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Braidwood Generating Station
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ComEd

July 3, 1996
BW/96-0070

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

To Whom It May Concern:

The enclosed Licensee Event Report from Braidwood Generating Station is being transmitted in accordance with the requirement of 10 CFR 50.73(a)(2)(ii), which requires a 30-day report.

This report is No. 96-006-00, Docket No. 50-456.

Yours truly,

T. J. Tulon
Station Manager
Braidwood Nuclear Station

TJT/BJM/vk
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Encl.: Licensee Event Report
No. 456-96-006-00

cc: NRC Region III Administrator
NRC Resident Inspector
INPO Record Center
ComEd Distribution Center
I.D.N.S.
I.D.N.S. Resident Inspector

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NRC FORM 366 (4-95) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB NO. 3150-0104
EXPIRES 04/30/98
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS MANDATORY INFORMATION COLLECTION REQUEST: 50.0 HRS. REPORTED LESSONS LEARNED ARE INCORPORATED INTO THE LICENSING PROCESS AND FED BACK TO INDUSTRY. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 F33), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555-0001, AND TO THE PAPERWORK REDUCTION PROJECT

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Braidwood Unit 1	05000456	1 OF 7

TITLE (4)
Failure to maintain Technical Specification requirement of 0.25" H2O differential pressure between the Auxiliary Building and atmosphere due to an inadequate controls process.

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
6	3	96	96	-- 006 --	00	7	3	96	Braidwood Unit 2	05000457
									FACILITY NAME	DOCKET NUMBER

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

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)

	20.2201(b)		20.2203(a)(2)(v)		50.73(a)(2)(i)		50.73(a)(2)(viii)
	20.2203(a)(1)		20.2203(a)(3)(i)	X	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	TELEPHONE NUMBER (Include Area Code)
Donna Turner, Root Cause Team	(815) 458-2801 x2476

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS
X	LD	ISV	C684	N						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION	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)

A work request (WR) written 1/23/96 identified that the 2B SI pump room ventilation damper was not operating properly. On 6/3/96 the VA System Engineer was notified of a concern about upcoming work for the 2B SI pump room. The work planners questioned what affect work on the damper would present to the differential pressure (DP) requirements. A review of the WR and a walkdown revealed the damper was open, potentially creating a low DP problem. Due to this potential, the Turbine to Auxiliary Building fire door was throttled to ensure the required DP. On 6/4/96 an operator attempting to reposition the damper noted a caution card on the IA supply valve for the damper which required the damper to be failed closed. Attempts by the EA could not close the damper. Later the same day another EA and a Field Supervisor successfully repositioned the damper closed. It was then determined the 2B SI pump room DP was below the Technical Specification limit to provide 0.25" H2O between the Aux. Bldg. and atmosphere. A new caution card was placed on the IA line to the damper and the original card removed. Repairs to the damper controller were completed on 6/10/96. The causes of the event were determined to be inadequate configuration controls, equipment failure, and work prioritization. Corrective actions included throttling the Aux. to Turbine Bldg. fire door to restore required DP, repair of the damper, and briefing personnel on control of Tech. Spec. related components. The radiological dose assessment was not adversely impacted by the failed open 2B SI Pump Room supply damper.

A. PLANT CONDITIONS PRIOR TO EVENT:

UNIT: Braidwood Unit 1/2 EVENT DATE: 6/3/96
EVENT TIME: 1500
MODE: 1 RX POWER: 100%
RCS [AB] TEMPERATURE/PRESSURE: NOT/NOP

B. DESCRIPTION OF EVENT:

There were no systems or components inoperable at the beginning of this event that contributed to the severity of the event.

On 1/23/96 the Auxiliary Building Ventilation (VA) System Engineer (SE, non-licensed) identified that the 2B Safety Injection (SI) pump room ventilation supply damper, 0VA303Y, was not operating properly. The damper was open when it should have been closed. The SE notified Operations, and an Equipment Attendant (EA, non-licensed) was dispatched to reposition the damper closed. An Instrument Air (IA) supply valve to the damper actuator was isolated and the regulator bleed off was opened to fail the damper closed. This abnormal positioning of the IA valve was tracked with a caution card. However, the bleed off was not tagged, but was left in the open position. A Work Request (WR), #960008144, was also written to repair the damper.

