

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 9211130048 DOC. DATE: 92/11/06 NOTARIZED: NO DOCKET #
 FACIL: 50-315 Donald C. Cook Nuclear Power Plant, Unit 1, Indiana M 05000315
 AUTH. NAME: WEBER, G.A. AUTHOR AFFILIATION: Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 BLIND, A.A. Indiana Michigan Power Co. (formerly Indiana & Michigan Ele
 RECIP. NAME: RECIPIENT AFFILIATION

SUBJECT: LER 92-009-01: on 920812, determined that two of three
 pressurizer SVs failed to meet TS acceptance criteria. Caused
 of event unknown. Valves reassembled & tested satisfactorily.
 No preventive action planned at present. W/921106 ltr.

DISTRIBUTION CODE: IE22T COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 4
 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

NOTES:

	RECIPIENT		COPIES			RECIPIENT		COPIES		
	ID	CODE/NAME	LTTR	ENCL		ID	CODE/NAME	LTTR	ENCL	
	PD3-1	LA	1	1		PD3-1	PD	1	1	
	STANG,	J	1	1						
INTERNAL:	ACNW		2	2		AEOD/DOA		1	1	
	AEOD/DSP/TPAB		1	1		AEOD/ROAB/DSP		2	2	
	NRR/DET/EMEB 7E		1	1		NRR/DLPQ/LHFB10		1	1	
	NRR/DLPQ/LPEB10		1	1		NRR/DOEA/OEAB		1	1	
	NRR/DREP/PRPB11		2	2		NRR/DST/SELB 8D		1	1	
	NRR/DST/SICB8H3		1	1		NRR/DST/SPLB8D1		1	1	
	NRR/DST/SRXB 8E		1	1		REG FILE 02		1	1	
	RES/DSIR/EIB		1	1		RGN3 FILE 01		1	1	
EXTERNAL:	EG&G BRYCE, J.H		2	2		L ST LOBBY WARD		1	1	
	NRC PDR		1	1		NSIC MURPHY, G.A		1	1	
	NSIC POORE, W.		1	1		NUDOCS FULL TXT		1	1	

NOTE TO ALL "RIDS" RECIPIENTS:

PLEASE HELP US TO REDUCE WASTE! CONTACT THE DOCUMENT CONTROL DESK.
 ROOM P1-37 (EXT. 504-2065) TO ELIMINATE YOUR NAME FROM DISTRIBUTION
 LISTS FOR DOCUMENTS YOU DON'T NEED!

FULL TEXT CONVERSION REQUIRED
 TOTAL NUMBER OF COPIES REQUIRED: LTTR 29 ENCL 29

AO-4
 JSP

Indiana Michigan
Power Company
Cook Nuclear Plant
One Cook Place
Bridgman, MI 49106
616 465 5901



November 6, 1992

United States Nuclear Regulatory Commission
Document Control Desk
Rockville, Maryland 20852


Operating Licenses DPR-58
Docket No. 50-315

Document Control Manager:

In accordance with the criteria established by
10 CFR 50.73 entitled Licensee Event Report System, the
following report is being submitted:

92-009-01

Sincerely,

for 
A. A. Blind
Plant Manager

/sb

Attachment

c: D. H. Williams, Jr.
A. B. Davis, Region III
E. E. Fitzpatrick
P. A. Barrett
R. F. Kroeger
B. Walters - Ft. Wayne
NRC Resident Inspector
W. M. Dean - NRC
J. G. Keppler
M. R. Padgett
G. Charnoff, Esq.
D. Hahn
INPO
S. J. Brewer
B. A. Svensson

120095

9211130048 921106
PDR ADDCK 05000315
S PDR

IK22
11

LICENSEE EVENT REPORT (LER)

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)

D. C. COOK NUCLEAR PLANT - UNIT 1

DOCKET NUMBER (2)

0 5 0 0 0 3 1 5 1 OF 0 3

PAGE (3)

TITLE (4) FAILURE OF TWO PRESSURIZER SAFETY VALVES TO MEET TECHNICAL SPECIFICATION
REQUIRED SURVEILLANCE TEST CRITERIA

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	8	1	2	9	2	9	2	0	0	9	0	1	1	0	6	9	2	0	5	0	0	0	0
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)																					
6																							
POWER LEVEL (10)		0 10 10																					
		20.402(b)																					
		20.405(a)(1)(i)																					
		20.405(a)(1)(ii)																					
		20.405(a)(1)(iii)																					
		20.405(a)(1)(iv)																					
		20.405(a)(1)(v)																					
		20.405(c)																					
		50.36(c)(1)																					
		50.36(c)(2)																					
		50.73(a)(2)(i)																					
		50.73(a)(2)(ii)																					
		50.73(a)(2)(iii)																					
		50.73(a)(2)(iv)																					
		50.73(a)(2)(v)																					
		50.73(a)(2)(vi)																					
		50.73(a)(2)(vii)																					
		50.73(a)(2)(viii)(A)																					
		50.73(a)(2)(viii)(B)																					
		50.73(a)(2)(ix)																					
		73.71(b)																					
		73.71(c)																					
		OTHER (Specify in Abstract below and in Text, NRC Form 366A)																					

LICENSEE CONTACT FOR THIS LER (12)

NAME

G. A. WEBER - PLANT ENGINEERING SUPERINTENDENT

TELEPHONE NUMBER

AREA CODE

6 1 1 6 4 1 6 5 1 - 5 9 1 0 1

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NRC
X	A/B	R/V	C/7	1/0	Y				

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR

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

This updated report is being submitted to provide additional information regarding the event, cause, analysis and corrective action descriptions.

