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Dresden Nuclear Power Station
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February 24, 1993

CWS PMLTR 93-0098

U.S. Nuclear Regulatory Commission
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Licensee Event Report Supplement #91-013-01, Docket #050237 is being submitted to provide the results of a Secondary Containment Leak Rate Test performed as part of the corrective actions.

for 2-25-93
Charles W. Schroeder
Station Manager
Dresden Station

CWS/BS:slb

cc: A. Bert Davis, Regional Administrator, Region III
File/LER
File/Numerical

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LICENSEE EVENT REPORT (LER)

Form Rev 2.0

Facility Name (1)	Docket Number (2)	Page (3)
Dresden Nuclear Power Station, Unit 2	0 5 0 0 0 2 3 7	1 of 0 5

Title (4) Potential Degradation of Secondary Containment Involving Reactor Building Trackway Doors Due to Personnel Error

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 6	2 4	9 1	9 1	0 1 3	0 1	0 2	2 2	9 3	Dresden Unit 3	0 5 0 0 0 2 4 9
									N/A	

OPERATING MODE (9)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10CFR (Check one or more of the following) (11)			
N	___ 20.402(b)	___ 20.405(c)	___ 50.73(a)(2)(iv)	___ 73.71(b)
POWER LEVEL (10) 0 7 0	___ 20.405(a)(1)(i)	___ 50.36(c)(1)	X 50.73(a)(2)(v)	___ 73.71(c)
	___ 20.405(a)(1)(ii)	___ 50.36(c)(2)	___ 50.73(a)(2)(vii)(c)	___ Other (Specify in Abstract below and in Text)
	___ 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
Steve Shields, Regulatory Assurance Engineer Ext. 2709	AREA CODE 8 1 5 9 4 2 - 2 9 2 0

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

CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS	CAUSE	SYSTEM	COMPONENT	MANUFAC-TURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)		Expected Submission Date (15)	Month	Day	Year
X Yes (If yes, complete EXPECTED SUBMISSION DATE)	___ NO		0 3	0 1	9 3

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

At 1400 hours on June 24, 1991 with Unit 2 and Unit 3 at approximately 70% power, an NRC Inspector discovered the Unit 2 reactor building trackway inner door open with no monitor in attendence, contrary to an administrative procedure governing its use. The inner door had been left unattended since 0845 hours. The next day, June 25, 1991, the NRC Inspector noticed a seal on the lower portion of the outer door was not properly closed. Investigation revealed that this lack of proper sealing on the outer door had existed during the incident of the previous day. This constituted a potential degradation of secondary containment integrity. The cause of the event was attributed to personnel error on the part of a Mechanic who failed to read the posted procedure governing use of the trackway doors and a Work Analyst who changed the scope of a previous work request utilized to install the outer door sealing mechanism. The personnel involved in the event were counselled and a revision was made to the work request procedure. A secondary containment leak rate test was performed to determine if this condition would have violated reactor building differential pressure requirements under reactor building ventilation isolation conditions. The safety significance was minimal because proper reactor building differential pressure was maintained by the reactor building ventilation system and operator action could have been taken to close the inner door if required. A previous event involving inadequate control of secondary containment interlocks is reported by LER 88-018/050249.

PLANT AND SYSTEM IDENTIFICATION:

General Electric - Boiling Water Reactor - 2527 MWt rated core thermal power

Nuclear Tracking System (NTS) tracking code numbers are identified in the text as (XXX-XXX-XX-XXXXX)

EVENT IDENTIFICATION:

Potential Degradation of Secondary Containment Involving Reactor Building [NG] Trackway Doors Due to Personnel Error.