On 6/3/96, a Work Planner was reviewing WRs and questioned whether the planned work on the SI pump room damper would affect the pump room differential pressure (DP) requirements. The VA System Engineer was contacted to discuss the upcoming work, WR #960008144, and to ensure it would not affect the pump room DP.

The System Engineer reviewed the WR and physically checked the damper. The damper was found in the open position, instead of the expected closed position. The SE questioned whether the Tech. Spec. 3/4.7.7.d.3 requirement of 0.25" H2O was being maintained. The Auxiliary Building ventilation lineup at this time was one supply fan and one exhaust fan operating and the Turbine to Auxiliary Building fire door fully open.

B. DESCRIPTION OF EVENT (continued):

Operations was notified of the concern and the Aux. Bldg. fire door was immediately throttled to maintain the total DP from the 2B SI pump room to atmosphere within Technical Specification requirements.

On day shift 6/4/96, an Equipment Attendant (EA) was dispatched to reposition the 2B SI pump room damper, 0VA303Y, closed. The EA found the damper open with a caution card on a IA valve supply to the damper actuator. A regulator, downstream of the caution carded valve, was found with its bleed off closed. Sometime between 1/23/96 and 6/3/96 the bleed off was closed and the IA line apparently repressurized due to valve leakby, causing the damper to reposition open. Various attempts to valve the damper closed were unsuccessful. The EA physically tried to move the damper with no effect.

On afternoon shift, an Operating Field Supervisor and an EA successfully failed the IA to the damper actuator and bled the pressure from the line through the regulator bleed off to fail the damper closed. A new caution card was placed on the IA valve to the actuator. The regulator bleed off was left open.

On 6/6/96, BwVS 7.7.d-1, Auxiliary Building Non-Accessible System Filter Plenum Test, was performed to determine if the mispositioned damper would have caused a lower total DP than the 0.25" H2O required by Tech. Specs. Because the exact lineup could not be recreated, due to Tech. Spec. requirements, the surveillance was performed with the system in 2 different configurations. One with the damper failed closed and fire door completely open, and the other lineup with the damper open and the fire door throttled.

From these tests, the DP with the damper in the open position and the fire door open was determined to be approximately 0.20" H2O, thus not meeting Tech. Spec. requirements. Operations was notified of the results.

B. DESCRIPTION OF EVENT (continued)

On 6/7/96, Operating personnel discovered that the 2B SI Pump room local DP indicator was reading approximately 0" H2O. Normally this indicator should read approximately 0.25" H2O DP. The room DP was verified on 1/23/96 to be greater than or equal to 0.25" H2O.

Maintenance personnel had repaired the controller to the 2B SI pump room damper, and were awaiting package closeout. System Engineering was contacted to determine the cause of the as found DP reading. Investigation found that air leakage from the Reactor Water Storage Tank (RWST) access tunnel hatch into the 2B SI pump room was causing the room to maintain near zero differential pressure with respect to the Aux. Bldg.

Sometime between 1/23/96 and 6/3/96 this leakage became great enough to affect the room DP requirements, thus affecting total DP requirements if the Aux. Bldg. fire door was full open. The Aux Bldg. fire door was full open from 1/23/96 thru 6/3/96. The Aux. Bldg. door had been throttled on 6/3/96 when it was identified that the 2B SI pump room damper was in the open position. The throttling of the door ensured the Tech. Spec. Differential pressure (DP) was maintained with the damper open, the RWST hatch leakage, or with both conditions existing.

The access tunnel hatch seal repair was completed on 6/9/96 and DP restored to the 2B SI pump room.

Work on the controller was closed out on 6/10/96, which returned the 2B SI pump room ventilation to its normal configuration.

