

Nuclear Power Business Unit
TEMPORARY CHANGE REVIEW AND APPROVAL

Note: Refer to NP 1.2.3, Temporary Procedure Changes, for requirements.

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I - INITIATION	
Doc Number	IT 10
Current Rev	43
Unit	PB0
Temp Change No.	2002-0048
Document Title TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED PUMPS AND VALVES (QRTLY)	
Existing Effective Temporary Changes	
Brief Description Include valves related to MR 01-144 (mini recirc control valve mod)	
(Identify specific changes on Form PBF-0026c, Document Review and Approval Continuation, and include with the package)	
<input checked="" type="checkbox"/> Initiate PBF-0026h and include with the change.	
Other documents required to be effective concurrently with the temporary change:	
Changes pre-screened according to NP 5.1.8?	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES (Provide documentation according to NP 5.1.8)
Screening completed according to NP 5.1.8?	<input type="checkbox"/> NA <input checked="" type="checkbox"/> YES (Attach copy)
Safety Evaluation Required? <input checked="" type="checkbox"/> NO <input type="checkbox"/> YES (If Yes, a revision may be processed or final reviews and approvals shall be obtained before implementing)	
Determine if the change constitutes a Change Of Intent to the procedure by evaluating the following questions. (If any answers are YES, a revision may be processed or final reviews and approvals shall be obtained before implementing)	
Will the proposed change:	
1. Require a change to, affect or invalidate a requirement, commitment, evaluation or description in the Current or ISFSI Licensing Basis (as defined in NP 5.1.8 and NP 5.1.7)?	YES NO <input type="checkbox"/> <input checked="" type="checkbox"/>
2. Cause an increase in magnitude, significance or impact such that it should be processed as a revision?	<input type="checkbox"/> <input checked="" type="checkbox"/>
3. Delete or modify a prerequisite, initial condition, precaution, limitation or other steps that could have safety significance or affect the procedure's margin of safety?	<input type="checkbox"/> <input checked="" type="checkbox"/>
4. Delete QC hold points, Independent Verification or Concurrent Check steps without the related step(s) that require the performance also being deleted?	<input type="checkbox"/> <input checked="" type="checkbox"/>
5. Change Tech Spec or other regulatory acceptance criteria other than for re-baselining purposes?	<input type="checkbox"/> <input checked="" type="checkbox"/>
6. Require a change to the procedure Purpose or change the procedure classification?	<input type="checkbox"/> <input checked="" type="checkbox"/>
Initiated By (print/sign)	Bill Herman <i>[Signature]</i> Date 02/06/2002
II - INITIAL APPROVAL	
This change is correct and complete, can be performed as written, and does not adversely affect personnel or nuclear safety, or Plant operating conditions.	
Group Supervisor (print/sign)	<i>[Signature]</i> Date 2/6/02 (Cannot be the Initiator)
This change does not adversely affect Plant operating conditions. (Safety Related procedures only)	
Senior Reactor Operator (print/sign)	<i>[Signature]</i> Date 2/6/02 (Cannot be the Initiator or Group Supervisor)
III - PROCEDURE OWNER REVIEW	
<input checked="" type="checkbox"/> Permanent <input type="checkbox"/> One-time Use <input type="checkbox"/> Expiration Date, Event or Condition:	
<input type="checkbox"/> Hold change until procedure completed (final review and approval still required within 14 days of initial approval)	
<input type="checkbox"/> QR/MSS Review NOT Required (Admin/NNSR only) <input checked="" type="checkbox"/> QR Review Required <input type="checkbox"/> MSS Review Required (Reference NP 1.6.5)	
Procedure Owner (print/sign)	<i>[Signature]</i> Date 2/6/02 This Change and supporting requirements correctly completed and processed.
IV - FINAL REVIEW AND APPROVAL	
(Must be completed within 14 days of initial approval) (The Initiator, QR and Approval Authority shall be independent from each other)	
QR/MSS (print/sign)	<i>[Signature]</i> Date 2/6/02 Indicates 50.59/72.48 applicability assessed, any necessary screenings/evaluations performed, determination made as to whether additional cross-disciplinary review required, and if required, performed.
MSS Meeting No.	
Approval Authority (print/sign)	<i>[Signature]</i> Date 2/6/02
V - REVISION INFORMATION FOR PERMANENT CHANGES	
Post Typing Review (print/sign)	<i>[Signature]</i> Date
Indicates temporary change(s) incorporated exactly as approved and no other changes made to document.	
Incorporated into Revision Number	Effective Date

REC'D JUL 10 2002

References: NP 1.2.3
A1148

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Other Comments

References: NP 1.13, NP 1.23

TEMPORARY CHANGE AFFECTED MANUAL LOCATION

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Procedure Number <u>IT 10</u>		Revision <u>43</u>	Unit <u>PB0</u>
Title <u>TEST OF ELECTRICALLY DRIVEN AUXILIARY FEED PUMPS AND VALVES (QUARTERLY)</u>			
Temporary Change Number <u>2002-0048</u>			
I - IMMEDIATELY AFTER INITIAL APPROVAL ON PBF-0026e (Non-Intent changes) (after Final Approval if change of intent involved)			
This procedure change has been processed as follows: (Manual/Location)			Date Performed
<input type="checkbox"/> Copy included in work package for field implementation. (WO No. _____)			
<input checked="" type="checkbox"/> Copy filed in Control Room temp change binder (Operations only).			<u>2-6-02</u>
<input checked="" type="checkbox"/> Original change package provided to <u>GRG</u> to obtain Procedure Owner Review (e.g., Owner review may be coordinated by In-Group OA II, Procedure Writer, Procedure Supervisor, etc.)			<u>2-6-02</u>
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
Performed By (print and sign) <u>Carol Schroeder / Carol Schroeder</u> Date <u>2-6-02</u>			
II - PROCEDURE OWNER REVIEW ON PBF-0026e (may be performed by OA II, Procedure Writer, etc.)			
This procedure change has been processed as follows: (Manual/Location)			Date Performed
<input checked="" type="checkbox"/> Copy sent to Document Control Distribution Lead for Master File. (Not required for one-time use change)			<u>2-6-02</u>
<input type="checkbox"/> Copy filed in Group satellite file. (Not required for one-time use changes.)			
<input type="checkbox"/> Copy filed in Group one-time use file.			
<input checked="" type="checkbox"/> Original Temp Change provided to <u>K6S</u> to obtain Final Approvals (e.g., final approval may be coordinated by In-Group OA II, Procedure Writer, Procedure Supervisor, etc.)			<u>2-6-02</u>
<input checked="" type="checkbox"/> <u>CR drawer</u>			<u>2-6-02</u>
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
Performed By (print and sign) <u>Carol Schroeder / Carol Schroeder</u> Date <u>2-6-02</u>			



