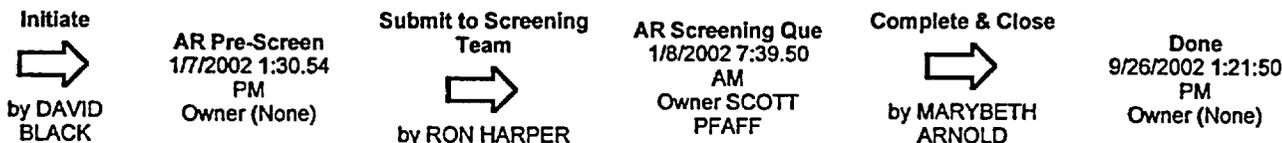


STATE CHANGE HISTORY



SECTION 1

Activity Request Id: CAP001804
 Activity Type: CAP Submit Date: 1/7/2002 1:30:54 PM

One Line Description: Inadecuate 50.59 Review of Procedure Changes Made to Address AFW Pump Cooling

Detailed Description: 1/7/2002 12:30PM - DAVID BLACK:
 CR 01-3595 identified that with a loss of instrument air that the minimum flow recirculation valves for auxiliary feedwater (AFW) will fail closed. One of the ways instrument air can be lost is with a loss of offsite power (or loss of all AC) which is a transient that is analyzed in Chapter 14 of the FSAR. (Note that the FSAR also states this is a dual unit event.) To address this issue, two series of changes were made to Operations procedures (including ARP C01 A 1-9, EOP-0, EOP-0.1, and ECA 0.0) to direct operator response for addressing the impact on AFW pump cooling due to a loss of instrument air. These changes were 50.59 screened as documented in SCR 2001-0989 and SCR 2002-0005 (note the original screening number in the temporary procedure change package was 2001-1024, which was incorrect and was subsequently changed by Document Control). Both screenings indicate that the basis that there is no adverse effect on a design function is: "This change ensures that minimum recirc flow requirements as stated in FSAR 10.2 are not violated." This AR was written to document that there was an adverse effect on a design function, and a 50.59 evaluation should have been performed on these procedure changes. this AR is not CR 01-3595 identified that with a loss of instrument air that the minimum flow recirculation valves for auxiliary feedwater (AFW) will fail closed. One of the ways instrument air can be lost is with a loss of offsite power (or loss of all AC) which is a transient that is analyzed in Chapter 14 of the FSAR. (Note that the FSAR also states this is a dual unit event.) To address this issue, two series of changes were made to Operations procedures (including ARP C01 A 1-9, EOP-0, EOP-0.1, and ECA 0.0) to direct operator response for addressing the impact on AFW pump cooling due to a loss of instrument air. These changes were 50.59 screened as documented in SCR 2001-0989 and SCR 2002-0005 (note the original screening number in the temporary procedure change package was 2001-1024, which was incorrect and was subsequently changed by Document Control). Both screenings indicate that the basis that there is no adverse effect on a design function is: "This change ensures that minimum recirc flow requirements as stated in FSAR 10.2 are not violated." This AR was written to document that there was an adverse effect on a design function, and a 50.59 evaluation should have been performed on these procedure changes. this CR 01-3595 identified that with a loss of instrument air that the minimum flow recirculation valves for auxiliary feedwater (AFW) will fail closed. One of the ways instrument air can be lost is with a loss of offsite power (or loss of all AC) which is a transient that is analyzed in Chapter 14 of the FSAR. (Note that the FSAR also states this is a dual unit event.) To address this issue, two series of changes were made to Operations procedures (including ARP C01 A 1-9, EOP-0, EOP-0.1, and ECA 0.0) to direct operator response for addressing the impact on AFW pump cooling due to a loss of instrument air. These changes were 50.59 screened as documented in SCR 2001-0989 and SCR 2002-0005 (note the original screening number in the temporary procedure change package was 2001-1024, which was incorrect and was subsequently changed by Document Control). Both screenings indicate that the basis that there is no adverse effect on a design function is: "This change ensures that minimum recirc flow requirements as stated in FSAR 10.2 are not violated." This AR was written to document that there was an adverse effect on a design function, and a 50.59 evaluation should have been performed on these procedure changes.

FSAR Section 10.2, Auxiliary Feedwater System, states the turbine-driven AFW pump(s) have an AOV (AF-4002) controlled recirculation line back to the condensate storage tanks to ensure minimum flow to dissipate pump heat.

FSAR Section 10.2, Auxiliary Feedwater System states that the motor-driven AFW pump(s) that each pump has an AOV, AF-4007 for P-38A and AF-4014 for P-38B, controlled

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recirculation line back to the condensate storage tanks to ensure minimum flow to dissipate pump heat.

