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Regulatory File Cy.

Commonwealth Edison Company

ONE FIRST NATIONAL PLAZA ★ CHICAGO, ILLINOIS

Address Reply to:

POST OFFICE BOX 767 ★ CHICAGO, ILLINOIS 60690

Dresden Nuclear Power Station
R.R. #1
Morris, Illinois 60450
April 21, 1971

Dr. Peter A. Morris, Director
Division of Reactor Licensing
U.S. Atomic Energy Commission
Washington, D.C. 20545

SUBJECT: LICENSE DPR-19, DRESDEN NUCLEAR POWER STATION UNIT #2, SECTIONS 6.6.A.1 AND 6.6.B.2 OF THE TECHNICAL SPECIFICATIONS.

Dear Dr. Morris:

This is to inform you of a wiring error on the backup power supply to the Reactor Injection Valves of the Low Pressure Coolant Injection (LPCI) system which caused a phase reversal. This would have prevented these valves from operating as designed when supplied from backup power. This was previously reported in telegrams to Boyce Grier on 4/5/71 and Dr. P.A. Morris on 4/15/71.

Incident and Initial Action

On April 4, 1971 a reactor recirculation system valve was returned to service following repacking of the valve shaft gland. The valve was exercised and was observed to travel opposite to the direction selected in the Control Room. Further testing revealed similar responses from other valves in that system. These valves are supplied from Motor Control Centers (MCC) 28-7 and 29-7 which were being supplied from their bus 28 feed (See attached Figure #1). These motor control centers also supply the LPCI reactor injection valve motors.

Electricians began an investigation and the following was discovered:

1. A phase rotation difference existed between bus 28 and MCC 28-7 and 29-7.
2. When MCC 28-7 and 29-7 were supplied from Bus 29 the phase rotations were proper.
3. The phase rotation difference was at the MCC 28-7 supply breaker 2872.

The phase rotation difference was corrected immediately and tested satisfactorily.

Investigation and Conclusions

A search of the operating records revealed that the supply breaker 2872 had been replaced by construction personnel on February 26, 1970. This was the only work requiring disconnection of the power supply wiring performed on that breaker since the original construction. Proper phase rotation was verified during the construction tests, but apparently was not checked after the breaker replacement.

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It is felt that the phase reversal on the MCC 28-7 and 29-7 backup power supply occured at this time.

Because MCC 28-7 and 29-7 are normally supplied from bus 29, the problem did not manifest itself immediately. It was not until the bus 28 supply was used for an extended period that the phase reversal was discovered.

The power supply to MCC 28-7 and 29-7 was transferred from Bus 29 to Bus 28 while transformer 29 voltage tap settings were changed on March 27, 1971. The power supply remained there until the phase reversal was discovered and corrected on April 4, 1971. During the period of actual phase reversal on MCC 28-7 and 29-7 (March 27-April 4), the LPCI system was either not required by the plant's operating condition or was inoperable and surveillance testing was being conducted as required by section 4.5.A.6 of the Technical Specifications.

Corrective Action

Procedures now in effect require that all construction changes be reviewed and adequately tested. The phase reversal would have been discovered and corrected immediately had these procedures been in effect at the time the breaker was replaced.

A review is currently in progress to ensure that construction changes completed prior to this time have been adequately tested.

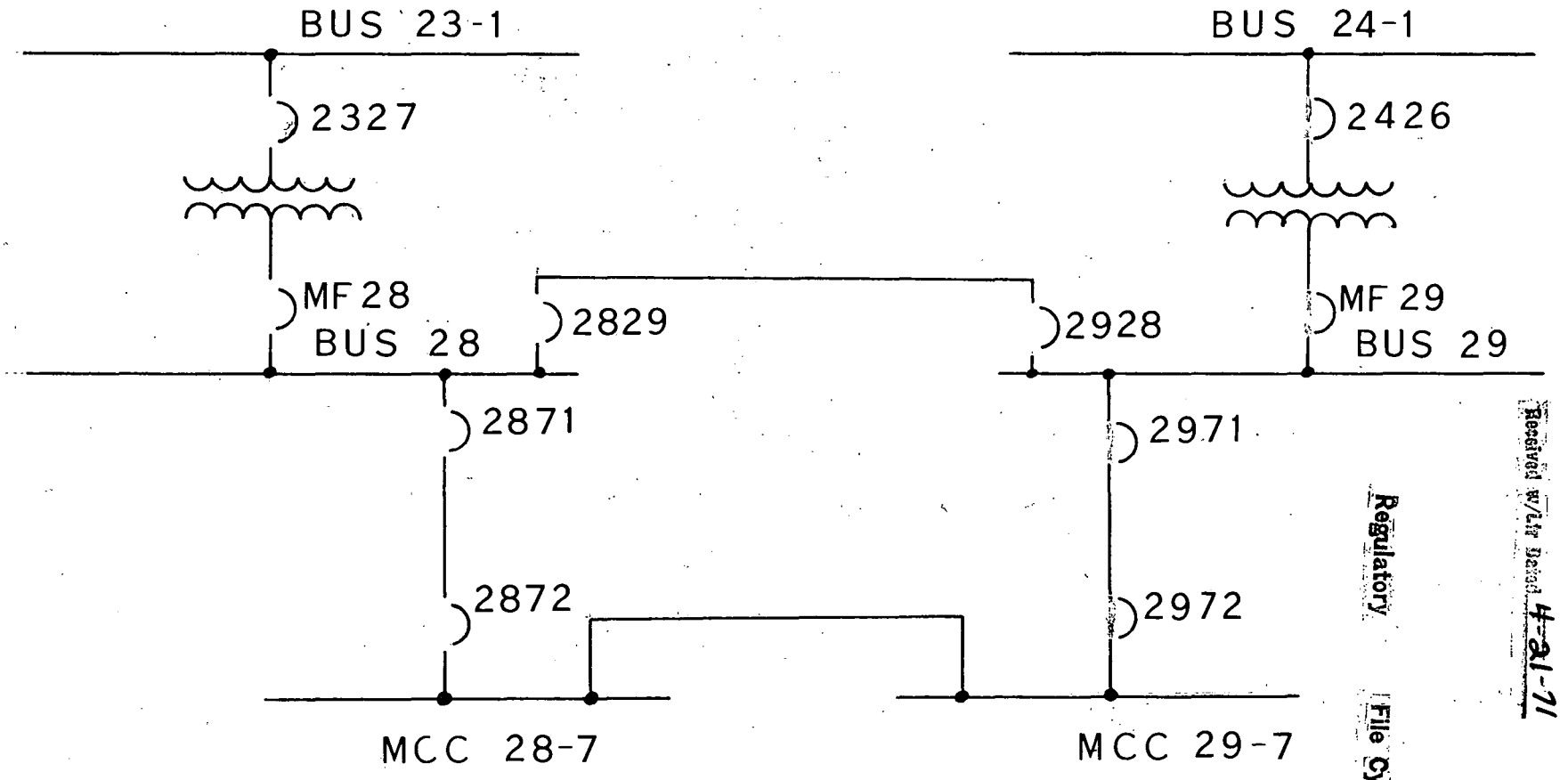
Sincerely,

H. K. Hoyt

H.K. Hoyt
Superintendent

HKH:glt

FIGURE 1

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