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Constellation Energy Group

Nine Mile Point
Nuclear Station

November 23, 2002
NMP2L 2077

United States Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

SUBJECT: Nine Mile Point Unit 2
Docket No. 50-410; NPF-69

Licensee Event Report 02-003, "Open Door Between the Control Building and the Auxiliary Building Results in Breach of the Control Room Envelope"

Gentlemen:

In accordance with 10 CFR 50.73(a)(2)(v)(D), we are submitting Licensee Event Report 02-003, "Open Door Between the Control Building and the Auxiliary Building Results in Breach of the Control Room Envelope."

Very truly yours,

Stewart B. Minahan
Manager Unit 2 Operations

SBM/KE/jm
Attachment
cc: Mr. H. J. Miller, NRC Regional Administrator, Region I
Mr. G. K. Hunegs, NRC Senior Resident Inspector

IE22

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION
(1-2001)

APPROVED BY OMB NO. 3150-0104 EXPIRES 7-31-2004

Estimated burden per response to comply with this mandatory information collection request 50 hours Reported lessons learned are incorporated into the licensing process and fed back to industry Send comments regarding burden estimate to the Records Management Branch (T-6 E6), U S Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to bjs1@nrc gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0104), Office of Management and Budget, Washington, DC 20503 If a means used to impose information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection

LICENSEE EVENT REPORT (LER)

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

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TITLE (4)

Open Door Between the Control Building and the Auxiliary Building Results in Breach of the Control Room Envelope

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
9	29	2002	2002	003	00	11	23	2002	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	1
POWER LEVEL (10)	100

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply) (11)

	20.2201(b)		20 2203(a)(3)(ii)		50.73(a)(2)(ii)(B)		50.73(a)(2)(ix)(A)
	20 2201(d)		20.2203(a)(4)		50.73(a)(2)(iii)		50.73(a)(2)(x)
	20.2203(a)(1)		50.36(c)(1)(i)(A)		50.73(a)(2)(iv)(A)		73.71(a)(4)
	20.2203(a)(2)(i)		50 36(c)(1)(ii)(A)		50.73(a)(2)(v)(A)		73.71(a)(5)
	20.2203(a)(2)(ii)		50.36(c)(2)		50 73(a)(2)(v)(B)		OTHER
	20.2203(a)(2)(iii)		50.46(a)(3)(ii)		50.73(a)(2)(v)(C)		
	20.2203(a)(2)(iv)		50.73(a)(2)(i)(A)	X	50.73(a)(2)(v)(D)		
	20 2203(a)(2)(v)		50.73(a)(2)(i)(B)		50.73(a)(2)(vii)		
	20.2203(a)(2)(vi)		50.73(a)(2)(i)(C)		50.73(a)(2)(viii)(A)		
	20.2203(a)(3)(i)		50.73(a)(2)(ii)(A)		50 73(a)(2)(viii)(B)		

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
William C. Byrne, Manager Security	315-349-2703

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

CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
A	NA	DR	Presray	Y					

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 September 29, 2002, at approximately 2015 hours, an Operator, while on Control Building rounds, found Control Room Envelope Door C288-1 open. This resulted in an inoperable Control Room Envelope boundary and the need to consider both Control Room Envelope Filtration (CREF) Systems inoperable. The plant entered Action Statement B of Technical Specification 3.7.2, Control Room Envelope Filtration (CREF) System, which requires restoration of the Control Room Envelope boundary within 24 hours. The door was immediately closed and the Action Statement exited. The door is designed to close automatically but in this instance the door remained open due to interference between the door seal and the floor, after a member of the Security Force passed through the door. Investigation by Security concluded that the door had been open for less than one hour.

The event is reportable in accordance with 10 CFR 50.73(a)(2)(v) as "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: (D) Mitigate the consequences of an accident."

The cause of the event was the failure by a member of the Security Force to properly implement self-checking to ensure that the door was closed and secured after passing through. A contributing cause was interference between the door and the floor.

Corrective actions include correcting the condition that caused the door to remain open, briefing Security Force personnel on the event, labeling doors, disseminating information about the event and the importance of door position, modifying General Employee Training, activating alarms on key carded doors and modifying procedures.

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

I. Description of Event

On September 29, 2002, at approximately 2015 hours, an Operator, while on Control Building rounds, found Control Room Envelope Door C288-1 open. This resulted in an inoperable Control Room Envelope boundary and the need to consider both Control Room Envelope Filtration (CREF) Systems inoperable. The plant entered Action Statement B of Technical Specification 3.7.2, Control Room Envelope Filtration (CREF) System, which requires restoration of the Control Room Envelope boundary within 24 hours. The door was immediately closed and the Action Statement exited. The door is designed to close automatically but in this instance remained open due to interference between the door seal and the floor, after a member of the Security Force passed through the door. Investigation by Security concluded that the door had been open for less than one hour.

