



ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649

JOHN E. MAIER  
Vice President

June 8, 1983

TELEPHONE  
AREA CODE 716 546-2700

Mr. James M. Allan, Acting Regional Administrator  
U.S. Nuclear Regulatory Commission  
Office of Inspection and Enforcement  
Region I  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Subject: IE Bulletin No. 83-03: Check Valve Failures in Raw  
Water Cooling Systems of Diesel Generators.

Dear Mr. Allan:

In accordance with required actions 4 and 5 for holders  
of Operating Licenses as stated in IE Bulletin 83-03, the following  
report is hereby submitted.

Cooling water for the diesel generators is supplied from  
Lake Ontario via the Service Water System. The service water  
system is comprised of four (4) pumps and two (2) loops which  
supply cooling water to either diesel generator.

A complete walkdown of all of the service water supply  
and return piping to and from the "A" and "B" Emergency Diesel  
Generators has been performed. This walkdown showed no presence  
of check valves in the flow path with the exception of the four  
service water pump discharge check valves (4601, 4602, 4603,  
4604). These four check valves are 14" Crane Co. swing check  
valves. These four check valves are presently included in the  
plant pump and valve In-service Test program required by section  
XI of the ASME Boiler and Pressure Vessel Code.

These valves are considered category C check valves and  
are thus required to be exercised to the position required to  
fulfill their safety function. Appendix C to the Rochester  
Gas and Electric Ginna Station Quality Assurance Manual requires  
that these valves be stroke tested at least quarterly.

In accordance with these requirements the check valves  
are stroked as part of the monthly service water pump surveillance  
test (PT-2.7). As stated in this test the ability to obtain  
a total flow of 2200 gpm is considered adequate to verify check  
valve opening.

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DATE June 8, 1983  
TO Mr. James M. Allan

In addition to the monthly testing a leak check is performed at each refueling interval. This leak check is performed in accordance with procedure RSSP-2.5 (Service Water Pump Discharge Check Valves). The purpose of this procedure is to verify the closure tightness of each service water discharge check valve. This test essentially confirms the integrity of the valve internals by use of a back flow test as permitted by this IE Bulletin.

This backflow test has been successfully completed on a refueling basis since 1974. The test compares loop header pressures before and after manually securing the pump discharge valve. No specific acceptance criteria is imposed on the test, however the test results are reviewed and maintenance activities would be performed on these valves if test data so dictated. The test results themselves do not specify a leakage or backflow rate but only a pressure change. Using the pump curve a 1/2 psi increase in header pressure would correspond to approximately a 50 gpm leak or about 1% of the pump capacity. Historically these pressure changes have been negligible and normally 0 psi is the indicated test result.

During the 1982 Refueling shutdown valve 4604 for the "D" service water pump was disassembled and inspected using procedure M-37.69 (Inspection and Maintenance of Service Water Pump Discharge Check Valves). This maintenance was performed as a result of an observable backflow through the check valve causing the service water pump to rotate in the reverse direction. The valve disassembly revealed wear on the bushings and shaft area. The hinge pins also exhibited some worn areas. The valve internals were still completely intact and no evidence of valve failure existed. The entire valve internals were replaced as part of the preventative maintenance program.

The three other service water pump discharge check valves (4601, 4602, 4603) were disassembled and inspected during the 1983 Refueling Shutdown currently in progress. The valve internals again exhibited worn areas consistent with valves that have been in service for fifteen years. The valve internals were replaced as part of the preventative maintenance program.

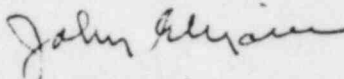
The In-Service Test program will be modified to include leak testing that confirms the integrity of the valve internals during each refueling shutdown. In the future these valves will be listed as active category A valves in the In-Service Test program. This change to the IST program will be submitted to you on or before December 31, 1983.

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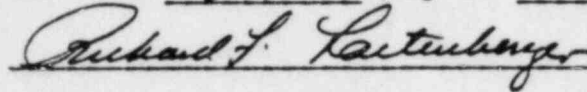
TO Mr. James M. Allan

On April 20, 1983 a backflow test was performed on these four check valves. The results of this test indicated no leakage and confirmed the integrity of the valve internals.

Very truly yours,

  
JOHN E. Maier

Subscribed and sworn to me  
on this 8th day of JUNE 1983



RICHARD F. LAITENBERGER  
Notary Public State of New York  
Monroe County, N.Y.  
Commission Expires March 30, 19 85  
Reg. No. 2235125

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