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	LICENSEE CODE: A R A N O 2 (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 3 6 8 (7) EVENT DATE: 0 7 0 1 8 0 (8) REPORT DATE: 1 0 0 1 8 0 (9)

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0 2	During Mode 3, Safety Injection Tank (SIT) "c" was found to have a boron
0 3	concentration of less than the T.S. 3.5.1.c limit. This recurred with
0 4	SIT "D" on 7/2/80 (Mode 3), SIT "A" on 9/2/80 (Mode 1), and SIT "C" on
0 5	9/2/80 (Mode 1). Due to sampling, "A" SIT pressure was below T.S.3.5.1.d
0 6	limit on 9/2/80. Reportable per T.S. 6.9.1.9.b A similar occurrence
0 7	is LER 50-368/80-037/01X-1.
0 8	

	SYSTEM CODE	CAUSE CODE	CAUSE SUBCODE	COMPONENT CODE	COMP SUBCODE	VALVE SUBCODE
0 9	S F (11)	X (12)	Z (13)	Z Z Z Z Z Z (14)	Z (15)	Z (16)

(17) LER/RO REPORT NUMBER	EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
	8 0	—	0 4 4	/	0 3	X	—	1

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
E (18)	G (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	N (24)	Z (25)	Z 9 9 9 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1 0	During extended shutdowns, operation of the Shutdown Cooling System
1 1	may dilute the SIT makeup pathwith reactor coolant. This dilution may
1 2	lower SIT boron concentration during makeup operation. In all cases,
1 3	the SIT's were returned to operable status per Action a. of T.S.3.5.1.
1 4	

	FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
1 5	D (28)	0 0 0 (29)	NA	B (31)	Routine Sampling

	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

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	

NAME OF PREPARER Mark Smith PHONE 501-968-2519

8010080 485

1. Reportable Occurrence Report No.: 80-044/03X-1

2. Report Date: 10/1/80

3. Occurrence Date: -7/01/80

4. Facility: Arkansas Nuclear One - Unit 2
Russellville, Arkansas

5. Identification of Occurrence:

Safety Injection Tank (SIT) "C" was found with boron concentration below T.S. 3.5.1.c limit on 7/01/80. This recurred on 7/2 with SIT "D" on 9/2 with SIT "A", and on 9/2/80 with SIT "C". On 9/2/80, SIT "A" pressure was 599 psia, which is below T.S. 3.5.1.d limit of 600 psia. This was due to sampling of the SIT.

6. Conditions Prior to Occurrence:

Steady-State Power _____ Reactor Power _____ MWth

Hot Standby _____ Net Output _____ MWe

Cold Shutdown _____ Percent of Full Power _____ %

Refueling Shutdown _____ Load Changes During Routine Power Operation _____

Routine Startup Operation _____

Routine Shutdown Operation _____

Other (specify)

The 7/1/80 and 7/2/80 events occurred during Mode 3 operation. The 9/2/80 events occurred during Mode 1 operation, with the reactor at 100% Full Power.

7. Description of Occurrence:

The events on 7/1/80 and 7/2/80 were discovered by routine sampling after addition to the tanks. This was done during Mode 3 operation following a shutdown. SIT "C" was at 1721ppmb on 7/1/80, and SIT "D" was at 1725ppmb on 7/2/80. The events on 9/2/80 were discovered during routine monthly sampling. SIT "A" was at 1715ppmb, and SIT "C" was at 1715ppmb.

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8. Designation of Apparent Cause of Occurrence:

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

Other (specify)

Low boron concentration water may be entering the SIT's through the fill line at the bottom of the tanks. Due to the location of the sample point near the bottom of the tanks, the sample is drawn from a region where the lower boron concentration water may have been added.

9. Analysis of Occurrence:

The SIT's are filled through a line which is also used for Shutdown Cooling. When the unit has been on Shutdown Cooling for a significant time, the boron concentration in this line is the same as the Reactor Coolant System boron concentration during shutdown, which is low in boron concentration for SIT fill minimum requirements. After securing shutdown cooling and aligning the system to the Refueling Water Tank (RWT), which is used for SIT fill water during operation, the fill line was not being flushed by recirculation back to the RWT before SIT makeup initiation.

10. Corrective Action:

The SIT's were returned within the boron concentration limits of T.S. 3.5.1.c. Procedures have been changed to ensure that all lines are flushed with Refueling Water Tank water upon termination of Shutdown Cooling.

11. Failure Data:

Similar to LER 50-368/80-037