NRC FORM 366 (5-92) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES 5/31/95

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HOURS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (MNBB 7714), 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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
CRYSTAL RIVER UNIT 3 (CR-3)	0 5 0 0 0 3 0 2	1 OF 0 4

TITLE (4)

Personnel Error Causes Control Complex Habitability Envelope Breach Resulting in Operation outside Design basis

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 NAMES	DOCKET NUMBER(S)
0 3	2 1	9 5	9 5	0 0 4	0 0	0 4	1 2	9 5	N/A	0 5 0 0 0
									N/A	0 5 0 0 0

OPERATING MODE (9): 1

POWER LEVEL (10): 1 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(c)	50.73(a)(2)(iv)	73.71(b)	
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)	
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)	X 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
	AREA CODE
J. A. Frijouf, Nuclear Regulatory Specialist	9 0 4 5 6 3 - 4 7 5 4

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

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

SUPPLEMENTAL REPORT EXPECTED (14)

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

EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	0 6	0 1	9 5

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

On March 21, 1995, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE ONE (POWER OPERATION), operating at 100% reactor power and generating 882 megawatts. At approximately 0200 and again at approximately 0530, while conducting normal rounds, an auxiliary building operator heard a local alarm initiate on a CR-3 control complex habitability envelope (HE) door, indicating the door ajar. In both instances, within 1 minute of the alarm annunciation, the operator closed the door. The operator was unable to locate the person last using the door in either occurrence. Following the 0530 discovery, the operator documented the discrepancies on a Precursor Card. During the normal Precursor Card review, a Problem Report was generated which was evaluated as reportable, since the doors being left ajar may have placed CR-3 outside the design basis. The event was reported to the Nuclear Regulatory Commission at 1143 on March 21, 1995 via the Emergency Notification System per the requirements of 10 CFR 50.72 and was recorded as Event #28564. This LER is submitted to report a condition outside the design basis of the plant in accordance with 10 CFR 50.73(a)(2)(ii)(B). The cause of this event was personnel error. A comprehensive list of corrective actions and options have been addressed.

EVENT DESCRIPTION:

On March 21, 1995, Florida Power Corporation's (FPC) Crystal River Unit 3 (CR-3) was in MODE ONE (POWER OPERATION), operating at 100% reactor power and generating 882 megawatts. At approximately 0200, while conducting normal rounds, an auxiliary building operator heard a local alarm on CR-3 control complex habitability envelope [NA](HE) door [NA,DR] C-301 initiate and not reset, indicating the door did not fully close. Alarms had been recently installed as part of our action to increase personnel awareness of the safety significance of the control room habitability doors in maintaining an acceptable post accident occupancy environment for the control room operators. Within 1 minute of hearing the alarm, the operator closed door C-301. The operator was unable to locate the person who had not properly closed the door. Later, at approximately 0530, while conducting another normal round, the operator again heard the local alarm door for C-301 annunciate. Within 1 minute the door was closed; again the person using the door was not seen nor identified. At that time, the operator documented the discrepancy using a Precursor Card.

Later, during the normal Precursor Card review process, it was determined that breaches of the HE had occurred and a Problem Report was generated. The Problem Report was evaluated and the event determined to be reportable since these breaches of the HE may have placed CR-3 outside the design basis. The event was reported to the Nuclear Regulatory Commission at 1143 on March 21, 1995 via the Emergency Notification System per the requirements of 10 CFR 50.72 and was recorded as Event #28564. The lack of timeliness between the event, determination of reportability, and completion of the 1 Hour Non-Emergency report under 10 CFR 50.72 is an FPC concern, and is being fully investigated. Upon completion of this investigation, a supplement to this LER will be subnmitted to the NRC.

No Improved Technical Specification (ITS) exists for the HE, however, this breach has been evaluated as a design basis issue. Therefore, this LER is submitted to conservatively report a condition outside the design basis of the plant in accordance with 10 CFR 50.73(a)(2)(ii)(B).

EVENT EVALUATION

No redundant barrier was available to perform the safety function. If an accident involving a large radioactive release had occurred during the time that the breach existed, with worst case meteorological conditions and no mitigating effects, operator radiation doses might have slightly exceeded those calculated in the FSAR. Similarly, if a large chemical release had occurred during the time that the breach was in place, the chemical concentrations in the control complex atmosphere might have slightly exceeded those calculated in the FSAR. It is unlikely that either of these events would have resulted in the inability of the operators to perform their functions. Core damage frequency calculations for SO_2 tank rupture have

shown a core damage frequency of 8.13 X 10^{-8}/year, which fits into the "non-risk significant" region of the NEI PSA (Nuclear Energy Institute Probabilistic Safety Analysis) Application Guide. No such accidents occurred; therefore there was no impact on the health and safety of the public.

A change to Improved Technical Specifications (ITS) is under review for submittal to the NRC. This change will specifically address the HE and will include required actions and completion times applicable when the HE is breached. In the interim, FPC will continue to take aggressive action to improve the reliability of our HE. If a HE breach is discovered in excess of our limits we will either return it to an acceptable configuration within one hour or will report it to our resident inspectors and to the NRC formally by means of a supplement to this LER. Additionally, all breaches, regardless of duration, will be tracked by means of our problem identification/corrective action system.

CAUSE

The cause of this event was personnel error by unidentified person or persons for failure to assure the HE door was closed after passing through it.

CORRECTIVE ACTION

Immediate and interim corrective actions for this event include:

1. All personnel will be reminded, by various means, that compliance with this requirement is an important obligation from both a safety and compliance perspective;

2. Operations will add a shiftly check of the HE integrity to their normal shiftly surveillances;

3. Roving fire watch personnel now check each HE door to assure its closure on an hourly basis;

4. HE envelope doors will be inspected on a periodic (initially monthly) basis to help assure they retain the ability to perform their design function;

5. A reduction in the use of the most damage prone doors, to the extent possible, is being pursued;

6. Replacement doors are being designed, procured and installed; and,

7. Additional corrective action recommendations or actions may be developed as applicable.

Additional Analytical, configuration, and administrative optional actions being addressed include:

1. Reducing, relocating or eliminating toxic gas sources. This is considered to be a long term option;

2. Refining the analysis to take credit for elevation differences, which are appropriate of a toxic gas heavier than air; and,

3. Elimination of some standard analysis assumptions associated with the radiation source term, potentially taking credit for some reduced source term work. This effort is also considered to be a long term option.

4. A change to Improved Technical Specifications (ITS) is under review for proposal to the NRC. This change will specifically address the HE and will include required actions and completion times applicable when the HE is breached

PREVIOUS SIMILAR EVENTS

There have been three previous reportable events involving HE breaches. LERs 90-007-00 involved HE door removal, LER 94-010-00 involved blocking open a HE door, and LER 95-001-00 addressed a HE total breach exceeding 32 square inches.