

THE CINCINNATI GAS & ELECTRIC COMPANY



June 16, 1983
LOZ-83-0053

J. WILLIAMS, JR.
SENIOR VICE PRESIDENT
NUCLEAR OPERATIONS

Docket No. 50-358

U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Attention: Mr. J.G. Keppler
Regional Administrator

Gentlemen:

RE: WM. H. ZIMMER NUCLEAR POWER STATION - UNIT 1
10CFR50.55(e), ITEM E-45 FAILURE OF "STATIC-
O-RING" MODEL 5N PRESSURE SWITCH DURING
ENVIRONMENTAL QUALIFICATION TESTING
W.O. 57300, JOB E-5590, FILE 956C, E-45

This letter constitutes an interim report concerning the subject condition initially reported to the Commission on May 20, 1983 as a potentially reportable deficiency under the requirements of 10CFR50.55(e).

The deficiency is that during Environmental Qualification Testing for High Energy Line Break (HELB)/LOCA conditions, a Static-O-Ring pressure switch, Model 5N, failed by electrically shorting.

Review of the applications of these switches shows that a total number of nineteen Static-O-Ring pressure switches are installed in safety-related applications. These switches are Models 5N, 6N, and 12N. Due to the similar design of these models, the results of the Model 5N testing are considered applicable to the 6N and 12N models.

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The nineteen applications consist of 4 unique system applications. The systems affected are Residual Heat Removal (RH), Nuclear Boiler (NB), Reactor Core Isolation Cooling (RI) and Reactor Protection (RP). The results of the failure mode effects analysis for each application is provided below. (This analysis assumes common mode failure and shorting of all switches of this design at the same time/event).

- RH - provides 1 permissive in a 2 out of 2 case for opening of ADS valves
- NB - inadvertant initiation of HPCS system
- RI - trip of RCIC system
- RP - failure to initiate scram due to high drywell pressure

The failure modes of the NB and RP system create situations that are adverse to safe operation of the plant. Therefore, this item has been determined to be reportable. The corrective action identified below will be applied to all nineteen applications.

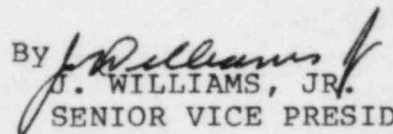
An Engineering Change Request (ECR) will be generated to replace these switches with qualified pressure switches. The scheduling and completion of this corrective action is contingent upon NRC approval to proceed with this work or release of the November 12, 1982 "Order to Show Cause and Order Immediately Suspending Construction". Upon this approval or release, a projected schedule for completion of the corrective action will be submitted.

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We trust the above will be found acceptable as an interim report under 10CFR50.55(e).

Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By 
J. WILLIAMS, JR.
SENIOR VICE PRESIDENT

DJS/HCB/sfr

cc: NRC Office of Inspection & Enforcement
Washington, D.C. 20555
NRC Senior Resident Inspector
ATTN: W.F. Christianson
NRC Zimmer Project Inspector, Region III
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