The Control Room Envelope consists of all rooms and areas located in the Main Control Room and Relay Room of the Control Building. The CREF System provides a radiologically controlled environment from which the unit can be safely operated following a Design Basis Accident (DBA). The safety related function of the CREF System used to control radiation exposure consists of two independent and redundant high efficiency air filtration subsystems for treatment of recirculated air and outside supply air. Each subsystem includes a Control Room Outdoor Air Special Filter Train which is normally in standby. The remaining portions of the CREF System are operated to maintain the Control Room Envelope environment during normal operation. Upon receipt of the initiation signal(s) (indicative of conditions that could result in radiation exposure to Control Room Envelope personnel), the CREF System automatically switches to the emergency pressurization mode of operation to prevent infiltration of contaminated air into the Control Room Envelope.

The CREF System is designed to maintain the Control Room Envelope environment for a 30-day continuous occupancy after a DBA, while limiting the dosage to personnel to not more than 5 rem whole body or its equivalent to any part of the body. Having Control Room Envelope Door C288-1 in the open position other than for passage, is contrary to an assumption in the dose calculation and could result in the calculated dose for a 30-day occupancy exceeding the exposure acceptance criteria.

Control Room Envelope Door C288-1 is a non-alarmed door equipped with a card reader for access control. The door is also equipped with a thumb latch to operate the door in the event of an emergency. The door has two postings: one indicating it is a fire door and to be kept closed, and one stating not to open the door during a General Emergency unless authorized by the Site Emergency Director.

Control Room Envelope Doors C288-1 and C306-1 are the doors that are most commonly used for access and egress to the Control Room and Relay Room. Doors C288-1 and C306-1 are the only single envelope doors, meaning that inadvertently leaving these doors open will result in an inoperable Control Room Envelope.

II. Cause of Event

The cause of the event was the failure to properly implement self-checking in that the Security Force member failed to ensure that the door was closed and secured after passing through.

A contributing cause was interference between the door and the floor. The door is designed to shut automatically following the passage of personnel but failed to do so.

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

III. Analysis of Event

Door C288-1 is required to be closed to ensure that the CREF system can perform its function and that the dose to control room operators over a 30-day period is less than 5 rem whole body or equivalent. The event is reportable in accordance with 10 CFR 50.73(a)(2)(v) as "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: (D) Mitigate the consequences of an accident."

The following were considered in assessing the safety significance of this event:

- Operator rounds occur a minimum of twice a day. A Fire Chief is required to ensure the door is in its required position once a day and Security is required to perform periodic rounds through this area. The tours will identify open doors as evidenced by this event.
- All other rooms within the Control Room Envelope are protected by other doors, which would limit the infiltration of contaminated air into the Control Room and Relay Room.
- While door C288-1 was open, there were no conditions requiring ventilation to be in an emergency recirculation configuration.
- The probability of a core damage event for the period in which door C288-1 was open (59 minutes) was determined to be 6.16 E-9. Additionally, the position of the door does not increase the probability of an accident.
- The dose is calculated over a period of 30 days. In the case of an actual accident, control room operator dose would be monitored by dosimetry and shift assignments could be modified to control the dose to control room personnel.
- The dose calculation assumptions associated with magnitude of the release and time of release within the accident scenario are conservative with regard to those associated with an actual accident.

Because of the above considerations the event is considered of low safety significance and did not threaten the health and safety of the public or site personnel.

IV. Corrective Actions

1. Door C288-1 was closed and Action Statement of Technical Specification 3.7.2 was exited.
2. The Security Force member was counseled by supervision.
3. The adverse material condition that prevented the door from closing was corrected.
4. Other Control Room Envelope doors were checked for similar interaction between the door seal and the floor.
5. The event and the need to ensure door closure were included in Security shift briefings.
6. Activated alarms on the non-alarmed key carded doors of the Control Room Envelope.
7. Site wide information is to be disseminated concerning the need for self-checking to ensure that doors close and latch.

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

IV. Corrective Actions (Cont'd)

8. Post each Control Room Envelope door identifying the door as a part of the Control Room Envelope boundary, which, except for normal passage, is required to be maintained in the closed position at all times during plant operation.

9. Revise daily fire door inspection procedures to verify that opening the Control Room Envelope doors to the stop does not prevent the door from closing.

10. Modify General Employee Training to stress the importance of self-checking to ensure that doors are closed and secure.

11. Revise pertinent Security procedures to reflect contacting the Control Room in the event an alarm is generated on a Control Room Envelope Door.

V. Additional Information

A. Failed Components:

Component	Manufacturer	Model Number
Door	Presray	PR9451

B. Previous similar events:

LER 98-017, "Control Room Ventilation Inoperable Due to Original Design Deficiency," describes a similar condition but the causes are different. LERs 98-S01, "Security Force Member Leaves Compensatory Post Without Verifying Zone Secured," and 99-02, "Missed Technical Specification Channel Functional Test of the Recirculation Flow Upscale Rod Block," describe events whose cause was failure to properly self-check. In these instances the corrective actions were specific to the events. A review of events captured in the corrective action process identified previous instances describing sticking Control Room Envelope doors or doors not latched. To reduce potential for recurrence, the Corrective Action Review Board has reviewed the corrective actions associated with this most recent event in which door C288-1 was found open.

C. Identification of components referred to in this Licensee Event Report:

Components	IEEE 805 System ID	IEEE 803A Function
Control Room Envelope	N/A	NA
Control Room Emergency Filtration	N/A	VI
Filter	FLT	VI
Door	DR	NA, VI