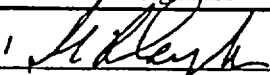
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Brief Activity Title or Description: IT 10, TEST OF ELECTRICALLY DRIVEN AUXILIARY FEED PUMPS AND VALVES (QUARTERLY) rev 43	
This form is required to be completed and attached to the applicable activity change forms (i.e., PBF-0026a/c, etc.) to document use of Pre-screening Criterion 3 through 6 for 10 CFR 50.59 / 72.48 review of proposed changes (see NP 5.1.8, 10 CFR 50.59/72.48 Applicability, Screening and Evaluation (New Rule) Section 4.6 and Attachment A.)	
Pre-screening Criterion 3 - Activity Covered by Existing 10 CFR 50.59 / 72.48 Screening or Evaluation	
Criterion 3 is <input type="checkbox"/> Not Applicable to the proposed activity.	
Identify the screening or evaluation number(s) (SE for old 50.59/72.48 rule evaluations, EVAL for new rule evaluations): SCR / SE / EVAL #(s): SCR 2002-0010	
If applicable, briefly summarize the parts of the proposed activity that are covered by Pre-screening Criterion 3. Include valves which as a result of (AFW MOTOR DRIVEN PUMP MINI RECIRC CONTROL VALVE MOD 01-144) now impact performance of nitrogen leakage portion of IT-10	
Pre-screening Criterion 4 - Activity Covered by Existing Approved and Valid Plant Procedure	
Criterion 4 is <input checked="" type="checkbox"/> Not Applicable to the proposed activity.	
Identify the applicable plant procedure. Procedure number, revision and title:	
If applicable, briefly summarize the parts of the proposed activity that are covered by Pre-screening Criterion 4.	
Pre-screening Criterion 5 - NRC has Reviewed and Approved the Activity.	
Criterion 5 is <input checked="" type="checkbox"/> Not Applicable to the proposed activity.	
Identify the NRC Safety Evaluation Report Number and/or Date. NRC SER(s) # or Date(s):	
If applicable, briefly summarize the parts of the proposed activity that are covered by Pre-screening Criterion 5.	
Pre-screening Criterion 6 - Maintenance Activity (NOTE: Dry cask or ISFSI facility maintenance <u>CANNOT</u> use this criterion. A screening is required for dry cask or ISFSI facility maintenance.)	
Criterion 6 is <input checked="" type="checkbox"/> Not Applicable to the proposed activity.	
If applicable, briefly summarize the parts of the proposed activity that are covered by Pre-screening Criterion 6.	
VERIFY THAT <u>NONE</u> OF THE FOLLOWING CHANGES ARE PRE-SCREENED TO CRITERION 6:	Verified
No changes to structure, system or component design, performance, acceptance criteria, types of materials, torque values outside of vendor recommended values, etc.	<input type="checkbox"/>
No temporary alterations to support maintenance or modification installation will be in place longer than 90 days. (If there is any doubt whether the temporary alteration will be removed in 90 days, perform a screening.)	<input type="checkbox"/>
No changes in acceptance criteria in technical specification surveillance or post-maintenance test procedures.	<input type="checkbox"/>

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10 CFR 50.59/72.48 PRE-SCREENING REVIEW CONCLUSION			
Preparer and Reviewer signatures below signify that the portions of the proposed activity as described above are within the scope of Prescreening Criteria 3, 4, 5, or 6 of NP 5.1.8.			
<u>EITHER</u> preparer <u>OR</u> reviewer shall be 50.59/72.48 screening or evaluation qualified.			
Performed By	Bill Herman		Date 2/6/02
	Name (Print)	Signature	
Reviewed By			Date 2/6/02
	Name (Print)	Signature	

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Verify SCR number on all pages
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Title of Proposed Activity: Backup Air Systems for Auxiliary Feedwater Pump Minimum Flow Recirculation Valves

Associated Reference(s) #: MR 02-001, MR 01-144, CR 01-2278, CR 01-3595, Calculation 2001-0056, Calculation 2002-0002, Calculation 2002-0001, Calculation M-09334-266-IA.1 Rev 0 - Nitrogen Backup System to AFW Pump Discharge Valve, Calculation S-09334-266-IA.2 Rev 2 - 3D Restraint with Girard Tube Clamp, Calculation 14410.11-NP(B)-001-XE Rev 0 - Qualification of 6 Foot Spans for 3/8 inch Tubing at PBNP, ASME Section VIII - Pressure Vessels, ASME B31.1 - Power Piping, IT 10, IT 10A, IT 10B, EOP 0, EOP 0.1, ECA 0.0, AOP 5B, MR 97-038, NPM 2002-0030, Calculation WE-0005-06

Prepared by: Rob Chapman
Name (Print)

[Signature]
Signature

Date: 1-25-02

Reviewed by: Dave Black
Name (Print)

[Signature]
Signature

Date: 1-25-2002

PART I (50.59/72.48) - DESCRIBE THE PROPOSED ACTIVITY AND SEARCH THE PLANT AND ISFSI LICENSING BASIS (Resource Manual 5.3.1)

NOTE: The "NMC 10 CFR 50.59 Resource Manual" (Resource Manual) and NEI 96-07, Appendix B, Guidelines for 10 CFR 72.48 Implementation should be used for guidance to determine the proper responses for 10 CFR 50.59 and 10 CFR 72.48 screenings.

- I.1** Describe the proposed activity and the scope of the activity being covered by this screening. (The 10 CFR 50.59 / 72.48 review of other portions of the proposed activity may be documented via the applicability and pre-screening process requirements in NP 5.1.8.) Appropriate descriptive material may be attached.

CR 01-2278, CR 01-3595 and LER 266/2001-005-00 identified an issue that could cause a common mode failure of all auxiliary feedwater pumps. If an accident or event has occurred that has led to the loss of instrument air, then the auxiliary feedwater pump minimum recirculation control valves 1/2AF-4002 for 1/2P-29, AF-4007 for P-38A, and AF-4014 for P-38B will all fail closed. During this event, it will become necessary for operations to throttle back auxiliary feedwater flow to control steam generator level, especially if all four auxiliary feedwater pumps auto start as designed. If care is not taken to ensure that the minimum recirculation valves are open, and the pump discharge valves are shut with no minimum flow path, then the pumps will dead head and fail in a very short time due to overheating. Currently, there is guidance in EOP 0, EOP 0.1, ECA 0.0, and AOP 5B to direct operations to verify adequate pump flow if instrument air has been lost before reducing flow to the steam generators, or to stop the pump.

To provide additional assurance that the auxiliary feedwater pumps will not be damaged on a loss of instrument air, backup air sources will be supplied to all minimum flow recirculation valves. These modifications are an enhancement that will reduce the core damage probability from a loss of instrument air and increase the time for an operator to take manual action to override the valves open. Instrument air accumulator tanks will be installed by MR 02-001 for the 1/2P-29 valves (1/2AF-4002), and the existing nitrogen backup system for the MDAFP discharge valves will be tied in by MR 01-144 for the P-38A/B valves (AF-4007, AF-4014).

Currently, the auxiliary feedwater minimum flow recirculation valves do not have a safety function in the open position, however this function is a design function described in FSAR Section 10.2 and Technical Specification Bases B3.7.5. The basis for the recirculation valves not having a safety function in the open position is that all of the auxiliary feedwater pumps will have open discharge valves upon auto-start (even with a loss of instrument air), and thus the minimum flow recirculation line is not needed early in the accident or event. These minimum recirculation valves currently have an augmented quality function to open (by manual override) to ensure adequate flow through the associated auxiliary feedwater pump during an Appendix R fire within 45 minutes (per

Calculation WE-0005-06), and the backup systems installed by these modifications may be credited to support this function.

