

Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

Ashok S. Bhatnagar
Vice President, Browns Ferry Nuclear Plant

September 24, 2001

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

10 CFR 50.73


Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT (BFN)
- UNITS 2 and 3 - DOCKET NOS. 50-260, 50-296 - FACILITY
OPERATING LICENSES DPR-52 and DPR-68 - LICENSEE EVENT REPORT
(LER) 50-260/2001-004-00

The enclosed report provides details concerning the inoperability of both trains of Control Room Emergency Ventilation System during maintenance activities.

TVA is reporting this event pursuant to 10 CFR 50.73(a)(2)(i)(B), as operation or condition prohibited by the plant's technical specifications. There are no commitments contained in this letter.

Sincerely,


for Ashok S. Bhatnagar

cc: See page 2

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Enclosure

cc (Enclosure):

(Via NRC Electronic Distribution)

Regional Administrator
U.S. Nuclear Regulatory Commission
Region II
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30303-3415

Mr. Kahtan N. Jabbour, Senior Project Manager
U.S. Nuclear Regulatory Commission
(MS 08G9)
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852-2739

Mr. Paul E. Fredrickson, Branch Chief
U.S. Nuclear Regulatory Commission
Sam Nunn Atlanta Federal Center
Region II
61 Forsyth Street, S.W., Suite 23T85
Atlanta, Georgia 30303-8931

NRC Resident Inspector
Browns Ferry Nuclear Plant
10833 Shaw Road
Athens, Alabama 35611

LICENSEE EVENT REPORT (LER)

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

06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or

FACILITY NAME (1)

Browns Ferry Nuclear Plant (BFN)

DOCKET NUMBER (2)

05000260

PAGE (3)

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TITLE (4)

Inoperable Control Room Emergency Ventilation System due to a door being blocked open during maintenance activities.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
07	27	2001	2001-	004	-- 00	09	24	2001	BFN Unit 3	05000296
									NA	05000
OPERATING MODE (9)		1	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)							
POWER LEVEL (10)		88	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
James E. Wallace, Jr., Site Licensing Engineer

TELEPHONE NUMBER (Include Area Code)
256.729.7874

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

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

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

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

On July, 27, 2001, at 0813 hours, a control room boundary door 642 (2A electric board room) was blocked open for painting in accordance with a general maintenance work order. A security officer was posted at door 642 since the door had a card reader for access. However, this door was blocked open without knowledge of Operations. At 1050 hours, the NRC Resident Inspector notified the Unit 2 Unit Supervisor that the door was blocked open and door 642 was closed. Since both CREV A and B were rendered inoperable without Operations knowledge, TVA failed to take the required actions after one hour of entering into a technical specification LCO 3.0.3 condition.

The root cause for this event was that a contractor foreman did not know that a control room habitability breach permit was required. Corrective actions included: (1) door 642 was closed, (2) foreman was counseled, (3) maintenance group had a stand-down meeting to review this event, (4) the contractor included this event on a "lesson learned" handout for new hires, and (5) Maintenance Support and Facilities Maintenance Contractor foremen and supervisors will receive initial and annual maintenance required training which will include this event.

In accordance with 10 CFR 50.73 (a) (2) (i) (B), this report is being submitted as any operation or condition prohibited by the plant's technical specifications.

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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 event, Unit 2 was in Mode 1 at 88 percent reactor power approximately 3043 megawatts thermal recovering from a July 25, 2001 scram. Unit 3 was in mode 1 at 100 percent reactor power at approximately 3458 megawatts thermal. Unit 1 was shutdown and defueled.

II. DESCRIPTION OF EVENT

A. Event:

On May 18, 2001, a maintenance work order (01-004598-000) was approved to prepare and paint walls and equipment in all three units. This work order included painting of the Unit 2 electric board room [EB]. The work order was being performed in accordance with Modification and Addition Instruction 5.3, Protective Coatings.

On July 27, 2001, at 0813 hours, painters (contractor, non-licensed) completed the painting of the interior walls and equipment in the Unit 2 electric board room and began to prepare door 642 [DR] for painting. The preparation of this door was extensive and was not in the scope of the work order. The preparation of the door required it to be blocked open. The foreman (contractor, non-licensed) called for a Security Officer because door 642 requires a compensatory action when the card reader is bypassed. However, the foreman did not know that a control room habitability breach permit was required.

At 1050 hours, the NRC Resident Inspector notified the Unit 2 Unit Supervisor that the door was blocked open. Door 642 was closed.

Since both CREV A and B were rendered inoperable without Operations knowledge, TVA failed to take the required action after one hour of entering into a technical specification LCO 3.0.3 condition. In accordance with 10 CFR 50.73(a) (2) (i) (B), this report is submitted as any as operation or condition prohibited by plant's Technical Specifications.

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

C. Dates and Approximate Times of Major Occurrences:

May 18, 2001

Work Order (01-004598-000) to prepare and paint the walls and equipment in all three units was approved.

