

Public Service
Electric and Gas
Company

Steven E. Mittenberger

Public Service Electric and Gas Company P.O. Box 236, Hancocks Bridge, NJ 08038 609-339-1100

Vice President and Chief Nuclear Officer

MAY 01 1992

NLR-N92050

United States Nuclear Regulatory Commission
Document Control Desk
Washington, DC 20555

Gentlemen:

RESPONSE TO FEBRUARY 19, 1992 RAI
GENERIC LETTER 89-10 SUPPLEMENT 3
HOPE CREEK GENERATING STATION
FACILITY OPERATING LICENSE NPF-57
DOCKET NO. 50-354

The purpose of this letter is to respond to the February 19, 1992 request for additional information (RAI). This RAI requested that PSE&G re-evaluate the capability of the two Supplement 3 HPCI MOVs to perform their design basis functions with consideration given to diagnostic equipment inaccuracies. We have re-evaluated the capability of the valves to close under design basis conditions and the ability of the motor operators to withstand the associated maximum thrusts with consideration given to diagnostic equipment inaccuracies. This re-evaluation is available for your review. Our re-evaluation of over-thrust considerations is limited to an assessment of the motor operator. Once we receive our weak-link and revised seismic analyses from the valve manufacturer, we will re-review the maximum measured thrust values relative to valve, yoke and bolting limitations and further determine the acceptability of the current torque switch settings. When this re-review is completed, the NRC will be notified and the results will be available for review. The attachment to this letter provides some details relative to the methodology used in the re-evaluation.

Should you have any questions or comments on this transmittal, do not hesitate to contact us.

Sincerely,



Attachment

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PDR ADOCK 05000354
P PDR

AD64

C Mr. T. T. Martin, Administrator - Region I
U. S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. S. Dembek, Licensing Project Manager
U. S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD 20852

Mr. T. P. Johnson (S05)
USNRC Senior Resident Inspector

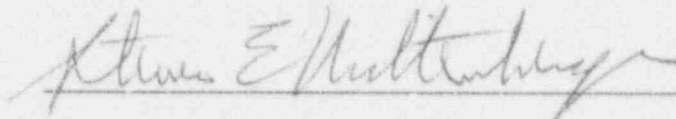
Mr. K. Tosch, Chief
NJ Department of Environmental Protection
Division of Environmental Quality
Bureau of Nuclear Engineering
CN 415
Trenton, NJ 08625

Ref: NLR-N92050

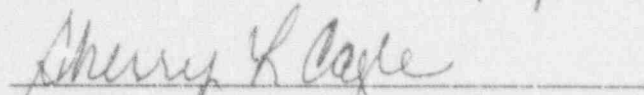
STATE OF NEW JERSEY)
) SS.
COUNTY OF SALEM)

S. Miltenberger, being duly sworn according to law deposes and says:

I am Vice President and Chief Nuclear Officer of Public Service Electric and Gas Company, and as such, I find the matters set forth in our letter dated MAY 01 1992, concerning the Hope Creek Generating Station, are true to the best of my knowledge, information and belief.



Subscribed and Sworn to before me
this 1st day of May, 1992



Notary Public of New Jersey

SHERRY L. CAGLE
NOTARY PUBLIC OF NEW JERSEY
My Commission Expires March 5, 1997

My Commission expires on _____

ATTACHMENT

INFORMATION CONCERNING HPCI MOV RE-EVALUATION
GENERIC LETTER 89-10 SUPPLEMENT 3
FACILITY OPERATING LICENSES NPF-57

NLR-N92050
HOPE CREEK GENERATING STATION
DOCKET NO. 50-354

The request for additional information required that we re-evaluate the capability of the Supplement 3 HPCI MOVs to perform their design basis functions in light of diagnostic equipment inaccuracies. The design basis for the HPCI inboard and outboard isolation valves is to close on the limit switch, not the torque switch.

The ITI MOVATS Special Test Report 2.0, Rev. 1, "Open Versus Close Test Program Final Report", dated March 13, 1992 characterizes newly determined MOVATS equipment inaccuracies. This report includes a flow chart that gives direction on how to determine the correct output thrust of MOVs tested with the MOVATS TMD methodology. The first logic decision is based on whether the close torque switch is in the control circuit. If the answer to this question is "no", there is no requirement to perform further minimum thrust calculations. Since the design basis for the subject HPCI valves is to close on limit and not on torque, this question is answered "no" and the valves are considered capable of performing their design basis functions after evaluation of the effect of diagnostic equipment inaccuracies. The basis for this conclusion is further discussed below.

The electrical control logic for the 1FDHV-F002 and 1FDHV-F003 valves bypasses the torque switch for automatic close initiation signals. Thus, the valves will close until the LS-15 contacts open. At this point, control reverts to the torque switch. For this control scheme, the LS-15 is generally set near the point that the torque switch would open; therefore, disc wedging under torque switch bypass control is similar to that with torque switch control. Under static system conditions, the most recent MOVATS diagnostic static test results indicate that LS-15 opens at 26,190 lbs. of measured thrust on 1FDHV-F002 and at 14,300 lbs. of measured thrust on 1FDHV-F003. The test traces indicate that these thrusts are wedging loads; therefore, the valves flow orifices are fully blocked. Since the valves position seat, as a minimum, for design basis accident conditions, valve closure is independent of torque switch setting and the thrust associated with torque switch trip. Output thrust availability under torque switch bypass control is limited to the actuator output rating and not the torque switch setting; therefore, the closure position is assured, regardless of thrust requirements, as long as operator capability envelopes the requirement.

In order to address the potential for an actuator overthrust condition under static loadings, we also reviewed the static test traces for maximum measured thrust. We then compared these values, 34,000 lbs. and 36,500 lbs. for 1FDHV-F002 and F003, respectively, against the ITI MOVATS Special Test Report 2.0, Rev. 1, Appendix B graph for the SMB-1 Bounding Model. The Bounding Model represents Path 1 methodology which is noted by MOVATS to be conservative. The above measured thrust values fall well within the 45,000 lb. nominal rating for the actuator for the corresponding actual thrust value. Therefore, the actuator is not overthrust on either valve. It should be noted that this evaluation is limited to an assessment of the motor operator. Once we receive our weak-link and revised seismic analyses from the valve manufacturer, we will re-review the maximum measured thrust values relative to valve, yoke and bolting limitations and determine the acceptability of the current torque switch settings. When the re-review is completed, the NRC will be notified and the results will be available for review.