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At the time of the event, all t activities were in progress on On July 1, 1988 at 1205 hours at signal was generated from unit 2-LIS-3-203B which actuated the JC). Instrument technicians we relocation of reactor vessel law	hree units wer the refuel flo nd again at 13 2 reactor vess reactor prote re draining in	e defue or. 10 hour el leve ction s strumer	eled rs, el s syst nt s	a low switch tem (1 sensin	o fuel w reac hes 2- RPS) ( ng lin	tor LIS- EIIS es to	dling water 3-203A ident o supp	level and ifier	l the	

This resulted in the following actuations:

- 1. Standby gas treatment (SGTS) initiation (EIIS identifier BH)
- Control room emergency ventilation (CREV) initiation (EIIS identifier VI)
- 3. Unit 2 reactor zone ventilation isolation (EIIS identifier VA)
- 4. Refuel zone ventilation isolation (EIIS identifier VG)
- 5. Unit 2 residual heat removal (RHR) isolation valves (EIIS identifier BO)
- 6. Unit 2 primary containment ventilation isolation (EIIS identifier VB)

The Unit 2 reactor water cleanup isolation valves (EIIS identifier CE) and the traversing incore probe isolation valves received an isolation signal but did not actuate because they had been removed from service and placed in the isolated condition prior to the event. This event would normally cause a scram, however, scram functions have been administratively disabled on unit 2. All systems responded as designed. On July 1, 1988 at 1222 hours, following the first event, isolations were reset and all ventilation systems returned to normal. At 1330 hours, following the second event, the sensing lines were capped, isolations reset and the ventilation system returned to normal.

## Cause of Event

The root cause for this event was determined to be personnel error on the part of the responsible modifications engineer in preparing the clearance request and the assistant shift operations supervisor (ASOS) in establishing the clearance.

NRC Form 366A (9-83)	LICENSEE EVENT F	LICENSEE EVENT REPORT (LER) TEXT CONTINUATION				
FACILITY NAME (1)		DOCKET NUMBER (2)	LER NUM	BER (6) PAGE (3)		
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Browns Ferry Unit 2

Cause of Event (Cont.)

These events were initiated when the instrument sensing lines were drained in preparation to move reactor water level transmitter 2-LT-3-206 and reactor pressure transmitter 2-PT-3-207 to a new seismically qualified instrument rack. Reactor water level transmitters 2-LT-3-203A and B, which actuate reactor water level switches 2-LIS-3-203A and B, are on the same sensing lines but were not isolated. They sent a low reactor water level signal to the RPS, initiating engineered safeguard features (ESF) actuation when the sensing lines were drained. Per the plant clearance procedure, the person requesting a clearance identifies any potential adverse action on the request. ESF action was not identified. Also the scope of the work to be performed was not correctly identified. The personnel error on the part of the responsible modifications engineer was the preparation of the clearance request. The clearance, when initially established, was adequate per the request but inadequate for actual scope of work and was expanded prior to performing the work. The expanded clearance was not adequate to prevent the ESF actuation. The personnel error on the part of the ASOS was made when the clearance was expanded.

### Analysis of Event

The elapsed time for the first event was 17 minutes and 20 minutes for the second event. The low water level signal generated by this event and subsequent ESF actuations did not effect the safe operation of the plant. All systems responded as designed and placed the plant in a conservative operating configuration during both events. If this had occurred during power operation the plant systems would have responded in a similar manner.

#### Corrective Action

The immediate corrective action was to cap sensing lines, reset all isolations and return ventilation systems to normal. A new clearance was issued to isolate reactor water level transmitters 2-LT-3-203A and 2-LT-3-203B hydraulically. This will prevent low reactor water level signals from these instruments from causing any additional ESF actuations during the completion of this modification. This is considered an isolated case and does not indicate any programmatic problems. The engineer that prepared the clearance request and the licensed operator that implemented it have been counseled. A critique of the event will be reviewed by all operations personnel and modification engineers.

#### Previous Similar Events

LER-50-296/85021

Commitments

An operations incident critique of the event will be distributed to all operations personnel and modification engineers.

# TENNESSEE VALLEY AUTHORITY Browns Ferry Nuclear Plant Post Office Box 2000 Decatur, Alabama 35602 AUG 01 1988

U.S. Nuclear Regulatory Commission Document Control Desk Washington, D.C. 20555

Dear Sir:

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TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 2 - DOCKET NO. 50-260 - FACILITY OPERATING LICENSE DPR-52 - REPORTABLE OCCURRENCE REPORT BFR0-50-260/88004

The enclosed report provides details concerning engineered safety features initiated by personnel error. This report is submitted in accordance with 10 CFR 50.73 (a)(2)(iv).

Very truly yours,

TENNESSEE VALLEY AUTHORITY Ohn

7. G. Walker Plant Manager Browns Ferry Nuclear Plant

Enclosures cc (Enclosures): Regional Administration U.S. Nuclear Regulatory Commission Office of Inspection and Enforcement Region II 101 Marietta Street, Suite 2900 Atlanta, Georgia 30303

INPO Records Center Suite 1500 1100 Circle 75 Parkway Atlanta, Georgia 30339

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NRC Resident Inspector, Browns Ferry Nuclear Plant