

May 25, 2004

Mr. D. M. Jamil
Vice President
Catawba Nuclear Station
Duke Energy Corporation
4800 Concord Road
York, SC 29745

SUBJECT: CATAWBA NUCLEAR STATION, UNITS 1 AND 2 RE: REQUEST FOR
ADDITIONAL INFORMATION (TAC NOS. MB7014 AND MB7015)

Dear Mr. Jamil:

By letter dated November 25, 2002, as supplemented by letters dated November 13, 2003, and December 16, 2003, you submitted an application for amendment of the Technical Specifications (TS) for the Catawba Nuclear Station (Catawba), Units 1 and 2. This amendment would revise the TS for five ventilation systems and the reactor building and containment penetrations. The U. S. Nuclear Regulatory Commission technical staff has reviewed the application and has determined that additional information is required, as identified in the Enclosure.

We discussed these issues with your staff on May 24, 2004. Your staff indicated that you would attempt to provide your response at the earliest opportunity.

Please contact me at (301) 415-1842, if you have any questions on these issues.

Sincerely,

/RA/

Sean E. Peters, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos. 50-413 and 50-414

Enclosure: As stated

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

DUKE POWER COMPANY

CATAWBA NUCLEAR STATION, UNITS 1 AND 2

DOCKET NOS. 50-413 AND 50-414

The Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's submittal dated November 25, 2002, as supplemented by letters dated November 13, 2003, and December 16, 2003, regarding proposed changes to the Technical Specifications for five ventilation systems, and the reactor building and containment penetrations. The NRC staff has identified the following information that is needed to enable the continuation of its review.

RAI on the use of MOX fuel

1. In the Duke Power amendment request for use of mixed oxide (MOX) fuel lead test assemblies (LTAs), by letter dated September 23, 2003, you indicated that you plan to insert the 4 MOX LTAs into the Catawba Unit 1 core during Cycle 16, with Unit 2 as a backup if necessary. Considering that plan for the current license amendment which requests full implementation of an alternative source term for both units at Catawba, please evaluate all affected design basis accident dose analyses assuming that the 4 MOX LTAs are in a Catawba core. Accidents which assume release from the fuel, such as the loss of coolant accident, control rod ejection, and locked reactor coolant pump rotor are of concern for the use of MOX LTAs.

RAI's on Filter Test Criteria:

1. In your application, you proposed changing the criteria for in-place testing of the Catawba, Unit 2 High Efficiency Particulate Air (HEPA) filters (Annulus Ventilation, Auxiliary Building Exhaust, and Fuel Building Ventilation) from 0.05% penetration to 1% penetration and re-labeling the test criteria "penetration and system bypass." TS 5.5.11a states that this value will be the penetration and system bypass "when tested in accordance with Regulatory Guide (RG) 1.52, Revision 2 and ANSI N510-1980 at the flow rate specified..." The purpose of the test is to verify the integrity of the HEPA filter assembly to assure that there are no gaps or pathways that allow the effluent to circumvent the filter media either around the media or through the media. RG 1.52, Revision 2 specifies a criteria of 0.05% for bypass flow during in place testing which has been attainable by Catawba in the past and by most other licensees. Please provide a justification for non-compliance with the NRC staff position expressed in the regulatory guide. A discussion of the significance of the in-place leak test is provided in ANSI N510-1975 Appendix B. Section B-2 pertains to HEPA filters.
2. The NRC staff has a similar question with respect to the carbon adsorber filters. You proposed changing the criteria for in-place testing the Catawba, Unit 2 carbon adsorber filters (Annulus Ventilation, Auxiliary Building Exhaust, and Fuel Building Ventilation) from 0.05% penetration to 1% penetration and re-labeling the test criteria "penetration and system bypass." TS 5.5.11b states that this value will be the penetration and system bypass "when tested in accordance with Regulatory Guide 1.52, Revision 2 and ANSI N510-1980 at the flow rate specified..." The purpose of the test is to verify the integrity of the carbon adsorber filter assembly to assure that there are no gaps or pathways that allow the effluent to circumvent the filter media either around the media or

through the media. The RG specifies a criteria of 0.05% for bypass flow during in place testing which has been attainable by Catawba and most other licensees in the past. Please provide a justification for non-compliance with the NRC staff position expressed in the RG 1.52, Revision 2. A discussion of the significance of in-place leak test is provided in ANSI N510-1975 Appendix B. Section B-3 pertains to carbon adsorbers.

3. You also proposed to change the flow rate for the Auxiliary Building Filtered Exhaust from 30,000 cfm to 60,000 cfm and to note that this flow rate is for two fans. The NRC staff understands that each filter will be tested individually and that the flow through the filter assuming a single failure of the other train would be approximately 37,000 cfm. Since a single failure would be the potential condition during a design basis accident, please provide justification for testing the filter at a flow rate of 30,000 cfm instead of the expected flow rate of 37,000 cfm. This question applies to in-place testing of both the HEPA and carbon adsorber filters.

Catawba Nuclear Station

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Catawba Nuclear Station

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