

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)

Sequoyah Nuclear Plant, Unit 1

DOCKET NUMBER (2) | PAGE (3)

050003 2 17 1107 0 4

TITLE (4) Inadvertent Auto Start Signal to the 1B-B Centrifugal Charging Pump

EVENT DAY (5)			LER NUMBER (6)		REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)													
			SEQUENTIAL	REVISION				FACILITY NAMES													
MONTH	DAY	YEAR	NUMBER	NUMBER	MONTH	DAY	YEAR	DOCKET NUMBER(5)													
0	8	3	1	0	1	7	0	1	0	9	1	3	9	3	0	5	0	0	0	1	1
OPERATING MODE (9) THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5:																					
(Check one or more of the following)(11)																					
(10) 1 0 0 20.402(b) 20.405(c) XX 50.73(a)(2)(iv) 73.71(b)																					
POWER 20.405(a)(1)(i) 50.36(c)(1) 50.73(a)(2)(v) 73.71(c)																					
LEVEL 20.405(a)(1)(ii) 50.36(c)(2) 50.73(a)(2)(vii) OTHER (Specify in																					
Abstract below and in																					
Text, NRC Form 366A)																					
20.405(a)(1)(iii) 50.73(a)(2)(i) 50.73(a)(2)(viii)(A)																					
20.405(a)(1)(iv) 50.73(a)(2)(ii) 50.73(a)(2)(viii)(B)																					
20.405(a)(1)(v) 50.73(a)(2)(iii) 50.73(a)(2)(x)																					

LICENSEE CONTACT FOR THIS LER (12)

NAME

TELEPHONE NUMBER

J. Bajraszewski, Compliance Licensing

AREA CODE

6 | 1 | 5 | 8 | 4 | 3 | - | 7 | 7 | 4 | 9

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

EXPECTED MONTH DAY YEAR

SUBMISSION

YES (If yes, complete EXPECTED SUBMISSION DATE) | X | NO

DATE (15)

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

This LER is being revised to provide the event cause as determined by an additional evaluation. At 1016 Eastern daylight time on August 31, 1992, with Unit 1 at 100 percent power, an engineered safety feature (ESF) actuation resulted from an auto start signal to the 1B-B centrifugal charging pump (CCP). The auto start signal was initiated when the charging pump undervoltage auxiliary relay latching mechanism unlatched. The 1B-B CCP was already in service at the time of the event; therefore, no pump start actually occurred. A labelling activity to identify relays in the 6.9 kilovolt shutdown board logic cabinets was ongoing at the time of the relay actuation. The cause of this event was determined to be inadvertent relay actuation as a result of personnel error. The relay reset plunger was inadvertently engaged during labelling activities.

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

I. PLANT CONDITIONS

Unit 1 was operating at 100 percent power.

II. DESCRIPTION OF EVENT

A. Event

On August 31, 1992, at 1016 Eastern daylight time (EDT), the unit experienced an engineered safety feature (ESF) actuation (EIIS Code JE). The ESF actuation occurred when an auto start signal from the 1B-B centrifugal charging pump (CCP) (EIIS Code CB/BQ) undervoltage auxiliary relay (EIIS Code JE) was inadvertently actuated. The auto start signal was initiated when the undervoltage auxiliary relay latching mechanism unlatched. The 1B-B CCP was already operating and therefore no actual pump start occurred.

B. Inoperable Structures, Components, or Systems

None.

C. Dates and Approximate Times of Major Occurrences

1. August 30, 1992 Operations began replacing the temporary tape labels for the relays in the 6.9 kilovolt (kV) shutdown board logic cabinet with permanent labels.
2. August 31, 1992 at 0930 EDT The shift technical adviser (STA) requested the Unit 1 support assistant shift operations supervisor (ASOS) to perform a second-party verification of the labels.
3. August 31, 1992 at 1016 EDT Both the STA and the support ASOS were standing by panel No. 4 of the 1B-B 6.9 kV logic panel. While scraping the temporary tape labels from the panels, the STA and ASOS had discussed the small space between the relays and how close the STA's hands and scraper were to them. During the scraping of the labels, an annunciation was received in the Unit 1 control room from actuation of the 6.9 kV shutdown board 1B-B CCP blackout relay.
4. August 31, 1992 at 1114 EDT After reviewing electrical schematics, Operations determined that the CCP was not inoperable and that it was safe to reset the undervoltage auxiliary relay.
5. August 31, 1992 at 1316 EDT NRC was notified of the ESF actuation.

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		050003	27	912	0017	0010	304

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

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

The relay actuation caused an annunciation, "6.9 kV Shutdown Board Logic Panel 1B-B Load Stripping Relay Out of Sync," in the control room.

F. Operator Actions

Operations reviewed the "annunciator response" procedure, the electrical schematics, and determined that the CCP was not inoperable and that it was safe to reset the relay. The relay was reset.

G. Safety System Response

Safety systems performed their intended functions.

III. CAUSE OF EVENT

A. Immediate Cause

The auto start signal to the 1B-B CCP was initiated when the CCP undervoltage auxiliary relay latching mechanism unlatched.

B. Root Cause

The apparent cause of this event was operator error in that the relay was inadvertently actuated while removing the temporary identification tag from the relay housing cover in preparation of permanent label installation.

IV. ANALYSIS OF EVENT

The undervoltage auxiliary relays are designed to block normal auto start sequencers and require the auto starts to occur after a designed time delay. The relay operates to place time-delay relays in service in the event of a station blackout. The relay places a two-second timer in the start circuit of the CCP when the voltage returns to the shutdown board. The inadvertent operation of this relay without a blackout caused the running 1B-B CCP to receive an ESF start signal and would prevent it from stopping without going to "pull to lock" with the hand switch. No additional actuations occurred. Therefore, there was no adverse impact on the health and safety of the public or plant personnel.

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	0500032792	017	0104

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

V. CORRECTIVE ACTIONS

A. Immediate Corrective Action

Operations evaluated the consequences of the relay operation, reviewed electrical schematics, and determined that the CCP was not inoperable and that it was safe to reset the undervoltage auxiliary relay. In addition, Operations conducted a test in an attempt to unlatch a relay by jarring. Utilizing two spare relays, the test indicated that even high-impact jarring will not disengage a securely-latched mechanism.

B. Corrective Actions to Prevent Recurrence

1. A work request (WR) was written to examine the relay in place to determine its sensitivity and the cause for unlatching. This WR was worked and the relay was found acceptable. Relay parameters such as spring and contact alignment, latch operation, contact resistance, and relay mounting were found to be correct and in accordance with vendor instructions. No relay adjustments were made or required.
2. The individuals involved have been counseled on exercising proper care when working around sensitive equipment.

VI. PREVIOUS SIMILAR EVENTS

A review of the LER database identified no previous or similar events that would have prevented this event from occurring.

VII. COMMITMENTS

No additional commitments beyond those identified in Revision 0 are made by this revision.