

## WORK ORDER PROCESSING

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### 1.0 PURPOSE AND APPLICABILITY

#### 1.1 Purpose

Provide instructions for Work Order processing.

#### 1.2 Applicability

All Work Orders other than those items exempted in Attachment C.

### 2.0 REFERENCES

- 2.1 DCS 2.1.1, Immediate Notification Guidance
- 2.2 HP 2.5, Radiation Work Permits
- 2.3 HP 2.5.3, RWP Request Review
- 2.4 MI 32.5, Maintenance Instruction for Installation, Adjustment, or Replacement of Live-Loaded Valve Packing.
- 2.5 NP 1.6.4, Verbal Communication Procedure
- 2.6 NP 1.9.4, Confined Spaces Procedure
- 2.7 NP 1.9.9, Transient Combustible Control
- 2.8 NP 1.9.13, Ignition Control Procedure
- 2.9 NP 1.9.15, Danger Tag Procedure
- 2.10 NP 4.2.3, ALARA Review Process
- 2.11 NP 5.2.9, NPRDS Reporting
- 2.12 NP 5.3.1, Condition Reporting System
- 2.13 NP 7.1.1, Engineering Work Requests
- 2.14 NP 7.2.1, Modification Requests
- 2.15 NP 7.2.5, Repair/Replacement Program
- 2.16 NP 7.3.1, Temporary Modifications

WORK ORDER PROCESSING

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- 2.17 NP 7.4.1, PBNP Pressure Test Program
- 2.18 NP 8.1.3, Post Maintenance Testing
- 2.19 NP 8.4.1, Use of Quality Control Hold and Inspection Points
- 2.20 NP 8.4.2, Maintenance QC Implementation
- 2.21 NP 8.4.3, I&C QC Implementation
- 2.22 NP 8.4.4, Quality Control Inspector Profiles and Certifications
- 2.23 NP 8.4.10, Foreign Materials Exclusion
- 2.24 NP 8.4.11, Penetrating Barriers
- 2.25 NP 8.4.12, Equipment, Job Site and Plant Cleanliness Practices and Plant Storage Requirements
- 2.26 NP 8.5.2, CHAMPS Equipment Database Control
- 2.27 NP 8.6, Maintenance Job Performance Aids
- 2.28 NP 8.7.1, Maintenance - Control of Measuring and Test Equipment
- 2.29 NP 8.7.2, Calibration and Control of M&TE
- 2.30 NP 9.3.3, Spare Parts Equivalency Evaluation
- 2.31 NP 9.5.1, QA Scope Material Disbursement and Return to Stores
- 2.32 NP 10.3.1, Authorization of Changes, Tests, and Experiments
- 2.33 Forms
  - 2.33.1 PBF-0040e, PBNP WO Initiation Tag
  - 2.33.2 PBF-0040g, Minor Maintenance Work Form
  - 2.33.3 PBF-1517, SPEED Form (Spare Parts Equivalency Evaluation Document)
  - 2.33.4 PBF-1554, R/R/M Form (Repair/Replacement/Modification)
  - 2.33.5 PBF-2113, SRO Procedure and Non-Operations Work Plan Review

## WORK ORDER PROCESSING

---

- 2.33.6 PBF-2114, Return to Service Testing Reviews
- 2.33.7 PBF-4194a, Pre-Job Briefing Checklist
- 2.33.8 PBF-4194b, Pre-Job Briefing Attendance Record
- 2.33.9 PBF-9923c, RWP Request Form
- 2.33.10 PBF-9923d, PBNP Unforeseen WO Form
- 2.33.11 PBF-9925, CHAMPS Equipment Record Data Form

### 3.0 DEFINITIONS

- 3.1 CHAMPS - Computerized **H**istory **A**nd **M**aintenance **P**lanning **S**ystem. This is the PBNP computer database that maintains the records of work performed on PBNP equipment. See NP 8.5.2 for definitions of terms used in CHAMPS.
- 3.2 Design Change - Any change that results in changes to the information that identifies: the specific functions to be performed by a Structure, System, or Component (SSC), or the specific values or ranges of values chosen for controlling parameters as reference bounds for design.
- 3.3 Maintenance Work - Work which is necessary to repair defective components, systems, or structures and return them to an operable condition.
  - 3.3.1 Minor Maintenance Work - Maintenance work that does not require implementation of all work controls specified by this procedure. Refer to Attachment C for details on the minor maintenance program.
  - 3.3.2 Preventive Work - Work performed on a regular, prescheduled basis, in accordance with established group procedures which attempts to eliminate equipment failure.
  - 3.3.3 Corrective Work - Work performed to equipment to address a deficiency. This work is performed under a WO.
  - 3.3.4 Unforeseen Work - Work which, at the discretion of the work group first line supervisor or the DSS, should be expedited and normal WO processing is impractical, not available, or the time lag for normal processing would impede the progress of the work.
  - 3.3.5 Project Work - Work performed as part of a large project, usually a modification. See NP 7.2.1.

## WORK ORDER PROCESSING

---

- 3.4 Work Order (WO) - The document used for controlling and recording specific work to be performed in accordance with the provisions of this procedure. This document is a combination of computerized screen images and paper for routine WO processing, and paper only for unforeseen WO processing (PBF-9923d). The paper form will control the process after it is printed.
- 3.5 May - Used to denote permission; neither a requirement nor a recommendation.
- 3.6 Measuring and Test Equipment (MTE) - Tools, gauges, and other instruments used in performing measuring and testing in QA scope activities. These instruments are properly controlled, calibrated, and adjusted at specific intervals to maintain accuracy within necessary limits.
- 3.7 WO Defect Sticker - A sticker which is used when it is impractical to utilize the WO initiation form and defect tag (PBF-0040e).
- 3.8 WO Initiation Tag - A two-part paper tag/form (PBF-0040e). The paper form is used to initiate a WO in CHAMPS. The tag is attached to (or near) the equipment to identify the existence of a defect and to serve notice that a WO has been requested.
- 3.9 WO Priority - A classification normally assigned by the Originator. The CHAMPS Coordinator or Operations Planner may make this assignment for work of an urgent nature. The assigned priority is used to establish the urgency of requested maintenance or work activity. Refer to Attachment D for a definition of the corrective work order priorities.
- 3.10 Nonmaintenance Work - Work which does not involve equipment repair activities.
- 3.11 Nonoperational Equipment - Equipment which is associated with the facility but does not meet the criteria of operational equipment.
- 3.12 Operational Equipment - All equipment which is under the jurisdiction of the DSS, or can affect the equipment which is under his jurisdiction. This includes equipment related to plant generation.
- 3.13 ANI Hold Point - A predesignated step in the work document where work must stop until an inspection or other designated requirement has been completed and an acceptance of work signature is obtained from an Authorized Nuclear Inspector.
- 3.14 QC Hold Point - A predesignated step in the work document where work must stop until an inspection or other designated requirement has been completed and an acceptance of work signature is obtained from a QC inspector.



## WORK ORDER PROCESSING

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- 3.15 QC Inspection Point - A predesignated step in the work document where a verification must be performed. Work may progress beyond this point after the QC inspector is notified that the inspection point has been reached. The verification, indicated by a QC inspector signature, must be obtained prior to returning the affected equipment to service.
- 3.16 A QC Certified Inspector has demonstrated skill, training, knowledge and experience required to properly perform the activities required by QC hold and QC inspection points. This certification is described in NP 8.4.4, "Quality Control Inspector Profiles and Certifications."
- 3.17 Repair - Restore equipment to originally-designed condition by replacing with equivalent part(s) or restoration of original part(s) to a like-original condition.
- 3.18 Return to Service Testing Review - A process review performed on all Maintenance Rule scoped equipment at a minimum. The review consists of the Work Group, Operations Group, and Engineering Group reviews that document required Post Maintenance Testing (PMT), Operability Testing, Inservice Testing, Section XI Testing, and any other required testing deemed necessary as a result of these reviews.
- 3.19 RWP Request Form - The form (PBF-9923C) used in conjunction with the WO Continuation Form to obtain a Radiation Work Permit (RWP) and pre-job ALARA review of the work plan.
- 3.20 Security Equipment - Equipment which is under the jurisdiction of the security supervisor or can affect the equipment which is under his jurisdiction.
- 3.21 Shall - Used to denote a mandatory requirement.
- 3.22 Should - Used to denote a recommendation.
- 3.23 Sign - Write a legible and identifiable signature or initials on hard copy, or apply an electronic signature to a specific field on a computerized screen.
- 3.24 SRO Procedure and Non-Operations Work Plan Review - A review performed by an SRO on all ITs, TSs, and Non-Operations work plans on Maintenance Rule or Safety Related or DSS Notification required work orders, to ensure they adequately establish initial conditions, equipment recovery actions (for example: valve line-ups), and independent verification of recovery actions.
- 3.25 Troubleshoot - Locate or identify the specific problem with the affected equipment.

## WORK ORDER PROCESSING

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- 3.26 Post-Maintenance Testing (PMT) - Testing that verifies that the maintenance performed either (refer to NP 8.1.3 for further discussion):
  - 3.26.1 Restored the operating capabilities of the equipment to exceed minimum requirements or
  - 3.26.2 Did not degrade operating capabilities of the equipment such that performance is less than minimum requirements.
- 3.27 Operability Testing - Testing that verifies that the equipment maintained is in compliance with the requirements of Plant Technical Specifications. Note that Operability Testing in some situations may be adequate PMT.
- 3.28 Inservice (Preservice) Inspection - Non-destructive testing used to document the baseline condition of the item (or weld) to be used as a reference condition for subsequent non-destructive inservice inspections.
- 3.29 SPEED - A determination that an evaluated part is equal to or better than the existing part regarding form, fit and function. Refer to NP 9.3.3. for further discussion.

## 4.0 SCOPE

This procedure shall be used to accomplish work as defined in Section 3.0 on structures, systems, components (SSC), and grounds of Point Beach Nuclear Plant as follows:

- 4.1 It shall be applied to unforeseen and routine work.
- 4.2 It shall be applied to control work performed by contractors.
- 4.3 It may be applied to minor maintenance work for the benefit of tracking the work activities and/or documenting the results.
- 4.4 It may be applied to non-maintenance work to implement a work request from one plant group to another or an internal group work request. In those cases where Engineering support may be needed, an Engineering Work Request (EWR) may be more appropriate. Refer to NP 7.1.1 for EWR guidance.
- 4.5 It shall be applied to control or coordinate work which is necessary to install a plant modification approved under the provisions of NP 7.2.1, "Modification Requests," or NP 7.3.1, "Temporary Modifications."

WORK ORDER PROCESSING

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5.0 DISCUSSION

- 5.1 WO processing, and the associated work accomplishment, as delineated by this procedure, is shown on the Work Order Flow Chart, Attachment A.
- 5.2 Security-related WOs shall be processed utilizing a close relationship between the work group and Security.
- 5.3 WO processing shall be accomplished in accordance with the provisions of this procedure. Unforeseen work document processing must be accomplished in an expeditious manner, as follows:
  - 5.3.1 The duty shift superintendent (DSS) and the work group first line supervisor have the authority to implement unforeseen work.
  - 5.3.2 The supervisor who authorizes issuance of an unforeseen WO has the responsibility to ensure that the intent of the pre-work and post-work steps of this procedure are met and appropriately documented on the Unforeseen WO form. He shall assure that the Unforeseen WO is logged in the Control Room Unforeseen WO Log.
  - 5.3.3 The DSS or Work Control Center (WCC) Manager with DSS approval, shall release the equipment for repair or classify it as nonoperational equipment as may be appropriate prior to the start of the work.
  - 5.3.4 Unforeseen WOs are initiated bypassing the normal control and tracking mechanisms associated with the WO. The initiator's ID appears on all stages of approvals. Therefore, it is his responsibility to ensure that all steps of this procedure are followed.
- 5.4 Unforeseen WOs are identified as type "U", priority "1" initially and having a blank WO tag number.
- 5.5 WOs which temporarily repair a component should be closed and a new WO issued to cause the permanent repair. An example of this is a valve repaired by the pressure sealant process until final repair or replacement can be done during a refueling outage.
- 5.6 Post-maintenance testing shall be approved and its performance appropriately documented on the WO in accordance with NP 8.1.3 "Post Maintenance Testing."

## WORK ORDER PROCESSING

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- 5.7 Pre-maintenance and/or Post-maintenance Operability Testing may have to be performed depending on Technical Specification requirements. It should be noted that Post-Maintenance Testing and Operability Testing address different issues. Identification of Post Maintenance Testing is the responsibility of the work group, while Post Maintenance Operability Testing is the responsibility of Operations. Work group personnel must recognize that deviation from a defined work plan may require changes in Post-Maintenance Testing and/or Post-Maintenance Operability Testing.
- 5.8 Return to Service Testing Reviews shall be performed on all Maintenance Rule Scope Equipment at a minimum, and these reviews shall be documented on Form PBF-2114, Return to Service Testing Reviews.
- 5.9 Any required Return to Service Test(s), as indicated on the attached PBF-2114, shall be approved, and the performance(s) documented on the WO in accordance with this procedure.
- 5.10 All ITs, TSs, and Non-Operations Work Plans on Maintenance Rule or Safety Related or DSS Notification required work orders, require a Senior Reactor Operator review for adequately established initial conditions, equipment recovery actions (for example: valve line-ups), and independent verification of recovery actions. This review is to be performed by an SRO cognizant of plant conditions and shall be documented on Form PBF-2113, SRO Procedure and Non-Operations Work Plan Review.
- 5.11 Numbering of WO Initiation Tag and WOs
- 5.11.1 WO Initiation Tags are prenumbered. The preprinted "tag number" should not be confused with computer-generated "WO numbers".
- 5.11.2 Numbers for WOs are electronically assigned by CHAMPS. These WO numbers are sequential by year.
- 5.12 WOs which are issued to perform the installation of a modification request, temporary modification, SPEED, or ECR should not be issued until the governing design document is released for installation. However, a WO may be issued to perform shop fabrications or other preparation-type work prior to approval of the governing design document, provided that no physical installation occurs until the design is approved.
- 5.13 Work may be performed within the scope of this procedure on an emergency basis. The DSS shall assure that the intent of the pre-work steps has been met prior to the work being performed. The DSS shall also assure that the work performed is documented as an unforeseen WO as soon as practicable. This provision may only be used under the authority of the DSS when personnel are not available to support the normal WO process in an expedient manner.

