

# LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
Point Beach Nuclear Plant, Unit 1	05000266	2001	005	00	3 OF 6

EXT (If more space is required use additional copies of NRC Form 366A) (17)

discharge flow. The significance of the timing of these actions was realized by the NMC in its self-initiated, voluntary review and update of the PRA. This condition had not been identified in the baseline PRA.

Operator training included lesson plans which identified the need and basis for maintaining minimum flows through the AFWS pumps and discussed the opening and closing logic for the recirculation valves. Operating crew simulator training included loss of instrument air scenarios. However, the specifics of the simulator program are such that failing closed the recirculation valves and shutting the AFWS discharge valves does not automatically fail the AFW pump. Therefore, the crew simulator training may not have sensitized the operators to this vulnerability.

The PRA's capacity to integrate system performance with potential human actions to obtain a spectrum of plant responses allowed for identification of this vulnerability. The NMC has concluded that this vulnerability would not likely have been identified through normal surveillance or quality assurance activities. The root cause investigation of this condition identified that previous reviews in this area were generally focused on the necessity of providing adequate flow to the steam generators to remove decay heat. Because of the small margin in the capacity of the motor driven AFWS pumps in particular, it is essential in many scenarios that the recirculation valves are shut in order to assure adequate flow to the steam generators.

### Corrective Actions:

- A Root Cause Evaluation (RCE 01-069) Team was chartered to evaluate the vulnerability and why the risk significance of this condition was not recognized previously. The report of this team is scheduled to be provided for senior management review in late January 2002. The preliminary findings of this team with regard to root cause and contributing factors are included in the "Cause" section of this report. #7B

- Beginning at 1520 on November 30, 2001, the operating crews were briefed on the concerns identified with a loss of IA and AFWS pump requirements to maintain adequate minimum pump flow. Temporary information tags were placed adjacent to the Control Room controls for all four AFW pumps to provide a reminder of the minimum flow requirements for each AFW pump. #7A

- Temporary procedure changes were completed on November 30 to EOP-0, "Reactor Trip or Safety Injection" and EOP 0.1 "Reactor Trip Response," to reflect the guidance provided earlier to operators via the temporary information tags. On December 14, 2001, these changes were made permanent. The step was added as a foldout page item so that operators would stop the pumps any time the minimum flow requirements were not met. #7D

- Each operating crew received just in time training, briefings and simulator training concerning this event scenario to reinforce proper AFWS flow control. #7C

- On December 20, 2001, EOP 0 and EOP 0.1 were further revised to link problems with IA as indicated by the IA header pressure low alarm with the continuing need to closely monitor and maintain adequate AFWS pump flows. This revision was also included in ECA 0.0, "Loss of All AC Power". #7D

- Plant modifications to enhance system reliability, including providing a backup air or nitrogen supply to the minimum recirculation valves, are being evaluated.

- Simulator modifications to enhance modeling the potential failure of the AFWS pumps following loss of instrument air scenarios are being pursued

*Why procedure change not as global as present change? (consequences are the same)*

*AI/288*

To: Duane Schoon

Procedure that are being changed via Temp Change Process to address the AFW recirc-orifice issue.

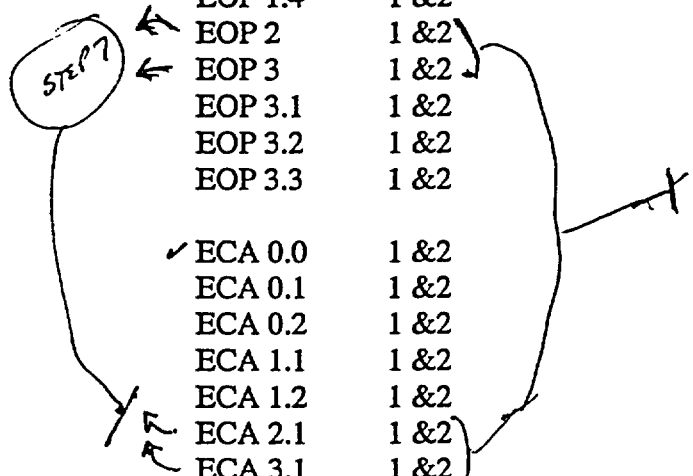
Procedure #    Applicable unit

- EOP 0            1 & 2
- EOP 0.0        1 & 2
- EOP 0.1        1 & 2
- EOP 0.2        1 & 2
- EOP 0.3        1 & 2
- EOP 0.4        1 & 2
- EOP 1.0        1 & 2
- EOP 1.1        1 & 2
- EOP 1.2        1 & 2
- EOP 1.3        1 & 2
- EOP 1.4        1 & 2
- EOP 2           1 & 2
- EOP 3           1 & 2
- EOP 3.1        1 & 2
- EOP 3.2        1 & 2
- EOP 3.3        1 & 2
  