This is being reported pursuant to 10CFR50.73(a)(2)(i)(B) - Any operation or condition prohibited by the plant's Technical Specifications.

C. CAUSE OF EVENT:

The cause of this event was determined to be an inadequate controls process. When the damper actuator was positioned to closed, the regulator bleed off was placed in the abnormal position of open, no positive controls were implemented to ensure it was maintained open.

Contributing factors for this event were determined to be equipment failure and work prioritization.

Equipment Failure - The isolation valve did not completely isolate the IA to the damper actuator as intended.

Work prioritization - A Tech. Spec. related damper was not repaired in a timely manner. The priority assigned to repair the damper was a B03 priority, the work occurring in the normal work week window, was not timely.

D. SAFETY ANALYSIS:

The Safety Significance of the failed open 2B Safety Injection Pump Room supply damper, 0VA303Y, was determined by evaluating the impact of this condition on the design basis from a radiological standpoint.

Air supplied to the 2B SI Pump Room comes from the Unit 2 Spray Additive Tank Room (Curved Wall Area). This area receives supply air directly from the main VA Supply and exhausts to the 2B SI Pump Room, 2B Centrifugal Charging Pump Room, and Unit 2 Pipe Penetration Areas on elevations 375'-0" and 401'-0". All of these areas are a portion of the VA non-accessible exhaust subsystem 18. Exhaust air from this subsystem is routed to the non-accessible plenum and to two of three 50% filter trains consisting of prefilters, upstream HEPA filters, charcoal absorbers, and downstream HEPA filters.

D. SAFETY ANALYSIS(continued):

With the 0VA303Y damper failed in the full open position, the pressure differential between the Curved Wall Area and the 2B SI Pump Room may approach 0.0" H_2O. As such, the potential existed for airborne radioactive iodine resulting from a process leak to escape from the 2B SI Pump Room to the Curved Wall Area. However, the 2B SI Pump Room and Curved Wall Area remained at a negative pressure with respect to the outside atmosphere. The Refueling Water Storage Tank (RWST) Tunnel, which forms part of the 2B SI Pump Room ventilation boundary, also remained at a negative pressure with respect to the outside atmosphere. As a result, the exhaust air from the Curved Wall Area would have continued to be monitored by duct-installed process radiation monitors and treated by the non-accessible filter plenum. As a result, the radiological dose assessment was not adversely impacted by the failed open 2B SI Pump Room Supply Damper 0VA303Y.

E. CORRECTIVE ACTIONS:

Immediate corrective action was to throttle the Auxiliary to Turbine Building Fire Doors to ensure compliance with Technical Specification 3.7.7.d.3.

The 2B SI pump room damper repairs were completed on 6/10/96.

An Action Request (AR 960047101) was written to repair the leaking IA isolation valve.

Appropriate Operating Department and System Engineering personnel will be briefed on the concern that if the position of a valve or component is required to meet Technical Specifications, then that valve/component should be tagged as such with an administrative OOS. This will be tracked to completion by NTS item #456-180-96-00601.

System engineers will be briefed to ensure adequate prioritization is given to future Technical Specification work requests. This will be tracked to completion by NTS item #456-180-96-00602.

F. PREVIOUS OCCURRENCES:

There have been a number of non-reportable configuration control problems at Braidwood in the past 18 months. These problems were recently addressed in a Trend investigation conducted at the Station, #456-230-95-018. Corrective Actions are in the process of being implemented.

There were three reportable events dealing with configuration control problems.

456-180-95-002 - Drain lines in the steam tunnel were not connected to the tendon tunnel sump as specified in the prints.

456-180-95-008 - 1B RHR pump room had floor plugs to the 364 elevation removed to support maintenance.

457-180-96-002 - Both trains of ECCS inoperable due to OOS Personnel Error.

G. COMPONENT FAILURE DATA:

MANUFACTURER	NOMENCLATURE	MODEL	MFG PART NO.
Crane Valve Company	Ball Valve	5185	NA