## WORK ORDER PROCESSING

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### 6.0 PROCEDURE

#### 6.1 Responsibilities of the Originator

Maintenance work shall be requested by any NPD individual desiring to have work performed on specific equipment with an equipment number and within the scope of this procedure.

- 6.1.1 A request for routine work shall be initiated by using a WO Initiation Tag PBF-0040e. The originator should verify that a tag is not already hung for the same reason. The WO Initiation Tag is used as the source of information for creating a WO in CHAMPS.

A request for unforeseen work may be initiated by using an unforeseen work request form (PBF-9923d) or electronically in CHAMPS. If PBF-9923d is used to initiate work, a WO for that work will be created in CHAMPS following normal procedures.

The originator shall legibly write and accurately complete all requested information. To verify equipment IDs, the CHAMPS "EQ" option may be used.

WO Initiation Tag forms (PBF-0040e) shall be completed as follows:

- a. Unit MTE PB0 PB1 PB2. Circle as appropriate.
- b. Discovery Date.
- c. Equipment ID. This is found by using CHAMPS option "EQ" and shall be entered on the initiation form. NIMS Specialists can be used to look up the correct CHAMPS Equipment ID. If a CHAMPS Equipment ID is not available for the affected equipment, a new ID may be created by using PBF-9925.
- d. Location is sourced within CHAMPS for valid equipment ID's. Location for generic equipment ID's like lighting or piping needs to be provided.



WORK ORDER PROCESSING

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**NOTE:** *To ensure accurate communication of the problem, consequences, special conditions, urgency, etc., it is important for the initiator to be complete with the description and ensure the key information is conveyed.*

- e. Problem Description. Concise description of defect, corrective action expected, or work desired. The description must include sufficient information so that pre-work reviews and work scoping may be done without undue delays. Sketches or supplementary information should be identified with the WO initiation form and defect tag number and attached to the form for forwarding to the responsible work group. Sending information to the work group directly may result in lost material. The problem description should also include any pertinent information regarding WO urgency. If equipment problem involves operational problems of Technical Specification and/or safety-related equipment, indicate this to ensure appropriate attention is devoted to the WO. Also, any commitments should be indicated on the WO. That is, work is to be completed by (date), or next equipment outage or prior to return to service.

If the problem description is lengthy and will not fit in the computer field (288 characters), then a key word description should be utilized with attached detail.

- f. Tag/Sticker - Circle the TAG if a tag was hung, ST if a sticker was placed, BOTH or NONE and indicate location (Lctn:) if Tag/Sticker is not on the actual equipment.
- g. Originator shall enter employee number (NP, PB or WE #####) and Name/initials (required).



## WORK ORDER PROCESSING

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- h. The following items should be filled in if known.  
Assign the job type to the work order. The job types are:
- C - Corrective Maintenance
  - J - Non-Corrective, Service Oriented
  - M - Modification or Engineering Project
  - P - Preventive Maintenance Callups
  - S - Technical Specification Callups
  - U - Unforeseen
  - X - Supplemental History
- i. Determine if the problem or defect described on the WO initiation tag potentially requires a condition report. Reference NP 5.3.1. If a condition report is written, note it on the problem description area.
- j. Ensure the appropriate plant conditions required for the work are circled.

Examples of plant conditions are:

<b>FP</b> = Full Power	<b>HSD</b> = Hot Shut-Down	<b>GTO</b> = Gas Turbine Outage
<b>OL</b> = Off Line	<b>CSD</b> = Cold Shut-Down	<b>VCO</b> = Vacuum Out
<b>RF</b> = Refueling	<b>SEE</b> = See Work Plan	<b>ANY</b> = Any Condition

Note that "ANY" indicates any condition is acceptable. If specific equipment conditions are not listed, circle "other" and write in the required conditions.

"SEE" is used when the problem description or work plan contain steps may need multiple plant conditions.

- k. Determine the appropriate priority (see Attachment D) and record on the WO initiation Tag. If a priority 1, 2, 3, 4, or 5 is assigned, deliver the WO initiation Tag to the DSS for concurrence.
- l. If the proposed WO is being written to perform the work for an approved modification, ensure that the "Problem Description" reflects it, and enter the MR number and account numbers for reference.

## WORK ORDER PROCESSING

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- 6.1.2 Tagging the equipment is important to convey the problems to others to eliminate duplicate WOs. Attach the tag to the defective equipment. Security equipment and equipment in containment shall not be tagged. If a tag is impractical to attach to the equipment, or if appropriate to have a sticker at a location remote from the tagged equipment, fill in the information required on a defect sticker, and place it as required. If the tag will not be used, leave it attached to the paper form.
- 6.1.3 Forward the WO initiation Tag to the WO Review Group, for review prior to electronic WO system input.
- 6.1.4 If notified by a subsequent reviewer that a design change is involved, ensure that an Engineering Work Request is initiated (Refer to NP 7.1.1).
- 6.1.5 If the originator is notified by the WO Review Group that the requested work is being canceled, the originator shall assure that all tags and stickers are removed from the associated equipment.
- 6.1.6 After completion of the WO, the originator may be routed a feedback form indicating the WO is complete and what has been done. The originator should verify that the WO addressed his original concern as nearly as possible, or that the justification for cancellation is adequate.

### 6.2 Responsibilities of the WO Review Group

- 6.2.1 Review the WO Initiation Tag for necessity, completeness, accuracy, and clarity.
  - a. Equipment ID and name.
  - b. Problem Description.
  - c. Plant conditions necessary for the work.
- 6.2.2 Ensure that the WO is not redundant to one already in CHAMPS. If the WO is not necessary, indicate the reason and return the WO initiation tag to the originator for disposal. (Defective equipment tags and/or stickers must be removed in this case.)
- 6.2.3 Determine if the work desired is within the scope of Section 4.0 of this procedure. If it is not, indicate the reason and return the WO input form to the originator for disposal. (Defective equipment tags and/or stickers must be removed in this case.)

## WORK ORDER PROCESSING

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- 6.2.4 Review the problem or defect on the WO initiation tag to determine if it requires a condition report. Generate a condition report as necessary.
- 6.2.5 Evaluate if the work requested by the WO may involve an unproved design change which is within the scope of NP 7.2.1, "Modification Requests." If it does, return to originator with instructions to initiate an EWR.
- 6.2.6 Review the assigned priority of the work order (see Attachment D). If the assigned priority is incorrect, notify the originator and reassign the priority.
- 6.2.7 Determine the work group to which the WO is to be assigned. Enter the appropriate code.
- 6.2.8 Determine if the work affects operational equipment. Enter a "Y" or "N" in the DSS Field.
- 6.2.9 If the DSS Field is "N," release of nonoperational equipment for work occurs when the WO is electronically initiated.

### 6.3 Responsibilities of the CHAMPS Coordinator - WO Electronic Initiation

- 6.3.1 Review the WO initiation tag for completeness and legibility. If sufficient information has not been presented, return the initiation form to the originator.
- 6.3.2 WO Review Group review may be bypassed due to urgency:
  - a. If the work is of an urgent nature and the Responsible Work Group is easily identified.
  - b. If the Responsible Work Group is easily identified and the work does not affect operational equipment.
- 6.3.3 If Step 6.2 is being bypassed, determine and enter the WO priority.
- 6.3.4 Follow established input procedures to create the electronic WO.
- 6.3.5 If CHAMPS is not available, fill out form PBF-9923d.
- 6.3.6 If the WO initiation tag contains more data than can be entered into the electronic system, or includes sketches, write the WO number on the initiation form and forward it to the responsible work group. Initiation forms not forwarded to the responsible work group may be destroyed.
- 6.3.7 If Data Base changes are required, initiate the change(s) in accordance with NP 8.5.2 (CHAMPS Equipment Database Control).

WORK ORDER PROCESSING

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6.4 Responsibilities of Site Quality Assurance - Before Work is Started

For WOs which have an asterisk (\*) in the QA scope field, determine if the WO is QA scope, or non-QA scope. Enter a "Y" or "N" in the QA scope field, as appropriate.

6.5 Responsibilities of the PSE Group Head - WOs Involving Design Change

6.5.1 When notified that a WO requires an engineering review, perform the review and determine whether or not a design change is involved, which falls within the scope of NP 7.2.1, "Modification Requests."

6.5.2 If a design change is not involved, enter NA (not applicable) for "Mod Request Approved." Also enter a "N" following "Mod Review Required." This will allow continued processing of the WO.

6.5.3 If a design change is involved and a modification request must be used, notify the originator and close the WO appropriately. Route the paper copy of the closed WO to the CHAMPS coordinator. The WO should be annotated as to the reason for closing it, including reference to any applicable existing modification request.

6.6 Work Group Administration/Planning

**NOTE:** *The steps within this section may be performed by work group planners or by other personnel within the work group. In addition, assistance may be provided by other work groups.*

6.6.1 Review the WO for completeness and accuracy of previous reviewers. This review includes:

- a. Equipment ID and name.
- b. Plant conditions necessary for the work.
- c. QA scope determination. Any changes to this must be justified and documented on the WO.
- d. ASME Section XI scope determination.
- e. Pre-Maintenance and/or Post-Maintenance Operability testing or inspection requirements designated.
- f. Evaluation of work effects on environmentally qualified equipment or seismically-qualified equipment.

WORK ORDER PROCESSING

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- g. An Engineering Evaluation of contractor procedures for temporary repairs by injection sealant processes are required and a 10 CFR 50.59 review may be necessary. Refer to NP 10.3.1, "Authorization of Changes, Tests, and Experiments (10 CFR 50.59 review)." The NRC Resident Inspector must be informed of intent to use an injection sealant process.
  - h. Requirement for RMP, SMP, ICP, IWP, or other written instructions.
  - i. Worker qualification requirements.
- 6.6.2 Evaluate if the work requested by the WO may involve an unapproved design change which is within the scope of NP 7.2.1, "Modification Requests." Contact the WO Originator to resolve any concerns in this area prior to further processing of the WO. The Originator may have to initiate an Engineering Work Request (NP 7.1.1).
- 6.6.3 Investigate and evaluate the problem or defective equipment as necessary. If maintenance is unnecessary, provide justification in the "Work Performed" section of the WO and submit for closeout. To accomplish this, a radiation work permit (RWP) may be required or special plant conditions may be necessary.
- 6.6.4 Evaluate the priority of the WO to ensure appropriate attention is given to the WO to correct or resolve the deficiency in a timely manner commensurate with the importance of the equipment. Safety-related equipment deficiencies may require prompt attention to address safety or regulatory issues.
- 6.6.5 Identify special work controls required to perform work. Refer to the following procedures as necessary and mark the WO appropriately.
  - a. HP 2.5, "Radiation Work Permits," complete an ALARA review as required by NP 4.2.3, "ALARA Review Procedure."
  - b. NP 1.9.15, "Danger Tag Procedure."
  - c. NP 1.9.13, "Ignition Control Procedure."
  - d. NP 1.9.9, "Transient Combustible Control."
  - e. NP 8.4.11, "Penetrating Barriers," and
  - f. NP 8.4.10, "Foreign Material Exclusion."

WORK ORDER PROCESSING

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- 6.6.6 Work on ASME Class 1, 2 or 3 systems is within the scope of NP 7.2.5, "Repair/Replacement Program." A Qualified Individual (Cognizant Engineer) shall be assigned to complete a R/R/M Form (PBF-1554) for the ASME Section XI scope portion of the work. The work plan shall incorporate the requirements identified on the R/R/M Form. The work plan writer shall enter the work plan number onto the R/R/M Form then sign and date the associated R/R/M Form.
- 6.6.7 Prepare a work plan based on the qualifications of the worker(s) who will be assigned, the level of supervisor involvement that will be available, and the following guidelines. (For safety related equipment a work plan is required regardless of task complexity, or worker qualifications.)
- a. The work plan may consist of an RMP, SMP, ICP, IWP, or other approved plant procedure. Use of any special procedure as the work plan must be referenced on the WO. Special procedures should include applicable QC hold and QC inspection points in accordance with NP 8.4.1. The initiator of the procedure is responsible for including appropriate QC hold and QC inspection points.
  - b. The work plan shall at least define the scope or extent of the work activities expected, and major steps in the work process, such that the worker understands what work he is authorized to perform.
  - c. If an RWP is required, the work plan shall contain sufficient detail to allow Health Physics to evaluate radiological concerns and/or hold points.
  - d. WOs which require troubleshooting activities, i.e., determining source of problem, shall have a defined scope to eliminate adverse impacts on related equipment or plant operation.
  - e. The author of the work plan shall be identified on the WO. If the initiator is QC certified, only a signature in the "QC Review" block is necessary.