- ✓ ECA 0.0       1 & 2
- ECA 0.1        1 & 2
- ECA 0.2        1 & 2
- ECA 1.1        1 & 2
- ECA 1.2        1 & 2
- ECA 2.1        1 & 2
- ECA 3.1        1 & 2
- ECA 3.2        1 & 2
- ECA 3.3        1 & 2
  
- CSP S.1        1 & 2
- CSP S.2        1 & 2
- CSP C.1        1 & 2
- CSP C.2        1 & 2
- CSP C.3        1 & 2
- CSP H.1        1 & 2
- CSP H.2        1 & 2
- CSP H.3        1 & 2
- CSP H.3        1 & 2
- CSP H.4        1 & 2
- CSP H.5        1 & 2
- CSP P.1        1 & 2

KEN SOIKOV  
X 6545

WHY NOT

OP 1A  
STEP 3.2  
5.6



CSP P.2 1 &2  
CSP Z.1 1 &2  
CSP Z.2 1 &2  
CSP Z.3 1 &2  
CSP I.1 1 &2  
CSP I.2 1 &2  
CSP I.3 1 &2

( SEP 2.1 2 1 &2  
SEP 2.2 3 1 &2  
SEP 3.0 1 &2 )

FOLDOUT  
PAGE

AOP 3.0 1 &2  
AOP 10 Common to both units  
✓ AOP 10A Common to both units  
AOP 23 1 &2

✓ OI 62A Common to both units  
✓ OI 62B Common to both units

Total procedures being changed = 102 procedures

Ken Sokol  
10/30/2002

① CHANGE,

WE ADDED THESE Resources

TO THE LIST FOR AFW

Article Issues

Pop-103

- 11-8A
- 11-9A
- 11-10A
- 11-10B
- 11-10C

12/31/22  
KIM

NUCLEAR POWER BUSINESS UNIT  
CRITICAL SAFETY PROCEDURES

CSP INDEX  
Revision 58  
November 20, 2001

INDEX  
UNIT 1

PROCEDURE NUMBER	PROCEDURE TITLE	REVISION NUMBER	EFFECTIVE DATE	PERIODIC REVIEW/ CANCELED DATE
CSP-ST.0	Critical Safety Function Status Trees.....	1 C	10/30/00	10/30/00
CSP-S.1	Response to Nuclear Power Generation/ATWS .....	22 C	04/30/01	04/30/01
CSP-S.2	Response to Loss of Core Shutdown .....	6 C	06/09/99	07/23/01
CSP-C.1	Response to Inadequate Core Cooling .....	22 C	04/26/01	04/26/01
CSP-C.2	Response to Degraded Core Cooling .....	19 C	04/26/01	04/26/01
CSP-C.3	Response to Saturated Core Cooling .....	8 C	06/09/99	07/23/01
CSP-H.1	Response to Loss of Secondary Heat Sink.....	21 C	04/26/01	04/26/01
CSP-H.2	Response to Steam Generator Overpressure.....	9 C	10/30/00	10/30/00
CSP-H.3	Response to Steam Generator High Level .....	11	11/20/01	11/20/01
CSP-H.4	Response to Loss of Normal Steam Release Capabilities .....	7 C	06/09/99	07/23/01
CSP-H.5	Response to Steam Generator Low Level.....	8 C	06/09/99	07/23/01
CSP-P.1	Response to Imminent Pressurized Thermal Shock Condition .....	23	11/20/01	11/20/01
CSP-P.2	Response to Anticipated Pressurized Thermal Shock Condition .....	14	11/20/01	11/20/01
CSP-Z.1	Response to High Containment Pressure.....	16 C	04/26/01	04/26/01
CSP-Z.2	Response to Containment Flooding .....	5 C	06/09/99	07/23/01
CSP-Z.3	Response to High Containment Radiation Level.....	11 C	04/26/01	04/26/01
CSP-I.1	Response to High Pressurizer Level .....	8 C	04/26/01	04/26/01
CSP-I.2	Response to Low Pressurizer Level .....	7 C	10/30/00	10/30/00
CSP-I.3	Response to Voids in Reactor Vessel .....	12	11/20/01	11/20/01

(A - Administrative Hold)  
(T - Temporary Change)

C = Continuous Use  
R = Reference Use  
I = Information Use