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May 5, 1983
EF2-63502

Mr. James G. Keppler, Regional Administrator
Region III
U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Subject: Final Report of 10CFR50.55(e) Item on Standby Liquid Control -
Overpressurized (#83)

Dear Mr. Keppler:

This is Detroit Edison's final report involving an overpressurization problem on a portion of the standby liquid control system at the Fermi 2 site. This item was originally reported to Mr. H. Wescott's office of NRC Region III by Detroit Edison's Mr. D. Ferencz, Acting Supervisor - Construction Quality Assurance, on December 6, 1982.

This item deals with possible damage to the Standby Liquid Control System Pump B and associated components. The problem occurred during a preoperational test when an explosive Squibb Valve (located downstream of the pump) failed to fire open, and a temporary relief valve (used for preoperational testing) failed to protect the system from overpressure. This caused the pump discharge pressure to exceed two thousand (2000) psig.

Initial investigation indicated that the failure of the Squibb Valve was due to a disconnected terminal wire on the relay. Further research revealed that the wire to the relay had been disconnected to replace a coil. The relay was subsequently replaced and retested, however, the wire was not reterminated. The responsible technician was under the false impression that the wires were not to be re-landed after testing. The technician has been re-instructed.

Detroit Edison Engineering has completed an evaluation of all piping and components exposed to the overpressurization. It has not been possible to determine the precise pressure attained during the test, but it is not likely that a pressure much above two thousand (2000) psig was achieved since the pump was tripped at approximately one thousand (1000) psig, as reported by the Start-Up Test Engineer. If the pressure approached three thousand (3000) psig, the test pressure gauge would have suffered permanent damage; three thousand (3000) psig is the maximum pressure the system could withstand with the explosive valves being the limiting components. The gauge was found to be in tolerance after the test, therefore, the system does not appear to have been damaged. The pump manufacturer, Union Pump, recommended that a check be made of the pump in operation to

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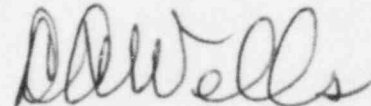
note any abnormal conditions (i.e. excessive noise, vibrations).

Inspections of the pump and its internals revealed no apparent damage. The vibration data for this pump was examined both prior to the subject over-pressurization, and during testing after the overpressure incident. Examination of the data showed some differences in a point-to-point analysis, but general performance of the pump appears not to be affected. This was further verified by the System Test Engineer's observations of system operation, which appeared no different than earlier observations of this system. The pump's output capacity was also checked; it verified that the pump's flow output met design requirements.

It is therefore concluded, that no damage exists to the Standby Liquid Control System Pump B and associated components. This item is determined to be non-reportable per 10CFR50.55(e) requirements.

If you have questions concerning this matter, please contact Mr. G. M. Trahey, Assistant Director - Project Quality Assurance.

Very truly yours,



DAW/WEM/pn

cc: Mr. Richard DeYoung, Director
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