## WORK ORDER PROCESSING

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- 6.6.8 The following considerations shall be included in the work plan if applicable:
- a. Equipment isolation. In some cases, certain work steps must be completed prior to equipment isolation. The work plan must clearly identify the point at which work must stop until the equipment is isolated per NP 1.9.15. Consider adding a Supervisory Hold Point to ensure proper equipment isolation. Be as specific as possible when providing suggested equipment isolation boundaries. Provide marked up "information only" copies of applicable drawings and schematics when possible. This is especially requested when the suggested equipment isolation is difficult to discern with ordinary effort (for example: when the isolation requires the use of Sliders for isolation points).
  - b. Radiation Work Permit (RWP)
  - c. Ignition Control Permit
  - d. Transient Combustible Control Permit
  - e. Fire Barrier Penetration Permit
  - f. Special security measures if the work might affect the operability of a plant security feature. Vital area walls, doors, and ventilation duct integrity shall be considered as well as intrusion detection devices. Inform the Security Supervisor of any plant security features which may be affected. If the Security Supervisor requires compensatory actions, note on the WO that security must be informed before the work begins.
  - g. Flooding contingency plans, where the risk of flooding is recognized. The work plan should include the possible use of mechanical blocks or flanges to prevent flooding.
  - h. QA, environmentally, or seismically-qualified spare parts.
  - i. Precautions and special procedures necessary when working on environmentally or seismically qualified components.
  - j. Safety precautions of particular concern such as entry into a confined space. (See NP 1.9.4)
  - k. Basic work steps. (These should be adequate to define the scope of the work expected.)
  - l. MTE necessary. (MTE which is controlled under NP 8.7.1, "MTE" or NP 8.7.2, "Calibration and Control of M&TE").

WORK ORDER PROCESSING

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- m. Post-maintenance testing and inservice inspection that must be performed during and/or upon conclusion of the work. Other plant procedures may be referenced. Refer to NP 7.4.1, "Pressure Test Program and/or "NP 8.1.3, "Post-Maintenance Testing," to determine required testing.
- n. ASME Section XI requirements, including ANI Hold points, for ASME Section XI scope work. Refer to NP 7.2.5 for the required information.
- o. Attach Form PBF-2114, Return to Service Testing Reviews, for Maintenance Rule Scope Equipment, and document work group pre-release PMT requirements on the form.
- p. Steps that may require assistance from other groups or work accomplished by contractors.
- q. Designation of worker qualification level required to perform the work. Specific steps of the work plan may require that unique qualifications, for example, a qualified welder would be required to perform welding.
- r. QC hold and QC inspection points shall be included in accordance with NP 8.4.1, "Use of Quality Control Hold and Inspection Points."
- s. If Foreign Material Exclusion is a consideration then review NP 8.4.10 for applicability.
- t. Any necessary references such as drawings, technical manuals, etc.
- u. When the work is controlled by an RWP, a list of tools, materials, and equipment may be helpful.
- v. Anticipated spare parts.

Ensure that those Lot Numbered items needing to be added to the CHAMPS Bill of Materials are clearly flagged for CHAMPS entry during WO close-out.

Parts marked "N" in the CHAMPS "QA REQD" field of the "BROWSE EQUIP PARTS LIST BY EQUIP ID" screen (screen # CH5650), may be used on that particular equipment, even though the WO is scoped as QA. The "QA REQD" field designators are described as follows:

"N" designates that the part is not critical to the QA or safety related function of the piece of equipment. Non-QA parts may be used for this designation.

## WORK ORDER PROCESSING

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"Y" designates the part has been evaluated and performs a critical function. QA spare parts are required for this designation. Parts flagged with this designation have been evaluated to be acceptable for the associated application.

" " designates the part has not been evaluated. QA spare parts are required for this designation until an evaluation is performed to indicate otherwise. An evaluation can be performed by contacting the Procurement Engineering Group. Items covered under Maintenance Instruction 32.5 are not included in this designation.

ASME Section XI replacement parts shall be used on ASME Section XI code class 1, 2 or 3 components. Exceptions are those parts with an "E" or "N" in the CHAMPS "ASME REQD" field on the "BROWSE EQUIP PARTS BY EQUIP ID" screen. These parts may be used on the equipment indicated, even though the WO is scoped as ASME Section XI. "ASME REQD" field designators are described as follows:

"Y" designates that the part has been evaluated and performs a pressure boundary function or was constructed in accordance with a construction code or code case. ASME Section XI replacement parts are required for this designation. Parts flagged with this designation have been evaluated to be acceptable for the associated application.

"N" designates that the part has been evaluated and does not perform a pressure boundary function within the item. Non-ASME Section XI replacement parts may be used for this designation.

"E" designates that the part has been evaluated and meets one of the exclusion criteria identified in NP 7.2.5 within the item. Non-ASME Section XI replacement parts may be used for this designation.

"\*" designates that the part is being evaluated, but possible discrepancies exist for this item. This part cannot be used in this item until an evaluation has been completed. An evaluation can be performed by contacting the Component Engineer or the Procurement Engineering Group.

" " designates that the part has not been evaluated. ASME Section XI replacement parts are required for this designation, if associated to any ASME Section XI code class items, until an evaluation is performed to indicate otherwise. An evaluation can be performed by contacting the Component Engineer or the Procurement Engineering Group. Items covered under MI 32.5 are not included in this designation.

WORK ORDER PROCESSING

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- w. Cleanliness requirements per NP 8.4.12, "Equipment, Job Site and Plant Cleanliness Practices and Plant Storage Requirements."
- x. Consider the impact that altering room ventilation, blocking or restricting flow through panel ventilation openings may have on electronic or Safety Related equipment.

6.6.9      Assure that any work plan within the scope of NP 8.4.1 has received a QC review in accordance with Section 6.7.

6.6.10     Schedule the work, taking into account:

- a. Group workload and priority of the work. Safety-related and Technical Specification equipment should not remain out of service longer than necessary to effectively and efficiently affect repairs.
- b. Plant conditions necessary to perform the work.
- c. Support required from other groups - early notification must be provided to ensure other groups can support the work on the specified date. Also, all groups involved must be informed when work schedules are changed.
- d. Availability of spare parts.

**NOTE:**    *Since radiation exposure is received while performing the survey for the RWP, only work that can be performed on the scheduled date should be submitted for an RWP.*

6.6.11     Obtain RWP if necessary. Forward the CHAMPS generated RWP Request form to HP or complete an RWP Request Form, PBF-9923c, in accordance with HP 2.5.3 and forward to the coordinator - Health Physics or his designee. Normally, 20 hours are required to process the RWP.

**NOTE:**    *Since the equipment isolation procedure takes equipment out of service, only work that can be performed on the scheduled date should be submitted for equipment isolation.*

6.6.12     Obtain equipment release for work if equipment has been classified operational and/or equipment isolation is required. Forward the WO to the Work Control Center. If an IWP, SMP, RMP, ICP, or special procedure is used, attach it to the WO. Normally one full working shift is required to process the equipment isolation procedure or prepare to release operational equipment for work.

WORK ORDER PROCESSING

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6.7 Responsibilities of the QC Inspector

**NOTE:** *Different QC inspectors may perform the QC Review and the QC inspection.*

6.7.1 Review the work plan before work begins for adequacy of QC activities. Refer to NP 8.4.1, "Use of Quality Control Hold and Inspection Points" and NP 8.4.3 and NP 8.4.2 for guidance for use of QC hold and QC inspection points.

6.7.2 Perform QC activities as required by the work plan. All QC hold and QC inspection points shall be signed and dated by a QC inspector, when appropriate, during performance of the WO. Document any other QC activities performed. Document all M&TE used to perform any inspections.

6.8 Responsibilities of the Coordinator - Health Physics

6.8.1 Review the RWP request and work plan for completeness. Obtain clarification from the initiator when necessary.

6.8.2 The coordinator - Health Physics or designee will review the dose estimate and sign as reviewer. Forward for Level II ALARA review, as necessary.

6.8.3 Coordinate HRA scheduled activities and resolve work conflicts with applicable groups.

6.9 Responsibilities of the Health Physics Supervisor - WOs Requiring an RWP

6.9.1 Review the RWP Request Form and determine what RWP requirements are necessary. Refer to HP 2.5, "Radiation Work Permits."

6.9.2 Obtain appropriate radiological surveys necessary to write the RWP. If appropriate, mark any hot spots in the work area.

6.9.3 If requested, provide the RWP request initiator with survey information to aid in completing the estimated exposures block on the RWP request form.

6.9.4 Prepare an RWP for the work specified.

6.9.5 Inform the coordinator - Health Physics or his designee if conditions do not allow the work to be performed as scheduled. The first line supervisor will then be informed of the delay.



WORK ORDER PROCESSING

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- 6.9.6 Before the work begins, when an integrated pre-job briefing is required, brief the worker(s) and Health Physics personnel involved about the radiological aspects of the job. This should include RWP requirements, radiological hold points, hot spots, staging area, ALARA review details, and special health physics instructions.
- 6.9.7 Ensure the RWP Request Form, and work plan are posted along with the RWP.

6.10 Responsibilities of Work Control Center (WCC) Manager during outage periods - Before Work is Started

*NOTE: For equipment which is non-operational or which does not require DSS Notification to work, the equipment release performed in this section shall be performed by a supervisor in the equipment user group instead of the DSS or WCC Manager with DSS concurrence.*

*NOTE: SEE NEXT PAGE*

- 6.10.1 Review the WO, including:
- a. Work plan described.
  - b. Equipment isolation requirements.
  - c. Technical Specifications, LCO, and pre-work surveillance requirements.
  - d. Plant conditions necessary to perform work. Verify Form PBF-2113, SRO Procedure and Non-Operations Work Plan Review, is attached and signed after proper review.
  - e. Post-maintenance testing or inspection requirements. Verify Form PBF-2114, Return to Service Testing Reviews, is attached and properly completed for pre-release reviews.
  - f. Determination if the affected equipment can be removed from service.
- 6.10.2 If equipment isolation is required, have the danger tags and associated paperwork prepared.
- 6.10.3 Check that plant conditions necessary to remove the affected equipment from service are established. Have any pre-work required surveillance performed. If the plant conditions cannot be established when requested, inform first line supervisor of the delay.
- 6.10.4 Check affected equipment is removed from service and have danger tags installed as required.

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(see previous page, section 6.10)

NOTE: During U2R22 refueling outage for all Steam Generator Team (SGT) work orders and work plans, the DSS release signature indicates that the DSS is delegating the responsibility for verifying requisite conditions exist to perform work to designated WE SGRP team members. As work progresses and work plan steps require verifying initial conditions, one of the designated team members will contact the DSS to verify the required initial conditions exist, then sign that verification step.

The designated WE SGRP team members will put the date, time, and initials of the DSS they communicated with next to their signature at the verification step.

The designated team members are:

WORK ORDER PROCESSING

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6.10.5 Release operational equipment for work with DSS concurrence by properly annotating the WO. This may be performed using the equipment isolation procedure. When this is done the WO number shall be annotated on the danger tag location sheet.

6.10.6 Return the WO and, if used, the Danger Tag Location Sheet to first line supervisor.

6.11 Responsibilities of Engineering (all disciplines) - Before Work is Started

6.11.1 Provide sufficient manpower to support engineering reviews of work plans as indicated on Form PBF-2114, Return to Service Testing Reviews.

6.12 Responsibilities of the Duty Shift Superintendent (DSS) - Before Work is Started

**NOTE:** *For equipment which is non-operational or which does not require DSS Notification to work, the equipment release performed in this section shall be performed by a supervisor in the equipment user group instead of the DSS or WCC Manager with DSS concurrence.*

**NOTE:** *SEE NEXT PAGE*

6.12.1 Review the WO, including:

- a. Work plan described.
- b. Equipment isolation requirements.
- c. Technical Specifications, LCO, and pre-work surveillance requirements.
- d. Plant conditions necessary to perform work. Verify Form PBF-2113, SRO Procedure and Non-Operations Work Plan Review, is attached and signed after proper review.
- e. Post-maintenance testing or inspection requirements. Verify Form PBF-2114, Return to Service Testing Reviews, is attached and properly completed for pre-use review.
- f. Determination if the affected equipment can be removed from service.

6.12.2 If equipment isolation is required, have the danger tags and associated paperwork prepared.

6.12.3 Establish plant conditions necessary to remove the affected equipment from service. Perform any pre-work surveillance required. If the plant conditions cannot be established when requested, inform first line supervisor of the delay.

(see previous page, section 6.12)

NOTE: During U2R22 refueling outage for all Steam Generator Team (SGT) work orders and work plans, the DSS release signature indicates that the DSS is delegating the responsibility for verifying requisite conditions exist to perform work to designated WE SGRP team members. As work progresses and work plan steps require verifying initial conditions, one of the designated team members will contact the DSS to verify the required initial conditions exist, then sign that verification step.

The designated WE SGRP team members will put the date, time, and initials of the DSS they communicated with next to their signature at the verification step.