These modifications will provide a sufficient secondary source of air or nitrogen such that these valves are able to operate for at least two hours stroking 10 times per hour if the regular instrument air system is disabled due to a seismic event, tornado, fire, or loss of offsite power. No changes will be made to the control circuitry of the valves, and they will still open automatically when the auxiliary feedwater pump flow drops below the setpoint, when the pumps are started, and when the pumps are secured.

MR 02-001 – 1/2AF-4002 - TDAFP Mini Recirc Valves

For 1/2AF-4002, a stainless steel accumulator tank will be installed in each of the instrument air lines to the mini recirc valves. Upstream of these tanks will be two check valves in series that will isolate the tank from the rest of the instrument air system. These check valves will be spring loaded and will shut on a very small differential pressure to ensure that the tank pressure will remain as high as possible when the instrument air pressure drops. The volume of the tanks will be approximately 150 gallons, which is greater than the required minimum volume determined by Calculation 2001-0056 to be needed to stroke each valve 10 times per hour for two hours. In order to reduce the amount of air required to stroke the valve and thus the tank size, the pressure regulator for the AF-4002 valves which is currently set at 85 psig, and will be re-set to 65 psig. The valve will still stroke full open at this pressure. Calculation 2001-0056 has also verified that these valves will pass full flow even when less than 20% open, since the flow restricting orifices 1/2RO-4003 govern the flow rate in the recirculation line and have the lowest flow coefficient.

The accumulator tanks will be ASME code vessels, designed to Section VIII, and will be rated to 200 psig. These tanks will be installed in the north and south sections of the auxiliary feedwater pump room (not in the pump cubicles). The tank locations were chosen based on the best possible tubing run, and to limit obstructions to plant equipment. Isolation valves will be installed to permit replacement of the check valves should leakage or failure occur. The tubing will be configured such that system pressure can be used to test each the check valves, if necessary.

The new tubing will be routed through the wall that separates the 1P-29 cubicle from the south section of the auxiliary feedwater pump room (Fire Zone 304S). This is a 3 hour rated fire wall that is considered a partition within a fire zone. The penetration will be filled and the wall will maintain its 3 hour fire rating.

MR 01-144 – AF-4007 and AF-4014 – MDAFP Mini Recirc Valves

The existing nitrogen supply systems for the AF-4012 and AF-4019 MDAFP Discharge Control Valves (one independent system for each valve) will be used to supply the AF-4007 and AF-4014 MDAFP Minimum Recirculation Control Valves. The existing instrument air isolation check valves AF-131/133 (for AF-4012) and AF-151/153 (AF-4019) and nitrogen tubing and tanks will be used for the AF-4007 and AF-4014 valves. New tubing will be installed to connect the nitrogen supply tubing near the AF-4012/4019 valves downstream of the check valves to the AF-4007/4014 minimum recirculation valves. Also, a bypass line will be installed around the AF-133/153 check valves to allow the AF-131/151 check valves to be tested using system pressure, if necessary. The existing instrument air connections to the AF-4007/4014 valves will be capped.

The nitrogen system pressure regulators (PCV-4053/4058) are currently set to 60 psig, and will be re-set to 65 psig. This will increase the margin for stroking the recirculation valves open, although this is still less than the normal valve regulator setting of 100 psig. Calculation 2002-0002 has verified that these valves are full open at this pressure, and that they will pass full flow even when less than 20% open, since the flow restricting orifices RO-4008/4015 govern the flow rate and have the lowest flow coefficient in the recirculation line. This increase in pressure regulator setting will not affect the discharge valve positioners, since they normally operate with 100 psig instrument air, but only require 45 psig.

The existing nitrogen supply system installed by MR 97-038 consists of two nitrogen bottles, with one valved in and the other bottle maintained full in standby mode. When the aligned bottle pressure drops to the changeout point, the standby bottle is aligned, and the drain bottle is replaced with a full bottle. Calculation

2002-0002 determined the changeout pressure for the bottle that will supply 90 minutes of nitrogen to the discharge and minimum recirculation valves. Therefore, there is always greater than three hours of capacity available in the system at any given time, although operator action is required to align the standby bottle.

Although the AF-4007/4014 valves do not have a safety function to open, all components in the air supply line to the valve will be installed as safety related, since it will be part of the pressure boundary for the existing discharge valve backup system, which was installed safety-related by MR 97-038. Several existing instrument air components upstream of the solenoid valve that are not safety related will be reclassified as safety related. This can be done on the basis that these components have demonstrated adequate functionality over time, and these components will also be leak tested by MR 01-144. This is equivalent to qualification testing, and therefore these components may be dedicated. Furthermore, the dimensions of these components have been verified to be appropriate for the installation. Finally, the material acceptability will be evaluated based on a detailed walkdown.

Common Issues

All new tubing and valves installed for both modifications will be stainless steel and have design ratings that are the same as or greater than the existing components. All new components will be installed using ASME B31.1. All new tubing, valves, and accumulators will be analyzed as seismic Class 1. Standard wall mounted tube supports will be used and supported with Hilti bolts into the walls of the auxiliary feedwater pump room. Calculation 14410.11-NP(B)-001-XE Rev 0 (including Addendum A) provides a seismic basis for the use of tubing supports and a required spacing, and the limitations of this calculation shall apply to all tubing installation. Supports for the pressure gauges for MR 02-001 will be designed in accordance with Calculation S-09334-266-IA.2 Rev 2. The floor supports for the accumulator tanks were seismically analyzed by Calculation 2001-0001. Portions of the system not covered by any calculation will receive a SQUG walkdown to ensure seismic adequacy.

Currently the nitrogen system AF-133/153 check valves are safety-related and in the IST program. They are leak tested quarterly by IT 10, and are also tested by IT 10A and IT 10B. The upstream check valves AF-131/151 will not be tested periodically, but a bypass line is being installed to facilitate testing, should it be necessary in the future. The check valves for the instrument air accumulator will not be part of the IST program, nor will they be periodically tested. They will be tested as PMT for the modification. Since the accumulators are not supporting a safety function of the AF-4002 recirculation valves, then there is no need to periodically test these check valves.

The specified two hour time duration on the backup systems is not a licensing basis requirement. There is a one hour required coping duration for the Station Blackout event (FSAR Appendix A.1), and a 45 minute requirement for Appendix R (Calculation WE-0005-06), but no other time requirements are specified. Two hours was chosen conservatively to be enough time to allow an operator to be dispatched to the auxiliary feedwater pump room to take manual action if necessary, and to bound current and future requirements. The sizing of these systems with a two hour capability does not imply a new licensing basis requirement to supply these valve for two hours.

