

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Browns Ferry - Unit 1DOCKET NUMBER (2)
0 5 0 0 0 2 5 9 1 OF 0 3TITLE (4)
Inadvertent ScramEVENT DATE (5)
MONTH DAY YEAR
0 8 2 5 8 5 8 5
LER NUMBER (6)
YEAR SEQUENTIAL NUMBER REVISION NUMBER
0 4 3 0 0 0 9
REPORT DATE (7)
MONTH DAY YEAR
2 4 8 5
OTHER FACILITIES INVOLVED (8)
FACILITY NAMES
DOCKET NUMBER(S)
0 5 0 0 0 0OPERATING MODE (9)
N
POWER LEVEL (10)
0 0 0
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)
20.402(b) 20.405(e) 50.73(a)(2)(iv) 73.71(b)
20.405(a)(1)(i) 50.36(e)(1) 50.73(a)(2)(v) 73.71(c)
20.405(a)(1)(ii) 50.36(e)(2) 50.73(a)(2)(vi) OTHER (Specify in Abstract below and in Text, NRC Form 306A)
20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(vii)(A)
20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(vii)(B)
20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(ix)LICENSEE CONTACT FOR THIS LER (12)
NAME
R. C. Steele, Compliance Engineer
TELEPHONE NUMBER
AREA CODE
2 0 5 7 2 9 1 - 3 5 8 3COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)
CAUSE SYSTEM COMPONENT MANUFACTURER REPORTABLE TO NPDOS
AD I G H S S 3 4 5 NSUPPLEMENTAL REPORT EXPECTED (14)
YES (If yes, complete EXPECTED SUBMISSION DATE) NO
EXPECTED SUBMISSION DATE (15)
MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately fifteen single-space typewritten lines) (16)

On August 25, 1985, a full scram inadvertently occurred on unit 1 during performance of a weekly surveillance instruction (SI) on the average power range monitors (APRM). The unit was in a refueling outage with all the control rods fully inserted. The inadvertent scram occurred when an APRM mode switch for the channel under test was placed in the "standby" position in accordance with the SI. Diagnosis of the event was hampered by problems that were experienced with the sequential events recorder (SER) at the time of the scram. During the investigation of the scram a defective APRM bypass switch in the alternate APRM group was found and replaced. The investigation did not, however, conclusively determine the cause of the scram.

On September 8, 1985, a similar scram inadvertently occurred on unit 1 during performance of the same SI. This event is currently under investigation and will be addressed in a separate LER.

8509300576 850924
PDR ADOCK 05000259
S PDRIE22
11

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES-6/1/85

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
Browns Ferry - Unit 1	0 5 0 0 0 2 5 9 8 5	-	0 4 3	-	0 0 0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 308A's) (17)

Units 1 and 2 were in refueling outages, and unit 3 was in an extended maintenance outage.

On August 25, 1985, at 1638, a full scram occurred on unit 1 during performance of a weekly plant surveillance instruction (SI 4.2.C-1A) on the average power range monitors (APRM). The affected unit had all control rods fully inserted at the time of the event.

Portions of the SI require that individual APRM channel mode switches be moved from the "operate" position to the "standby" position. This should generate a scram signal in one out of four trip channels in the reactor protection system (RPS), thus generating a half scram.

When the operator placed the channel mode switch for tested APRM channel "F" in the "standby" position, a full scram unexpectedly occurred. Diagnosis of the event was hampered by problems experienced with the sequence of events recorder (SER) at the time of the scram. In the subsequent investigation, three potential problem areas that could have generated an additional half scram on the alternate RPS division were considered.

- Low scram air header pressure
- APRM equipment failure
- APRM under test not properly returned to operating condition during SI prior to proceeding with the remainder of the test.

Below is a summary of the investigation for each suspected cause.

- Scram pilot air header low-pressure switches technical instruction (TI-60) was performed and no mechanical or electrical problems were discovered. Two out of four pressure switches (PS-85-35A2 and PS-85-35B2) were found to be approximately one half pounds per square inch gauge (psig) below their setting of 60 psig. This would not contribute to the scram.
- Surveillance instruction (SI 4.2.C-1A) was performed on September 1, 1985, on the APRM, and no mechanical or electrical problems were encountered. The problem could not be replicated.
- The operator indicated that the previously tested channel (APRM "C" channel) mode switch was returned to the "operate" position before proceeding with testing of APRM channel "F."

Examination of the APRM channel "A-C-E" bypass switch (Square D, series 9001, type K36) has shown that the switch was worn in such a way as to allow the movement of the mechanism into the "bypass" position without depressing the mechanical push button. Also, the switch could be positioned at a point between the "bypass" and the "neutral" positions. The defects in this switch, however, should not have caused the unexpected scram. The defective switch was replaced on September 7, 1985.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 03/1/86

FACILITY NAME (1) Browns Ferry - Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 2 5 9 8 5 - 0 4 3 - 0 0 0 3 OF 0 3	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			

TEXT (If more space is required, use additional NRC Form 366A's) (17)

This event constituted a failure in the conservative direction (scram). Further investigation is warranted to prevent future recurrence. Results of this investigation will be provided in the LER referenced below.

On September 8, 1985, an additional full scram inadvertently occurred on unit 1 during performance of SI 4.2.C-1A. A full investigation is underway, and the results will be addressed in a separate LER.

Responsible Plant Section - N/A

Previous Events - None

TENNESSEE VALLEY AUTHORITY

Browns Ferry Nuclear Plant
P. O. Box 2000
Decatur, Alabama 35602

September 24, 1985

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

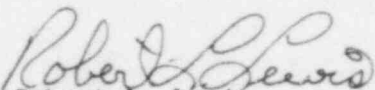
Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT (BFN) UNIT 1 -
DOCKET NO. 50-259 - FACILITY OPERATING LICENSE DPR-33 - REPORTABLE
OCCURRENCE REPORT BFRO-50-259/85043

The enclosed report provides details concerning an inadvertent scram during conduct on a neutron monitoring surveillance test. This report is submitted in accordance with 10 CFR 50.73(a)(2)(iv).

Very truly yours,

TENNESSEE VALLEY AUTHORITY



Robert L. Lewis
Acting Plant Manager
Browns Ferry Nuclear Plant

Enclosures

cc (Enclosures):

Regional Administrator
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

NRC Resident Inspector, BFN

IE22
1/1