

SÚBJECT: <u>Supplemental Report to Abnormal Occurrence Report Number</u> 50-249/75-42: LPCI Valve 3-1501-5D Motor Trip

REFERENCES: 1. Report Numbers 50-249/1975-10, -10A, -11, and -11A

2. Report Number 50-249/1975-12

3. Report Numbers 50-249/1975-33 and -33A

4. Report Number 50-249/1975-42

REPORT NUMBER: 50-249/1975-42A

REPORT DATE: June 28, 1976

INTRODUCTION

In report no. 50-249/1975-42, the station reported that motor-operated valve 3-1501-5D had failed to open during testing due to a thermal overload trip. At that time, the cause of failure was attributed to a defective valve motor because the motor was found to be drawing an imbalanced current one to two amperes greater than the rated value or the value listed on the motor nameplate. The station reported that the valve motor would be replaced, and that further corrective action would be taken if indicated by the valve motor manufacturer's evaluation of two other similar valve motors which had also been tripping on thermal overload (see report nos. 50-249/1975-10, -11, -12, and -33). All three motors were 440V, 2.95 amp, 15 ft-1b, 1 hp motors manufactured by the Reliance Electric Company.

CAUSE OF OCCURRENCE

Based on Reliance's evaluation of the two valve motors mentioned above (see report no. 50-249/1975-33A), the station has determined that the valve trips were caused by undersized overload heaters rather than by defective valve motors. The overload heaters for these motors were sized according to the nameplate current value, which assumed a 440 VAC application; however, since the station operates these motors at 480 VAC, a significantly higher current should be expected, necessitating a corresponding increase in the capacity of the overload heaters.

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Mr. James G. Keppler

It should be noted that, despite the higher currents the valve motors were drawing, the overload heaters were not tripping instantaneously, but only after the valves had been operated more than once in succession.

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CORRECTIVE ACTION

Since there is no longer any evidence that the 3-1501-5D valve motor is defective, the motor will not be replaced. Instead, the present overload heater, G.E. model CR 123 L3 43A, will be replaced with a larger capacity unit. The new overload heater (G.E. model CR 123L4 20A), was sized according to the motor's current rating at 480 VAC.

Additionally, every safety-related motor-operated valve on Units 2 and 3 that has a motor rated at 440 VAC has been checked for the adequacy of the overload heater. Altogether, the overload heaters on 19 valves for each unit will be replaced. Modifications M12-2-76-34 and M12-3-76-34 have been initiated to effect this replacement, and the new overload heaters are presently on order.

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Station Superintendent Dresden Nuclear Power Station

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