

50-483

DMB

UNION ELECTRIC COMPANY

1901 GRATIOT STREET
ST. LOUIS, MISSOURI

March 23, 1984

DONALD F. SCHNELL
VICE PRESIDENTMAILING ADDRESS:
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Mr. James G. Keppler
Regional Administrator
U. S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

ULNRC- 778

Dear Mr. Keppler:

FINAL 10CFR50.55(e) REPORT U-68
EMERGENCY DIESEL GENERATOR JACKET WATER KEEPWARM HEATER FAILURE
CALLAWAY PLANT

On February 22, 1984 Union Electric informed the NRC Region III Office of a 10CFR50.55(e) regarding the failure of an emergency diesel generator keepwarm heater at the Callaway Plant. This heater is installed as a component of the Jacket Water Keepwarm System, which operates in conjunction with the Lube Oil Keepwarm System to maintain the diesel at operating temperature during standby conditions.

The normal standby temperature range of the jacket water is 150-160 degrees F. At the time of the incident, jacket water temperature was 90 degrees F and the keepwarm pump was running. The Startup Engineer placed the jacket water heater control switch in the manual position and in so doing, bypassed the temperature control thermostat. Within 10 minutes, the heater overheated and failed.

Investigation by the diesel generator supplier (Colt Industries) has attributed the problem to a sticking check valve located immediately past the jacket water keepwarm heater. The check valve is a lift type, mounted in a horizontal position and manufactured by the Henry Vogt Corporation. We have experienced intermittent sticking of the check valve in the closed position with the keepwarm pump in operation. During the incident, this check valve stuck shut, preventing jacket water flow to the heater, thereby causing it to overheat.

When this valve fails to open, the Jacket Water Keepwarm System is prevented from operating. Therefore, the jacket water will not be maintained at its designed standby temperature and the 10 second diesel starting criteria could be exceeded. Union Electric has determined that the intermittent operation of this check valve is a reportable deficiency under 10CFR50.55(e) criteria.

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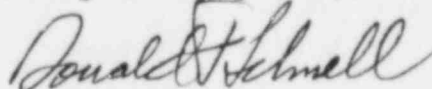
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Colt has indicated that these valves are not required for proper operation and recommended that the valve internals be removed. Union Electric and Bechtel concur with this decision. Subsequently, the valve internals have been removed on both diesels.

This is Union Electric's final report on this subject.

Very truly yours,



Donald F. Schnell

GSA/bjk

cc: J. E. Konklin, NRC Region III
Richard DeYoung, Director I&E
NRC Resident Inspectors, Callaway Plant (2)
Missouri Public Service Commission

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