CATEGORY 1

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FACIL:50-296 Browns Ferry Nuclear Power Station, Unit 3, Tennessee 05000296
AUTH.NAME AUTHOR AFFILIATION
ROGERS,A.T. Tennessee Valley Authority
SINGER,K.W. Tennessee Valley Authority
RECIP.NAME RECIPIENT AFFILIATION

SUBJECT: LER 99-002-00:on 990122,LCO was not entered during calibration testing of 3D 480 volt RMOV board.Caused by personnel error.TVA has briefed operations personnel to preclude recurrence of event.With 990219 ltr.

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February 19, 1999

Karl W. Singer
Vice President, Browns Ferry Nuclear Plant

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

10 CFR 50.73

Dear Sir:

BROWNS FERRY NUCLEAR PLANT (BFN) - UNIT 3 - DOCKET NO. 50-296 - FACILITY OPERATING LICENSE DPR-68 - LICENSEE EVENT REPORT (LER) 50-296/1999002

The enclosed report provides details concerning failure to enter a Limiting Condition for Operation (LCO) for an inoperable Unit 3 Reactor Motor Operated Valve Board due to personnel error.

This report is submitted in accordance with 10 CFR 50.73(a)(2)(i)(B) as any operation or condition prohibited by the plant's Technical Specifications.

Sincerely,

Karl W. Singer

Karl W. Singer

cc: See page 2

Enclosure
cc (Enclosure):

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NRC FORM 366 (6-1998) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104 EXPIRES 08/30/2001

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LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

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TITLE (4)

LCO Not Entered During Calibration Testing Of 3D 480 Volt RMOV Board

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER				FACILITY NAME	DOCKET NUMBER
									NA	
01	22	99	1999	002	00	02	19	99	NA	DOCKET NUMBER

OPERATING MODE (9)	1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)	100	20.2201(b)		20.2203(a)(2)(v)	X	50.73(a)(2)(i)(B)		50.73(a)(2)(viii)	
		20.2203(a)(1)		20.2203(a)(3)(i)		50.73(a)(2)(ii)		50.73(a)(2)(x)	
		20.2203(a)(2)(i)		20.2203(a)(3)(ii)		50.73(a)(2)(iii)		73.71	
		20.2203(a)(2)(ii)		20.2203(a)(4)		50.73(a)(2)(iv)		OTHER	
		20.2203(a)(2)(iii)		50.36(c)(1)		50.73(a)(2)(v)		Specify in Abstract below or in NRC Form 366A	
		20.2203(a)(2)(iv)		50.36(c)(2)		50.73(a)(2)(vii)			

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
Anthony T. Rogers, Senior Licensing Project Manager	(256) 729-2977

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
NA										

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On January 4, 1999, a relay calibration on 3D 480 volt Reactor Motor Operated Valve (RMOV) Board was performed which disabled the auto-transfer logic of the board. The plant's Technical Specifications (TS) Bases state that the 3D and 3E 480 volt RMOV Boards are to be considered inoperable if the auto-transfer capability between the normal and alternate power supply for these boards is inoperable for any reason. TS 3.8.7 Required Action C.1 requires that the respective Residual Heat Removal (RHR) subsystem supported by the board must be declared inoperable for Low Pressure Coolant Injection (LPCI) immediately. However, the appropriate LCO had not been entered and TS 3.8.7 Required Action C.1 had not been satisfied by declaring the affected RHR subsystem immediately inoperable.

This condition was discovered on January 22, 1999, when Operations personnel conducted a review of past performances of this calibration procedure and determined that on January 4, 1999, the proper LCO had not been entered.

The root cause of this event was personnel (utility-licensed operator) error resulting from failure to recognize the LCO condition. TVA has briefed Operations personnel to preclude recurrence of this event.

This report is submitted in accordance with 10 CFR 50.73(a)(2)(i)(B) as any operation or condition prohibited by the plant's TS.

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* (17)

I. PLANT CONDITION(S)

At the time of the discovery of this condition, Unit 2 and Unit 3 were operating at 100 percent power and Unit 1 was shutdown and defueled.

II. DESCRIPTION OF EVENT

A. Event:

On January 4, 1999, a relay calibration on 3D 480 volt Reactor Motor Operated Valve (RMOV) Board was performed which disabled the auto-transfer logic of the board. The plant's Technical Specifications (TS) Bases state that the 3D and 3E 480 volt RMOV Boards are to be considered inoperable if the auto-transfer capability between the normal and alternate power supply for these boards is inoperable for any reason. TS 3.8.7 Required Action C.1 requires that the respective Residual Heat Removal (RHR) subsystem supported by the board must be declared inoperable for Low Pressure Coolant Injection (LPCI) immediately. However, the appropriate LCO had not been entered and TS 3.8.7 Required Action C.1 had not been satisfied by declaring the affected RHR subsystem immediately inoperable.

This condition was discovered on January 22, 1999, when Operations personnel conducted a review of past performances of this procedure and determined that on January 4, 1999, the proper LCO had not been entered.

The root cause of this event was personnel (utility-licensed operator) error resulting from failure to recognize the LCO condition. TVA has briefed Operations personnel to preclude recurrence of this event.

As a result of not entering the LCO on January 4, 1999, this report is submitted in accordance with 10 CFR 50.73(a)(2)(i)(B) as any operation or condition prohibited by the plant's TS.

