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ACCESSION NBR: 8912080128 DOC. DATE: 89/11/28 NOTARIZED: NO DOCKET #
 FACIL: 50-397 WPPSS Nuclear Project, Unit 2, Washington Public Powe 05000397
 AUTH. NAME AUTHOR AFFILIATION
 FIES, C.L. Washington Public Power Supply System
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 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: LER 89-042-00: on 891106, ADS backup nitrogen supply pressure
 switch calibrated outside Tech Spec limits.

W/8 ltr.

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 TITLE: 50.73/50.9 Licensee Event Report (LER), Incident Rpt, etc.

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	DEDRO	1 1	NRR/DET/ECMB 9H	1 1
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	NRR/DLPQ/LHFB11	1 1	NRR/DLPQ/LPEB10	1 1
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AD-4

WASHINGTON PUBLIC POWER SUPPLY SYSTEM

P.O. Box 968 • 3000 George Washington Way • Richland, Washington 99352

November 28, 1989

Docket No. 50-397

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

Subject: NUCLEAR PLANT NO. 2
LICENSEE EVENT REPORT NO. 89-042

Dear Sir:

Transmitted herewith is Licensee Event Report No. 89-042 for the WNP-2 Plant. This report is submitted in response to the report requirements of 10CFR50.73 and discusses the items of reportability, corrective action taken, and action taken to preclude recurrence.

Very truly yours,

C. M. Powers

C. M. Powers (M/D 927M)
WNP-2 Plant Manager

CMP:lr

Enclosure:
Licensee Event Report No. 89-042

cc: Mr. John B. Martin, NRC - Region V
Mr. C. J. Bosted, NRC Site (M/D 901A)
INPO Records Center - Atlanta, GA
Ms. Dottie Sherman, ANI
Mr. D. L. Williams, BPA (M/D 399)

8912080128 891128
PDR ADOCK 05000397
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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) Washington Nuclear Plant - Unit 2										DOCKET NUMBER (2) 0 5 0 0 0 3 9 7 1										PAGE (3) 1 OF 4				
TITLE (4) Automatic Depressurization System (ADS) Backup Nitrogen Supply Pressure Switch Calibrated Outside Technical Specification Limits																								
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)									
1	1	0	6	8	9	8	9	0	4	2	0	0	1	1	2	8	8	9	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)																					
1			20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)									
POWER LEVEL (10)			20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)									
9			20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)									
			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												
C. L. Fies, Compliance Engineer												AREA CODE		5 0 9 3 1 7 7 - 2 5 0 1										
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																								
E X T 2 0 3 9																								
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPDOS														
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 fifteen single-space typewritten lines) (16)

On November 6, 1989 a reportability evaluation was approved which directed that an event discovered on August 13, 1989 be reported per 10CFR50.73. The evaluation, which was ongoing during September and October, concluded a pressure switch (CIA-PS-22B) which provides input to the logic which controls the backup nitrogen supply to the Automatic Depressurization System (ADS) was calibrated incorrectly. During the calibration, on July 11, 1989, the pressure switch was set to actuate at 131.4 psig while the technical specification limit calls for a value greater than 135 psig on decreasing pressure. The plant operated until the next channel functional test (August 13, 1989) when the out of calibration condition was discovered. Immediate corrective action was taken to calibrate CIA-PS-22B correctly and to investigate the cause of the out of calibration condition.

The root cause of this event was less than adequate procedures with ambiguous instructions.

Further corrective action included a modification to the surveillance procedures to emphasize the decreasing pressure trip.

The event posed no threat to the health and safety of either the public or plant personnel since the ADS system would have been able to perform its safety function with the instrument slightly out of calibration.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		
Washington Nuclear Plant - Unit 2	0 5 0 0 0 3 9 7	8 9	— 0 4 2	— 0 0	0 2	OF 0 4

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

Plant Conditions

- a) Power Level - 99%
- b) Plant Mode - 1

Event Description

On November 6, 1989 a reportability evaluation was approved which directed that an event discovered on August 13, 1989 be reported per 10CFR50.73. The reportability evaluation process for this event deemed the event not reportable in September but, upon further study in October, concluded it was reportable based on verbatim compliance with the Technical Specifications. This event was initially discovered on August 13, 1989 when Plant Instrumentation and Control (I & C) Technicians wrote a Problem Evaluation Report (PER) which documented the fact that pressure switch CIA-PS-22B was found outside the Plant Technical Specification limit. This switch provides input to the logic which controls the backup nitrogen supply to the Automatic Depressurization System (ADS). The ADS is part of the Emergency Core Cooling System (ECCS) and is designed to depressurize the primary system to allow for core cooling by the low pressure ECCS systems. The "as found" trip value for CIA-PS-22B was 129 psig and the reset was 136.0 psig. The technical specification limit calls for a trip value greater than 135 psig on decreasing pressure.

