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NRC FOR	RM 366	•			U.S.	NUCLEAR	REGULATO	RY COM	ISSION	1		APPROVED 81	ONB NO.	3150	0-0104	
LICENSEE EVENT REPORT (LER)									EAPIRES 3/31/93 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0304), OFFICE OF MANAGEMENT AND BURDET WASHINGTON DC 2057							
FACILITY NAME (1) Dresden Nuclear Power Station, Unit 3							DOCKET NUMBER (2) 05000249 1 OF 4					AGE (3))F 4				
TITLE (4) HPCI Leak	Sys ing	tem Ste	Dec.	lared Inoper	able Du	e to 1	furbi	ne St	op 1	/al	ve Above S	Seat Di	ain	Val	ves
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MONTH	DAY	YEAR	R	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACI Non	FACILITY NAME None			DOCKET NUMBER		
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POWER				20.2	203(a)(1)		20.2203	S(a)(3)	(ii)			50.73(a)(2)(i	v)		73.71((c)
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CAUSE	SYSTE	EM	COMP	ONENT	MANUFACTURER	REPORTABLE TO NPRDS	E		AUSE	SYSI	TEM	COMPONENT	MANUFAC	TURE	R RE	PORTABLE
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On June 19,1997 at 0920 hours with Unit 3 in startup activities at 13% power, the Unit 3 HPCI turbine stop valve above seat drain valves AO3-2301-64 and A03-2301-65 were leaking steam to the HPCI sump during performance of Dresden Operating Surveillance (DOS) 2300-03, High Pressure Coolant Injection System Operability Verification. Steam began to fill the HPCI room and HPCI was subsequently secured. The seat loading for the 64 valve was below the minimum pressure range. This allowed the valve to lift during High Pressure Testing of HPCI. Also, the 65 valve was found with its actuator casing binding against the valve frame preventing the valve from fully seating. A procedure revision was made to a generic Copes-Vulcan procedure to include a gap clearance between the diaphragm case and valve frame. However, the specific procedure for the 65 valve was not changed. The root cause of this event is attributed to failure to identify all affected procedures when revising maintenance procedures for the 65 valve. The cause of the 64 valve improper loading could not be determined.

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NRC FORH 366A (5-92) LICENS	U.S. NUCLEAR RESEE EVENT REPORT (LEI) TEXT CONTINUATION	ESTIMAT THIS I FORWARD THE IN (MNBB WASHING REDUCTI	APPROVED BY ONB NO. 3150-0104 EXPIRES 5/31/95 ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH. THIS INFORMATION COLLECTION REGUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MMBB 7714), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104). OFFICE OF						
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

PLANT AND SYSTEM IDENTIFICATION

General Electric - boiling water reactor - 2527 MWt rated core thermal power.

Energy Industry Identification System (EIIS) codes are identified in the text as [XX] and are obtained from IEEE Standard 805-1984, IEEE Recommendation Practice for System Identification in Nuclear Power Plants and Related Facilities.

EVENT IDENTIFICATION:

Unit 3 HPCI system declared inoperable due to turbine stop valve drain valves leaking steam.

A. PLANT CONDITIONS PRIOR TO EVENT:

Unit: 3

Event Date: 06/19/97

Mode Name: Run

Event Time: 0920 Power Level: 013% -1

Reactor Coolant System Pressure: 1000 psig

B. DESCRIPTION OF EVENT:

Reactor Mode: 1

This report is being submitted in accordance with 10 CFR 50.73(a)(2)(v)(D), which requires reporting of any event or condition that alone could have prevented the fulfillment of the safety function of a system required to mitigate the consequence of an accident.

On June 19,1997 at 0920 hours with Unit 3 in startup activities at 13% power, Unit 3 HPCI turbine stop valve above seat drain valves A03-2301-64 and A03-2301-65 were leaking steam to the HPCI sump while performing Dresden Operating Surveillance(DOS) 2300-03, High Pressure Coolant Injection System Operability Verification. Steam began entering the room and HPCI was subsequently secured. HPCI was declared inoperable and a 14 day Limiting Condition of Operation (LCO) was initiated per Technical Specifications 3.5.A.3.

Work requests (WR) 970068133-01 and 970068132-01 were initiated to trouble shoot and repair the 64 and 65 drain valves, respectively. During the investigation of this event, it was found that the seat loading for the 64 valve was below the required pressure range of 3 psig to 4 psig which allowed the valve to lift during high pressure testing of HPCI. The seat loading was determined to be approximately 2.7 psig during the inspection. The valve was adjusted to within the required pressure range and a successful flowscan was performed. A review of work history found repairs performed on the valve per WR 900055724-01 on November 5, 1991. This work was conducted in accordance with Dresden Maintenance Procedure (DMP) 2300-7, HPCI Stop Valve Above Seat Drain Isolation Valves Maintenance(2301-64 and 2301-65), which set the seat loading to 12 psig. This procedure was later split into two procedures consisting on DMP 2300-11 and 2300-7 for the 64 and 65 valves, respectively. The seat loading for the 64 valve was changed from 12 -14 psig per DMP 2300-07 to 3-4 psig per DMP 2300-11. No maintenance records could be found indicating the 64 valve seat loading was change from 12 psig to 3 psig.