B. Inoperable Structures, Components, or Systems that Contributed to the Event:

None.

C. Dates and Approximate Times of Major Occurrences:

January 4, 1999, 0918 hours CST	Unit 3 Control Room Unit Supervisor approved performance of relay calibration on 3D 480V RMOV Board.
January 4, 1999, 1340 hours CST	Relay calibration was completed on 3D 480V RMOV Board.
January 22, 1999, 1626 hours CST	As a result of review of past performances of the relay calibration, Operations personnel determined the LCO was not entered in accordance with the plant's TS for the relay calibration on 3D 480V RMOV Board which occurred on January 4, 1999.

D. Other Systems or Secondary Functions Affected

None.

E. Method of Discovery

This event was discovered when Operations personnel reviewed the Unit 2 and Unit 3 narrative logs for prior performances of the relay calibration for the D and E 480 volt RMOV Boards.

F. Operator Actions

None.

G. Safety System Responses

None.

III. CAUSE OF THE EVENT

A. Immediate Cause

The immediate cause of this event was failure to enter an LCO as specified by the plant's TS.

B. Root Cause

The root cause of this event was personnel (utility-licensed operator) error resulting from failure to recognize an LCO condition existed. This LCO is based on a requirement specified by Improved TS which were implemented July 27, 1998. Custom TS did not require an LCO entry for this condition.

IV. ANALYSIS OF THE EVENT / ASSESSMENT OF SAFETY CONSEQUENCES

Performance of 3-ETU-SMI 3-.48RMOVDE, Procedure for Making 18 Month Relay Calibrations on 480 Volt Reactor MOV Boards 3D and 3E, temporarily disables the auto-transfer scheme for the 3D or 3E RMOV Board (whichever is being tested). TS Bases 3.8.7 Section C.1 states that 480 volt RMOV Board 3D or 3E must be considered inoperable if the auto-transfer capability between the normal and alternate power supply (LPCI Motor Generator sets) is inoperable for any reason. The LPCI Motor Generator sets are fed from 480 volt Shutdown Boards which are fed from 4160 volt Shutdown Boards which have emergency power supplied from their respective diesel generators.

The purpose of the auto-transfer capability is to ensure that RMOV Boards D and E which supply power for the RHR Loop I and Loop II LPCI subsystem inboard injection valves have alternate electric power available to operate following loss of normal power. The ability to provide alternate power maintains redundancy for the LPCI function for certain postulated failures of upstream power supplies. Therefore, inoperability of the auto-transfer capability is not allowed for extended periods of time. Accordingly, the TS Bases provide that the board be considered inoperable if the auto-transfer feature is inoperable. This, in turn, results in the

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IV. ANALYSIS OF THE EVENT / ASSESSMENT OF SAFETY CONSEQUENCES (continued)

required entry into a seven day LCO. TS 3.8.7 Required Action C.1 requires declaring the affected RHR subsystem inoperable immediately. However, during the January 4, 1999, performance of the relay calibration for 3D 480 volt RMOV Board, the Unit 3 Control Room Unit Supervisor (utility-licensed operator) did not correctly recognize that performance of 3-ETU-SMI 3-.48RMOVDE would render the 3D 480 volt RMOV Board inoperable. As a result, RHR Loop I (LPCI mode) was not declared inoperable immediately as required by TS 3.8.7 Action C.1. The relay calibration was completed the same shift and the 3D 480 volt RMOV Board was returned to an operable condition. Consequently, this condition (inoperable LPCI subsystem) lasted only about four and one half hours. TS permit seven days to restore operability.

No other Emergency Core Cooling Systems (ECCS) were inoperable during the time 3D 480 volt RMOV Board auto-transfer capability was defeated. Therefore, while in this condition, the plant was operated within the requirements of the TS and remaining operable ECCS subsystems provided adequate core cooling capability during a loss of coolant accident.

Accordingly, the safety of the plant, its personnel, and the public was not compromised.

V. CORRECTIVE ACTIONS

A. Immediate Corrective Actions

None.

B. Corrective Actions to Prevent Recurrence

Shift Managers briefed crews concerning this event prior to their next assumption of shift.

During a two week period, the affected Unit Supervisor will have a peer check performed for work activity authorizations. Any deficiencies will be corrected and reported to the Operations Superintendent.[1]

All shift crews will review and discuss this event during shift turnover for heightened awareness and to ensure management expectations are clear on this issue.[1]

Shift Managers will conduct one-on-one counseling with each Unit Supervisor to stress the expectations of holding a pre-job brief, exhibiting the proper questioning attitude, and personnel accountability.[1]

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[1] TVA does not consider this corrective action a regulatory commitment. The completion of this item will be tracked in TVA's Corrective Action Program

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VI. ADDITIONAL INFORMATION

A. Failed Components

None.

B. Previous LERs on Similar Events

LER 296/97005 describes an event where an LCO was not entered for a malfunctioning valve in which the root cause was that Operations personnel lacked a questioning attitude and had a predetermined mindset regarding the failure mechanism. The event described in LER 296/97005 was different circumstances however similar to this event in that an LCO was not entered and one of the contributing factors was lack of a questioning attitude. The corrective actions for LER 296/97005 included counseling of the personnel involved, crew briefings on the event, and sensitivity training for Operations personnel involving LCO entry.

No other LERs were identified where an LCO was not entered when required.

C. Additional Information

None.

VII. COMMITMENTS

None.