Omaha Public Power District
444 South 16th Street Mall
Omaha NE 68102-2247

November 15, 1996
LIC-96-0172

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Station P1-137
Washington, D.C. 20555-0001

REFERENCES:
1. Docket No. 50-285
2. Letter from OPPD (W. G. Gates) to NRC Document Control Desk, dated October 14, 1994
3. Letter from NRC (S. D. Bloom) to OPPD (T. L. Patterson), dated December 14, 1994

SUBJECT: Response to NRC Generic Letter 96-05, *Periodic Verification of Design Basis Capability of Safety Related Motor Operated Valves*

Generic Letter (GL) 96-05 requires each Licensee to provide a written response within 60 days of letter receipt indicating whether or not the letter actions will be implemented. In addition, the letter requires submittal within 180 days of a written summary of the Licensee's description of its motor-operated valve (MOV) periodic verification program.

Omaha Public Power District (OPPD) has previously established, in response to GL 89-10, a periodic verification program which ensures that affected MOVs are capable of performing their safety functions within the current licensing basis of Fort Calhoun Station. OPPD intends to continue this program (summary attached), which is the same as that described to the NRC in Reference 2. The program was found acceptable and the NRR Staff closed its review, as documented in Reference 3. No changes are deemed necessary to the program as a result of GL 96-05. This letter therefore constitutes both responses required by GL 96-05.

OPPD is considering possible alternative approaches to the current program, but has no plans to make changes prior to closure of this GL. One such approach would be a possible risk significant/thrust margin ranking of all program MOVs. Once ranked, the frequency of periodic verification would be dictated by the ranking. Should a change be made to the current approach, OPPD will notify the NRC by written submittal at the time of implementation.

A013 1/1

This response is provided under oath as required by GL 96-05. Please contact me if you have any questions.

Sincerely,

T. L. Patterson
Division Manager
Nuclear Operations

TCM/tcm
Attachment

c: Winston & Strawn
L. J. Callan, NRC Regional Administrator, Region IV
L. R. Wharton, NRC Project Manager
W. C. Walker, NRC Senior Resident Inspector

LIC-96-0172
Attachment 1

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of	)	
	)	
Omaha Public Power District	)	Docket No. 50-285
(Fort Calhoun Station	)	
Unit No. 1)	)	

AFFIDAVIT

T. L. Patterson, being duly sworn, hereby deposes and says that he is the Division Manager - Nuclear Operations of the Omaha Public Power District; that as such he is duly authorized to sign and file with the Nuclear Regulatory Commission the attached information concerning response to the requirements of NRC Generic Letter 96-05; that he is familiar with the content thereof; and that the matters set forth therein are true and correct to the best of his knowledge, information and belief.

T. L. Patterson
Division Manager
Nuclear Operations

STATE OF NEBRASKA)
) ss
COUNTY OF DOUGLAS)

Subscribed and sworn to before me, a Notary Public in and for the State of Nebraska on this 15th day of November, 1996.

Julie B Kuhr
Notary Public

GENERAL NOTARY-State of Nebraska
JULIE B. KUHR
My Comm. Exp. April 4, 2000

Omaha Public Power District (OPPD)
Fort Calhoun Station (FCS)
Plan for Periodic Verification of MOV Capability

This document is a summary of the plan for periodic verification of MOV capability for those MOVs within the GL 89-10 Program at FCS. OPPD will perform periodic verification testing of Program valves to verify MOV capability every 5 years or 3 refueling outages, whichever is longer. Static testing will be performed on each Program valve. Full flow dynamic testing will be used for each Program valve with the following exceptions:

Note: Grouping - OPPD did not use grouping to complete the initial testing and design basis reviews required to establish the GL 89-10 Program. However, grouping will be used as discussed in GL 89-10, Supplement 6, for future dynamic test verifications of switch settings. Specifically, 2 groups have been formed: the first includes the 8 High Pressure Safety Injection (HPSI) Valves, and the other includes the 4 Low Pressure Safety Injection (LPSI) Valves.

- HPSIs - As previously discussed, three valves of this group will be dynamically tested. The three valves (HCV-312, HCV-320 and HCV-321) to be dynamically tested are those with the lowest Safety Open Thrust Margin percentage as determined during initial testing.

- LPSIs - As previously discussed, two valves of this group will be dynamically tested. The two valves (HCV-327 and HCV-329) to be dynamically tested are those with the lowest Safety Open Thrust Margin percentage as determined during initial testing.

- HCV-150 and HCV-151 - These gate valves, the PORV Block Valves, are two stage approach valves, as defined in GL 89-10, due to the inability to practically test in-situ. A prototype valve was tested under full design basis conditions. The test data from this testing was used to establish switch settings for the in-situ valves and subsequent static testing was performed to set the in-situ valves to these switch settings. Future verification testing will consist of static tests to ensure switch setting maintenance and to monitor for MOV degradations. Verification will not include dynamic testing.

- HCV-383-3 and HCV-383-4 - These butterfly valves, the Containment Sump Isolation Valves, are two stage valves, as defined in GL 89-10, due to the inability to practically perform a full flow dynamic test in-situ. An analytical approach has been applied to these valves to verify the ability to operate during a design basis event. This approach, performed by Kalsi Engineering Incorporated, included using the EPRI Butterfly MOV Guide and the Manufacturer's Data. This analytical approach has shown that unseating torque is greater than dynamic torque for each MOV's Design Basis. Therefore, the hydrostatic test pump test used to gather obtainable differential pressure data during the initial test program will continue to be used to verify each MOV's ability to operate at

design basis differential pressure. This test will be used to verify switch settings and monitor for MOV degradations.

- HCV-347 and HCV-348 - These gate valves, the Shutdown Cooling Isolation Valves, are two stage approach valves, as defined in GL 89-10, due to the inability to achieve greater than 50% full design basis flow during testing. An analytical approach has been applied to these valves to verify the ability to operate during a design basis event. This approach was performed by Kalsi Engineering using their KEIGATE Program. This Program is based on the many differential pressure tests of gate valves performed by and summarized by Kalsi Engineering. The results of this analytical approach have validated the current switch settings for these valves. Future verification testing of these valves will use the results of the analytical approach and continue to include static testing as well as the partial flow differential pressure testing used during the initial test program.

- LCV-218-2 - This gate valve, the Volume Control Tank Outlet Valve, was originally scheduled to be tested as a full flow and differential pressure valve. However, the initial testing was only able to produce 18.5% of design basis differential pressure. As a result, this valve was designated a two stage approach valve as defined by GL 89-10. An analytical approach has been applied to this valve to verify the ability to operate during a design basis event. This approach was performed by Kalsi Engineering using their KEIGATE Program. The results of this analytical approach have validated the current switch settings for this valve. Future verification testing of this valve will use the results of the analytical approach and static testing. Differential testing will not be employed on this valve due to the lack of useful data obtained from the initial flow test.