The designated team members are:

WORK ORDER PROCESSING

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- 6.12.4 Remove affected equipment from service and install danger tags as required.
- 6.12.5 Release operational equipment for work by properly annotating the WO. This may be performed using the equipment isolation procedure. When this is done the WO number shall be annotated on the danger tag location sheet.
- 6.12.6 Return the WO and, if used, the Danger Tag Location Sheet to first line supervisor.
- 6.13 Responsibilities of the First Line Supervisor - Prior to and while work is ongoing.
  - 6.13.1 Review the WO for completeness and accuracy of previous reviewers. This review includes:
    - a. Equipment ID and name.
    - b. Plant conditions necessary for the work.
    - c. QA scope determination. Any changes to this must be justified and documented on the WO.
    - d. ASME Section XI scope determination.
    - e. Post-maintenance testing or inspection requirements designated and determination of additional post-maintenance test requirements in accordance with NP 8.1.3, "Post- Maintenance Testing."
    - f. Evaluation of work effects on environmentally-qualified equipment or seismically-qualified equipment.
    - g. For a temporary repair by an injection sealant process, the requirement for a technical evaluation, contractor procedure, and a 10 CFR 50.59 review may be required by NP 10.3.1, "Authorization of Changes, Tests, and Experiments (10 CFR 50.59 review)."
    - h. Requirement for RMR, SMP, ICP, IWP, or other written instructions.
    - i. Worker qualification requirements.
    - j. Foreign Material Exclusion requirements, including equipment closeout inspections. Refer to NP 8.4.10 as necessary.
    - k. All aspects of the work plan.
    - l. Evaluation of required work permits.

WORK ORDER PROCESSING

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- 6.13.2 Evaluate if the work requested by the WO may involve an unapproved design change which is within the scope of NP 7.2.1, "Modification Requests." Contact the WO Originator to resolve any concerns in this area prior to further processing of the WO. The Originator may have to initiate an Engineering Work Request (NP 7.1.1).
- 6.13.3 Investigate the problem or defective equipment as necessary. To accomplish this, a radiation work permit (RWP) may be required or special plant conditions may be necessary.
- 6.13.4 Make worker assignments considering qualifications required.
- 6.13.5 Obtain ignition control, transient combustible control and/or fire barrier penetration permits, as required.
- 6.13.6 Sign and date the WO hard copy. Electrical and Mechanical Maintenance Supervision will normally Sign & Date the WO for release for work after the equipment has been isolated for work by Operations. I&C Maintenance Supervision will normally Sign & Date the WO for release for work prior to equipment isolation by Operations. I&C craftsmen are expected to obtain their own equipment isolations as necessary.
- 6.13.7 Forward the WO and any necessary permits or danger tag location sheets to the worker. In a pre-job briefing, discuss the following:
- QC Hold and/or QC Inspection Points.
  - ANI Hold Points.
  - If radiological work is involved, ways to minimize exposure. If an RWP is required, prejob briefing checklists PBF-4194a/b will be implemented.
  - Work controls and the work plan so that the worker(s) understand the scope of work expected to be performed.

## WORK ORDER PROCESSING

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- 6.13.8 First line supervision may change the work scope provided the new scope:
- Remains within the equipment isolation boundary.
  - Remains within the bounds of the definition of a repair.
  - The change has no impact on requirements or conditions already established for the planned work scope, including QA scope, QC scope, ASME Section XI scope, Pre- or Post-Maintenance Operational Testing, etc.

DSS shall initial the revised work plan if the new scope is outside of these criteria. Changes shall be reviewed to ensure:

- Associated permits are valid.
- Other reviews and approvals are obtained which would be appropriate for a WO of the new scope. A QC inspector review of the revised work plan is required for QA or Safety Related scope WO's.
- Previously identified Post Maintenance Testing is amended as necessary such that the equipment is verified to function as designed.

- 6.13.9 The actual repair work being performed must be evaluated to ensure that a design change is not being made.

- 6.13.10 A design change evaluation is necessary if replacement parts are not identical to those removed. If applicable, modification, temporary modification, or SPEED documentation shall be approved prior to returning the equipment/system to service.

### 6.14 Responsibilities of the Worker

- 6.14.1 Review the WO work plan and any SMP, RMP, ICP or other approved plant procedure associated with the WO. Obtain amplifying instructions from the first line supervisor as necessary.
- 6.14.2 If tag out is required, obtain the Danger Tag Location Sheet and ensure adequacy of equipment isolation based on work scope.
- 6.14.3 Post necessary permits (Ignition Control Permit, Transient Combustible Control Permit, and/or Barrier Penetration Permit) at the job site as appropriate. If the work affects the operability of a plant security feature (e.g., vital area walls, doors, ventilation duct integrity and/or intrusion detection devices), inform security before work begins.



WORK ORDER PROCESSING

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- 6.14.4 If applicable, review and sign the RWP. Obtain amplifying instructions from the job leader and/or Health Physics individual assigned to the job before beginning work, as needed. Post the copy of the RWP at the job site as required.
- 6.14.5 Obtain spare parts and complete paperwork as delineated by NP 9.5.1, "QA-Scope Material Disbursement And Return To Stores". The WO number shall be provided to storeroom personnel. To assure traceability, regardless of the QA or non-QA scope of the WO, the QAR number and Lot Number of all parts used, including those parts used on Modification Requests, shall be recorded on the WO, or the pink copy of the "Plant Storeroom Requisition" may be attached to the WO, (identifying only the parts actually used). The WO should note that a list of parts used is attached.
- 6.14.6 Perform work in accordance with the requirements of the WO.
- 6.14.7 If MTE is used to complete the work or testing or inspection, record the MTE identification on the WO for entry into a tool usage file. Ensure any MTE used is within its calibration interval.
- 6.14.8 Obtain work release at QC hold and QC inspection points if delineated in the work plan.
- 6.14.9 Obtain work release at ANI Hold points if required in the work plan.
- 6.14.10 Obtain a health physics work release at radiological hold points if delineated in the work plan.

WORK ORDER PROCESSING

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- NOTE:** Steps shown with a double asterisk (\*\*) may occur at any time during the repair process.
- NOTE:** If a change in work scope possibly affects requirements for ignition control, transient combustible control and/or barrier penetration control, it may be necessary to obtain an appropriate permit.
- NOTE:** If a change in work scope possibly affects the radiological conditions at the job site, RWP requirements may have to be changed or an RWP may have to be issued.
- \*\*6.14.11** Stop the work and inform the first line supervisor if scope of work changes. Do not proceed with the work until the change in scope is approved by the first line supervisor. If a change of scope requires work on another piece of equipment with an equipment number different than the item being worked under the existing WO, then another WO should be issued to control, document, and close out the work activity.
- \*\*6.14.12** Stop the work and inform the first line supervisor if the work cannot be completed without a design change. Replacement parts are to be identical to those removed from the equipment or the difference recognized in the work control or reference documents. If not, stop work and inform the first line supervisor of the differences. Work may continue if no design change is considered necessary or while modification or SPEED paperwork is being processed. The equipment shall not be returned to service until supporting modification or SPEED paperwork is approved.
- 6.14.13** Upon completion of the work, write a description of the work performed, including parts used and the possible reason the problem occurred.
- 6.14.14** Advise first line supervisor of any problems encountered during work. Record actual man-hours on the WO.
- 6.14.15** Advise first line supervisor that preservice inspection, if required in the work plan, can be performed.
- 6.14.16** Perform and document any post-maintenance testing, as directed by the first line supervisor or as delineated in the work plan, on the Work Order. This may require the temporary removal of danger tags, but does not return the equipment to service. Document results of any post-maintenance testing or inspection performed in the description of work performed. Report any unsatisfactory results to the first line supervisor for resolution.

WORK ORDER PROCESSING

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- 6.14.17 Remove the WO initiation tag and/or sticker, if used, when work is complete. A tag/sticker(s) may be located separately and the WO identifies these with a prefix on the tag number. (T, S, B, N for tag, sticker, both or none respectively.) It is important to ensure the tags are removed since the WO will be closed and an old tag could cause someone else to ignore a subsequent problem.
- 6.14.18 If requesting individual, authorize clearance of danger tag location sheet.
- 6.14.19 When used, remove any permits (RWP, Ignition Control Permit and Transient Combustible Control Permit and/or Fire Barrier Penetration Permit) from the job site when the job is complete or the permit is expired.
- 6.14.20 If the work affected the operability of any plant security feature, when that feature is again operable, inform Security so that operability can be verified and compensatory actions may be discontinued.
- 6.14.21 Sign and date the WO. If more than one worker is involved in the work, the lead person shall sign the WO and should list others involved if desired to document work performed. Forward the WO to the first line supervisor.
- 6.14.22 In the WORK COMPLETED section perform the following:
- a. If the work performed involved equipment repair, using Attachment B, record "Cause Failure Code" on the WO. Document the root cause of the problem, using the applicable acronym from Attachment B. If the root cause is unknown, enter "UNK." Use the more specific secondary root causes on Attachment B (Continued) whenever possible. Use "AM" if Corrective Maintenance was required due to previous maintenance.
  - b. Use the "As Found-Out of Spec" area to indicate whether equipment parameters were acceptable, if checked.
  - c. If parts are replaced, indicate the "Failed Component".
  - d. Indicate "Corrective Action": NA = Not Applicable, RP = Repair, RE = Replacement, CAL = Calibrate, RCAL = Re-Calibrate

6.15 Responsibilities of the First Line Supervisor - After Work is Completed

- 6.15.1 Review the description of the work performed for accuracy and completeness.
- 6.15.2 Conduct a Post-Job Closeout discussion. Ensure that worker comments and experience are fed back to the work plan author.

WORK ORDER PROCESSING

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- 6.15.3 If applicable, authorize clearance of the Danger Tag Series, Ignition Control Permit, Transient Combustible Control Permit, and/or Barrier Penetration Permit, as necessary. Ensure affected plant security features have been restored to service and Security has been informed.
- 6.15.4 When necessary, coordinate groups involved in the performance of post-maintenance testing and inservice (preservice) inspection. This may require the removal of red tags. The type of post maintenance test (e.g., hydro, load test, inservice test) should be discussed with the DSS or WCC Manager so they can return the equipment to service appropriately. When performing pressure testing, NP 7.4.1, "Pressure Test Program," should be used as guidance by the test director. Reference NP 8.1.3, "Post-Maintenance Testing," as necessary.
- 6.15.5 Verify adequacy of the equipment repair and any post-maintenance testing or inspection performed. Document and resolve any concerns. Document all PMTs and inspections on the Work Order. This is particularly important for WOs where the scope of work is troubleshooting in nature. In these cases, it may be difficult to determine the scope of post-maintenance testing prior to completion of the work. When the post-maintenance testing or inspection has been successfully completed, return nonoperational equipment to service and properly document this on the WO.
- 6.15.6 If security equipment is involved, the Security supervisor shall be involved in returning the equipment to service and will annotate on the WO that equipment is returned to service.
- 6.15.7 Verify that the "Cause Failure Code", "As Found-Out of Spec", "Failed Component" and "Corrective Action" fields in the WORK COMPLETED section have been filled in with the proper information.
- 6.15.8 If it is necessary to inspect a repair after a period of operation to determine its adequacy, prepare and submit a new WO to perform the inspection at a future date.
- 6.15.9 Review the WO for completeness and accuracy, including:
- a. Record of MTE used with MTE identification numbers.
  - b. Record of QA parts used and associated QAR and lot numbers.
  - c. Record of non-QA parts used and associated lot numbers.

WORK ORDER PROCESSING

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- d. Ensure that those Lot Numbered items needing to be added to the CHAMPS Bill of Materials are clearly flagged for CHAMPS entry during WO close-out.
  - e. Worker identification.
  - f. Record of QC inspections performed including equipment closeout inspections by the QC inspector. This includes documentation of qualitative and quantitative results, where applicable.
  - g. Adequate description of work performed along with appropriate summary for machinery history.
  - h. Ensure any Conditional Releases of Parts are cleared or adequate instructions or course of action is identified to obtain the release prior to returning the equipment to service.
- 6.15.10 Review and process the SMP, RMP, ICP, or special procedure as necessary.
- 6.15.11 Sign and date the WO.
- 6.15.12 If operational equipment is involved, ensure the DSS or WCC Manager is informed that it is ready to be returned to service. Return the WO to the WCC or control room as soon as possible for review by the WCC Manager or DSS. The WCC Manager or DSS will properly document the WO, and the DSS will return the equipment to service in the sequence appropriate for the equipment that has been maintained.
- 6.15.13 Forward the WO to the group head if DSS return to service is not necessary.
- 6.15.14 Ensure that the repairer has removed the WO initiation form and defect tag. Tags left in place could impede WO initiation on equipment with subsequent problems.
- 6.16 Responsibilities of Engineering (all disciplines) - After the Work is Completed
- 6.16.1 Ensure pre- and or post-return to service testing reviews are completed and documented on Form PBF-2114, Return to Service Testing Reviews.



