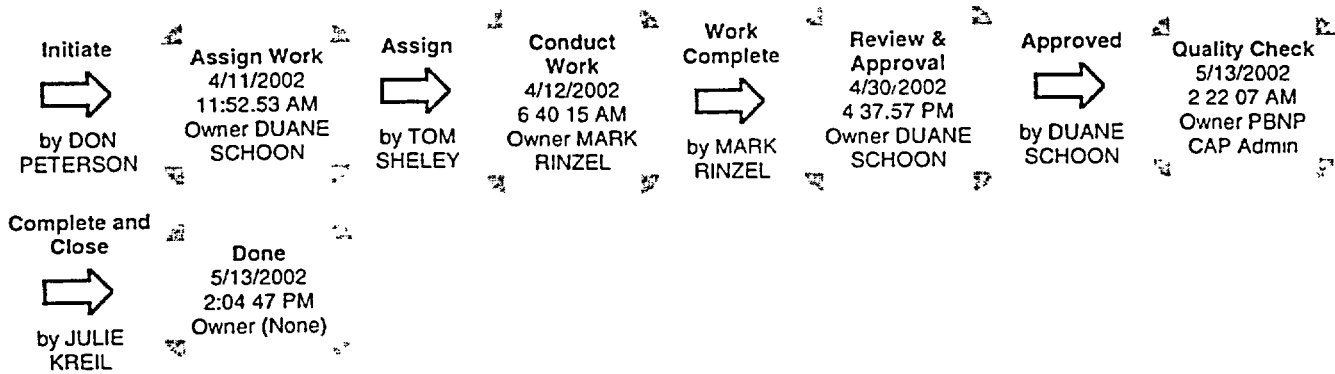


STATE CHANGE HISTORY



SECTION 1

Activity Request Id: CA004279
 Activity Type: Corrective Action Submit Date: 4/11/2002 11:52:53 AM
 Site/Unit: Point Beach - Common
 Activity Requested: Re-Open the evaluation of SEN 174, ensuring that questions about the procedures for ensuring adequate pump flow is maintained, are fully addressed, including pumps other than AFPs

 Action is out of CA 3982 where CARB (3/5/02) while reviewing RCE 01-69 / ACE 314 requested a reopening of SEN 174 to specifically adress a question if procedures for ensuring adequate pump flow is maintained (possibly this point was not adequately documented in the SEN) and discuss other pumps other then AFP's TPS

⊗ CATPR: N Initiator: MASTERLARK, JAMES
 Initiator Department: EPN Engineering Programs Nuclear Responsible Group Code: PO PB Operations PB
 Safety Analysis PB
 Responsible Department: Assessment Activity Supervisor: DUANE SCHOON
 Activity Performer: MARK RINZEL

SECTION 2

Priority: 3 Due Date: 5/10/2002
 ⊗ Mode Change Restraint: (None) Management Exception From PI?: N
 ⊗ QA/Nuclear Oversight?: N ⊗ Licensing Review?: N
 NRC Commitment?: N ⊗ NRC Commitment Date:
 ⊗ Significance Level: A

SECTION 3

Activity Completed: 3/17/2002 1:59PM - DON PETERSON
 SEN 174 has six completed actions directed at the need to develop procedures for off- normal events, to restore power and recover equipment for non-vital 4160 & 480 V busses and associated MCCs. Action six was closed out to CR 98-0050 action item #43. Action #43 was

A/163

closed to the issuance of AOP-18. Pump flow concerns were not directly identified in the action items for SEN 174.

4/8/2002 3:28PM - DON PETERSON.

The following documents were reviewed. SEN 174 actions items, CR 97-1992, CR 98-0050, AOP-18, AOP-18A and RCE 01-069. Pump flow concerns were not directly identified in any of the above documentation. This concern was discussed with Mr. Mark Rinzel, Corrective Action Liaison for Operations, he was in agreement, that an action in t-Track should be issued to Operations to revisit the issues of SEN 174 with special focus on adequate pump flows.

4/8/2002 3:31PM - DON PETERSON:

Issue an action to Operations; Review SEN 174, focusing on "How does PBNP maintain adequate pump flow, under the conditions described in SEN 174. This action was discussed with Mr. Mark Rinzel, he has requested that it be sent to him.

4/30/2002 4:36PM - MARK RINZEL:

Corrective Action (CA) 4279 re-opened an evaluation of INPO SEN 174, "Loss of Non-Vital Bus Causes Dual unit SCRAM and degraded Auxiliary Feedwater System". The evaluation was re-opened based on a CARB request from 3/5/02 review of RCE 01-069, "Increased CDF in AFW PRA Model Due to Procedural Inadequacies Related to Loss of Instrument Air". The CARB requested this evaluation be re-opened to examine additional pumps, other than the AFW pumps, to ensure that adequate flow or recirculation flow would be maintained via procedures through these pumps to prevent damage.

To re-examine this issue, reviews of AOP-5B, "Loss of Instrument Air", EOP 0.1, "Reactor Trip Response" and EOP 1.3, "Transfer to Containment Sump Recirculation" were performed. In addition, conversation with three Licensed SROs were performed to identify where in the procedures adequate pump flows were addressed

The re-examination focused on safety related pumps necessary for unit shutdown or to dissipate decay heat and maintain core cooling. It was discovered that the AFW pump recirculation valves are unique in the fact that their recirculation valves fail closed upon loss of instrument air. (This was an original plant design function to ensure all flow going to the steam generators, and has since been rectified with the addition of a backup nitrogen supply to ensure the valves ability to be opened and stay open. This was done via the modification process).