The minimum recirculation valves were assumed in each of the calculations to stroke 10 times per hour. This is a conservative estimate that was also used in the original calculation for the MDAFP discharge valve nitrogen backup system (Calculation M-09334-266-IA.1). Simulator runs have confirmed that this is very conservative since operations personnel will typically attempt to maintain the steam generator levels steady by balancing auxiliary feedwater flow with steam flow. See Calculations 2001-0056 and 2002-0002 for more details on this assumption.

Modifications MR 01-144 and MR 02-001 and the issue documented in LER 2001-005-00 will necessitate a revision to FSAR Sections 9.7 (Instrument Air) and 10.2 (Auxiliary Feedwater) and to Technical Specification Bases 3.7.5 to clearly reflect the design function of the minimum recirculation valves to open and to describe the backup air supplies installed by these modifications.

Necessary updates to Appendix R documents to take credit for the backup systems will be evaluated by a separate 50.59. However, this 50.59 can provide the basis for the backup systems to perform this function.

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- I.2 Search the PBNP Current Licensing Basis (CLB) as follows: Final Safety Analysis Report (FSAR), FSAR Change Requests (FCRs) with assigned numbers, the Fire Protection Evaluation Report (FPER), the CLB (Regulatory) Commitment Database, the Technical Specifications (both Custom and Improved), the Technical Specifications Bases, and the Technical Requirements Manual. Search the ISFSI licensing basis as follows: VSC-24 Safety Analysis Report, the VSC-24 Certificate of Compliance, the CLB (Regulatory) Commitment Database, and the VSC-24 10 CFR 72.212 Site Evaluation Report. Describe the pertinent design function(s), performance requirements, and methods of evaluation for both the plant and for the cask/ISFSI as appropriate. Identify where the pertinent information is described in the above documents (by document section number and title). (Resource Manual 5.3.1 and NEI 96-07, App. B, B.2)

FSAR Section 7.4.1 – AMSAC
FSAR Section 9.7 – Instrument Air / Service Air
FSAR Section 10.2 – Auxiliary Feedwater
FSAR Figure 10.2-1 Sheet 1 – Bech M-217 Sh. 1 – Auxiliary Feedwater System
FSAR Figure 10.2-1 Sheet 2 – Bech M-217 Sh. 2 – Auxiliary Feedwater System
FSAR Section 14.1.10 – Loss of Normal Feedwater
FSAR Section 14.1.11 – Loss of All AC Power to the Station Auxiliaries
FSAR Section 14.2.4 – Steam Generator Tube Rupture
FSAR Section 14.2.5 – Rupture of a Steam Pipe
FSAR Appendix A.1 – Station Blackout
FPER 5.2.2 – Safe Shutdown Systems and Equipment
FPER 5.2.5.2.3 – Auxiliary Feedwater Pump Room
SSAR 2.3.1.4 – Reactor Heat Removal Function
SSAR 2.3.2.4 – Auxiliary Feedwater System
Tech Spec 3.7.5 – Auxiliary Feedwater
Tech Spec Bases B 3.7.5 – Auxiliary Feedwater
LER 266/2001-005-00

See Part II for the description of the design functions and performance requirements.

- I.3 Does the proposed activity involve a change to any Custom or Improved Technical Specification (ITS)? Changes to Technical Specifications require a License Amendment Request (Resource Manual Section 5.3.1.2).

Technical Specification Change : ☐ Yes ☒ No

If a Technical Specification change is required, explain what the change should be and why it is required.

- I.4 Does the proposed activity involve a change to the terms, conditions or specifications incorporated in any VSC-24 cask Certificate of Compliance (CoC)? Changes to a VSC-24 cask Certificate of Compliance require a CoC amendment request.

☐ Yes ☒ No

If a storage cask Certificate of Compliance change is required, explain what the change should be and why it is required.

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PART II (50.59) - DETERMINE IF THE CHANGE INVOLVES A DESIGN FUNCTION (Resource Manual 5.3.2)

Compare the proposed activity to the relevant CLB descriptions, and answer the following questions:

YES	NO	QUESTION
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the proposed activity involve Safety Analyses or structures, systems and components (SSCs) credited in the Safety Analyses?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the proposed activity involve SSCs that support SSC(s) credited in the Safety Analyses?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the proposed activity involve SSCs whose failure could initiate a transient (e.g., reactor trip, loss of feedwater, etc.) or accident, <u>OR</u> whose failure could impact SSC(s) credited in the Safety Analyses?
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Does the proposed activity involve CLB-described SSCs or procedural controls that perform functions that are required by, or otherwise necessary to comply with, regulations, license conditions, orders or technical specifications?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the activity involve a <i>method of evaluation</i> described in the FSAR?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is the activity a <i>test or experiment</i> ? (i.e., a non-passive activity which gathers data)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the activity exceed or potentially affect a <i>design basis limit for a fission product barrier (DBLFPB)</i> ? (NOTE: If <u>THIS</u> questions is answered <u>YES</u> , a 10 CFR 50.59 Evaluation is required.)

If the answers to ALL of these questions are NO, mark Part III as not applicable, document the 10 CFR 50.59 screening in the conclusion section (Part IV), then proceed directly to Part V - 10 CFR 72.48 Pre-screening Questions.

If any of the above questions are marked YES, identify below the specific design function(s), method of evaluation(s) or DBLFPB(s) involved.

These modifications affect the operation of the minimum recirculation valves for the auxiliary feedwater pumps (1/2AF-4002, AF-4007, AF-4014). These valves have the following design functions:

- A.1. To isolate the minimum recirculation line to ensure that the auxiliary feedwater pumps deliver the required flow to the steam generators as needed to support the following accidents or events: LONF, LOAC, MSLB, SGTR, ATWS, Appendix R, and SBO.
- A.2. To open to provide flow through the auxiliary feedwater pumps to prevent hydraulic instabilities and to dissipate pump heat.
- A.3. To maintain the pressure boundary integrity of the auxiliary feedwater system.

These modifications affect the auxiliary feedwater system, which has the following design functions:

- B.1. To automatically start and ensure that adequate feedwater is supplied to the steam generators for heat removal during accidents which may result in a main steam safety valve opening (LONF – including ATWS, and LOAC).
- B.2. To automatically start and provide flow to maintain steam generator levels during accidents which require or result in rapid reactor coolant system cooldown (SGTR, MSLB).
- B.3. To allow the isolation of all lines to the ruptured steam generator in the SGTR event.
- B.4. To provide sufficient feedwater to remove decay heat for one hour during a station blackout event (TDAFP only).
- B.5. To provide sufficient flow to the steam generators to remove decay heat to achieve cold shutdown within 72 hours following a plant fire (Appendix R).
- B.6. To withstand a seismic event (designed as seismic Class 1) and to ensure that steam generator levels are maintained during a seismic event.
- B.7. To provide flow to the steam generators during plant startup and shutdown, and during hot shutdown or hot standby conditions for chemical additions and when operation of the main feedwater and condensate systems is not warranted.

