NRC FORM 366
(7-77)

U. S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0 1 | LICENSEE CODE: I L Q A D 1 (2) | LICENSE NUMBER: 0 0 0 - 0 0 0 - 0 0 0 (3) | LICENSE TYPE: 4 1 1 1 1 (4) | CAT (5)

CON'T 0 1 | REPORT SOURCE: L (6) | DOCKET NUMBER: 0 5 0 0 0 2 5 4 (7) | EVENT DATE: 0 2 2 4 8 3 (8) | REPORT DATE: 0 3 2 2 8 3 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 At 0155 hours, on February 24, 1983, the Reactor Building and Control Room
0 3 Ventilation Systems isolated and Standby Gas Treatment auto-started due to an
0 4 apparent spike in the Refuel Floor radiation monitors. The monitors were found to
0 5 be indicating normal. The trip occurred again and could not be reset. The monitors
0 6 were indicating normal. The ventilation systems tripped and Standby Gas Treatment
0 7 System auto-started; thus, the system operated as designed. There was no potential
0 8 for an uncontrolled release of radioactive material to the environment.

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUBCODE	VALVE SUBCODE
0 9	A A (11)	E (12)	A (13)	R E L A Y X (14)	A (15)	Z (16)

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 3	—	0 1 0	/	0 3	L	—	0

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
A (18)	Z (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	Y (24)	N (25)	G 0 8 0 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The cause of this occurrence was a failure of relay coil 1705-108 and the subsequent
1 1 failure of relay coil 1705-107. The failed coils caused the relays to trip in a
1 2 fail-safe condition. The coils were replaced with upgraded voltage rated coils.
1 3 There have been past instances of coil failures in this type of relay, however this
1 4 corrective action has been deemed adequate at this time to prevent recurrence.

1 5 | FACILITY STATUS: E (28) | % POWER: 0 9 3 (29) | OTHER STATUS (30): NA | METHOD OF DISCOVERY: A (31) | DISCOVERY DESCRIPTION (32): Operator Observation

1 6 | ACTIVITY RELEASED: Z (33) | CONTENT OF RELEASE: Z (34) | AMOUNT OF ACTIVITY (35): NA | LOCATION OF RELEASE (36): NA

1 7 | PERSONNEL EXPOSURES NUMBER: 0 0 0 (37) | TYPE: Z (38) | DESCRIPTION (39): NA

1 8 | PERSONNEL INJURIES NUMBER: 0 0 0 (40) | DESCRIPTION (41): NA

1 9 | LOSS OF OR DAMAGE TO FACILITY (43) TYPE: Z (42) | DESCRIPTION: NA

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2 0 | PUBLICITY ISSUED: N (44) | DESCRIPTION (45): NA | NRC USE ONLY

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GPO 917-926

I. LER NUMBER: LER/RO 83-10/03L-0

II. LICENSEE NAME: Commonwealth Edison Company
Quad-Cities Nuclear Power Station

III. FACILITY NAME: Unit One

IV. DOCKET NUMBER: 050-254

V. EVENT DESCRIPTION:

At 0155 hours, on February 24, 1983, Unit One was operating at a load of 757 MWe when the Unit One Reactor Building and Control Room ventilation systems tripped due to an apparent upscale spike on the Refuel Floor radiation monitor. Both Refuel Floor radiation monitor indicators in the Control Room were checked, and all indications were normal. The trip was then reset, but shortly thereafter, both systems tripped again. The Nuclear Station Operator attempted to reset the trip but was unsuccessful. All Technical Specification requirements were met due to the fact that the Standby Gas Treatment System auto-initiated and the Reactor Building and Control Room Ventilation Systems tripped.

VI. PROBABLE CONSEQUENCES OF THE OCCURRENCE:

The safety implications of this occurrence are minimal. The Reactor Building and Control Room Ventilation Systems are designed to trip in the event of high radiation levels inside the Containment to prevent the release of radioactive material to the environment. The Standby Gas Treatment System is designed to initiate on high radiation to filter airborne radioactive material from the Containment atmosphere before it is released to the environment. Since both of these systems operated as designed, at no time was the safety of the public affected.

VII. CAUSE:

The cause of this occurrence was a failed coil in the 1705-107 relay. The root cause of the burned coil could not be determined. This failed relay caused the initial trip of the ventilation systems. The relay apparently failed again after the trip was reset; and when the second attempt to reset the trip was made, the coil in the relay burned out. In addition to the failed coil in the 1705-107 relay, the coil in the 1705-108 relay was also found to be burned out.

Both of these relays are CR120A relays manufactured by General Electric. There have been several other instances of failures of this type of relay in the past.

VIII. CORRECTIVE ACTION:

The corrective action taken was to replace the coils in the 1705-107 and 108 relays with a coil having a higher voltage rating. This action will increase the reliability and the life of the coils. After the coils were replaced, the ventilation systems were reset, and the Standby Gas Treatment System was placed in STANDBY. As a result of Action Item Record 4-80-14, it was recommended that CR120A relays be replaced by the more reliable CR120B model relay. As cabinet space and outage time becomes available, this replacement will be accomplished.