WORK ORDER PROCESSING

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6.17 Responsibilities of the WCC (during outage periods) - After the Work is Completed

**NOTE:** *When the effected equipment is non-operational or which does not require DSS Notification to work, the return to service performed in this section shall be performed by a supervisor in the equipment user group instead of the DSS or WCC Manager with DSS concurrence.*

- 6.17.1 Verify pre- and or post-return to service testing reviews are completed and documented on Form PBF-2114, Return to Service Testing Reviews.
- 6.17.2 Have danger tags removed, as required per NP 1.9.15, "Danger Tag Procedure." The WO may have to be returned to the work group for post-maintenance testing or to coordinate inservice (preservice) inspection before the DSS can return the equipment to service.
- 6.17.3 If post-maintenance testing or inservice (preservice) inspection is required, document testing requirements on Form PBF-2114, Return to Service Testing Reviews, and have the testing performed. For operational equipment, the DSS or WCC Manager with DSS concurrence is responsible for determining adequacy of post-maintenance testing in accordance with NP 8.1.3, "Post-Maintenance Testing." Consult with the test director for pressure tests performed in accordance with NP 7.4.1, "Pressure Test Program."
- 6.17.4 When appropriate, request clearance of the danger tag series in accordance with NP 1.9.15, "Danger Tag Procedure."
- 6.17.5 Ensure that the defective equipment tag and/or sticker has been removed after completion of the Post Maintenance Testing and/or Inservice Testing.
- 6.17.6 Clear applicable work control permits (Ignition Control Permit, Transient Combustible Control Permit, and/or Barrier Penetration Permit).

6.18 Responsibilities of the Duty Shift Superintendent - After the Work is Completed

**NOTE:** *When the effected equipment is non-operational or which does not require DSS Notification to work, the return to service performed in this section shall be performed by a supervisor in the equipment user group instead of the DSS or WCC Manager with DSS concurrence.*

- 6.18.1 Remove danger tags, as required per NP 1.9.15, "Danger Tag Procedure." The WO may have to be returned to the work group for post-maintenance testing or to coordinate inservice (preservice) inspection before the DSS can return the equipment to service.



WORK ORDER PROCESSING

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- 6.18.2 Pre and Post Return to Service Testing Reviews per Form PBF-2114 need NOT be completed by the review team for the DSS to safely return the equipment to service. Although the preferred practice is to have these reviews done first, the DSS shall perform these reviews prior to returning the equipment to service in lieu of the team. However, these reviews should be completed by the review team as soon as practicable after return to service, and any testing deficiencies promptly completed.
- 6.18.3 If post-maintenance testing or inservice (preservice) inspection is required, as indicated on Form PBF-2114, Return to Service Testing Reviews, document and perform the post-maintenance testing and return the equipment to service. For operational equipment, the DSS is responsible for determining adequacy of post-maintenance testing in accordance with NP 8.1.3, "Post-Maintenance Testing." Consult with the test director for pressure tests performed in accordance with NP 7.4.1, "Pressure Test Program."
- 6.18.4 When appropriate, clear the danger tag series in accordance with NP 1.9.15, "Danger Tag Procedure."
- 6.18.5 Ensure that the defective equipment tag and/or sticker has been removed after completion of the Post Maintenance Testing and/or Inservice Testing.
- 6.18.6 Clear applicable work control permits (Ignition Control Permit, Transient Combustible Control Permit, and/or Barrier Penetration Permit).
- 6.19 Responsibilities of Group Head (or Designee) - After Work is Complete
  - 6.19.1 Review WO for completeness and accuracy of the description of work performed including QA and QC documentation. Resolve any concerns.
  - 6.19.2 Evaluate the work performed for any reportable issues. Issue a CR in accordance with NP 5.3.1, "Condition Reporting System," if appropriate.
  - 6.19.3 Review the adequacy of post-maintenance testing and inservice inspection performed and resolve any concerns.
  - 6.19.4 Determine if machinery history for entrance into the computer are appropriate with regard to computer space available for history. The history must be terse or contain key word histories, referencing additional text when history is extensive.
  - 6.19.5 Review failure cause evaluation and documentation using Attachment B for reference. Resolve any concerns.

WORK ORDER PROCESSING

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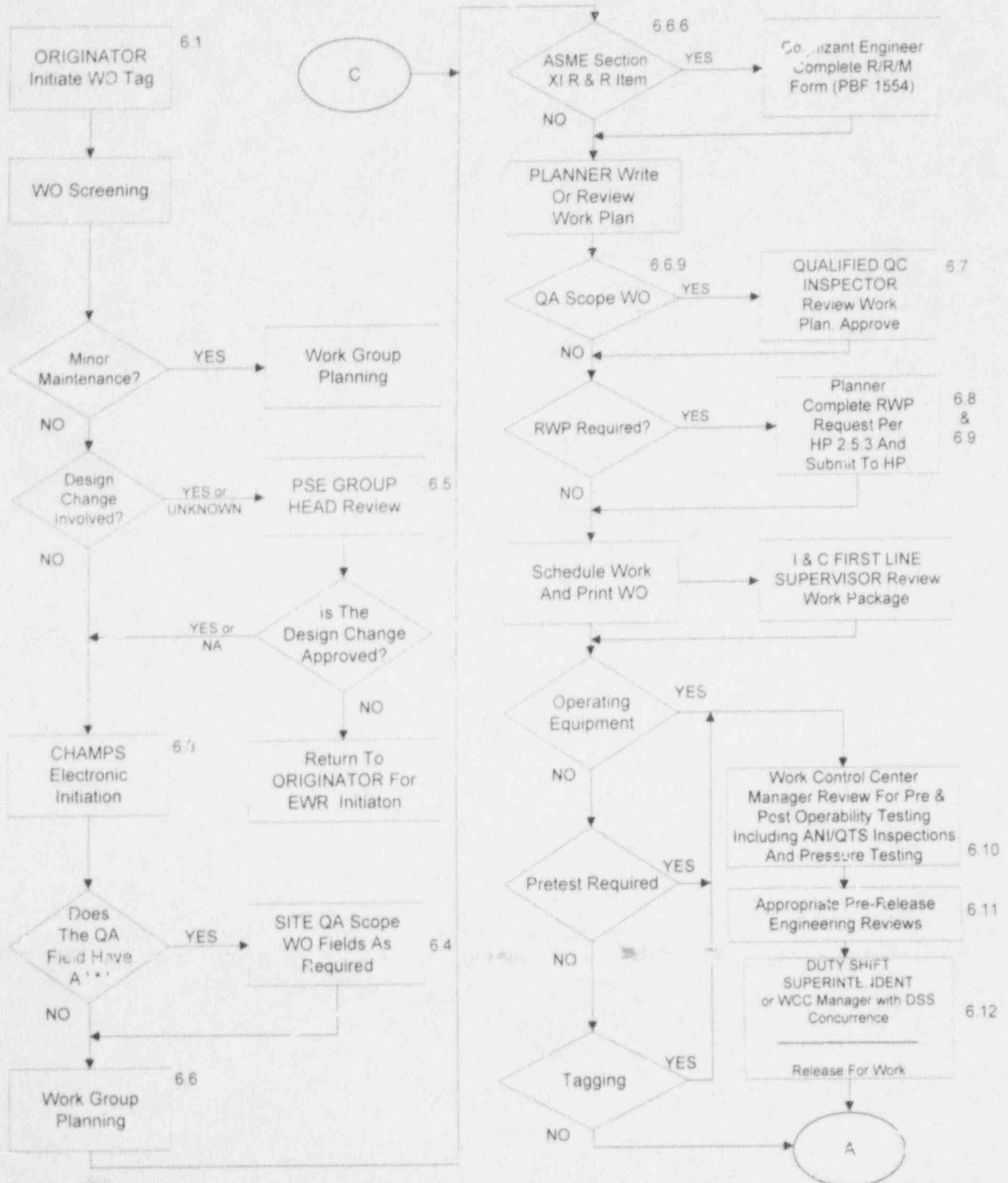
- 6.19.6 Ensure that those Lot Numbered items needing to be added to the CHAMPS Bill of Materials are submitted to CHAMPS via a Parts Association form (PBF-9925) during WO close-out. Some Work Groups may add parts to the BOM themselves.
- 6.19.7 Sign and date the WO after a determination has been made that the work has been satisfactorily completed and documented.
- 6.19.8 If an R/R/M is associated with the WO, forward a copy of the entire package to the NIM Specialist of Reactor Engineering.
- 6.19.9 Forward the WO to the CHAMPS group.
- 6.20 Responsibilities of the CHAMPS Coordinator - After Work Is Complete
  - 6.20.1 Input WO hard copy data relating to work performed, MTE, QAR numbers, approvals, dates, etc. to the electronic WO, and create other records as appropriate.
  - 6.20.2 Forward hard copy WO to the NPRDS reporter.
- 6.21 Responsibilities of Operations Planning - After Work is Completed

*NOTE: Operations Planning review may be waived for non-operational equipment.*

  - 6.21.1 Verify that any Operability testing requirements have been properly addressed. Ensure appropriate documentation of testing has been made.
  - 6.21.2 Sign and date the WO by entering the date and your signature will be applied electronically.
- 6.22 Responsibilities of NPRDS Reporter - After Work is Completed
  - 6.22.1 Evaluate the WO for Nuclear Plant Reliability Data System (NPRDS) reporting applicability as delineated in NP 5.2.9, "NPRDS Reporting." Perform any necessary reporting and annotate the WO accordingly.
  - 6.22.2 Forward the hard copy WO to NIM Clerk for microfilming and filing.
- 6.23 Responsibilities of the CHAMPS Coordinator - WO Electronic Closeout
  - 6.23.1 Follow established input group procedures to close out each completed WO to history.
  - 6.23.2 When requested, provide a report of root cause history to SQA for evaluation.
  - 6.23.3 Provide reports as requested on the status of WO's in CHAMPS.