These modifications also affect the instrument air system, which has the following design functions:

- C.1. To provide dry, oil-free air to pneumatic controllers and control valves required for the normal operation of both units.
- C.2. To isolate instrument air lines inside containment on a containment isolation signal to maintain containment integrity.
- C.3. To ensure that the purge supply and exhaust valve boot seals are inflated to maintain containment integrity.
- C.4. To supply nitrogen to the motor driven auxiliary feedwater pump discharge control valves.
- C.5. To supply nitrogen to the power operated relief valves (PORVs) when LTOP is functional.
- C.6. To ensure that the instrument air headers inside containment can be depressurized to preclude the chance of a circuit fault causing a PORV or CVCS seal return valve to open.

These modifications are being installed in the Auxiliary Feedwater Pump Room, which has the following design functions:

- D.1. The walls act as 3-hour rated fire barriers
- D.2. The walls are designed to withstand a seismic event without failing.

PART III (50.59) - DETERMINE WHETHER THE ACTIVITY INVOLVES ADVERSE EFFECTS (Resource Manual 5.3.3)

If ALL the questions in Part II are answered NO, then Part III is ☐ NOT APPLICABLE.

Answer the following questions to determine if the activity has an *adverse effect* on a design function. Any YES answer means that a 10 CFR 50.59 Evaluation is required; EXCEPT where noted in Part III.3.

III.1 CHANGES TO THE FACILITY OR PROCEDURES

YES	NO	QUESTION
-----	----	----------

- | | | |
|--------------------------|-------------------------------------|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the activity adversely affect the <i>design function</i> of an SSC credited in safety analyses? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the activity adversely affect the method of performing or controlling the <i>design function</i> of an SSC credited in the safety analyses? |

If any answer is YES, a 10 CFR 50.59 Evaluation is required. If both answers are NO, describe the basis for the conclusion (attach additional discussion as necessary):

The modifications will improve the ability for the minimum flow recirculation valves to perform their non safety-related design function in the open position (A.2). Currently, this design function is completely provided by either the instrument air system or by manual operator action. These modifications will install backup systems to perform this design function after instrument air is lost before operator action is taken. These backup systems (nitrogen bottles and air accumulators) will always be available if the instrument air system fails, and will be isolated from the instrument air system with two check valves in series. The backup systems for the recirculation valves will be installed using safety-related components, even though they are not supporting a safety function for the minimum recirculation valves. The components for the MDAFP recirculation valves will be classified as safety-related since they are part of the nitrogen system pressure boundary required for the AF-4012/4019 valves. The components for the TDAFP recirculation valves will be installed as augmented quality, seismic Class 1. There will not be an adverse effect on the existing non safety-related instrument air system that currently supports this design function. The recirculation valves will need to operate at a lower air pressure of 65 psig, but the valves will still fully open at this pressure, and Calculations 2001-0056 and 2002-0002 has shown that the valves will pass adequate flow to perform this design function when they are only approximately 20% open. The net effect of these modifications is an improvement that results in a lower core damage probability (see NPM 2002-0030), and will ensure that the minimum flow recirculation valves have the capability to open and that the auxiliary feedwater pumps will not be damaged by operating at low flows. Therefore, design function A.2 is not adversely affected, and is actually enhanced. This will provide the operators with additional time to diagnose the loss of instrument air and take action to properly control auxiliary feedwater flow and secure pumps if required.

Under most conditions when the auxiliary feedwater system is needed, the recirculation valves must be closed (design function A.1). The addition of these backup systems will not create a new failure mode that will fail the valve in the open position when it is needed to be shut. The source of the air is independent of the circuitry that would open and close the valve. The solenoid valves and associated circuitry that supply the air to the actuator are being not being affected, and are currently qualified as safety-related. The minimum recirculation valves will still fail closed on loss of air, although this failure is less likely to occur with the installation of these backup systems. Therefore, these modifications will not have an adverse effect on design function A.1, and the likelihood that the valves will fail open has not been affected.

These modifications will not affect the auxiliary feedwater pressure boundary in any way, and thus design function A.3 is not adversely affected. The modifications will only involve the instrument air and nitrogen systems that actuate the minimum recirculation valves and the MDAFP discharge valves.

The air accumulators for the TDAFP recirc valves installed in the instrument air lines will not adversely affect any of the design functions of the instrument air system (C.1 through C.6). Once the accumulators have been pressurized, there is no additional long-term loading on the system required by installing accumulator tanks. The tank will not affect the operation of the other safety related accumulators or nitrogen bottles anywhere in the instrument air system. The accumulator tanks and all new tubing will be installed and anchored as seismic Class 1, which will preclude interactions with other plant equipment.

The nitrogen tie in for the MDAFP recirc valves will utilize the existing nitrogen backup system for the MDAFP discharge control valves. Calculation 2002-0002 was performed to show that the existing nitrogen bottles are adequate to supply nitrogen to stroke the minimum recirculation valves and the discharge valves, with no additional bottles necessary, for two hours. Nitrogen bottle changeout at a pressure that ensures 90 minutes from one bottle with a second full bottle available will not change from current practice, other than the changeout pressure will be reduced, which is an improvement. There will be a negligible effect on the discharge valves stroke time to close by opening the recirculation valve with the same system. Furthermore, there are currently no stroke time acceptance criteria for the discharge valves opening and the recirculation valves closing. Since the calculation has shown that the existing system can handle the additional demand, there is no adverse affect on the discharge valves, and there is therefore no adverse effect on design function C.4. The backup nitrogen systems for the MDAFP discharge valves will still be fully capable of supporting the design functions of the MDAFPs and the auxiliary feedwater system (functions B.1 through B.7).

All new components, including the new tubing, valves, and accumulator tanks will be designed as seismic Class 1. Therefore, the components installed by MR 01-144 and MR 02-001 will not adversely affect the seismic design functions of any components or systems in the auxiliary feedwater pump room (design function D.2) and the auxiliary feedwater system (design function B.6).

The new components will not affect the ability of the auxiliary feedwater pump room walls to act as 3 hour rated fire barriers (design function D.1). No additional combustible loading is being added to the auxiliary feedwater pump room (Fire Zones 304N, 304M, 304S).

III.2 CHANGES TO A METHOD OF EVALUATION

(If the activity does not involve a method of evaluation, these questions are ☒ NOT APPLICABLE.)

YES	NO	QUESTION
-----	----	----------

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Does the activity use a revised or different method of evaluation for performing safety analyses than that described in the CLB? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the activity use a revised or different method of evaluation for evaluating SSCs credited in safety analyses than that described in the CLB? |

If any answer is YES, a 10 CFR 50.59 Evaluation is required. If both answers are NO, describe the basis for the conclusion (attach additional discussion, as necessary).

III.3 TESTS OR EXPERIMENTS

If the activity is not a test or experiment, the questions in III.3.a and III.3.b are ☒ NOT APPLICABLE.

a. Answer these two questions first:

YES	NO	QUESTION
-----	----	----------

- | | | |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Is the proposed test or experiment bounded by other tests or experiments that are described in the CLB? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are the SSCs affected by the proposed test or experiment isolated from the facility? |

If the answer to BOTH questions in V.3.a is NO, continue to III.3.b. If the answer to EITHER question is YES, then describe the basis.

b. Answer these additional questions ONLY for tests or experiments which do NOT meet the criteria given in III.3.a above. If the answer to either question in III.3.a is YES, then these three questions are ☐ NOT APPLICABLE.