Safety Injection system recirculation valves are locked to the open position. This is stated in AOP-5B, Attachment D, Part 2, "System Response", which states:

"Test line valves SI-897A and SI-897B are fail open with IA isolated. This maintains a recirc flow path for the SI pumps."

Feed and Condensate pumps and valves are covered in AOP-5B Attachment T.

"CS-2180, CS-2188, Main Feed Pump mini-recirc valves fail open, if doesn't go open, instructed to use the manual gag override to open the valve"

"CS-2252, Condensate Pump mini-recirc valve fails open, instructed to use the manual gag override to open the valve if it doesn't go open."

RCP Thermal Barriers are covered in AOP-5B Attachment H, Component Cooling

"RCP thermal barrier isolation valves fail open to maintain thermal barrier cooling"

AOP-5B, Attachment E covers the RHR system discharge and recirculation valves. These also fail open upon loss of instrument air. This will ensure adequate cooling to the pumps, however, creates a different issue. Due to the RH-624 and RH-625 (RHR Heat Exchanger Outlet valves) failing open, the potential exists for the RHR pumps to go into a runout condition when Containment Sump recirculation is put into operation. This is because of the supplies to and discharges from the Spray and SI pumps, as well as the RHR pumps, being maximized. This has been a known issue for some time and has been addressed within both the AOP-5B and EOP-1.3 procedures. To ensure that the RHR pumps do not go into a runout condition, the RH-624 and RH-625 outlet isolation valves, RH-716A and RH-716B are throttled to ensure a maximum RHR flow of 2200 gpm. In addition, in EOP 1.3, the SI to RHR supply valve, SI-857 (either A or B depending on the RHR train being used/lined up for sump recirc) is throttled

to maintain RHR pump discharge pressure less than 130 psig Therefore, the AOPs and EOPs address the issues of RHR and SI pump having inadequate flow, as well as preventing pump runout conditions, to ensure no damage to the pumps

Based on what was discovered through these reviews and conversations, it appears that the AFW pumps were in a unique situation, which has since been resolved. All other safety related/high profile pumps are protected from low or no flow damage, or pump runout, through steps built into the current EOPs and AOPs

Based on this information, the SEN and CARB concerns are believed adequately addressed No further actions are recommended at this time, and this action item may be closed.

4/30/2002 4:37PM - MARK RINZEL:
Evaluation completed, see above update.

5/13/2002 2:22:07 AM - DUANE SCHOON.
Action complete. Closed.

5/13/2002 2:04:47 PM - JULIE KREIL:
SEN 174 evaluation was re-evaluated. Based on what was discovered through these reviews and conversations, it appears that the AFW pumps were in a unique situation, which has since been resolved. All other safety related/high profile pumps are protected from low or no flow damage, or pump runout, through steps built into the current EOPs and AOPs. The SEN and CARB concerns are believed adequately addressed. No further actions are recommended. CLOSED CA004279 to completion of Requested Activity.

SECTION 4


QA Supervisor: (None) **Licensing Supervisor:** (None)


SECTION 5


Project: CAP Activities & Actions

State: Done **Active/Inactive:** Inactive

Owner: (None) **AR Type:** Parent

Submitter: DON PETERSON  **Assigned Date:** 4/12/2002

Last Modified Date: 5/13/2002 2:04:47 PM **Last Modifier:** JULIE KREIL 

Last State Change Date: 5/13/2002 2:04:47 PM **Last State Changer:** JULIE KREIL 

Close Date: 5/13/2002 2:04 47 PM

One Line Description: Probabilistic Risk Assessment PRA For Auxiliary Feedwater System AFW

NUTRK ID: CR 01-3595

Child Number: 0

References: CR 01-2278
RCE 01-069
GOOD CATCH
SEN 174
CR 97-1992
CR 98-0050
AOP 18
AOP 18A
EOP 0.1
EOP 1.3
AOP 5B

Update: E\20011204 PB2171 JMK1) Operability Determination (OD) Part I, Revision 0, of CR 01-3595 was approved on 11/30/01. Operable But Degraded - or Operable But Nonconforming -

meets the minimum required level of performances, compensatory measures ARE required
\\Operability Determination (OD) Part I, Revision 1 of CR 01-3595 was approved on 12/01/01.
Operable But Degraded - or Operable But Nonconforming - meets the minimum required level
of performances, compensatory measures ARE required.

Accepted into group and assigned priority 3. This questions the adequacy of an SEN
applicability determination and evaluation. Per NP 5.4.1, SEN are to be priority 3

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Priority = This is a reflash question towards the adquacy of a SEN closure from engineering
TPS


Import Memo Field:


CAP Admin: PBNP CAP Admin **Site:** Point Beach

OLD_ACTION_NUM:

Cartridge and Frame:

ATTACHMENTS AND PARENT/CHILD LINKS

 [CA003982 Probabilistic Risk Assessment PRA For Auxiliary Feedwater System AFW](#)

 [CAP001415 Probabilistic Risk Assessment PRA For Auxiliary Feedwater System AFW](#)