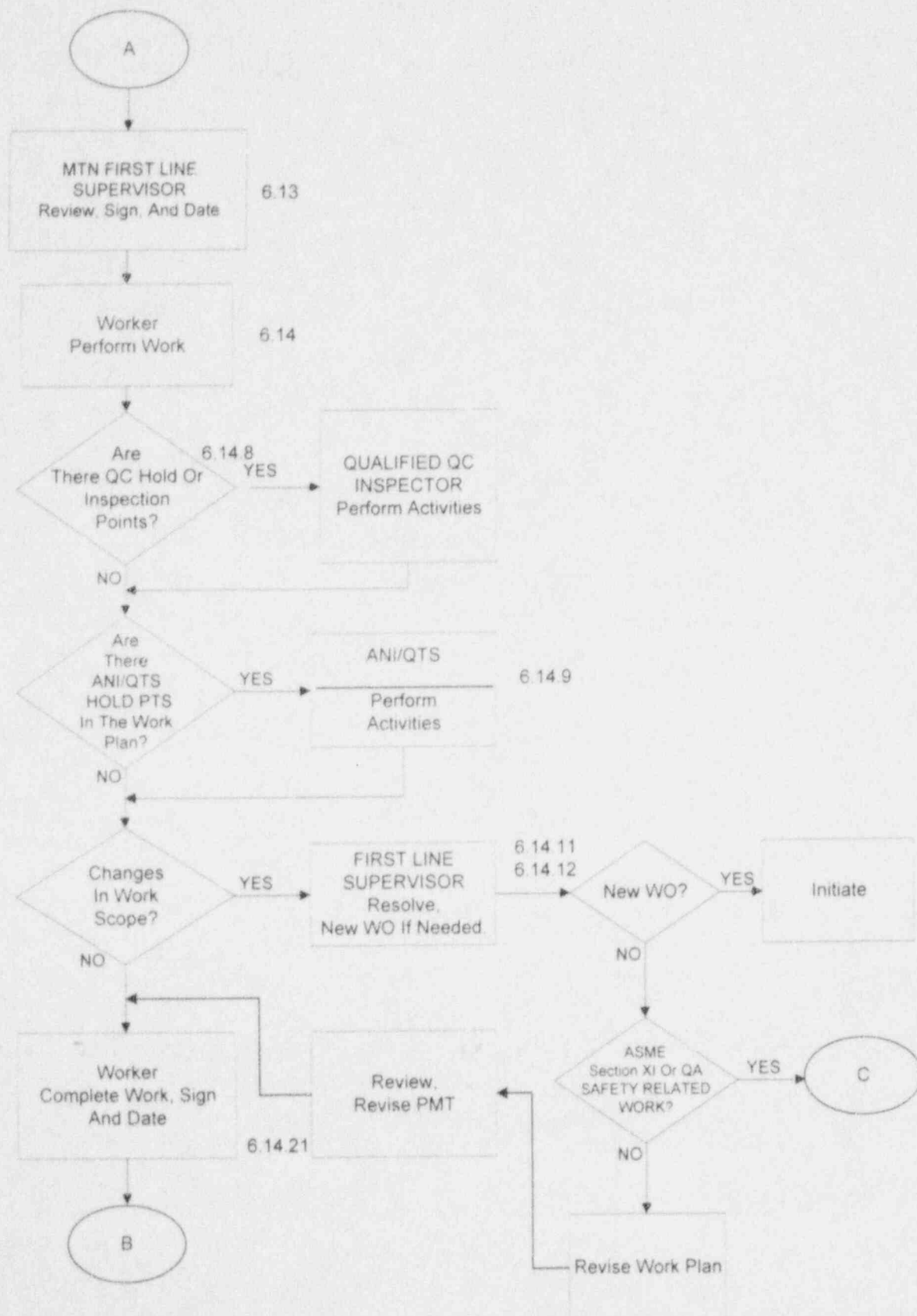
WORK ORDER PROCESSING

ATTACHMENT A  
WO FLOW CHART



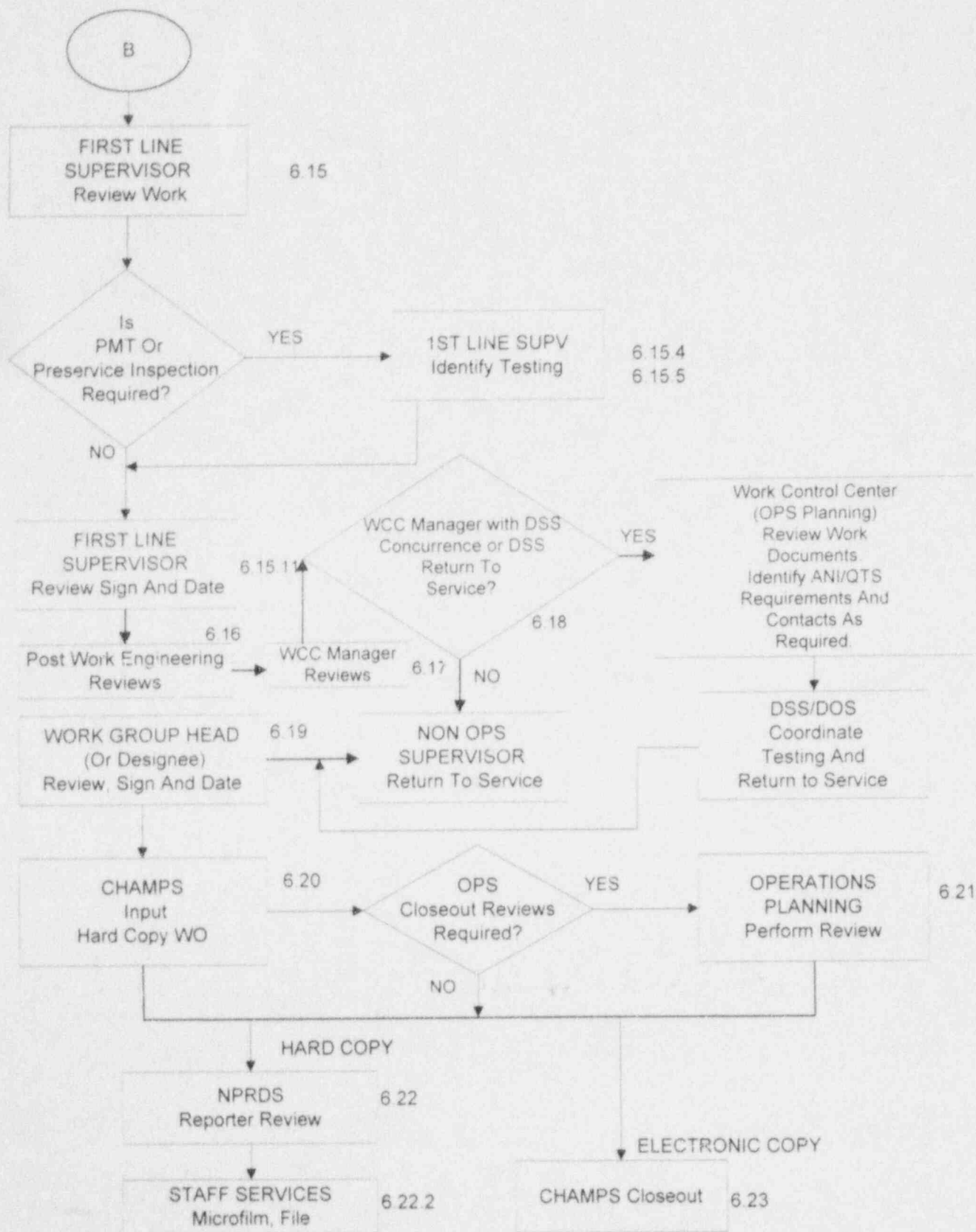
WORK ORDER PROCESSING

Attachment A



WORK ORDER PROCESSING

Attachment A



WORK ORDER PROCESSING

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ATTACHMENT B

GUIDELINES FOR THE USE OF FAILURE CAUSE CODES

Below are guidelines for using the attached failure cause code list. It is recognized that the list is not all inclusive and that differences of opinion will exist on the identification of the failure cause of deficiency. The list can be modified as experience in failure cause analysis expands or to reflect concerns of the supervisors making the determination. In each case, choose the best code - the code which most appropriately describes the cause of the breakdown. Best judgment is to be used in choosing a code.

There are thirteen "primary" codes ranging from Normal Wear to Unknown. The use of this list can be flexible. If a combination of items acts to cause a component failure, both failure codes can be utilized.

1. NRM: Normal Wear or Wearout.
2. ABN: Abnormal Wear or Wearout.
3. PRO: Improper Procedure or Work Plan.
4. DES: Design/Engineering.
5. ENV: Environment Related.
6. MFG: Manufacturing Defect.
7. MTN: Improper Corrective Maintenance.
8. NST: Improper Installation.
9. PRV: Improper or Inadequate Preventive Maintenance.
10. OPS: Improper Operation.
11. OTH: Failure due to Other Component Failure.
12. SVC: Service Request, Surveillance or Test Spec. Test.
13. UNK: Unknown.



WORK ORDER PROCESSING

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Attachment B

**Human Performance**

AM - Previous Work/Repair  
AN - Incorrect Procedure  
BJ - Incorrect action

**Mechanical Causes**

AA - Wrong Part  
AB - Foreign Material/Substance  
AC - Particulate Contamination  
AD - Normal Wear  
AE - Lubrication Problem  
AF - Welding Process  
AG - Abnormal Stress  
AH - Abnormal Wear  
AJ - Incorrect Material  
AK - Valve Seat Condition  
AL - Setpoint Drift  
AV - Loose Parts  
AZ - Material Defect  
BB - Mechanical Damage  
BC - Out of Mechanical Adjustment  
BD - Aging/Cyclic Fatigue  
(Mechanical)  
BE - Dirty  
BF - Flow Obstruction  
BG - Corrosion  
BK - Mechanical Binding/Sticking  
BM - Mechanical Interference  
BP - Environmental Condition  
BR - Gasket/O-ring/seal failure  
BS - Bearing Failure  
BX - Other

**Electrical /Electronic Causes**

AA - Wrong Part  
AL - Setpoint Drift  
AP - Defective Electrical Connection  
AQ - Abnormal Stress (Electrical)  
AR - Insulation Breakdown  
AS - Shorted/Ground  
AT - Open Circuit  
AU - Electrical Contact Degradation  
AW - Circuit Defective  
AX - Burned/Burned Out  
AY - Electrical Overload  
AZ - Material Defect  
BE - Dirty  
BH - Out of Calibration  
BL - Aging/Cyclic Fatigue  
(Electrical)  
BP - Environmental Condition  
BT - Software  
BV - Circuit Card  
BX - Other

WORK ORDER PROCESSING

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ATTACHMENT C

**MINOR MAINTENANCE PROGRAM**

1.0 INTRODUCTION

Some maintenance activities may be performed on components and equipment at PBNP without invoking the Administrative Controls of the Work Order Procedure.

2.0 CRITERIA

Maintenance activities to be worked on as Minor Maintenance must meet ALL of the following criteria:

- 2.1 Component/equipment is scoped as non-QA and non-Safety Related.
- 2.2 Activity does not affect the operation or operability of in-service equipment essential for plant operation.
- 2.3 Activity does not affect Main Control Boards or Local Control Panel indications.
- 2.4 Component/equipment does not require Operability testing.
- 2.5 Component/equipment does not require a detailed machinery history entry for equipment trending or tracking.
- 2.6 Activity can be worked by skill of the craft and/or is supported by the training program.

3.0 INSTRUCTIONS

- 3.1 A WO Initiation Tag is originated and reviewed as specified in sections 6.1 and 6.2 of the WO procedure.
- 3.2 Work Group administration/planning reviews the initiation form and determines if the work meets the requirements for Minor Maintenance. If not, the WO Initiation Tag is processed into the CHAMPS system.
- 3.3 The WO initiation tag is attached to PBF-0040g and forwarded to the responsible work group. The Minor Maintenance is tracked internally by the responsible Work Group.
- 3.4 Following completion of the work, PBF-0040g is forwarded to the CHAMPS Coordinator for entry of time and materials against the applicable Work Order.

WORK ORDER PROCESSING

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Attachment C

3.5 ELECTRICAL, MECHANICAL AND BUILDING MAINTENANCE (MTN) MINOR  
MAINTENANCE CATEGORIES.

- 3.5.1 Lighting Repairs (120 V and EL)
- 3.5.2 Gaitronics Repairs
- 3.5.3 Motor Vehicle Maintenance
- 3.5.4 Repair Maintenance shop equipment and portable tools
- 3.5.5 Receptacle Repairs
- 3.5.6 Snow Removal Equipment and Lawn Cutting Equipment Repairs
- 3.5.7 Elevator Repairs
- 3.5.8 Plumbing
- 3.5.9 HP Portable Air Sampler Repairs
- 3.5.10 Non-Security and Non-Fire Door Repairs
- 3.5.11 Building and structure Maintenance
- 3.5.12 Transformer Gas/Oil Addition and Samples
- 3.5.13 Welding for Welder Qualification
- 3.5.14 Material Inspection Support
- 3.5.15 Fabricate
- 3.5.16 Service
- 3.5.17 Painting
- 3.5.18 Miscellaneous

WORK ORDER PROCESSING

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ATTACHMENT D

WORK ORDER PRIORITIES

NOTES:

1. The priority of each category is absolute, e.g. a priority 5 work order can not be more important to the plant than a priority 2 work order.
2. Each work order should be placed in the lowest category possible, e.g., a steam leak that is a personnel safety issue should be isolated if possible and reduced to a production issue.
3. Priorities 3 and 4 have the same scheduling and work guidelines. Separate priority categories exist to allow tracking outstanding personnel safety concerns.
4. The scheduling and work guidelines are goals. Failure to complete a work order within these guidelines in and of itself is not a reportable condition.

Priority 1

- a. Immediate Threat to Nuclear Safety
  - Clear and immediate danger to the health and safety of the public may or does exist.
  - Continued operation without corrective action will result or is likely to result in a plant trip (turbine or reactor) or safety system actuation.
  - Requires entry into a Technical Specifications LCO with a duration of **72** hours or less.
  - Requires activation of the E-Plan at an emergency classification of Alert or higher.
- b. Immediate Threat to Personnel Safety
  - Clear and immediately danger to personnel in the course of their normal duties **AND** there is no way to isolate, divert or otherwise mitigate the situation and reduce the severity to a lower category.

Priority 1 Scheduling & Work Guidelines

- a. Requires immediate attention. Corrective actions shall begin upon notification of the problem. Support for this job shall take priority over all other work.
- b. Continuous work effort, including overtime as necessary, to provide effective and timely resolution of the problem is mandatory.

WORK ORDER PROCESSING

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Attachment D

- c. Work may be started under direct supervisory oversight, i.e. written work plan and printed work order are not required prior to commencing repair efforts. Documentation may be generated "after the fact".

**Priority 2**

- a. Threatens a Plant Shutdown or Power Reduction >5 MWE
- Continued operation without corrective action will result or is likely to result in a forced outage or power reduction >5 MWE.
  - Requires entry into a Technical Specifications LCO with an LCO duration greater than 72 hours **AND** which requires a plant shutdown at the end of the LCO period.
- b. Threatens Vital Equipment
- Equipment that must be operated to maintain a unit at power or to meet Technical Specifications or other regulatory requirement is degraded to the point where continued operation may cause serious damage to the equipment.
  - Reactor coolant leakage and/or boric acid buildup on reactor coolant system pressure boundary components with known or potential pressure boundary concerns.
- c. Uncontained Radioactive or Hazardous Material Leak to the Environment
- Radioactive or hazardous waste leaks that are not isolable and cannot be contained.
  - Refrigerant leaks that are not isolated (EPA Concern)
- d. Duty Shift Superintendent Prerogative
- Based on plant conditions and needs the Duty Shift Superintendent may assign a priority 2 to any work order that he/she feels must be done in an expeditious manner.

WORK ORDER PROCESSING

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Attachment D

Priority 2 Scheduling and Work Guidelines

**NOTE:** *If in an LCO of a duration shorter than the guidelines, the work order shall be worked as necessary to complete the repairs prior to the expiration of the LCO duration.*

- a. Requires expeditious attention. Corrective actions shall begin as soon as possible using the normal work control process, i.e. printed work order and a written work plan or procedure with ALL required reviews and approvals.
- b. Work orders should be completed as soon as possible, consider working two shifts.
- c. Parts procurement shall be expedited.

**Priority 3**

- a. Personnel Safety Concerns
  - Industrial safety concerns.
  - Equipment degradation or failures resulting in undue increase in radiation exposure.
  - Radioactive or hazardous waste leaks that have been isolated or contained.

Priority 3 Scheduling & Work Guidelines

- a. Requires prompt attention. Corrective actions should begin or be scheduled within two weeks of receipt of the work requests.
- b. Work orders should be completed within one month, pending parts availability.

**Priority 4**

- a. Regulatory concern
  - Equipment failures that require compensatory measures **AND** must be reported to the NRC.
  - Required to meet a regulatory commitment, which if not met, must be reported to the NRC.
  - Security related items as defined by Security.