A. CONDITIONS PRIOR TO EVENT:

Unit(s): 2(3) Event Date: June 24, 1991 Event Time: 1400 Hours

Reactor Mode: N(N) Mode Name(s): Run(Run) Power Level(s): 70%(70%)

Reactor Coolant System (RCS) Pressure(s): 952.5 (1007.3) psig

B. DESCRIPTION OF EVENT:

On June 24, 1991 at 1400 hours with Unit 2 and Unit 3 at approximately 70% power, an NRC Inspector discovered the Unit 2 reactor building trackway inner door open with no monitor in attendence, contrary to Dresden Administrative Procedure (DAP) 13-3, which governs use of the trackway interlock doors and was posted at the trackway interlock. The inner door had been left unattended since 0845 hours on June 24, 1991. On Tuesday June 25, 1991, the NRC Inspector noticed that a seal on the lower portion of the outer door was not in the closed position. Investigation revealed that this condition had existed during the incident of the previous day, when the inner door had been opened. This constituted a potential degradation of secondary containment integrity.

C. APPARENT CAUSE OF EVENT:

This report is being submitted in accordance with 10 CFR 50.73(A)(2)(v)(c), which requires the reporting of an event or condition that alone could have prevented the fulfillment of the safety function of structures or systems that are needed to control the release of radioactive material.

The cause for the monitor not being present was attributed to management deficiency because of the following factors:

1. Investigation concluded that the Maintenance Supervisor involved provided inadequate direction. The Mechanics did ask a Security Guard about the need to post a monitor at the door. The Guard informed them that no Security Guard was needed provided the outer door was properly secured.

2. The Mechanic did receive Operations Shift Supervisor permission to open the inner trackway door and had signed out a trackway key from the Operations shift; investigation concluded that it was assumed that the Mechanic would adhere to the requirements of the posted procedure.

3. Investigation concluded that a less than adequate awareness of the proper usage of posted procedures existed within the Maintenance Department.

The root cause of the lower seal on the outer door not being utilized is personnel error on the part of a Work Analyst that changed the scope of a previous work request involving repair of the outer trackway door without requiring that the Minor Plant Change Program be applied to the work request. This work scope change had resulted in installation of the movable lower seal on the outer door without thorough review and with inadequate controls for its operation. Proper adherence to the Minor Plant Change Program would have insured engineering review and implementation of appropriate operating procedures and training.

The WR for installing the new seal had originated as a WR to repair the seal and the scope of work was changed from repair to replacement by the Work Analyst after discussing the new design with a Technical Staff engineer. No formal review of the WR package scope was performed by Technical Staff management as it did not contain a traveller review form and the Minor Plant Change program was not utilized. The seal that was replaced was made of hard rubber; however, the old seal design made it difficult to close the door. The new seal design utilized a soft neoprene rubber and needed to be retracted during opening and closing of the door.

Discussions between the Technical Staff engineer and the Work Analyst during the scope change of the repair work may have contributed to the Work Analyst's decision because inadequate discussion of program requirements for the implementation of the change in design occurred.

Quality Control (QC) and Nuclear Quality Programs (NQP) reviews of the work request failed to discover the error of not applying the Minor Plant Change Program to the work request; thus, inadequate review by QC and NQP also contributed to the event. The Technical Staff personnel involved also did not adequately investigate/follow up to insure that adequate controls were in place or proper reviews performed.

D. SAFETY ANALYSIS OF EVENT:

Technical Specification 4.7.C.1.a requires performance of a secondary containment leak rate test (SCLRT) at each refuel outage prior to refueling in order to demonstrate that one train of the Standby Gas Treatment (SBGT) (BH) system can maintain at least 0.25 inches of water differential pressure in the reactor building with respect to the outside atmosphere. The SCLRT is performed with the Reactor Building Ventilation system (RBVS) (VA) isolated and also includes separate tests of the inner and outer trackway doors. Satisfactory integrity of the outer trackway door was thus demonstrated in September, 1990 with the modified lower seal configuration properly lowered. Satisfactory integrity of the inner trackway door was also demonstrated at that time. During the incident described in this report, the RBVS was operating and maintaining a reactor building differential pressure greater than 0.25 inches of water.

If reactor building differential pressure had become unsatisfactory (i.e. during postulated accident conditions resulting in isolation of RBVS and start of SBGT), Operations Shift Supervision would have ordered closure of the inner trackway door in accordance with Control Room annunciator response procedures. These factors would have insured adequate reactor building differential pressure to inhibit exfiltration of the reactor building atmosphere to the outside environment.

