



June 6, 1973

Mr. F. E. Kruesi, Director
Directorate of Regulatory Operations
U.S. Atomic Energy Commission
Washington, D.C. 20545

Dear Mr. Kruesi:

On May 7, 1973, TVA made initial telephone report to AEC-DRO Inspector W. S. Little of some coupling and gasket failures in Browns Ferry RHR and EECW systems. Enclosed is an interim report on these failures; investigation into their causes is continuing, and we expect to submit a final report by July 10, 1973.

Very truly yours,

J. E. Gilleland
J. E. Gilleland

Assistant to the Manager of Power

Enclosure

CC (Enclosure):

Mr. Norman C. Moseley, Director
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ENCLOSURE

Failure of RHR Service Water System Dresser Coupling and Emergency Equipment Cooling Water Systems Gasket

Sequence of Events:

- I May 3, 1973, 10 a.m. - RHR service water header 1A Dresser Coupling ruptured in the unit 1 pipe tunnel outside the reactor building. This occurred immediately after starting the A-2 RHR service water pump at the intake building. All RHR unit 1 heat exchanger valves were in the closed position. Persons working in the vicinity of the rupture reported considerable vibration and movement of the header just before rupture.
- II May 6, 1973, 6:10 a.m. - An orifice flange gasket in the diesel generator building supplying emergency equipment cooling water from the EECW system blew out. This occurred immediately after starting an RHR service water pump at the intake building which furnishes water to this system. Considerable pipe vibration was observed by persons in the vicinity just before the gasket failure.
- III May 10, 1973, 10 a.m. - RHR service water header 3C Dresser Coupling ruptured in the unit 3 pipe tunnel outside the reactor building. This occurred immediately after starting RHR service water pump A1 at the intake building. The "C" header was valved closed at unit 1-C, 2-C, and 3-C heat exchangers. Pump C1 was operating and the crosstie from pump C1 to C header was open and delivering approximately 2000 gpm to that line. No observation was made of vibration or movement of the piping at the time of rupture nor was the A-1 pump valved to the "C" header. Examination of the ruptured coupling indicates it may have been faulty.
- IV May 23, 1973 - RHR service water header 1A Dresser Coupling ruptured in the unit 1 pipe tunnel outside the reactor building. The same conditions existed as above (May 3, 1973).

The preliminary investigation indicates water hammer as the cause of failure; however, the investigation and the determination of the corrective action to be taken is continuing. We expect to provide a final report of the failure by July 10, 1973.