WORK ORDER PROCESSING

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Attachment D

- b. Increased Complexity of Operation during Casualty Response (Work arounds)
  - Equipment problems that complicate or inhibit an operator's ability to monitor or control the plant during off-normal or transient condition, i.e. equipment problems that would lead to a response not obtained (RNO) action in an Abnormal Operating Procedure (AOP), Emergency Operating Procedure (EOP) or Critical Safety procedure (CSP).
- c. Threatens to Diminish Production
  - Operation in this condition has or is likely to result in >1 MWE net loss of output.

Priority 4 Scheduling and Work Guidelines

- a. Requires prompt attention. Corrective actions should begin or be scheduled within two weeks of receipt of the work request.
- b. Work orders should be completed within one month, pending parts availability.

Priority 5

- a. Threatens Redundancy of Vital Components
  - Removes redundant component from service such that failure of the operable component(s) could create a shutdown, power reduction or unacceptable plant condition.
  - Results in Technical Specification required action that will not require a plant shutdown if the problem is not corrected.
  - Equipment failures that require compensatory measures and are **NOT** reportable to the NRC.
- b. High Impact on Core Damage Frequency
  - Equipment problems impacting the functional capability of equipment or systems of "high" importance for preventing core damage or fission product release based on the PBNP PSA.
- c. Increased Complexity of Operation During Normal Operations
  - Creates opportunity for personnel error through abnormal lineups or non routine operation/manipulation.
  - Loss of instrumentation normally used to monitor a critical plant parameter that has no backup means of monitoring.

WORK ORDER PROCESSING

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Attachment D

d. Increased Cost of Generation

- Operation in this condition has or is likely to result in a net loss of output of <1 MWE.

Priority 5 Scheduling and Work Guidelines

- a. Corrective actions should be scheduled within four weeks of receipt of the work order.
- b. Work orders should be worked within two months, pending parts availability.

**Priority 6**

Corrective maintenance items that do not meet the requirements of a higher priority.

Priority 6 Scheduling and Work Guidelines

- a. Schedule and work dates should be based on available personnel resources and scheduled system weeks.
- b. Work orders should be packaged with higher priority work orders to minimize out of service time for plant equipment.

**Priority 9**

A priority 9 is assigned to those work orders that due to cost or unacceptable risks in creating the necessary work conditions will not be scheduled or worked within the scheduling and work guidelines.

Priority 9 work orders will be periodically reviewed by System Engineering to ensure that the assigned priority is acceptable.

## POINT BEACH UNIT 2 COMMITMENT INDEPENDENT REVIEW RESULTS

Commitment ID Number 37

### Commitment Description

Include return to service testing in the plant schedule, both outage and nonoutage.

### Review Methodology

Review the guidance provided to the plant schedulers to determine if instructions exist to capture this commitment in current and future plant schedules.

Review the current plant schedule to verify that return to service testing is captured

### Review Results

The guidance provided to plant personnel relative to "Return to Service Testing" is provided in the Nuclear Power Business Unit Procedures Manual NP 8.1.1, Rev. 4, dated January 24, 1997, titled "Work Order Processing".

In section 3.18, the "Return to Service Testing Review" is defined as "A process review performed on all Maintenance Rule scoped equipment at a minimum. The review consists of the Work Group, Operations Group, and Engineering Group reviews that document requiring Post Maintenance Testing (PMT), Operability Testing, Inservice Testing, Section XI Testing, and any other required testing deemed necessary as a result of these reviews".

In section 6.6.8, considerations to be included in the work plan, as appropriate, are listed. Among these items, 6.6.8.o directs that the Return to Service review documentation be included in the work plan. Once included in the work plan, the Return to Service requirements get included in the schedule as demonstrated in NP 8.1.1, Attachment A, "WO Flow Chart."

A review of the current Major Item Work List (MIWL) was reviewed with Work Control Center personnel for examples where equipment Return to Service Testing was included in the schedule. Four components identified on the work schedule were the Emergency Diesel (G-02), the Component Cooling Water Pump (2P-11B), the Electric Driven Fire Pump (P-35A), and the Time Delay Relays (262 A&B) for the Steam Driven Auxiliary Feedwater Pump. On first review of the MIWL, three of these four components were demonstrated to have their Return to Service Testing requirements specified as well as the expected time period to perform the testing. The Electric Driven Fire Pump however, did not appear to have its retest requirements included in the schedule. A later review of the following week's MIWL demonstrated that the Electric Driven Fire Pump did indeed have its Return to Service Testing requirements on the schedule. Because the MIWL is a three day rolling schedule, the P-35A retest activity did not appear on the first MIWL reviewed. Additionally, these retest requirements are tracked on a separate listing of all known retest requirements identified by a unique activity number. The P-35A retest activity was confirmed to be on this listing during the follow-on review. Discussions with the Work Control personnel also

POINT BEACH UNIT 2 COMMITMENT  
INDEPENDENT REVIEW RESULTS

Commitment ID Number 37

identified other conditions which could delay the retest requirements from being placed on the schedule. When the component work is complete, the Return to Service Review described above will confirm that appropriate retest requirements are specified and placed on the schedule. This process supports the requirements of this restart commitment.

Recommendations

There are no recommendations relative to this commitment. Based on this independent review, there are no items associated with this Commitment # 37 which would impede Unit 2 Startup.

Reviewed By

## ACTION ITEM STATUS REPORT

PAGE 1  
03/31/97

\*\*\*\*\* Responsible Person:  
\* Trkid: U2R22 RESTART \* Urgency: DONE  
\* Action Number: 41 \* Work Priority: 99  
\*\*\*\*\*

Activity Pending is: DONE

ASSOCIATED WITH A COMMITMENT

## -----TITLE AND TASK DESCRIPTION-----

Unit 2 Refueling 22 Startup Commitments

Prior to core load, ensure modification MR 92-141 that relocates the RHR flow control valve controllers on 2C-03 for human factoring is complete.

## -----DATES-----

Source Record: 01/10/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 01/31/97
Action Create: 01/13/97	Orig Eval Due:	Orig CA Due: 01/31/97
Action Closed: 03/31/97	Eval Done:	Corr Act Done: 02/17/97

## -----PEOPLE-----

Responsible for Overall Action: MEG  
Responsible for Current Pending Activity:  
Issue Manager:  
Initiator:  
Punchlist Administrator:

## -----UPDATE-----

(01/15/97 Modification MR 92-141 WO 9605772 is complete. The Operability Post Testing of the controllers was tested with the successful completion of IT-395 on 11/01/96

(02/07/97 ) Passed to " for acceptance of work.

(02/17/97 ) Passed to } for Verification.

Request that this action item be closed out. Modification MR 92-141 that relocated the RHR flow control valve controllers on 2C03 is complete. This work and the associated Post Maintenance Testing was accomplished via Work Order # 9605772.

(03/28/97 ) Passed to 1 for Final Close Out.  
Verified DSS signature and forwarded documentation to Mary Beth Koudelka.  
This item is ready for closeout.

(03/31/97 ) PLA Closure of Item.  
MR 92-141 paperwork and WO 9605772 were provided as closeout documentation.

## -----REFERENCES-----

MR 92-141 WO 9605772

## -----MISCELLANEOUS-----

Originating Agency:	System: XX
NRC Open Item Number:	NRC Status:
Related Outages: U2R22	
Engineering Work Type: None Specified	
Person Hours: Original Estimate =	
Current Estimate =	
Actual Hours =	

#41

049 80 IT-395  
2

ORIGINAL  
WD Priority: M  
Resp Group: IC  
Equipment: C-003  
Equipment Name: STEAM AND TURBINE AUX CONTROL BOARD  
Physical Location: 44/CB/CR  
\*\*\*\*\*  
\* UNIT 2 \*  
\*\*\*\*\*  
WCC TRACKING  
BENP  
\*\*\*\*\*  
WD No: 9605772  
Step Print: 09/26/96  
System: MMS  
HP Zone:  
Discovery Date: 05/28/96  
HEADER PAGE \*\*\*\*\*

Problem Description:  
UNIT 2 RHR CONTROLLERS HC-624 AND HC-625 DO NOT MEET THE "A" TRAIN RIGHT  
"B" TRAIN LEFT CONVENTION. ADDITIONALLY, HC-626 SHOULD BE PLACED  
INBETWEEN THE TWO CONTROLLERS.  
Originator: CANC (SIEKIERKE)  
Tag/Sticker Placed: N No. 95637  
Job Type: MODIFICATION SUPPORT  
Work Function: WORK ORDER  
Mod Req #: -  
Outage ID: U2R22  
Tag/Sticker Lctn:  
Project ID:  
Condition Report: N

QA: Y SEIS: I Operability Pre-Test: N Procedures:  
SR: Y LCO: N  
EQ: N PMT: Y Operability Post-Test: Y Procedures: IT-395  
SSA: Y CIV: N MRULE: Y  
A/P: CACC:  
RRN: - - - - - Tech Spec Ref:  
QA Codes: 25 Sect XI Class:  
Tools Needed:

Work Plan/Instructions reviewed. Planner: IC S  
LINE SUPERVISOR: 1\_1\_1\_1\_1\_1\_1 NAME: DATE: 9/27/96  
Plant Conditions: COLD SHUTDOWN Ignition Control Permit: N  
Other Conditions: Transient Combustible Permit: N  
Fire Barrier Penetration Permit: N RWP: N  
Equipment Isolation Required: N FME: Y  
Isolation Tag Series #: -

Operability Pre-Test Complete. \_\_\_\_\_ Equipment Isolation as requested. \_\_\_\_  
Permission granted to perform work.  
Ops DSS Notification Req: Y Ops DSS Signature: \_\_\_\_\_ Date: 10/22/96

Special Notification:

Number of Steps: 001  
Acct #: 00 - 0000N - 9200141 - 00000  
MFG Code: WOLFEM Tech Manual Cntl #: 00132

\* WORK ORDER CLOSEOUT \*

Group Head Signature: \_\_\_\_\_ Date: 11/1/96 CHAMPS FINAL INP/IT

NOV 1 1 1996



ORIGINAL

\*\*\*\*\*

PBNP

\*\*\*\*\*

WO No: 9605772001

WO Priority: M

\* UNIT 2 \*

MWD

\* UNIT 2 \*

Resp Group: IC

\*\*\*\*\*

STEP DETAIL

\*\*\*\*\*

Step Print: 09/26/96

Equipment: C-003

System: MMS

HP Zone:

Equipment Name: STEAM AND TURBINE AUX CONTROL BOARD

Physical Location: 44/CB/CR

Sequence No: 01

Need Date

Short Desc: NOT MEET CONVENTION

Sched Start Date:

PLANNED:

WORK PROCEDURES:

Crew: 1

Shift: 2

Class: 330

Work Plan Description:

SEE ATTACHED WORK PLAN

QC REVIEW REQUIRED:

IC S

DATE: 092696

WORK PERFORMED:

Relocated hand control address HC-624, HC-625 and HC-626 per  
work plan ("A" train, right side; "B" train left side, HC-626-center)  
PMT Per Steps 24, 25, & 26 Of Work Plan

K.E:

QAR:

ACTUAL USED:

CREW:

I

SHIFT:

2

WORKER CLASS:

324

NUMBER OF WORKERS:

1

TOTAL HOURS:

5.0

TTL EXPOSURE/STEP (MREM):

PARTS USED LIST ATTACHED: Y / ☒

WO TAGS REMOVED: Y / N / ☒ NA

WORK COMPLETE DATE: 10/28/96

EMPLOYEE NUMBER: P-101612121

EMPLOYEE NAME: B. RANDESON

Cause Failure Code: FM / ☒ SVC / NRM /

\* WORK COMPLETED \*

As Found-Out of Spec: Y / N / ☒ NA

Machine History Review Required: ☒ Y / N

Failed Component: NA

Corrective Action:

Downtime: hrs

LINE SUPERVISOR: 1

DATE: 10/29/96

\* EQUIPMENT RETURN TO SERVICE \*

Operability Post Testing: Completed IT - 395 S & Z

EQUIP. TAKEN OOS - DATE: / / TIME: RTN DATE: 11/1/96 TIME: 2156

Operability Procs Performed

NON OPS SUPV: 1 1 1 1 1 1 NAME: DATE: / /

DSS: 1 1 1 2 5 7 1 NAME: DATE: 11/1/96

# MWR WORK PLAN

Residual Heat Removal (RHR) controller repositioning.  
Work Order # 9605772  
UNIT 2

MR 92-141  
September 24, 1996

Step No.	Work Plan Description	Initials	Date
*	The scope of this work plan is to reposition RHR controllers 2HC-00624 and 2HC-00625 as well as 2HC-00626 on main control board shelf 2C03 - 14. The simulator configuration is to be updated as well.		
*	The purpose of this work plan is to reposition 2HC-00624 and 2HC-00625 RHR controller positions. These controllers currently do not conform to plant installation and design guidelines as stated in DG-G01 section 1.2.2 and section 2.5. In addition, controller 2HC-00626 will be moved to a position in between 2HC-00624 and 2HC-00625 to further separate the 'A' train and 'B' train components.		
*	This work plan requires that Unit #2 be in full core offload and will be accomplished during the U2R22 outage.		
*	Due to sufficient existing wire length this work plan does not require new wiring to be used.		
	<b>REFERENCE DRAWINGS:</b>  <div style="display: flex; justify-content: space-between;"> <span>WESTINGHOUSE</span> <span>500B728</span> <span>SH. 203</span> </div> <div style="display: flex; justify-content: space-between;"> <span>WOLFEM</span> <span>E-1589E-A</span> <span>E-1591E-A</span> </div>		
NOTE:	INFORM OPERATIONS OF WORK BEING PERFORMED ON MAIN CONTROL BOARD SHELF 2C03 - 14.	- I&C -	
NOTE:	FME CONTROLS ARE IN EFFECT FOR THIS WORK PLAN. INSURE THAT NO FOREIGN MATERIAL OR TOOLS ARE LEFT IN THE WORK AREA.	- I&C -	
1	In main control board 2C03, unplug 2HC-00624 from outlet box YLC outlet 3.	- I&C -	

# MWR WORK PLAN

Residual Heat Removal (RHR) controller repositioning.