The Plant System Engineer reviewed the PER and the results of the previous channel calibration which was performed on July 11, 1989. On the latter date pressure switch (CIA-PS-22B) was calibrated per the requirements of surveillance procedure PPM 7.4.5.1.21, ADS - Accumulator Backup Low Pressure Alarm Div II - Channel Functional Test(CFT)/Channel Calibration(CC). During the calibration, the Plant Instrumentation and Control (I&C) Technician recorded an "as left" reset value of 131.4 psig and an "as left" trip value of 137 psig. Since this is a pressure decreasing trip, the trip value should be lower than the reset value. This result was reviewed by the I & C Engineers without detection on July 14, 1989. The System Engineer concluded, after review on August 13, 1989, that the I & C Technician had reversed the numbers and the actual "as left" trip value for the July 11 calibration was 131.4 psig and the "as left" reset value was 137 psig.

Immediate Corrective Action

Immediate corrective action was taken to calibrate CIA-PS-22B correctly on August 13, 1989

Further Evaluation and Corrective Action

A. Further Evaluation

1. This event is being reported as a "...deviation from the Plant's Technical Specifications..." per the requirements of 10CFR50.73(a)(2)(i)(C). Specifically, CIA-PS-22B was inoperable between July 11, 1989 and August 13, 1989 by the Technical Specification definition and the action statement for restoration to operable status was exceeded.

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
		8 9	0 4 2	0 0 0	3	OF	0 4

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

2. There were no structures, components or systems that were inoperable prior to the start of this event which contributed to the event.
3. The root cause of this event was less than adequate procedures with ambiguous instructions. The surveillance procedures did not specify that the signal tripped on decreasing pressure. This caused the I & C Technician to reverse the "as left" trip and reset numbers taken during the July 11, 1989 surveillance:

B. Further Corrective Action

1. Further corrective action included a modification to surveillance procedures 7.4.5.1.20 and 7.4.5.1.21, ADS-Accumulator Backup Low Pressure Alarm Divisions I and II - CFT/CC. The procedures were modified to note the decreasing nature of the pressure trip.
2. Other surveillance procedures will be reviewed and modified, if appropriate, to indicate the decreasing nature of the trip.
3. I & C personnel have been counseled on the need for caution when working with a signal which causes a trip on decreasing signal.

Safety Significance

During normal operation the nitrogen supply to the ADS accumulators is the 11,000 gallon (1 million scf) cryogenic tank which is also used to inert the primary containment. If this normal nitrogen supply fails, the nitrogen backup system is automatically placed into service. Three signals in two channels (A and B) are used to initiate the nitrogen backup for the ADS. They include CIA-PS-22A(B) 135 PSIG, CIA-PS-21A(B) 140 PSIG and CIA-V-39A(B) closed. These signals feed a two out of three logic circuit in each channel which initiates the stepping programmers for the nitrogen bottles. Programmer "A", CIA-PROG-1A, is initiated by the "A" logic and provides backup nitrogen to three ADS valves. Programmer "B", CIA-PROG-1B, is initiated by the "B" logic and provides backup nitrogen to the four remaining ADS valves. The slightly lower pressure setting on CIA-PS-22B would have no impact on the "A" valves. The impact on the "B" side would have been a slight delay in the initiation of the "B" programmer if it did not get actuated by CIA-PS-21B 140 psig and CIA-V-39B closed. Specifically, the delay would have been the time needed for the pressure to drop from the required value of 135 psig to the as found value of 129 psig. This is above the minimum pressure required to operate the ADS valves under accident conditions. In addition, the backup nitrogen subsystem was not required during the period of miscalibration. Consequently, this event posed no threat to the health and safety of either the public or plant personnel.

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FACILITY NAME (1)

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YEAR SEQUENTIAL REVISION
NUMBER NUMBER

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

Similiar Events

None

EIIS InformationText ReferenceEIIS Reference

Automatic Depressurization System (ADS)
CIS-PS-22B
CIS-PS-22A
CIS-PS-21A
CIS-PS-21B
CIS-V-39A
CIS-V-39B
CIA-PROG-1A
CIA-PROG-1B

<u>System</u>	<u>Component</u>
BG	---
LD	PS
LD	PS
LD	PS
LD	PS
LD	V
LD	V
LD	PMC
LD	PMC