A SCLRT was performed to test the as-found configuration (lower seal mispositioned on the outer door). The results of this test yielded a wind corrected reactor building differential pressure of -. 232 inches of water, which is below the -.25 inches of water requirement. However, at this differential pressure, the wind speeds needed to begin ground level exfiltration are not considered credible.

SBGT will run at a minimum of 2390 cfm before the train trips on low flow. At this flow, reactor building dP will be -.09 inches of water under calm wind conditions. At -.09 inches, ground level exfiltration begins at 21.3 mph exterior wind speed.

According to Murry & Trettel, wind speed data obtained in 1990 and 1991 show winds at 21.3 mph or greater occurred 1.72% and 1.42% of the time, respectively. This is below the Reg. Guide 1.145 stipulation that winds that occur less than 5% of the time are not considered credible.

Since reactor building dP was -.232 inches and is above the -.09 inches in the above analysis, it can be concluded that no credible wind would have existed which would have caused ground level exfiltration. Therefore, teh safety significance is minimal.

E. CORRECTIVE ACTIONS:

1. Maintenance personnel involved were counseled by the Asst. Supt. Maintenence regarding procedure adherence.

2. DAP 13-3 "Unit 2 Reactor Building Trackway Interlock Door Access Control" has been revised to clarify instructions for closing the seal of the outer trackway door.

3. A sign has been fabricated to instruct personnel on the proper method of closing the outer trackway door. This sign was incorporated into one all-inclusive sign for the trackway doors and is installed.

4. Mechanical Maintenance, with support from the Technical Staff, installed a new mechanical actuator for the lower seal. This work was performed in accordance with the Minor Plant Change Program and was completed prior to the secondary containment leak rate test (SCLRT) required prior to the Unit 3 refuel outage.

5. A memo was issued to all Licensed Operations personnel on management's expectations regarding the need to ascertain the knowledge level of personnel receiving keys. This memo was issued by an Operating Engineer.

6. Entry into and exit from the trackway doors were incorporated into a station tailgate meeting session. The requirement for logging entry and exit in the center desk log was emphasized. This tailgate also discussed posted procedures and provided a listing of posted procedures.

7. DAP 15-6, "Preparation and Control of Work Requests" was revised by the Maintenance Staff to clarify the requirements for control of work scope changes.

8. Work Analysts were trained on the enhancements that were incorporated into DAP 15-6. This training was accomplished in a tailgate meeting session with the Work Analysts.

9. The Technical Staff, QC and NQP reviewed this event to heighten the awareness of the need to review work requests for applicablity of the Minor Plant Change Program when required by a change in a work request's scope. This review was performed at a tailgate meeting session.

10. Site Nuclear Engineering (NED) performed a design review of the installed seal configuration and verified that current design codes and standards were met.

F. PREVIOUS OCCURENCES:

LER/Docket Numbers	Title
88-018-0	Potential Violation of Secondary Containment Due to Management Deficiency

The Unit 3 reactor building material interlock inner door was left open and unattended. This was a potential violation of secondary containment integrity because the inner door was not opened during the secondary containment leak rate test performed prior to a previous refuel outage. The safety significance was minimal as the Unit 3 reactor material interlock outer door was locked closed and an adequate reactor building to atmosphere differential pressure was maintained. Corrective actions included improvements to an Administrative procedure concerning use of the Unit 3 Reactor Building material interlock door, labelling improvements, review of the event with contractor personnel and implementation of SCLRT procedure improvements requiring challenge to the outer Unit 3 reactor building material interlock structure and the outer Unit 2 reactor building trackway interlock door. A special SCLRT was also performed at that time, incorporating these improvements. It should be noted that this test demonstrated proper intergrity of the Unit 2 reactor building trackway outer door, and as such no special controls concerning monitoring of the Unit 2 reactor building trackway inner door were required at that time. Review of the current event concluded that the administrative requirement for continuous monitoring of the Unit 2 reactor building material interlock inner door when open had been implemented subsequent to the 1988 event.

G. COMPONENT FAILURE DATA:

This event did not involve component failure. Therefore, this section is not applicable.