DUKE POWER COMPANY
POWER BUILDING
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.
VICE PRESIDENT
STEAM PRODUCTION

TELEPHONE: AREA 704
373-4083

March 12, 1982

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, Suite 3100
Atlanta, Georgia 30303

Re: McGuire Nuclear Station
Unit 2
Docket No. 50-370

Dear Mr. O'Reilly:

Pursuant to 10 CFR 50.55e, please find attached Significant Deficiency Report SD 370/82-02 concerning failure of E30AA switches to establish continuity. This was previously reported for Unit 1 via LER RO-369/81-188.

Very truly yours,

William O. Parker, Jr.

William O. Parker, Jr.

PBN/jfw
Attachment

cc: Director
Office of Inspection & Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. P. R. Bemis
Senior Resident Inspector-NRC
McGuire Nuclear Station

DUKE POWER CO'PANY
McGUIRE NUCLEAR STATION
SIGNIF'T DEFICIENCY

REPORT NUMBER: SD-370/82-02

REPORT DATE: March 12, 1982

FACILITY: McGuire Nuclear Station Unit 2

IDENTIFICATION OF DEFICIENCY:

Failure of E30AA switches to establish continuity due to contact film buildup.

INITIAL REPORT:

On February 12, 1982 Frank J. Long, NRC Region II, Atlanta, Georgia was notified of the deficiency by W. O. Henry, T. C. McMeekin, and J. E. Thomas of Duke Power Company, Charlotte, North Carolina.

COMPONENT AND/OR SUPPLIER:

The components which failed to operate properly are E30KLA3 and E30KLA4 contact blocks (on E30AA switchoperators) manufactured by Cutler-Hammer.

DESCRIPTION OF DEFICIENCY:

On December 12, 1981 while performing testing on the Engineered Safety Feature circuits at McGuire Unit 1, several initiate and reset switches failed to establish continuity when depressed. The switch assemblies consisted of E30AA operators with combinations of E30KLA3 and E30KLA4 contact blocks manufactured by Cutler-Hammer. This application controls 48 vdc and 15 vdc circuits and are exercised on an infrequent basis. (The NRC inspector onsite was notified of this problem the day of the incident and a formal Reportable Occurrence Report No. RO-369/81-188 was filed December 30, 1981).

On December 23, 1981 a group of the E30 switches, including five failed units, were sent to Cutler-Hammer for evaluation. Cutler-Hammer concluded in their February 2, 1982 letter that the failure was due to an insulating film of silver sulfide on the silver contact faces. They indicated that this would normally not be a problem, but the infrequent use allowed enough silver sulfide to accumulate to prohibit continuity at the applied voltage. These switches are used in similar circuits at McGuire Unit 2.

ANALYSIS OF SAFETY IMPLICATIONS:

Several switch failures could result in inoperable system level manual initiation/reset of the Engineered Safety Features.

CORRECTIVE ACTIONS:

All contacts in safety-related applications controlling 48 volts or less which are operated on an infrequent basis will be replaced with goldplated contacts prior to fuel load.