

December 13, 2000

Mr. S. K. Gambhir
Division Manager - Nuclear Operations
Omaha Public Power District
Fort Calhoun Station FC-2-4 Adm.
Post Office Box 399
Hwy. 75 - North of Fort Calhoun
Fort Calhoun, NE 68023-0399

SUBJECT: FORT CALHOUN STATION, UNIT NO. 1 - REQUEST FOR ADDITIONAL
INFORMATION RELATED TO GENERIC LETTER 96-05, "PERIODIC
VERIFICATION OF DESIGN-BASIS CAPABILITY OF SAFETY-RELATED
MOTOR-OPERATED VALVES" (TAC NO. M97049)

Dear Mr. Gambhir:

By letter dated November 15, 1996, Omaha Public Power District (OPPD) responded to Generic Letter (GL) 96-05. In the letter, OPPD stated that it planned to continue the motor-operated valve periodic verification program established during its response to GL 89-10, "Safety Related Motor-Operated Valve Testing and Surveillance." In a telephone conference between the staff and OPPD on September 29, 2000, these questions were discussed.

The staff requires further information to complete its review of the licensing activity. The information requested is listed in the enclosure. In order to maintain the staff's review schedule, please provide your response within 30 days of receipt of this letter. Your staff agreed to this schedule in the telephone conference call of September 29, 2000.

Sincerely,

/RA/

L. Raynard Wharton, Project Manager, Section 2
Project Directorate IV & Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosure: Request for Additional Information

cc w/encl: See next page

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OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT 1

DOCKET NO. 50-285

REQUEST FOR ADDITIONAL INFORMATION

RELATED TO GENERIC LETTER (GL) 96-05 PROGRAM

1. Omaha Public Power District (OPPD) letter dated November 15, 1996, stated that the pressurizer power operated relief valve (PORV) block valves, HCV-150 and HCV-151, are two-stage approach valves, as defined in GL 89-10, due to the inability to dynamically test the valves. Switch settings are based on the results of a prototype valve tested under full design conditions. Periodic verification will consist of static tests every five years or three refueling outages to ensure switch setting maintenance and to monitor for motor-operated valve (MOV) degradation.

Discuss the margin between actuator capability and the required thrust (torque) for the valves to operate during design conditions and your plan for accommodating potential valve factor degradation.

2. OPPD letter dated November 15, 1996, stated that the shutdown cooling isolation valves, HCV-347 and HCV-348, are two-stage approach valves, as defined in GL 89-10, "Safety Related Motor-Operated Valve Testing and Surveillance," due to their inability to achieve greater than 50 percent full flow design conditions during testing. Switch settings are based on partial flow differential pressure testing and the KEIGATE Program. Periodic verification will consist of static tests and partial flow differential pressure testing every five years or three refueling outages. NRC's Inspection Report (IR) 50-285/94-05 states that a minimum valve factor of 0.5 is assumed in calculations when the two-stage approach is used.

Discuss the margin between actuator capability and the required thrust (torque) for the valves to operate during design conditions and your plan for accommodating potential valve factor degradation.

3. OPPD letter dated November 15, 1996, stated that the volume control tank outlet valve, HCV-218-2, is a two-stage approach valve, as defined in GL 89-10, due to the inability to achieve greater than 18.5 percent full flow design conditions during testing. Switch settings are based on the KEIGATE Program. Periodic verification will consist of static tests every five years or three refueling outages. NRC IR 94-05 states that a minimum valve factor of 0.5 is assumed in calculations when the two-stage approach is used.

Discuss the margin between actuator capability and the required thrust (torque) for the valve to operate during design conditions and your plan for accommodating potential valve factor degradation.

4. Discuss if safety-related MOVs are included in the Fort Calhoun GL 96-05 program that are assumed to be capable of returning to their safety position when placed in a position during a test (surveillance) that prevents the system (train) from performing its safety function and the system or train is not declared inoperable when the MOVs are in their nonsafety position.
5. In Technical Update 98-01 and its Supplement 1, Limitorque Corporation provided updated guidance for predicting the torque output of its ac-powered motor actuators. Describe the corrective action taken for ensuring adequate ac MOV motor actuator output capability in response to the guidance in Limitorque Technical Update 98-01 and its Supplement 1.
6. Clarify if there are any dc-powered MOVs in the Fort Calhoun GL 96-05 program. If applicable, describe any corrective action or planned corrective action for ensuring adequate dc MOV motor actuator output capability.
7. IR 94-05 states that you were in the final stages of developing a program to address tracking and trending of MOV failures, corrective actions, maintenance activities, and test data, and planned to complete implementation of the program in 1994. Discuss the quantitative and qualitative parameters that are presently used to trend MOV performance at Fort Calhoun.

8. OPPD letter dated November 15, 1996, stated that two groups of valves were formed when developing the Fort Calhoun periodic verification program. The first group includes eight high pressure safety (HPSI) valves and the second group includes four low pressure safety injection (LHSI) valves. Three of the HPSI valves and two of the LHSI valves with the lowest open thrust margin will be dynamically tested every five years or three refueling outages.

Clarify if the same 3 HPSI valves (HCV-312, HCV-320, and HCV-321) and the 2 LHSI valves (HCV-327 and HCV-329) will be tested every 5 years or 3 refueling outages or if alternate HPSI and LHSI valves in each group would be dynamically tested.

9. OPPD letter dated November 15, 1996, stated that the containment sump isolation valves, HCV-383-3 and HCV-383-4, are two-stage approach valves, as defined in GL 89-10, and that a hydrostatic test pump will be used to verify the ability of each butterfly valve to operate at design basis differential pressure every five years or three refueling outages. Switch settings are based on the KEIGATE Program which indicates that unseating torque is greater than dynamic torque.

Clarify how hydrostatic test pump testing of HCV-383-3 and HCV-383-4 accommodates potential aging increases in hydrodynamic force.