Based on the above, for application of 10CFR 50.59, the FSAR-described design function of the recirculation line is to ensure minimum flow through the associated pump in order to provide adequate cooling to the pump. There is no discussion in the FSAR indicating manual operator actions were required for maintaining this design function. The procedure changes were principally to add a requirements in applicable EOP and ECA foldout pages and to a ARP to direct operators to maintain minimum flow or stop the affected pumps.

It is not clear from the procedure change documentation whether these are only compensatory actions until the design issue can be resolved, or whether the design will be accepted "as-is" and the procedure changes are permanent. In either case, the procedure changes have an adverse effect on a design function, because manual operator actions are being credited to perform the design function which is not indicated in the FSAR, and therefore a 50.59 evaluation should have been performed.

Based on the 50.59 guidance for compensatory actions contained in NEI 96-07, Revision 1, which was approved for guidance for 50.59 implementation by NRC Regulatory Guide 1.1.87, the procedure changes are assessed under 50.59 as follows.

(1) If the procedure changes are a compensatory action and the intention is to "fix" the design such that the recirculation line and AOV will perform the design function without operator action, then the 50.59 evaluation should address the impact of the procedure changes on the rest of the facility (for example, the impact on the AFW pumps to perform their design function of providing water to the steam generators). The capability and timing of operators performing actions to ensure pump cooling, by maintaining adequate flow through the pump or by securing the pump, is assessed in the operability determination process.

(2) If the procedure changes are the permanent solution to the issue, and the facility design is considered acceptable "as-is", then the impact of manual operator action to maintain adequate AFW for pump cooling or securing the pump should be evaluated for the impact on both design functions of maintaining adequate flow for cooling and impact on the AFW pumps to perform their design function of providing water to the steam generators. The timing of operator actions should consider NRC Information Notice 97-78, "Crediting Operator Action in Place of Automatic Actions and Modifications of Operator Actions, Including Response Times." FSAR changes should also be made to clarify the function of the recirculation lines.

Initiator:	BLACK, DAVID 	Initiator Department:	EPN Engineering Programs Nuclear Safety Analysis PB
Date/Time of Discovery:	1/7/2002 11:00:00 AM	Date/Time of Occurrence:	1/7/2002 12:33:32 PM
Identified By:	Site-identified	System:	AF PB
Equipment # (1st):	(None)	Equipment Type (1st):	(None)
Equipment # (2nd):	(None)	Equipment Type (2nd) :	(None)
Equipment # (3rd):	(None)	Equipment Type (3rd) :	(None)
Site/Unit:	Point Beach - Common		
Why did this occur?:	1/7/2002 12:30PM - DAVID BLACK: The determination that there was no adverse affect on the design function was focussed on the immediate corrective action to ensure minimum flow through the pump rather than the impact of how the minimum flow was being maintained.		
Immediate Action Taken:	1/7/2002 12:30PM - DAVID BLACK: Contacted operations procedure writers group and began work on the 50.59 evaluation.		
Recommendations:	1/7/2002 12:30PM - DAVID BLACK: Complete 50.59 evaluations and FSAR change reuests as needed.		
	1/8/2002 6:39AM - RON HARPER: Dave Black has started a 50.59 for the EOP procedure changes. This CAP can be closed to that 50.59 eval.		

◆ Notify Me During Eval?: N ◆ SRO Review Required?: N

SECTION 2

Operability Status: NA ◆ Compensatory Actions: N
 Basis for Operability: 1/8/2002 6:39AM - RON HARPER:
 This is an administrative issue concerning the EOP procedure changes discussed in the
 description.
 ◆ Unplanned TSAC Entry: N ◆ External Notification: N

SECTION 3

Screened?: Y ◆ Significance Level: B
 INPO OE Req'd?: N Potential MRFF?: N
 ◆ QA/Nuclear Oversight?: N ◆ Licensing Review?: N
 Good Catch/Well Doc'd?: Y

SECTION 4

Inappropriate Action:
 Process: (None) Activity: (None)
 Human Error Type: (None) Human Perf Fail Mode: (None)
 Equip Failure Mode: (None) Process Fail Mode: (None)
 Org/Mgt Failure Mode: (None) ◆ Group Causing Prob: (None)
 Hot Buttons: (None)

ATTACHMENTS AND PARENT/CHILD LINKS

- [Linked To CA003360](#)

- [Linked to FSAR025906:](#)

CHANGE HISTORY

7/26/2002 12:41:27 PM by MARYBETH ARNOLD
 Last Modified Date Changed From ***** To *****
 Last Modifier Changed From ***** To *****
 Attachment Added. Linked to FSAR025906:
 9/26/2002 1:21:50 PM by MARYBETH ARNOLD
 State Changed From ***** To *****
 Active/Inactive Changed From ***** To *****
 Owner Changed From ***** To *****
 Last Modified Date Changed From ***** To *****
 Last State Change Date Changed From ***** To *****
 Last State Changer Changed From ***** To *****
 Close Date Changed From ***** To *****