



UNION ELECTRIC COMPANY
Callaway Plant

DMB

September 23, 1985

Mr. James G. Keppler
Regional Administrator
Office of Inspection & Enforcement
U.S. Nuclear Regulatory Commission
Region III
799 Roosevelt Road
Glen Ellyn, IL 60137

ULNRC-1182

Dear Mr. Keppler:

DOCKET NUMBER 50-483
CALLAWAY PLANT UNIT 1
FACILITY OPERATING LICENSE NPF-30
SPECIAL REPORT 85-07
DIESEL GENERATOR FAILURE DURING AN INVALID TEST

The enclosed Special Report is submitted pursuant to
Technical Specifications 4.8.1.1.3 and 6.9.2 concerning a diesel
generator failure during an invalid test.

Andrew P. Miltenberger

for S. E. Miltenberger
Manager, Callaway Plant

DBB JWK
JDB/JWK/drs
Enclosure

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SPECIAL REPORT 85-07
DIESEL GENERATOR FAILURE DURING AN INVALID TEST

On 8/26/85 at approximately 1655 CDT, with the plant in Mode 1 at 100% power and normal operating temperature and pressure, diesel generator (D/G) 'A,' NE01, failed to come up to rated voltage during the performance of surveillance procedure OSP-NE-00002, Standby D/G Periodic Tests. The unsuccessful start can definitely be attributed to operating error and is therefore not considered a valid test or failure. Starts of the D/G's have been tracked since the completion of Preoperational Testing on 5/11/84. The starting history of the D/G's as of this report date is summarized as follows:

<u>D/G</u>	<u>No. of Valid Tests</u>	<u>No. of Failures During Valid Tests</u>	<u>No. of Failures During Invalid Tests</u>
A	23	1*	4#
B	20	0	1§

* Reference Special Report 84-02.

Reference Special Reports 85-01, 85-02, and 85-07.

§ Reference Special Report 85-05.

D/G 'A' was being started to verify operability of the D/G after a maintenance outage which began at 0426 on 8/26/85. During the outage a relay in the Static Exciter Voltage Regulator for the D/G was replaced. The relay provides a pulse kill contact to the pulse generator for the generator field power amplifier. During replacement of the relay, a lead was landed at an incorrect terminal. The incorrect wiring resulted in a loss of power to the pulse generator for the power amplifier and thus left the generator with no excitation other than residual magnetism. The D/G subsequently failed to attain its rated voltage during the start attempt at 1655. The electrician's error in installing the relay caused the unsuccessful start, therefore this D/G start attempt is not considered a valid test or failure as was stated above.

The relay leads were landed correctly and OSP-NE-00002 completed satisfactorily. The D/G was declared operable at 2030 on 8/26/85 and thus had been out-of-service for approximately 16 hours due to the outage.

The electrician who replaced the relay thought he was familiar with the required work since he had previously replaced the corresponding relay for D/G 'B' correctly. Consequently, he failed to verify correct wiring of the relay, by comparison with the schematic diagram, as required by the work authorizing document. Additionally, the electrician did not utilize good work practices when he tagged the leads prior to removing them from the original relay. He simply numbered them from left to right rather than match the tag numbers to the terminal numbers on the relay. When he relanded the leads, he had

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them in the correct sequence (i.e., 1-5) but the terminal left vacated was the wrong one (the relay has six terminals, five of which are used).

To prevent recurrence, the electrician was counseled regarding his failure to properly follow procedures and informed that further errors of this type could lead to additional disciplinary actions. Also, a letter was sent to Maintenance Electrical Personnel emphasizing the need to carefully follow work instructions rather than relying on memory. The letter also provided guidance on the proper methods for tagging terminations.

Surveillance tests are currently performed at least once per 31 days for each D/G. This is in conformance with the schedule of Regulatory Position C.2.d of Regulatory Guide 1.108, Revision 1, August 1977, and Technical Specification Table 4.8-1 which require the test interval to be not more than 31 days if the number of failures in the last 100 valid tests is one or zero.