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

July 27, 2001, at 0813 hours CDT

Door 642 to the 2A electric board room was blocked open for preparation. Foreman called for Security to man door 642. Foreman failed to rescope the work order.

at 1050 hours CDT

NRC Resident Inspector notified the Unit 2 Unit Supervisor that door 642 was blocked open and door 642 was subsequently closed.

D. Other Systems or Secondary Functions Affected:

None.

E. Method of Discovery:

A NRC Resident inspector notified the Unit Supervisor that the door to the 2A electric board room was blocked open.

F. Operator Actions:

Door 642 was closed.

G. Safety System Responses:

None.

III. CAUSE OF THE EVENT

A. Immediate Cause:

Painters blocked open a door 642 to prepare it for painting.

B. Root Cause:

The root cause for this event was a foreman was not aware that a control room habitability breach permit was required. Therefore, the foreman allowed the blocking open of the 2A electric board room door without notifying Operations.

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

IV. ANALYSIS OF THE EVENT

The CREV System provides a radiologically controlled environment from which the unit can be safely operated following a Design Basis Accident. The safety related function of the CREV System includes two independent and redundant high efficiency air filtration subsystems. A single CREV subsystem will pressurize the control room to about 0.125 inches water gauge to prevent infiltration of air from surrounding buildings and the outdoors.

The two redundant subsystems of the CREV System are required to be OPERABLE to ensure that at least one is available, assuming a single failure disables the other subsystem. Total system failure could result in exceeding a dose of 5 rem to the control room operators in the event of a DBA. The CREV System is initiated by a trip of one of the two control bay ventilation radiation monitors [IL] or by a Group 6 Primary Containment Isolation System (PCIS) [JE] signal (Reactor Low Water Level, High Drywell Pressure, High Reactor/Refuel Zone Ventilation Radiation).

The CREV System is considered OPERABLE when the individual components necessary to control operator exposure are OPERABLE in both subsystems. A subsystem is considered OPERABLE when its associated:

- a. Fan is OPERABLE;
- b. HEPA filter and charcoal adsorbers are not excessively restricting flow and are capable of performing their filtration functions; and
- c. The electric duct heater, ductwork, and dampers are OPERABLE.

In addition, the control room boundary must be maintained, including the integrity of the walls, floors, ceilings, ductwork, and access doors

When door 642 was blocked open, it affected the integrity of the control room boundary rendering both CREV A and B inoperable without Operations knowledge. With two CREV subsystems inoperable in mode 1, 2, or 3, TS 3.7.3 requires an action to enter LCO 3.0.3. LCO 3.0.3 requires actions to be initiated after one hour. Namely, the affected units are to be placed in mode 2 within 10 hours, mode 3 within 13 hours, and mode 4 within 37 hours. Without the Operator knowledge of the blocked door, these actions were not performed.

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V. ASSESSMENT OF THE SAFETY CONSEQUENCES

The CREV system is designed to maintain the control room environment for a 30 day continuous occupancy following a Design Basis Accident without exceeding 5 rem whole body dose or its equivalent to any part of the body.

Even though there was no dedicated individual in contact with the control room to close the 2A electric board room door, if a DBA occurred and CREV initiated, the Security Officer who was controlling access through the 2A electric board room door would have been relieved from that non-essential duty. At that time, the Security Officer would have closed door 642 or would have ensured the painters had closed door 642 prior to the officer leaving the area. At that time, the control room environs boundary would have been established. Therefore, this event would not have adversely affected the safety of plant personnel or the public.

VI. CORRECTIVE ACTIONS

A. Immediate Corrective Actions:

Door 642 to the 2A electric board room was closed. Painting activities in the 2A electric board room were suspended, except cleanup activities.

B. Corrective Actions to Prevent Recurrence:¹

The foreman received appropriate disciplinary action. Prior to resuming painting activities in the 2A electric board room, painters on the work order were given a briefing on the specific details associated with event and the importance of obtaining the required permits to beginning work activities. In this briefing BFN management re-iterated the importance of a "questioning attitude" and "effective decision making." The Contractor included this event on a "lesson Learned" handout for new hires. Maintenance Support and Facilities Maintenance Contractor foremen and supervisors will receive initial and annual maintenance required training which will include this event.

VII. ADDITIONAL INFORMATION

A. Failed Components:

None.

¹ TVA does not consider these corrective actions regulatory commitments. The completion of these items will be tracked in TVA's Correction Action Program.

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

B. Previous LERs on Similar Events:

No previous LERs address CREV inoperability as a result of a blocked open door. However, on January 15, 1999, LER 259/1999-001-00 addressed the inoperability of the CREV System as a result of a deficient procedure; specifically, the procedure did not address the operation of the CREV System Priority Selector Switch. Consequently, the switch was left in the wrong position. Corrective actions taken in the 1999 LER would not have precluded this event.

C. SAFETY SYSTEM FUNCTIONAL FAILURE

This event did not result in a safety system functional failure in accordance with NEI 99-02.

VIII. COMMITMENTS

None.

Energy Industry Identification System (EIIS) system and component codes are identified in the text with brackets (e.g., [XX]).