

Regulatory

File CV

50-237

# Commonwealth Edison Company

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Dresden Nuclear Power Station  
R. R. #1  
Morris, Illinois 60450  
November 29, 1972



Mr. A. Giambusso  
Deputy Director for Reactor Projects  
Directorate of Licensing  
U. S. Atomic Energy Commission  
Washington, D.C. 20545

Subject: License DPR-19, Dresden Nuclear Power Station, Unit #2  
Section 6.6.B.2 of the Technical Specifications

Reference: Letter to A. Giambusso from W. P. Worden dated 11/3/72 regarding  
Main Steam Line Low Pressure Switch Calibration

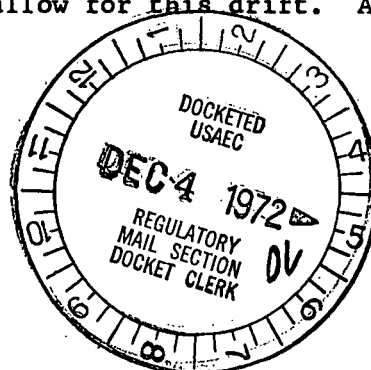
This is to report a condition relating to the unit in which, on November 20, 1972, the setpoints of all four of the main steam line low pressure switches were found to have trip settings slightly below the value specified in Table 3.2.1, pg. 38 of the Technical Specifications.

### PROBLEM AND INVESTIGATION

On November 20, 1972, while the main steam line low pressure switches were being recalibrated to comply with the corrective actions specified in the reference, all four switch trip settings were found to be below the Technical Specification of  $\geq 850$  psig.

The subject switches, PS-2-261-30A, PS-2-261-30B, PS-2-261-30C and PS-2-261-30D were found with setpoints of 840 psig, 839 psig, 835 psig, and 845 psig respectively. All four switches are Barksdale switches, model B2T-A12SS, with a range of 15-1200 psig and a specified accuracy of  $\pm 1\%$ . The switches were recalibrated to a setpoint of  $866 \pm 4$  psig, as specified in the reference. The new setting of  $866 \pm 4$  psig would allow a drift of 12 psig below the lower limit of the setpoint band. The 12 psig value was used because the instrument has a specified accuracy of  $\pm 1\%$  of full scale reading of 1200 psig. The history of these switches shows slight drift in both the increasing and decreasing direction. The reason for increasing the setpoint of these switches was to allow for this drift. An analysis of the

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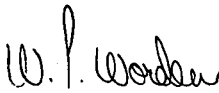
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magnitude of the drift of setpoint for these four switches verifies that the new setpoint of 866 psig would have prevented a violation of the Technical Specifications in all but one switch. Switch PS-2-261-30C would have been 849 psig. The function of these switches is to initiate a main steam line isolation (Group I) in the event of a break in the main steam line. The electrical arrangement of the relays that operate from these switches is such that a main steam line isolation, had it been required, would have been initiated at 2 psig below the value specified in the Technical Specifications. This is an insignificant variance and the applicable transient analyses have sufficient conservatism to cover such instrument inaccuracies. Hence, it is concluded that no safety hazards to the public resulted from this slight deviation from Technical Specifications.

#### CORRECTIVE ACTION

Analysis of the change in setpoint for the main steam line low pressure switches shows that they are drifting beyond their specified accuracy of + 1% of full scale. The cause of this drift is not now known. The following action will be taken as an effort to identify the mechanism by which the calibration changes with time.

1. Analyze the procedure used by the Dresden instrument mechanics to assure that no errors are introduced as a result of surveillance technique.
2. Test a Barksdale model B2T-A12SS pressure switch under controlled laboratory conditions, to verify its performance characteristics.
3. Consult with a manufacturer's representative for Barksdale switches to aid in analyzing this problem.
4. Continue monthly calibration checks to obtain additional information and insure that the trip settings for switches do not change significantly in calibration between checks.

  
W. P. Worden  
Superintendent

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