On August 12, 1992 with Unit 1 in Mode 6 (Refueling) it was determined that two of three Pressurizer Safety Valves (PSV), which were sent to an off site test laboratory for testing, were found with lift settings outside of the Technical Specification acceptance criteria (between 2461 psig and 2509 psig). Valve 1-SV-45B had a lift setpoint of 2514 psig and valve 1-SV-45C had a lift setpoint of 2582 psig. The third PSV had an acceptable lift setting.

There was no safety significance since, in the event of overpressure transient, the safety valves would still have limited the peak transient pressure to 2659 psig. This is below the Technical Specification safety limit of 2735 psig.

Both 2-SV-45B and 2-SV-45C were completely disassembled and inspected. No problems noted and all dimensions were within tolerances. The eductors were skim cut to increase the clearance to the maximum allowed tolerance, the disc inserts and nozzle seats were lapped. The valves were reassembled and tested satisfactorily. Since a specific Root Cause could not be determined, no preventive action is planned at this time.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1) D. C. COOK NUCLEAR PLANT - UNIT 1	DOCKET NUMBER (2) 0 5 0 0 0 3 1 5	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		9 2	— 0 0 9	— 0 1	0 2	OF	0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

This updated report is being submitted to provide additional information regarding the event, cause, analysis, and corrective action descriptions.

Conditions Prior to Occurrence

Unit One - Mode 6 (Refueling)

Description of Event

On August 12, 1992, it was determined that two of the three pressurizer safety valves, Crosby Valve Model HB-86-BP, (EIIS/AB-RV) had lift settings outside Technical Specification 3.4.3 acceptance criteria. The safety valves are tested at a test laboratory using steam at nominal temperature and pressure, as required by Technical Specifications. The valves are required to lift at 2485 psig plus or minus 1 percent, (i.e. between 2461 and 2509 psig). Valve 1-SV-45B lifted at 2514 psig and 1-SV-45C lifted at 2582 psig. The third valve, 1-SV-45A, had an acceptable lift setpoint. Technical Specification Surveillance 4.4.3 requires that each Pressurizer Code Safety Valve be demonstrated operable per Section XI of the ASME Boiler and Pressure Vessel Code, 1974 Edition.

Cause of Event

Both 1-SV-45B and 1-SV-45C were completely disassembled and inspected. There were no problems noted and all dimensions were within tolerances. The eductor was skim cut to increase the clearance to the maximum allowed tolerance and the disc insert and nozzle seat were lapped. The valves were reassembled and tested satisfactorily.

The vendor is currently reviewing the Safety Valve Lift Setpoint problems and has not determined the cause for the 1-SV-45B or 1-SV-45C setpoint drift. If the vendor review provides information that is contrary to statements made in this LER, an updated LER will be submitted. The phenomenon of safety valve setpoint drift outside of design tolerances is common in the Nuclear industry. However, as yet, no cause for the drift has been determined.

Analysis of Event

This event has been determined to be reportable under the provisions of 10CFR50.73(a)(2)(i)(B) as an operation prohibited by Plant Technical Specification 3.4.3, which requires all of the pressurizer safety valves to be operable with a lift setting of 2485 psig +/- 1 percent.

The as-found lift setpoints of safety valves 1-SV-45B and 45C did not have any actual impact on the Reactor Coolant System (RCS) since the safety valves were not challenged during the last fuel cycle. There was no potential impact since the RCS would not have exceeded the maximum transient limit of 2735 psig, which is 110 percent of design pressure (2485 psig). There was no impact on the health or safety of the public.

Safety Valve 2-SV-45A (worst case) had a lift setpoint of 2582 psig. The RCS pressure would have to reach a pressure of 2659 psig (2582 psig plus 3 percent accumulation) for this valve to attain its full rated lift. Valve 1-SV-45B would have attained its rated lift at 2589 psig (2514 psig plus 3 percent).

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 500 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE RECORDS AND REPORTS MANAGEMENT BRANCH (P-530), U.S. NUCLEAR REGULATORY COMMISSION, WASHINGTON, DC 20555, AND TO THE PAPERWORK REDUCTION PROJECT (3150-0104), OFFICE OF MANAGEMENT AND BUDGET, WASHINGTON, DC 20503.

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)		
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
D. C. COOK NUCLEAR PLANT - UNIT 1	0 5 0 0 0 3 1 5	9 2	— 0 0 9	— 0 1	0 3	OF	0 3

TEXT (If more space is required, use additional NRC Form 366A's) (17)

Analysis of Event Continued

The reactor vessel and pressurizer were designed to ASME B&PV Section III which permits a maximum transient pressure of 2735 psig, 110 percent of design pressure (2485 psig). The RCS piping, valves and fittings are designed to ANSI B31.1, 1967 Edition, which permits a maximum transient pressure of 2985 psig, 120 percent of design pressure (2485 psig).

In addition, the entire RCS was hydro tested to 3107 psig, 125 percent of design (2485), to demonstrate system integrity prior to initial operation.

Corrective Action

Upon removal of the three safety valves for testing, three identical replacement valves were installed. After initial testing of the valves, which were removed from service, the two valves which lifted out of tolerance high were disassembled and inspected. All critical dimensions were within tolerance. However, on the two valves which lifted out of tolerance the disc insert and seat nozzle were lapped and the eductor was skim cut to increase the clearance to the maximum allowed tolerance. Retests were satisfactorily completed for steam set pressure and seat leakage.

Since a specific Root Cause could not be determined, no preventive action is planned at this time. However, we will continue to follow industry activities pertaining to safety valve setpoint drift.

Failed Component Identification

Pressurizer Safety Valve Plant Designation: 1-SV-45B and 1-SV-45C.
Manufacturer: Crosby Valve Company
Model: HB-86-BP
EIIIS Code: AB-RV

Previous Similar Events

LER: 50-315/90-16
LER: 50-316/89-04, 92-06