NRC FORM 366 (7-77)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT

EXHIBIT A

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

0 1 | A R A N O 2 (2) | 0 0 - 0 0 0 0 0 - 0 0 (3) | 4 1 1 1 1 (4) | (5)
LICENSEE CODE | LICENSE NUMBER | LICENSE TYPE | CAT

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

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2 During Mode 1 operation, while performing routine Refueling Water Tank
0 3 (RWT) level indication checks, it was observed that Channels A, C, & D
0 4 were indicating > 100% and Channel B was 82%. Previous checks indicated
0 5 approximately 94%. All ESFAS RWT Instrumentation channels being declared
0 6 inoperable, the L.C.O. of Action Statement #9 per T.S. 3.3-3 Item 6b,
0 7 T.S. 3.3.2.1 could not be satisfied. Reactor shutdown to Mode 3 was
0 8 (see attached)

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP. SUPPLIER	VALVE SUBCODE
0 9	I E (11)	E (12)	X (13)	I N S T R U (14)	T (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 0	—	0 9 1	/	0 1	T	—	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)	X (19)	A (20)	B (21)	0 0 4 5	Y (23)	N (24)	Z (25)	Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0 The instrument indication discrepancy was diagnosed as frozen RWT level
1 1 transmitters due to $15^{o}F$ ambient temperature. The system heat tracing
1 2 circuit was found de-energized because the main line fuse was removed.
1 3 The fuse was replaced and RWT level indication returned to operable status.
1 4 (See Attached)

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	E (28)	0 7 7 (29)	NA	A (31)	Operator Observation

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

PERSONNEL EXPOSURES

	NUMBER	TYPE	DESCRIPTION (39)
1 7	0 0 0 (37)	Z (38)	NA

PERSONNEL INJURIES

	NUMBER	DESCRIPTION (41)
1 8	0 0 0 (40)	NA

POOR ORIGINAL

LOSS OF OR DAMAGE TO FACILITY (43)

	TYPE	DESCRIPTION
1 9	Z (42)	NA

PUBLICITY

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

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initiated per T.S. 3.0.3; however, to meet the 1 hour "time-clock" a manual Reactor trip was required at 30% power. Similar to LER's 50-368/79-001, 79-002, 79-008, 79-101. Reportable per T.S. 6.9.1.8.b.

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Investigation revealed fusible disconnect did not conform to design drawings. Ramifications and long term corrective actions are being evaluated.

1. Reportable Occurrence Report No. 50-368/80-091

2. Report Date: 12/26/80

3. Occurrence Date: 12/20/80

4. Facility: Arkansas Nuclear One - Unit Two
Russellville, Arkansas

5. Identification of Occurrence:

Operation of the unit with Engineered Safety Features Actuation System instrumentation subject to a Limiting Condition for Operation (LCO) per T.S. 3.3.2.1, T. S. Table 3.3-3 Item 6b (Refueling Water Tank level instrumentation) in a less conservative than the least conservative aspect of the LCO as established by Action Statement #9 (allowing one inoperable channel). Reportable per T.S. 6.9.1.8.b.

6. Conditions Prior to Occurrence:

Steady-State Power	X	Reactor Power	2168 MWth
Hot Standby		Net Output	685 MWe
Cold Shutdown		Percent of Full Power	77 %
Refueling Shutdown		Load Changes During Routine Power Operation	
Routine Startup Operation		Mode	1
Routine Shutdown Operation			
Other (specify)			

7. Description of Occurrence:

While performing routine Refueling Water Tank (RWT) level indication checks, as required by T.S. 4.3.2.1.1, T.S. Table 4.3-2 Item 6b, it was observed that Channels A, C, & D were indicating a level of > 100% and Channel B was indicating 82%. The previous channel check readings ranged from 93 to 95% on all RWT level indications. All EFSAS RWT instrumentation being declared inoperable, the LCO and associated action statement could not be satisfied; therefore, a Reactor shutdown to Mode 3 operation was initiated per the requirements of T. S. 3.0.3. To meet the 1 hour time clock, a manual Reactor trip was required at 30% power.

8. Designation of Apparent Cause of Occurrence:

Design		Procedure	X
Manufacture		Unusual Service Condition Including Environmental	
Installation/ Construction	X	Component Failure (See Failure Data)	X
Operator		Personnel Error	X

Other (specify)

The instrument indication discrepancy was diagnosed as frozen RWT level transmitters due to 150F ambient temperature. The system heat tracing (added per corrective action to previous occurrences) was found de-energized because of a missing power fuse in a fusible disconnect located in terminal box, 2TB-608.

9. Analysis of Occurrence:

Investigation revealed that the installation of a fusible disconnect in the heat tracing circuit did not conform to the original design configuration. The power fuse was apparently removed when an unrelated plant design change required that the RWT level sensing lines be re-routed due to space utilization requirements. The posi design modification check out failed to reverify the operablility of the heat tracing circuitry.

10. Corrective Action:

The short term corrective action was to replace the missing power fuse, thaw the RWT level transmitter, and return the ESFAS Refueling Water Tank instrumentation to an operable status.

Long term corrective actions are being evaluated.

11. Failure Data:

Refueling Water Tank, frozen level transmitter, occurrences were reported in LER's 50-368/79-001, 79-002, 79-008, and 79-101.