

ROCHESTER GAS AND ELECTRIC CORPORATION • 80 EAST AVENUE, ROCHESTER, N.Y. 14604

October 14, 1970

Dr. Peter A. Morris  
Division of Reactor Licensing  
U. S. Atomic Energy Commission  
7920 Norfolk Avenue  
Bethesda, Maryland 20014

Subject: Malfunction of Core Deluge Valve No. 852B  
Ginna Station Unit No. 1  
Docket No. 50-244

Dear Dr. Morris:

On Sunday, (October 4, 1970), the Ginna unit was in a cold shutdown condition for scheduled maintenance work.

One of the scheduled jobs on Sunday was to seal weld the diaphragm on the Accumulator Discharge Check Valve #867A.

Saturday evening a test was conducted to have Residual Heat Return go through Core Deluge Valves #852A and #852B instead of through Valve MOV #721. The reason for this was to remove the Residual Heat Return flow from the pipe line containing Check Valve #867A.

The PORC met Sunday morning, October 4, 1970, and approved the Maintenance Procedure for seal welding the diaphragm on Check Valve #867A. The approval was made after reviewing the results of the Saturday night test. This test proved that the primary coolant temperature could be held below 140°F by returning the Residual Heat Removal flow through the Core Deluge Valves.

When the welder announced that he was already to begin the seal weld, the operator began changing the Residual Heat Flow to the Core Deluge Valves. The operator did not receive an open indication for Valve #852B. Investigation revealed that the limitorque breaker overload had tripped the breaker open with the valve in the half-open position. Valve #852B had operated satisfactorily during its last surveillance test (April 13, 1970) and it was operated, in test, satisfactorily several times on October 3, 1970, and October 4, 1970, before the failure. Operators and maintenance personnel were unable to get the valve more than half open.

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TO Dr. Peter A. Morris

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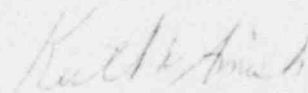
Another test was run with this Core Deluge Valve #852B in the half-open position and the data confirmed that even though this valve was only half-open, the primary coolant temperature matched the data taken the night before with the valve all the way open. The seal welding on Valve #867A was started and completed satisfactorily.

Disassembly of the valve operator in Valve No. 852B revealed the malfunction to be the seizure of the stem nut to the valve stem. The close proximity of piping at the valve overhead required that the valve yoke be cut to permit removal of the valve operator for access to the stem nut. The stem nut was removed and the reason for its seizure to the stem was found to be caused by a chip from the stem nut thread. The stem threads were undamaged and a new stem nut was installed.

The valve yoke was welded, the welds were radiographed and no flows were found. The valve operator was reassembled, lubricated, test cycled seven times, and proven to be an operable valve. With the plant in shutdown condition we also cycled the remaining safeguard valves of this type in the containment in the presence of a pipefitter, a mechanic, an electrician and an operator. All valves worked satisfactorily.

In many years of application of this and similar type of valves, this is the first time we have ever experienced a failure of this nature. The supplier also agrees that this was a unique and uncommon type of valve failure.

Very truly yours,



Keith W. Amish  
Vice President