

LICENSEE EVENT REPORT

illegible

CONTROL BLOCK: 1 2 3 4 5 6

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME: 01 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

CONT: 01 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

EVENT DESCRIPTION

02 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

SYSTEM CODE: 07 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

CAUSE DESCRIPTION

08 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

FACILITY STATUS: 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

PERSONNEL EXPOSURES

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

PERSONNEL INJURIES

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

OFFSITE CONSEQUENCES

15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

LOSS OR DAMAGE TO FACILITY

16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

PUBLICITY

17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

ADDITIONAL FACTORS

18 19 20 21 22 23 24 25 26 27 28 29 30 31 32

19 20 21 22 23 24 25 26 27 28 29 30 31 32

NAME: Don M. Hoover

PHONE: 509-654-2241

REPORT NUMBER: AO 50-265/75-41

REPORT DATE: October 27, 1975

OCCURRENCE DATE: October 17, 1975

FACILITY: Quad-Cities Nuclear Power Station
Cordova, Illinois 61242

IDENTIFICATION OF OCCURRENCE:

Unit 2 Diesel Generator failure due to field diode transient voltage suppressor failures.

CONDITIONS PRIOR TO OCCURRENCE:

Unit 2 was in the Cold Shutdown Condition for a core maintenance outage.

DESCRIPTION OF OCCURRENCE:

At 3:15 p.m. on October 17, 1975 while Unit 2 Diesel Generator was running during a monthly operability surveillance test, the diesel generator reactive power meter in the control room was noticed to have pegged at full scale. The megawatt output load from the diesel generator was then observed to be very erratic. The Unit 2 control room operator tripped the diesel, and an equipment operator was sent to the diesel generator room to investigate the problem.

The operator found that two of the six selenium rectifier transient voltage surge suppressors associated with the generator field had been damaged. The diesel was taken out of service, and a work request written to initiate repairs.

DESIGNATION OF APPARENT CAUSE OF OCCURRENCE:

Equipment Failure

The apparent cause of this abnormal occurrence is equipment failure. The two surge suppressors had apparently shorted out, thereby providing a direct short circuit around the field rectifiers thus collapsing the field. This in turn caused erratic megawatt output and reactive power readings. The exact cause of the surge suppressor failure is undetermined at this time.

October 27, 1975

ANALYSIS OF OCCURRENCE:

The safety implications related to this occurrence are minimized by the fact that Unit 2 was in the Cold Shutdown condition. The 1/2 Diesel Generator was available to supply emergency power and normal off-site power was available at all times from the unit reserve auxiliary transformer. All 345 KV lines were operable and the switchyard was intact.

Therefore, the safe operation of the facility was not compromised as a result of this occurrence.

CORRECTIVE ACTION:

The immediate corrective action consisted of shutting down the diesel generator. Work Request 4091-75 was initiated for the purpose of replacing all six surge suppressors. Later on October 17, at 7:25 p.m., the Unit 2 Diesel Generator was returned to service. The diesel was started and operated normally at 9:45 p.m.

Investigations have been in progress by the Edison Station Electrical Engineering Department to conduct an extensive study as to the mode of failure of these surge suppressors, and to devise a replacement scheme for them. Modifications M-4-1(2)-75-25 and M-4-1/2-75-4 have been initiated to accomplish this replacement.

FAILURE DATA:

There have been 3 previous failures of the selenium surge suppressors for the Diesel Generators at Quad-Cities Station. The investigations in progress at the present time and continued scheduled surveillance testing of the diesel generators should aid in minimizing the effects of these failures.

Commonwealth Edison
Quad-Cities Nuclear Power Station
Post Office Box 216
Cordova, Illinois 61242
Telephone 309/654-2241

NJK-75-532

October 27, 1975

Director of Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington D. C. 20555

Reference: Quad-Cities Nuclear Power Station
Docket No. 50-265, DPR-30, Unit 2
Appendix A, Sections 1.0.A.2, 3.9.A.1, 6.6.B.1.a

Enclosed please find Abnormal Occurrence Report No. AO 50-265/75-41 for Quad-Cities Nuclear Power Station. This occurrence was previously reported to Region III, Office of Inspection and Enforcement by telephone on October 18, 1975 and to you and Region III, Office of Inspection and Enforcement by telecopy on October 18, 1975.

This report is submitted to you in accordance with the requirements of Technical Specification 6.6.B.1.a.

Very truly yours,

COMMONWEALTH EDISON COMPANY
QUAD-CITIES NUCLEAR POWER STATION

N. J. Kalivianakis
N. J. Kalivianakis
Station Superintendent

NJK/OMH/lk

cc: Region III, Office of Inspection and Enforcement
G. A. Abrell

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