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•	LICENSEE EVENT REPORT (LE TEXT CONTINUATION	R)	ESTIMAT THIS I FORWARD THE IN (MNBB 7 WASHING REDUCTI MANAGEN	TED BURDEN PER NFORMATION COLLE O COMMENTS REGAL FORMATION AND & 7714), U.S. NUCLE 3TON, DC 20555-0 ION PROJECT WENT AND BUDGET,	RESPONSE CTION REQU RDING BURD RECORDS MA EAR REGULAT 001, AND T (3150-0104) WASHINGTON	TO COMPLY WITH UEST: 50.0 HRS. DEN ESTIMATE TO NAGEMENT BRANCH FORY COMMISSION, O THE PAPERMORE O, OFFICE OF V, DC 20503.	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

The 65 valve was found with its diaphragm casing binding against the valve's upper frame, preventing the valve from fully seating. An overhaul of the HPCI 65 valve and actuator had been completed on June 4, 1997 per WR 950118106-01. review was conducted of the WR and it was discovered that no guidance was provided from DMP 2300-07, HPCI Stop Valve Seat Drain Isolation Valve 2301-65 Maintenance, concerning the required gap clearance between the diaphragm case and the valve's upper frame. After Mechanical Maintenance Department (MMD) performed stroke setting of the valve per WR 950118106-01, the Air Operated Valve (AOV) diagnostic test team, consisting of Instrument Maintenance Department (IMD) personnel, conducted a diagnostic flowscan and looked for the required gap clearance. However, the test team member only observed gap clearances on the two front areas of the valve. The two rear areas of the valve were not observed due to space limitations. Mechanical binding was found between the diaphragm case and valve frame on one of the rear areas of the valve after stroking. The AOV diagnostic test team normally observes the gap clearances for these type of valves in all four areas of the diaphragm casing. However, in this case, a team member did not think to observe the rear two areas because of space limitation in rear of the drain valve.

The AOV Coordinator stated that maintenance is also performed on reverse acting Copes-Vulcan AOVs per the generic procedure DMP 040-06, Copes-Vulcan And Reverse Acting (Air To Open) Operator Maintenance. The procedure was recently upgraded with major changes including gap clearance measurements. The change incorporated into DMP 040-06 for the gap clearance was not incorporated into the specific procedure for the 65 valve (DMP 2300-07) and all other procedures for maintenance on Copes-Vulcan reverse acting actuators.

Specific guidance is provided to the Technical Reviewer of procedures to ensure that changes made are checked against other affected procedures per DAP 09-01 Attachment "A", Technical Review And Control Guidelines. However, the Technical Reviewer of DMP 040-06, the AOV Coordinator, had no knowledge of this requirement. He had not reviewed these requirements prior to performing the technical review. Therefore, DMP 2300-07 was overlooked in the revision process.

After repairs and proper adjustments made to both drain valves, Unit 3 HPCI was declared operable on June 21, 1997 at 0345 hours and DOS 2300-03 was successfully completed.

C. CAUSE OF EVENT:

A lack of attention to detail for procedural revision requirements by the AOV Coordinator caused the specific maintenance procedure for the 65 valve(DMP 2300-07) to be missed during the revision process when changes were made to a generic procedure (DMP 040-06) on Copes-Vulcan reverse acting AOVs [NRC Cause Code A]. The cause of the seat loading being found below the procedural requirement of 3 psig for the 64 valve could not be determined. No work history could be found indicating the change from the previous setpoint of 12 psig to the as found set point of 2.7 psig.

A contributing cause is attributed to a failure of the diagnostic team member to conduct a complete observation of all four areas of the diaphragm casing when checking for gap clearances.

NRC FORM 366A (5-92)	U.S. NUCLEAR R	EGULATORY COMMISSION		APPROVED BY C	MB NO. 315 S 5/31/95	0-0104	
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

D. SAFETY ANALYSIS:

The HPCI system is designed to provide adequate core cooling under high reactor pressure conditions. Although HPCI was declared inoperable during this event, its backup, Automatic Depressurization System (ADS) was operable. In the event of a LOCA, ADS was available to depressurize the reactor primary system to enable cooling water injection by the Low Pressure Coolant Injection and Core Spray systems. As a result, the safety significance of this event was minimal.

- E. CORRECTIVE ACTIONS:
 - 1) Adjustment of the seat loading to within the required pressure range for the 64 valve per WR 970068133-01.
 - 2) Adjustment of the stem length, stroke, and seat loading for the 65 valve per WR 970068132-01.
 - 3) The AOV Coordinator will review the Dresden Maintenance procedures to determine if any Copes-Vulcan reverse acting actuator procedures need to be revised. These procedures will be marked-up for revision and submitted to the Mechanical Maintenance procedure writer. NTS #249-180-97-00301.
 - After completion of corrective action number 3, the Mechanical Maintenance procedure writer will incorporate all comments and revise the procedures as required. NTS # 249-180-97-00302.
 - 5) The Plant Programs Superintendent has counseled the AOV Coordinator in accordance with Marc principles concerning a complete understanding of procedural requirements when conducting procedure changes. (Complete)
 - 6) The Valve Team Supervisor has counseled the IMD diagnostic team member in accordance with Marc Principles concerning complete observation of components when performing testing in the field. (Complete)
- F. PREVIOUS OCCURRENCES:

There were no previous events involving improper adjustment of seat loading for AOVs. Also, no events were found involving missed revision to station procedures due to Technical Reviewers knowledge deficiency concerning procedural revision requirements.

G. COMPONENT FAILURE DATA:

There is no component failure identified with this event. Therefore, this section is not applicable.

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