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YES	NO	QUESTION
<input type="checkbox"/>	<input type="checkbox"/>	Does the activity utilize or control an SSC in a manner that is outside the reference bounds of the design bases as described in the CLB?
<input type="checkbox"/>	<input type="checkbox"/>	Does the activity utilize or control an SSC in a manner that is inconsistent with the analyses or descriptions in the CLB?
<input type="checkbox"/>	<input type="checkbox"/>	Does the activity place the facility in a condition not previously evaluated or that could affect the capability of an SSC to perform its intended functions?

If any answer in III.3.b is YES, a 10 CFR 50.59 Evaluation is required. If the answers in III.3.b are ALL NO, describe the basis for the conclusion (attach additional discussion as necessary):

Part IV - 10 CFR 50.59 SCREENING CONCLUSION (Resource Manual 5.3.4).

Check all that apply:

A 10 CFR 50.59 Evaluation is ☐ required or ☒ NOT required.

A Point Beach FSAR change is ☒ required or ☐ NOT required. If an FSAR change is required, then initiate an FSAR Change Request (FCR) per NP 5.2.6.

A Regulatory Commitment (CLB Commitment Database) change is ☐ required or ☒ NOT required. If a Regulatory Commitment Change is required, initiate a commitment change per NP 5.1.7.

A Technical Specification Bases change is ☒ required or ☐ NOT required. If a change to the Technical Specification Bases is required, then initiate a Technical Specification Bases change per NP 5.2.15.

A Technical Requirements Manual change is ☐ required or ☒ NOT required. If a change to the Technical Requirements Manual is required, then initiate a Technical Requirements Manual change per NP 5.2.15.

10 CFR 72.48 SCREENING

NOTE: NEI 96-07, Appendix B, Guidelines for 10 CFR 72.48 Implementation should be used for guidance to determine the proper responses for 72.48 screenings.

PART V (72.48) - 10 CFR 72.48 INITIAL SCREENING QUESTIONS

Part V determines if a full 10 CFR 72.48 screening is required to be completed (Parts VI and VII) for the proposed activity.

YES	NO	QUESTION
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the proposed activity involve <u>IN ANY MANNER</u> the dry fuel storage cask(s), the cask transfer/transport equipment, any ISFSI facility SSC(s), or any ISFSI facility monitoring as follows: Multi-Assembly Sealed Basket (MSB), MSB Transfer Cask (MTC), MTC Lifting Yoke, Ventilated Concrete Cask (VCC), Ventilated Storage Cask (VSC), VSC Transporter (VCST), ISFSI Storage Pad Facility, ISFSI Storage Pad Data/Communication Links, or PPCS/ISFSI Continuous Temperature Monitoring System?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the proposed activity involve <u>IN ANY MANNER</u> SSC(s) installed in the plant specifically added to support cask loading/unloading activities, as follows: Cask Dewatering System (CDW), Cask Reflood System (CRF), or Hydrogen Monitoring System?
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Does the proposed activity involve <u>IN ANY MANNER</u> SSC(s) needed for plant operation which are also used to support cask loading/unloading activities, as follows: Spent Fuel Pool (SFP), SFP Cooling and Filtration (SF), Primary Auxiliary Building Ventilation System (VNPAB), Drumming Area Ventilation System (VNDRM),

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RE-105 (SFP Low Range Monitor), RE-135 (SFP High Range Monitor), RE-221 (Drumming Area Vent Gas Monitor), RE-325 (Drumming Area Exhaust Low-Range Gas Monitor), PAB Crane, SFP Platform Bridge, Truck Access Area, or Decon Area?

- ☐ ☒ Does the proposed activity involve a change to Point Beach CLB design criteria for external events such as earthquakes, tornadoes, high winds, flooding, etc.?
- ☐ ☒ Does the activity involve plant heavy load requirements or procedures for areas of the plant used to support cask loading/unloading activities?
- ☐ ☒ Does the activity involve any potential for fire or explosion where casks are loaded, unloaded, transported or stored?

If ANY of the Part V questions are answered YES, then a full 10 CFR 72.48 screening is required and answers to the questions in Part VI and Part VII are to be provided. If ALL the questions in Part V are answered NO, then check Parts VI and VII as not applicable. Complete Part VIII to document the conclusion that no 10 CFR 72.48 evaluation is required.

PART VI (72.48) - DETERMINE IF THE CHANGE INVOLVES A ISFSI LICENSING BASIS DESIGN FUNCTION

(If ALL the questions in Part V are NO, then Part VI is ☒ NOT APPLICABLE.)

Compare the proposed activity to the relevant portions of the ISFSI licensing basis and answer the following questions:

- | YES | NO | QUESTION |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | Does the proposed activity involve cask/ISFSI Safety Analyses or plant/cask/ISFSI structures, systems and components (SSCs) credited in the Safety Analyses? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the proposed activity involve plant, cask or ISFSI SSCs that support SSC(s) credited in the Safety Analyses? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the proposed activity involve plant, cask or ISFSI SSCs whose function is relied upon for prevention of a radioactive release, <u>OR</u> whose failure could impact SSC(s) credited in the Safety Analyses? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the proposed activity involve cask/ISFSI described SSCs or procedural controls that perform functions that are required by, or otherwise necessary to comply with, regulations, license conditions, CoC conditions, or orders? |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the activity involve a <i>method of evaluation</i> described in the ISFSI licensing basis? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is the activity a <i>test or experiment</i> ? (i.e., a non-passive activity which gathers data) |
| <input type="checkbox"/> | <input type="checkbox"/> | Does the activity exceed or potentially affect a cask <i>design basis limit for a fission product barrier (DBLFPB)</i> ?
(NOTE: If <u>THIS</u> questions is answered <u>YES</u> , a 10 CFR 72.48 Evaluation is required.) |

If the answers to ALL of these questions are NO, mark Parts VII as not applicable, and document the 10 CFR 72.48 screening in the conclusion section (Part VIII).

If any of the above questions are marked YES, identify below the specific design function(s), method of evaluation(s) or DBLFPB(s) involved.

PART VII (72.48) - DETERMINE WHETHER THE ACTIVITY INVOLVES ADVERSE EFFECTS (NEI 96-07, Appendix B, Section B.4.2.1)

(If ALL the questions in Part V or Part VI are answered NO, then Part VII is ☒ NOT APPLICABLE.)

Answer the following questions to determine if the activity has an *adverse effect* on a design function. Any YES answer means that a 10 CFR 72.48 Evaluation is required; EXCEPT where noted in Part VII.3.

VII.1 Changes to the Facility or Procedures

YES NO QUESTION

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- ☐ ☐ Does the activity adversely affect the *design function* of a plant, cask, or ISFSI SSC credited in safety analyses?
- ☐ ☐ Does the activity adversely affect the method of performing or controlling the *design function* of a plant, cask, or ISFSI SSC credited in the safety analyses?

If any answer is YES, a 10 CFR 72.48 Evaluation is required. If both answers are NO, describe the basis for the conclusion (attach additional discussion, as necessary):

VII.2 Changes to a Method of Evaluation

(If the activity does not involve a method of evaluation, these questions are ☐ NOT APPLICABLE.)

