow maintaining HOT STANDBY on Unit 1 until 11:59 p.m. September 7, 1983, with the Auxiliary Building Filtered Ventilation Exhaust System (VA) inoperable. A sample of the charcoal filters for the VA System failed to pass surveillance requirements. Thus, the existing Technical Specification 3.7.7 requires shutdown ultimately to COLD SHUTDOWN. Replacing the charcoal and retesting is expected to require at least 72 hours. Maintaining HOT STANDBY during this period would reduce the time required to restart the unit and would prevent an unnecessary thermal cycle on plant equipment.

The function of the Auxiliary Building Filtered Ventilation Exhaust System (VA) is to filter radioactive materials associated with coolant leakage from ECCS equipment in the auxiliary building following a LOCA which may involve release from the fuel as a result of heatup. With the reactor at shutdown, the stored energy of the reactor system and core decay heat is relatively small.

Consequently, the core heatup and any accompanying release are expected to be much milder than the design basis conditions. Furthermore, the duration of standby mode requested by this Technical Specification change embodies only an insignificant exposure time for a LOCA (greater than 6 inches) with potential for core heatup. For example, considering a large break (> 6 inches) LOCA frequency of 4.7×10^{-5} per reactor year (see Sequyoh RSSMAP - NUREG/CR-1659) the probability of a large break LOCA during a six-day period is 7.7×10^{-7}. Therefore, the proposed Technical Specification change does not involve any undue risk to the health and safety of the public.

Furthermore, during the period of VA System inoperability while replacing the charcoal, the Unit 1 Ventilation System will be isolated to prevent unfiltered leakage from the ECCS pump areas. Because the ECCS pump areas are open to the Auxiliary Building which is shared for both units, ECCS leakage would be substantially filtered by the Unit 2 VA System filters before release offsite. During this period, operators will be instructed to manually start the Unit 2 VA System fans in the event of a LOCA on Unit 1.

Analysis of Significant Hazards Consideration

Because the VA System serves only to mitigate the consequences of a LOCA, the probability of an accident is unaffected by the proposed amendment. The consequences of an accident are not significantly increased by the proposed amendments because (1) the Unit 2 VA System would provide substantial filtration of postulated ECCS leakage, (2) the core heatup and any accompanying release would be milder at HOT STANDBY conditions than for the design basis at full power, and (3) the probability of a LOCA during a six-day period is small (7.7×10^{-7}).

No new or different accident is created by the proposed change because the VA System only serves to mitigate accidents.

The safety margins contained in the LOCA analyses described in the FSAR are unaffected. Also, the dose consequences of a postulated LOCA are not significantly affected with the Unit 1 filter out of service. Accordingly, the proposed amendment would not involve a significant decrease in a safety margin.

Therefore, according to the standards of 10 CFR 50.92, the proposed amendment does not involve a significant hazards consideration.