

## LICENSEE EVENT REPORT

CONTROL BLOCK: 1 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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 On October 4, 1978, the Unit Two 2A Reactor Vent Radiation Monitor and the 2A  
 0 3 Refueling Floor Radiation Monitor started spuriously spiking. The consequences of  
 0 4 this occurrence were minimal because the 2B monitors in both systems were operable and  
 0 5 would have performed the systems' intended function of initiating the Standby Gas  
 0 6 Treatment System and isolating the Reactor Building Ventilation System, had the need  
 0 7 arose.

0 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 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

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## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The cause of this occurrence was due to a faulty power supply common to both 2A  
 1 1 monitors. The two monitors were taken out of service as allowed by Technical  
 1 2 Specifications 3.2.E.2 and 3.2.F.2 and the power supply was replaced with a spare.  
 1 3 They were tested satisfactorily for operability.

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NAME OF PREPARER B. Willemssen

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- I. LER NUMBER: 78-35/03L-0
- II. LICENSEE NAME: Commonwealth Edison Company  
Quad-Cities Nuclear Power Station
- III. FACILITY NAME: Unit Two
- IV. DOCKET NUMBER: 050-265
- V. EVENT DESCRIPTION:

On October 4, 1978 at 1:46 AM the Unit Two operator received an upscale alarm on the 2A Reactor Vent Radiation Monitor and a down scale alarm on the 2A Refueling Floor Radiation Monitor. An investigation revealed that both radiation monitors were spuriously spiking. Work request numbers 4608-78 and 4609-78 were issued to repair the monitors.

A functional test was performed on the redundant 2B Refueling Floor Radiation Monitor and the 2B Reactor Vent Radiation Monitor to assure proper operability. Once the 2B monitors were proven to be operable the 2A monitors were placed in the bypass condition. The common power supply for the two A monitors, being suspect, was then removed and replaced with an operable spare. The two A monitors were then functionally tested and found to operate satisfactorily. The removed power supply module was then taken to the instrument shop and bench tested, at which time it failed completely.

VI. PROBABLE CONSEQUENCES OF THE OCCURRENCE

The control logic of the A and B monitors in the Reactor Vent and Refueling Floor monitoring systems, is such that one upscale trip, or two downscale trips, will initiate the Standby Gas Treatment System and isolate the Reactor Building Ventilation System. Therefore, sufficient redundancy would have existed had both A monitors totally failed, that the intended function would have been performed in the required manner.

Due to the timely replacement of the power supply before it actually failed and because the 2A Reactor Vent Radiation Monitor and the 2A Refueling Floor Radiation Monitor were taken out of service in accordance with Technical Specification 3.2.E.2 and 3.2.F.2 respectively, the safety consequences of this occurrence were minimal.

VII. CAUSE:

The 2A Refuel Floor Radiation Monitor (2-1705-16A) and the 2A Reactor Building Vent Radiation Monitor (2-1705-8A) were spiking because of an intermittent problem with the power supply common to both of the monitors. The power supply later completely failed during bench testing. The cause of the power supply failure was due to a failed diode.

The power supply is manufactured by the General Electric Company and is a model number 112C2235.

VIII. CORRECTIVE ACTION:

The immediate corrective action was to replace the defective power supply with a spare power supply and test the monitors for operability. The defective power supply was then repaired with a new diode, tested, and returned to operable spare status. No further corrective action is required.