UPDATE REPORT

U.S. NUCLEAR REGULATORY COMMISSION

PREVIOUS REPORT 8/10/82

LICENSEE EVENT REPORT

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

1	A L B R F 1 (2)	0 0 - 0 0 0 0 0 - 0 0 (3)	4 1 1 1 1 (4)	(5)
8	9 LICENSEE CODE 14	15 LICENSE NUMBER 25	26 LICENSE TYPE 30	57 CAT 58

CON'T

1	REPORT SOURCE L (6)	0 5 0 0 0 2 5 9 (7)	0 2 0 2 8 2 (8)	1 0 2 9 8 2 (9)
8	60	61 DOCKET NUMBER 68	69 EVENT DATE 74	75 REPORT DATE 80

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

During SI 4.9.A.4.C calibration of the degraded voltage relays on the 4-kV shutdown boards (common to units 1 & 2) the trip setpoint of all 12 relays was found to be below the minimum trip point of 3900V (T.S. Table 4.9.A.4.C). There was no danger to the health or safety of the public in that T.S. 3.9.B.11.b permits operation for 10 days with degraded voltage relays inoperable on a board. Loss-of-voltage relays were operable. (Within SI 4.9.A.4.b Surveillance Schedule) No previous similar events.

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

(17) LER/RO REPORT NUMBER

EVENT YEAR		SEQUENTIAL REPORT NO.		OCCURRENCE CODE	REPORT TYPE		REVISION NO.
8 2	—	0 1 3	/	0 1	X	—	2

ACTION TAKEN	FUTURE ACTION	EFFECT ON PLANT	SHUTDOWN METHOD	HOURS (22)	ATTACHMENT SUBMITTED	NPRD-4 FORM SUB.	PRIME COMP. SUPPLIER	COMPONENT MANUFACTURER
E (18)	E (19)	Z (20)	Z (21)	0 0 0 0	Y (23)	Y (24)	L (25)	B 4 5 5 (26)

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

Setpoint drifted down 3% in 6 months since installation. The Gould-Brown Boveri type ITE 27/59H relays were recalibrated and returned to service. Drift is believed to be caused by initial aging/stabilization and by variations in ambient temperature and supply voltage. Recurrence control will depend on results of test in progress expected to be complete 3/1/83.

FACILITY STATUS	% POWER	OTHER STATUS (30)	METHOD OF DISCOVERY	DISCOVERY DESCRIPTION (32)
E (28)	0 9 8 (29)	NA	B (31)	Surveillance test

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

PERSONNEL EXPOSURES

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

PERSONNEL INJURIES

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

LOSS OF OR DAMAGE TO FACILITY (43)

TYPE	DESCRIPTION
Z (42)	NA

PUBLICITY

ISSUED	DESCRIPTION (45)
N (44)	

NRC USE ONLY

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Tennessee Valley Authority
Browns Ferry Nuclear Plant

Form BF 17
BF 15.2
2/12/82

LER SUPPLEMENTAL INFORMATION

BFRO-50- 259 / 82013 R2 Technical Specification involved 3.9.B.11.b

Reported Under Technical Specification 6.7.2.a.(9) * Date Due NRC 11/01/82

Event Narrative:

Unit 1 was operating at 98-percent; unit 2 was operating at 100-percent; unit 3 was in refueling outage. Units 1 and 2 share the 4-kV shutdown boards and diesel-generators. Unit 3 was unaffected by this event. During the performance of Surveillance Instruction (SI) 4.9.A.4.A (Auxiliary Electrical Equipment Undervoltage Relay Calibration for Start Buses 1A and 1B and 4-kV Shutdown Boards Units 1 and 2 or 3), the degraded voltage relay 27-211-(A,B,or C) on 4-kV shutdown boards A,B,C, and D trip setpoint was found to be approximately 3815 volts. The limit in Technical Specification Table 4.9.A.4.C requires these relays to operate between 3900 and 3940 volts. These undervoltage sensing relays start the associated diesel-generator on degraded voltage. The loss-of-voltage relay channel was available and operable (within the surveillance schedule of SI 4.9.A.4.b)and had been calibrated per SI 4.9.A.4.C. The degraded voltage relays were recalibrated and returned to service within the time limits prescribed by Technical Specification 3.9.B.11.b. There was no danger to the health and safety of the public, plant employees, or equipment at any time.

The setpoint drift of 3 percent was primarily due to initial aging and stabilization of the new relays over a 6-month period. Following the stabilization period, setpoint drift of about 0.5 percent or less results from variations in ambient temperature and supply voltage. Two relays, a Beckwith Type M-0303 and a Gould-Brown Boveri Type 27N are being evaluated as replacements. Testing on the Beckwith relay began on September 23, 1982 and is expected to be completed by December 6, 1982. The Gould-Brown Boveri relay is expected to be received by November 15, 1982 and testing completed by February 1, 1983. The effect of expanding the setpoint tolerance criteria will be evaluated. Evaluations will be addressed in a revision to this report by March 1, 1983. This is also a followup report to LERs BFRO-50259/82028, 82033, 82050, 82075, and 296/82032.

* Previous Similar Events:

NONE

Retention: Period - Lifetime; Responsibility - Document Control Supervisor
*Revision: JRP