

Duke Power Company
P.O. Box 1006
Charlotte, NC 28201-1006

Hal B. Tucker
Senior Vice President
Nuclear Generation
(704)382-4531



DUKE POWER

March 25, 1993

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

Subject: Catawba Nuclear Station
Docket Nos. 50-413 and 50-414
McGuire Nuclear Station
Docket Nos. 50-369 and 50-370

Dear Sir:

On April 25, 1986, Duke Power Company proposed a plan for the resolution of concerns on the survivability of containment equipment, fans, and ice condenser doors when subjected to hydrogen deflagrations during postulated accidents. The resolution plan outlined additional analyses to be performed by Duke Power Company. These new analyses would include the selection of additional core damage sequences for the containment response calculations. This proposal and the staff's acceptance of the proposed plan are reflected in Supplement 6 to the Catawba Safety Evaluation Report.

In 1986, 1988, and again in 1989 DPC submitted to the NRC information on the mass-energy releases to be used in the subsequent containment response analysis. By letter dated February 3, 1993, the staff agreed that the accident sequences selected to encompass an appropriate range of scenarios consistent with the intent of 10 CFR 50.44(c)(3)(vi)(B)(3), and requested the submittal of the remainder of the information in accordance with the resolution plan.

Attached are five (5) copies of Revision 15 to Duke Power Company's Report, "An Analysis of Hydrogen Control Measures at McGuire Nuclear Station". As noted in Revision 9, this report is applicable to the Catawba Nuclear Station. This revision adds a new section, 8.0, to the report. Section 8.0, "Supplemental Analyses", contains the containment response analysis and the equipment survivability evaluation based on the required additional accident scenarios. This work was performed using the MAAP code for the mass-energy releases to the containment, the HECTR code for the containment response, and is applicable to both the McGuire and Catawba Nuclear Stations.

The results of the HECTR analyses indicate that the global peak temperatures predicted in the earlier CLASIX analyses were conservatively high values. The earlier equipment survivability evaluations based on an S2D sequence with hydrogen combustion temperatures calculated using CLASIX.

9304010252 930325
PDR ADDCK 05000369
PDR

010069

Ad
15

U. S. Nuclear Regulatory Commission

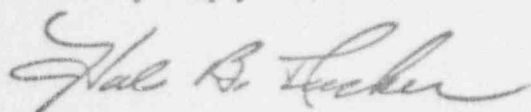
March 25, 1993

Page 2

result from upper compartment burns are found to not adversely affect survivability of the air return fans and the ice condenser doors. The results demonstrate that Catawba and McGuire continue to meet the requirements of 10CFR 50.44.

If there any questions, please call Scott Gewehr at (704) 382-7581 or Michael Barrett at (704) 382-6754.

Very truly yours,



Hal B. Tucker

cc: Mr. T. A. Reed, Project Manager
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop 8H23, OWFN
Washington, D. C. 20555

Mr. R. E. Martin, Project Manager
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Mail Stop 4H23, OWFN
Washington, D. C. 20555

Mr. S. D. Ebnetter, Regional Administrator
U.S. Nuclear Regulatory Commission - Region II
101 Marietta Street, NW - Suite 2900
Atlanta, Georgia 30323

Mr. P. K. Van Doorn
Senior Resident Inspector
McGuire Nuclear Station

Mr. W. T. Orders
Senior Resident Inspector
Catawba Nuclear Station