YES NO QUESTION

- ☐ ☐ Does the activity use a revised or different method of evaluation for performing safety analyses than that described in a cask SAR?
- ☐ ☐ Does the activity use a revised or different method of evaluation for evaluating SSCs credited in safety analyses than that described in a cask SAR?

If any answer is YES, a 10 CFR 72.48 Evaluation is required. If both answers are NO, describe the basis for the conclusion (attach additional discussion, as necessary):

VII.3 Tests or Experiments

(If the activity is not a test or experiment, the questions in VII.3.a and VII.3.b are ☐ NOT APPLICABLE.)

a. Answer these two questions first:

YES NO QUESTION

- ☐ ☐ Is the proposed test or experiment bounded by other tests or experiments that are described in the cask ISFSI licensing basis?
- ☐ ☐ Are the SSCs affected by the proposed test or experiment isolated from the cask(s) or ISFSI facility?

If the answer to both questions is NO, continue to VII.3.b. If the answer to EITHER question is YES, then briefly describe the basis.

b. Answer these additional questions ONLY for tests or experiments which do not meet the criteria given in VII.3.a above. If the answer to either question in VII.3.a is YES, then these three questions are ☐ NOT APPLICABLE:

YES NO QUESTION

- ☐ ☐ Does the activity utilize or control an SSC in a manner that is outside the reference bounds of the design bases as described in the ISFSI licensing basis?
- ☐ ☐ Does the activity utilize or control a plant, cask or ISFSI facility SSC in a manner that is inconsistent with the analyses or descriptions in the ISFSI licensing basis?
- ☐ ☐ Does the activity place the cask or ISFSI facility in a condition not previously evaluated or that could affect the capability of a plant, cask, or ISFSI SSC to perform its intended functions?

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If any answer in VII.3.b is YES, a 10 CFR 72.48 Evaluation is required. If the answers are all NO, describe the basis for the conclusion (attach additional discussion as necessary):

PART VIII - DOCUMENT THE CONCLUSION OF THE 10 CFR 72.48 SCREENING

Check all that apply:

A 10 CFR 72.48 Evaluation is ☐ required or ☒ NOT required. Obtain a screening number and provide the original to Records Management regardless of the conclusion of the 50.59 or 72.48 screening.

A VSC-24 cask Safety Analysis Report change is ☐ required or ☒ NOT required. If a VSC-24 cask SAR change is required, then contact the Point Beach Dry Fuel Storage group supervisor.

A Regulatory Commitment (CLB Commitment Database) change is ☐ required or ☒ NOT required. If a Regulatory Commitment Change is required, initiate a commitment change per NP 5.1.7.

A change to the VSC-24 10 CFR 72.212 Site Evaluation Report is ☐ required or ☒ NOT required. If a VSC-24 10 CFR 72.212 Site Evaluation Report change is required, then contact the Point Beach Dry Fuel Storage group supervisor.

Point Beach Nuclear Plant
PROCEDURE RECORD AND FIELD COPY TRACKING

Record/Field Copy Identification

RECORD

Field Copy Number

RED - Record Copy; BLACK - Field Copy

Procedure Number IT-10

Unit _____

Revision Number 43 (TC)
(2002-049)

Procedure Title TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED PUMPS Revision Date 4/7/01

Procedure AND VALVES (ORTLY) Revision Checked and Current; Tracking Checked for Temporary Changes:

By [Signature]

Date 2/6/02

Record Copy Holder/Location _____

Pages 1-19, 33-42, 49, 50, 52, 53

FIELD COPY DISTRIBUTION

Copy No.	Holder/Location	Issue Date	Return Date
1			
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3			
4			
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7			
8			
9			
10			

NOTE 1: ANY TEMPORARY CHANGES MADE TO THIS PROCEDURE SHALL BE MADE TO THE RECORD COPY AND ALL OTHER FIELD COPIES THAT HAVE BEEN ISSUED.

NOTE 2: RETURN ALL FIELD COPIES TO THE HOLDER OF THE RECORD COPY UPON PROCEDURE COMPLETION.

IT 10

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED PUMPS AND VALVES (QUARTERLY)

DOCUMENT TYPE: Technical

CLASSIFICATION: Safety Related

REVISION: 43

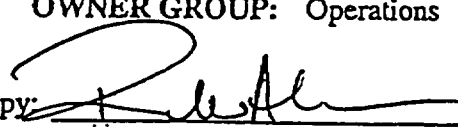
EFFECTIVE DATE: July 5, 2001

REVIEWER: Qualified Reviewer

APPROVAL AUTHORITY: Department Manager

PROCEDURE OWNER (title): Group Head

OWNER GROUP: Operations

Verified Current Copy: 

Signature

Date

Time

List pages used for Partial Performance

1-19, 33-42, 49, 50, 52, 53

Controlling Work Document Numbers

A
TRAIN

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

4.0 INITIAL CONDITIONS

4.1 This test is being done to satisfy:

☒ The normally scheduled callup. Task sheet No. 9935751.

NOTE: If this test is being performed to satisfy PMT or off-normal frequency requirements, Shift Management may N/A those portions of the procedure that are NOT applicable for the performance of the PMT. The use of N/A is NOT acceptable for Initial Conditions, Precautions and Limitations, or procedure steps that pertain to the equipment requiring PMT, nor is it acceptable for restoration of equipment/components unless the component has been declared inoperable.

NOTE: If this test is being performed to satisfy pump PMT requirements any vibration levels above 0.325 ips measured at any ASME Section XI Code required location shall be evaluated by engineering prior to declaring the pump operable.

_____ Post maintenance operability test
Equipment ID _____
WO No(s). 9930688, 9935752
Task Sheet No.(s) _____
_____ Special test - no numbers.
Explain: _____

- 4.2 Auxiliary feed system lined up for critical operation per CL 13E, Part 2, Auxiliary Feedwater Valve Lineup Motor-Driven. mf
- 4.3 Standby emergency power shall be available to the 4160 V safeguards buses 1A05, 1A06, 2A05, 2A06, or the component(s) to be tested is/are in the same train that is out of service. mf
- 4.4 Chemistry notified about auxiliary feed injection. mf
- 4.5 Reactor power on both Units is reduced a minimum of 2% OR to a power level directed by DSS. (Mark step N/A if in CTS: Hot or Cold Shutdown {ITS: Modes 3, 4, 5, 6, & defueled}) mf

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

4.6 Permission to Perform Test

The conditions required by this test are consistent with required plant conditions, including equipment operability. Permission is granted to perform this test.

DSS [Signature] TIME 1656 DATE 2/6/02

NOTE: Attachment L shall be used to document performance of multiple step performance and to record data. A separate copy of Attachment L shall be prepared for each step series requiring multiple performance and all copies shall be attached to this procedure when the procedure is complete.

5.0 PROCEDURE

5.1 IF in CTS: cold shutdown {ITS: Modes 5, 6, or defueled},
THEN verify the following:
(Otherwise mark this step as N/A)

- The Steam Generators are drained to a level sufficient to accept FW flows.
- The RCS is NOT solid.

