THE CINCINNATI GAS & ELECTRIC COMPANY

CINCINNATI, OHIO 45201

September 22, 1983
LOZ-83-0154

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 M-92, CRD VENT VALVES
1C11F101 AND 1C11F102
W.O. 57300, JOB E-5590, FILE NO. 956C, M-92

This letter concerns the subject condition initially reported to the Commission on August 23, 1983 as a potential reportable deficiency under the requirements of 10CFR50.55(e). Upon further evaluation, CG&E has determined that this condition does not represent a reportable deficiency.

During a review of past Nonconformance Reports, a condition was identified with Control Rod Drive (CRD) high point vent valves on the Hydraulic Control Units. The valves, 1C11F101 and 1C11F102 (137 of each), were subject to valve stem and valve body damage due to material galling and application of excess torque in the open or closing direction. The vendor drawing, applicable to this situation, did not permit the use of any form of lubricant. This fact combined with a valve design which employs 316 stainless steel to 316 stainless steel threaded joints, resulted in galling, excessive friction and the need to apply additional torque to move the valve stem. This situation caused valve stem twisting, stem breakage and deformation of the stem material at both the operator (key wrench end) and the valve disc end. The original concern was a failure mechanism that could cause indeterminate leakage of control rod drive water.

The valves are located at the high points of each control rod hydraulic module and serve as high point vents since noncondensable gas would accumulate and be swept by the process fluid to these locations.

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Venting is accomplished prior to plant start-up after work on the control rod hydraulic system has been completed, prior to initial plant startup to vent non-condensables from the complete system, or after individual module maintenance has been completed during plant operation. Thus, during power operation, operation of these valves is infrequent and the remote possibility of leakage resulting from a malfunctioning valve can be controlled by appropriate isolation. Failure of the valve seat or stem disc to maintain its seal during power operations is backed up by the seal provided by a plug.

Referring to the accompanying diagram, venting is accomplished in accordance with an approved procedure, by use of a temporary hose connected to Port "A" (after first removing the plug), removal of the plug from Port "B" and, using a special valve key, slowly opening the valve.

Following successful venting and reseating the valve, the plugs are replaced. Unusual or abnormal valve operation is detected by the operator upon first opening the vent valve and should extreme force be needed to move the stem, the venting operation is suspended, the valve closed and plugs replaced until corrective measures are formulated.

In addition, a design change has been approved and been implemented, permitting the use of "Never-Seez" lubricant and changing of valve elastomers to viton, a material compatable with the approved lubricant. These changes will also be incorporated in appropriate maintenance and spare parts documents.

Since no condition adverse to the safe operation of the plant would exist, this item is not reportable under 10CFR50.55(e).

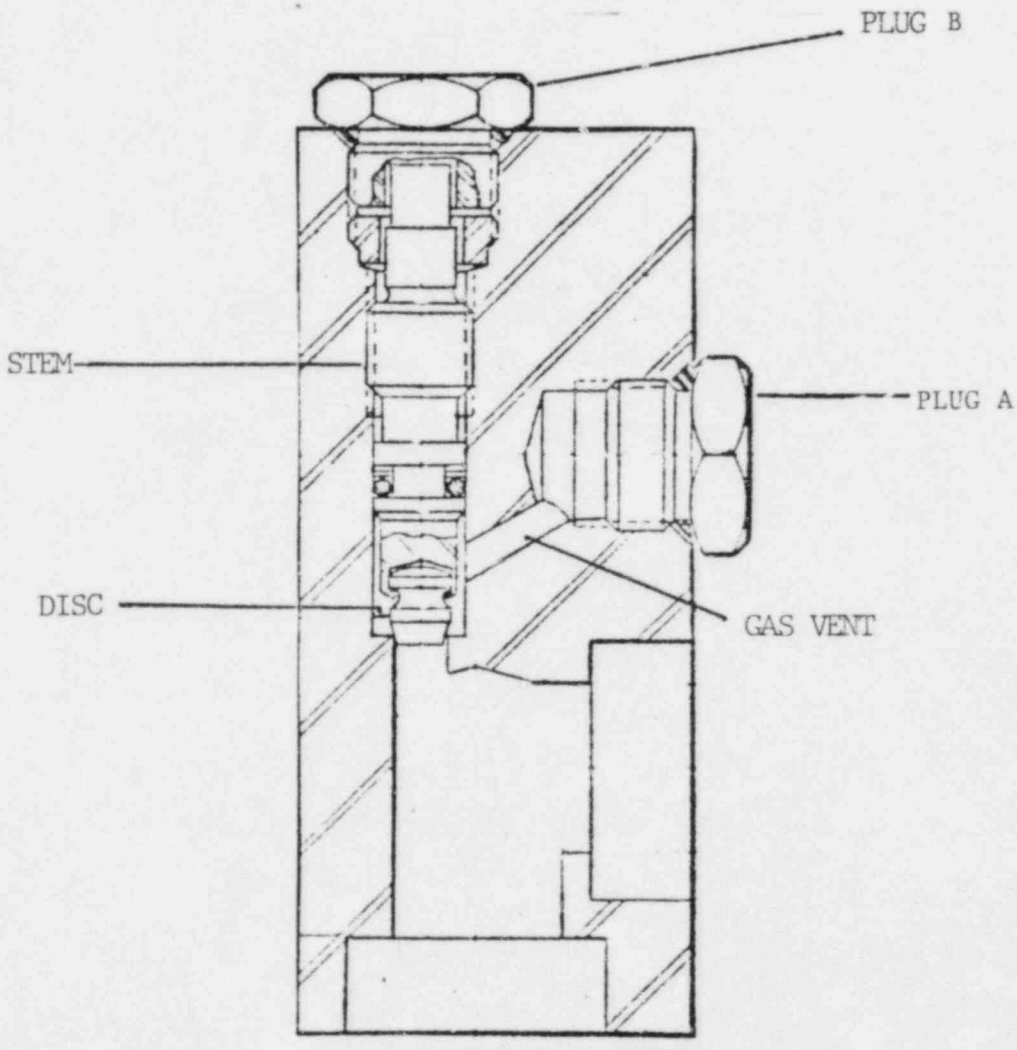
Very truly yours,

THE CINCINNATI GAS & ELECTRIC COMPANY

By J. Williams, Jr.
J. WILLIAMS, JR.
SENIOR VICE PRESIDENT

DJS/sfr

cc: NRC Office of Inspection & Enforcement
Washington, D.C. 20555
NRC Senior Resident Inspector
ATTN: T.P. Gwynn
NRC Zimmer Project Inspector, Region III
ATTN: E. R. Schweibinz


PLUG B
STEM
PLUG A
DISC
GAS VENT