N/A ¹⁸

N/A ¹²

NOTE: When operability testing of Train A is NOT required, then N/A Steps 5.2 through 5.38.

5.2 TRAIN A TEST

5.2.1 IF performing Section 5.2,
THEN the following auxiliary feedwater pumps with their associated flow paths, are operable as applicable.
(N/A the step that is NOT applicable.)

a. For two-unit operation:

P-38B, 1P-29, and 2P-29 are operable.

[Signature]

b. For single-unit operation:

P-38B and 1P-29 are operable for Unit 1.

OR

P-38B and 2P-29 are operable for Unit 2.

N/A ^m

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

5.2.2 IF sufficient qualified operators are NOT available on shift to support Step 5.2.3, THEN consider the equipment unavailable per Maintenance Rule AND N/A Step 5.2.3..

N/A muf

5.2.3 Assign a Level 4 Dedicated Operator in the Control Room AND a Level 4 Dedicated Operator in the field per OM 3.26, Use of Dedicated Operators, to perform the restoration steps of Attachment J, if required. (Otherwise mark this step as N/A)

muf

5.3 Enter a CTS: LCO (ITS: Action Condition) for P-38A. (N/A this step if NOT required for current plant conditions per CTS: Technical Specification 15.3.4. (ITS: 3.7.5))

TIME 0724 DATE 2/6/02 ^{PREVIOUSLY} ENTERED ⊗

muf

5.4 IF at any time during the performance of this test an Auxiliary Feedwater Initiation is required, THEN immediately perform Attachment J to recover Train A. (N/A this step if NOT required.)

N/A muf

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

NOTE: P-38A suction pressure trip is set at 6.5 psig (with a 20 second time delay).

5.15 Verify P-38A suction pressure as read on PI-4010A is greater than the 7.0 psig low suction pressure alarm setpoint. Record on Attachment B.

not for SD

5.16 Check AF-4007, P-38A AFP Mini-Recirc Control, mini-recirculation valve open.

not for SD

5.17 Check mini-recirculation flow equal to or greater than 70 gpm on FIT-4050A.

not for SD

5.18 Check the packing glands for excessive leakage or overheating.

not for SD

5.19 Check pump and motor for unusual noise or overheating.

not for SD

5.20 WHEN P-38A has run for five-minutes,
THEN record the following on Attachment B.

- PI-4011, Pump Discharge Pressure.
- PI-4010A, Pump Suction Pressure.
- FIT-4050A, Mini-Recirculation Flow.
- Recirculation Flow Vibration Data.

not for SD

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

INITIALS

6.0 ANALYSIS

6.1 Operations

- 6.1.1 Comparisons with allowable ranges of Acceptance Criteria test values complete. All performers have signed onto the "Performed by" page.

[Signature]
SRO

2/6/2 1953
Date/Time

- 6.1.2 Forward completed procedure to IST Coordinator

NOTE: To be completed within 96 hours of test completion by IST coordinator or his representative.

6.2 IST Coordinator

- 6.2.1 Comparisons with allowable ranges of test values and analysis of deviations complete. JS

- 6.2.2 Any requirements for corrective action? (If yes, give details in the IST Remarks section.) JS

(Circle one) YES NO

- 6.2.3 IF Acceptance Criteria needs updating,
THEN initiate a procedure revision. (Otherwise N/A)

[Signature]
Data Analyzed By

02-08-02 1330
Date/Time

N/A

IST Remarks:

Pump data is invalid due to vibration analyzer condition,
CAPO002122 generated. Repeat IT-10 for pump.

*NSS et
2002
2-11-02*

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

Remarks:

IT-10C TO BE PERFORMED, WILL EXIT

LCO AFTER TESTING. COMPLETED. 2/6/01

Performed By:

<u>Robert W. Adams</u> Performer (Print and Sign)	<u>2/6/02 11353</u> Date Time	<u>RS</u> Initials
<u>MARK HALL</u> Performer (Print and Sign)	<u>2/6/02 11620</u> Date Time	<u>mh</u> Initials
<u>DK Wtry</u> Performer (Print and Sign)	<u>2/6/02 11940</u> Date Time	<u>g</u> Initials
<u>D. RAASCH</u> Performer (Print and Sign)	<u>2/6/02 11943</u> Date Time	<u>DR</u> Initials
 Performer (Print and Sign)	<u>1</u> Date Time	 Initials
 Performer (Print and Sign)	<u>1</u> Date Time	 Initials
Reviewed By: <u>D. RAASCH</u> Reviewer (Print and Sign)	<u>2/6/02 11953</u> Date Time	<u>DR</u> Initials

TEST OF ELECTRICALLY-DRIVEN AUXILIARY FEED
PUMPS AND VALVES (QUARTERLY)

ATTACHMENT B
P-38A, AFW PUMP PERFORMANCE DATA (RECIRCULATION FLOW)

NOTE 1: The data recorded on Attachment B is for information only.

NOTE 2: Vibration points which are shaded must be recorded by the Micro-logger but are NOT required to be transferred to the table. Only points marked A, B, C, D, and E must be transferred to the table and are required for ASME Section XI. See Figure 1 for locations.

Step No.	Parameter Measured	Units	Reading	Acceptance Criteria	Initials
5.12.3	PI-4010A, P-38A AFP Suction Pressure	psig	16.7	N/A	not for SD
5.15	PI-4010A, P-38A AFP Suction Pressure	psig	16.5	>7	not for SD
5.20	PI-4011 Pump Discharge Pressure	psig	1310	N/A	not for SD
5.20	PI-4010A, P-38A AFP Suction Pressure	psig	16.6	N/A	not for SD
5.20	FIT-4050A, Mini-Recirc Flow	gpm	76.7	N/A	not for SD
5.20	Recirculation Flow Vibration Data	INSTRUMENT		UNITS	READINGS
	P38A 1V ips	Note 2	Micro-logger	IPS pk	
	P38A 1H ips	Note 2	Micro-logger	IPS pk	
	P38A 1H ac	Note 2	Micro-logger	G env	
	P38A 1H acc	Note 2	Micro-logger	G pk	
	P38A 1A ips	Note 2	Micro-logger	IPS pk	
	P38A 2V ips	Note 2	Micro-logger	IPS pk	
	P38A 2H ips	Note 2	Micro-logger	IPS pk	
	P38A 2H ac	Note 2	Micro-logger	G env	
	P38A 2H acc	Note 2	Micro-logger	G pk	
	P38A 2A ips	Note 2	Micro-logger	IPS pk	
	P38A 3V ips	Note 2	Micro-logger	IPS pk	
	P38A 3H ips	Note 2	Micro-logger	IPS pk	
	P38A 3H ac	Note 2	Micro-logger	G env	
	P38A 3H acc	Note 2	Micro-logger	G pk	
	P38A 4V ips	Note 2	Micro-logger	IPS pk	
	P38A 4H ips	Note 2	Micro-logger	IPS pk	
	P38A 4H ac	Note 2	Micro-logger	G env	
	P38A 4H acc	Note 2	Micro-logger	G pk	
	P38A 4A ips	Note 2	Micro-logger	IPS pk	