Work Order # 9605772

UNIT 2

MR 92-141

September 24, 1996

2	In main control board 2C03, unplug HC-00625 from outlet box YLD outlet 2.	I&C	
3	In main control board 2C03, unplug 2HC-00626 from outlet box YLC outlet 2.	I&C	
4	Disconnect and remove 2HC-00624 from shelf 2C03 - 14.	I&C	
5	Disconnect and remove 2HC-00625 from shelf 2C03 - 14.	I&C	
6	Disconnect and remove 2HC-00626 from shelf 2C03 - 14.	I&C	
7	Label the power cord on the back of 2HC-00624.	I&C	
8	Label the power cord on the back of 2HC-00625.	I&C	
9	Label the power cord on the back of 2HC-00626.	I&C	
10	Remove terminal block, power cord, and signal cord corresponding to controller 2HC-00626.	I&C	
11	Remove terminal block, power cord, and signal cord corresponding to controller 2HC-00625 and install them in the position vacated by 2HC-00626 terminal block, power cord, and signal cord.	I&C	
12	Remove terminal block, power cord, and signal cord corresponding to controller 2HC-00624 and install them in the position vacated by 2HC-00625 terminal block, power cord, and signal cord.	I&C	

# MWR WORK PLAN

Residual Heat Removal (RHR) controller repositioning.  
Work Order # 9605772  
UNIT 2

MR 92-141  
September 24, 1996

13	Install terminal block, power cord, and signal cord corresponding to 2HC-00626 in remaining open position.	I&C	
14	Place 2HC-00626 in shelf mount position vacated by 2HC-00624. (center position - viewed from behind 2C03)	I&C	
15	Place 2HC-00624 in shelf mount position vacated by 2HC-00625. (left of 2HC-00626 - viewed from behind 2C03)	I&C	
16	Place 2HC-00625 in shelf mount position vacated by 2HC-00626. (right of 2HC-00626 - viewed from behind 2C03)	I&C	
17	Connect signal and power cords to the back of 2HC-00624.	I&C	
18	Connect signal and power cords to the back of 2HC-00625.	I&C	
19	Connect signal and power cords to the back of 2HC-00626.	I&C	
20	Plug 2HC-00624 into outlet box YLC outlet 3.	I&C	
21	Plug 2HC-00625 into outlet box YLD outlet 2.	I&C	
22	Plug 2HC-00626 into outlet box YLC outlet 2.	I&C	
23	Perform a post maintenance Foreign Material Inspection of the work area (2C03 rear).	I&C	

# MWR WORK PLAN

Residual Heat Removal (RHR) controller repositioning.  
Work Order # 9605772  
UNIT 2

MR 92-141  
September 24, 1996

24	Post Maintenance Testing: Perform a stroke test of valve 2RH-624, RHR Heat Exchanger Reactor Coolant Outlet Control Valve in order to test the operation of 2HC-624. Verify locally that valve 2RH-624 strokes from fully open to fully closed as required by the setting of controller 2HC-624.	OPS	
25	Post Maintenance Testing: Perform a stroke test of valve 2RH-625, RHR Heat Exchanger Reactor Coolant Outlet Control Valve in order to test the operation of 2HC-625. Verify locally that valve 2RH-625 strokes from fully open to fully closed as required by the setting of controller 2HC-625.	OPS	
26	Post Maintenance Testing: Perform a stroke test of valve 2RH-626, RHR Heat Exchanger Reactor Coolant Outlet Control Valve in order to test the operation of 2HC-626. Verify locally that valve 2RH-626 strokes from fully open to fully closed as required by the setting of controller 2HC-626.	OPS	



**NUCLEAR POWER DEPARTMENT  
SAFETY EVALUATION REPORT**

SER \_\_\_\_\_  
Page 1

Title of Proposed Modification,  
Procedure Change, Test or Experiment: Residual Heat Removal (RHR) Controller Repositioning

Reference Document(s) #: MR 92-141

Prepared By: \_\_\_\_\_ Date: September 24, 1996

Reviewed By: \_\_\_\_\_ Date: 9-25, 1996

MSS Review/Date: \_\_\_\_\_ MSS  
#:

Manager - PBNP Approval: \_\_\_\_\_ Date:

In lieu of MSS and Manager signature, attach PBF-0026d if serial review has been conducted. (MSS and manager approvals are not necessary for a determination of non-applicability.)

**Section 1**  
**Screening - Determination if Safety Evaluation is Required**

- A. Describe the modification, procedure change, test, or experiment and its expected effects. Include interim configurations or conditions.  
Unit #2 Residual Heat Removal (RHR) controllers, 2HC-624 and 2HC-625 on 2C03 display an "A" train left and "B" train right configuration. Per Design and Installation Guideline, DG-G01, the convention for Unit #2 should be train "A" right and train "B" left. Modification MR 92-141 will correct this deficiency and also position controller 2HC-626 between 2HC-624 and 2HC-625, in order to improve the separation of the controllers.

Repositioning the controllers will entail: Disconnecting power to the three controllers, Disconnecting connection cords on the back of each individual controller, Removal and repositioning of terminal blocks on the back of shelf 14 of MCB 2C03 per the modified position scheme, Removal and repositioning of applicable RHR controllers on MCB 2C03 per the modified position scheme, Connecting cords on the back of each individual controller, Connecting power to the three controllers. Operation and performance of the three controllers will be checked with the performance of a Post Maintenance Test for each of the controllers. The PMT will consist of a stroke test of each of the valves via their respective controllers.

- B. Does the change, test or experiment involve a change in the Technical Specification? ☐ Yes ☒ No  
If a change is required, briefly describe what the change should be and why it is required.  
*NOTE: NRC approval is required prior to implementation.*

C. Screening for 10 CFR 50.59 and 10 CFR 72.48 Applicability:

1. 10 CFR 50.59 Screening:

- a. Will any system, structure or component (SSC) described in the PBNP FSAR, including its figures, be altered? (Refer to NP 10.3.1, step 3.1.2 for exception. This question may be answered "no" although the SSC is described in the PBNP FSAR.) ☐ Yes ☒ No
- b. Could, within reasonable possibility, the proposed change affect the intended design, operation, function, or method of function, of an SSC important to safety which is described in the PBNP FSAR? (This includes interim conditions.) ☐ Yes ☒ No
- c. Will any procedure described in the PBNP FSAR be altered? (Refer to NP 10.3.1, Attachment A, Part E, for guidance.) ☐ Yes ☒ No



NUCLEAR POWER DEPARTMENT  
SAFETY EVALUATION REPORT

SER \_\_\_\_\_  
Page 2

Section 1 - Continuation

- d. Will a test or experiment be performed which is not described in the PBNP FSAR and affects the design, operation, function, or method of function, of an SSC important to safety which is described in the PBNP FSAR? ☐ Yes ☒ No
- e. Will implementation affect a prior documented regulatory commitment to the NRC pertaining to the design, operation, function, or method of function, of an SSC important to safety which is described in the PBNP FSAR? ☐ Yes ☒ No
- f. Is a 10 CFR 50.59 evaluation required (are any of the above questions answered yes)? ☐ Yes ☒ No

*NOTE: If no, then provide basis for decision in Part D.  
If yes, complete Sections 2 and 3.*

2. 10 CFR 72.48 Screening for the Independent Spent Fuel Storage Installation (ISFSI):

- a. Will any system, structure, or component (SSC) described in the ISFSI Licensing Basis document, including its figures, be altered? (Refer to Step 3.1.2 for exception. This question may be answered "no" although the SSC is described in the ISFSI Licensing Basis documents.) ☐ Yes ☒ No
- b. Could, within reasonable possibility, the proposed change affect the intended design, operation, function, or method of function, of an SSC important to safety which is described in the ISFSI Licensing Basis documents? (This includes interim conditions.) ☐ Yes ☒ No
- c. Will any procedures described in the ISFSI Licensing Basis documents be altered? ☐ Yes ☒ No
- d. Will a test or experiment be performed which is not described in the ISFSI Licensing Basis documents and affects the design, operation, function, or method of function, of an SSC important to safety which is described in the ISFSI Licensing Basis documents? ☐ Yes ☒ No
- e. Will implementation affect a prior documented regulatory commitment to the NRC pertaining to the design, operation, function, or method of function, of an SSC important to safety which is described in the ISFSI Licensing Basis documents? ☐ Yes ☒ No
- f. Is a 10 CFR 72.48 evaluation required (are any of the above questions answered yes)? ☐ Yes ☒ No

*NOTE: If no, then provide basis for decision in Part D.  
If yes, complete Sections 4 and 5.*

D. Basis for determination that a safety evaluation is not required:  
Modification MR 92-141 will reposition the existing residual heat removal (RHR) controllers on the main control board 2C03 in order to maintain the "A" train right and "B" train left configuration used at PBNP. This repositioning will correct the discrepancies to Design and Installation Guideline, DG-G01.

This modification changes the physical location of the RHR controllers, 2HC-624, 2HC-625, and 2HC-626. It does not change the operation or function of the controllers. The modification will be worked and completed during U2R22 when Unit 2 is in full core offload.

The operation and function of the RHR controllers will be checked with the performance of a Post Maintenance Test for each of the controllers. The PMT will consist of a stroke test of each of the valves via their respective controllers verifying that the correct valve strokes from fully open to fully closed.

This modification does not affect the Independent Spent Fuel Storage Installation (ISFSI).

Time/Date of application: <u>0930 10-1-96</u>	Time/Date Tags Required: <u>0700 10-19-96</u>
Requesting Individual: <u>J. Meyer</u>	Requesting Work Group: <u>FC</u>
Responsible Supervisor: <u>EC Supv</u>	Estimated Job Completion (Time/Date): <u>1700 10-19-96</u>
Equipment ID: <u>C-003 - HC 621, 625, 626</u>	Unit: <u>PH2</u>
Scope of Work: <u>Relocate controller</u>	

Additional Work Control Documents: \_\_\_\_\_

Recommended Danger Tagging/Explanation:

No Tags Req'd: ☒

Double Isolation: ☐

Positive Control: ☐

Grounding Req'd: ☐

Partial Removal Req'd: ☐

*NOTE: The RMP/TWP/SMP/Work Order/Work Plan may be referenced above for the recommended danger tagging.*

References: (*NOTE: Must include Rev. number for controlled documents used to verify adequacy.*)

Information: 3904

Appendix R: ☐ Yes ☐ No If yes, attach Fire Round Sheet

LCO Req'd: ☐ Yes ☐ No If yes, attach LCO Tracking Form PBF-9133

Preparer: \_\_\_\_\_

Date: \_\_\_\_\_

Reviewer \_\_\_\_\_ Date \_\_\_\_\_ Approver (SRO) \_\_\_\_\_

Date 10-14-96

*NOTE: Additional reviews and approvals req'd for changes or additions to original tagout. Describe changes in information section.*

Reviewer \_\_\_\_\_ Date \_\_\_\_\_ Approver (SRO) \_\_\_\_\_ Date \_\_\_\_\_

Reviewer \_\_\_\_\_ Date \_\_\_\_\_ Approver (SRO) \_\_\_\_\_ Date \_\_\_\_\_

Danger Tags No Longer Required and Protected Worker Log Sign-Offs Complete

Tag Series No. \_\_\_\_\_

Responsible Supervisor \_\_\_\_\_ Date \_\_\_\_\_

Work Order No. 9605772

## Return to Service Testing Reviews

INITIALS

Pre-Release / Pre or Post-RTS

Work Group Post-Maintenance Testing

*functional test of controller*

Section XI Equipment ☒ Y / N

*AS*

Operability Testing

*IT-395*

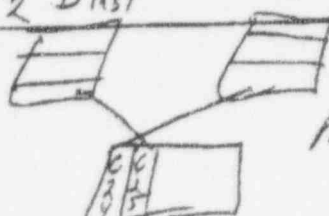
Inservice Testing

*IT-395*

ENGINEERING REVIEW

SECTION XI ENGINEERING REVIEW

*N/A*

<b>POINT BEACH NUCLEAR PLANT MODIFICATION REQUEST</b>	MR NUMBER <u>92-141</u>	Page 1 of 6
<b>3.1 MODIFICATION REQUEST INITIATION</b>		
<div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> UNIT 1</div><div><input checked="" type="checkbox"/> UNIT 2</div><div><input type="checkbox"/> COMMON</div></div>		
System: <u>RHR Instrumentation</u> Location: <u>2C03</u>		
REASON FOR MODIFICATION: (attach additional sheets if necessary)		
<div style="display: flex; justify-content: space-between;"><div><input type="checkbox"/> Regulatory Requirement</div><div><input type="checkbox"/> Personnel Safety</div><div><input type="checkbox"/> ALARA</div></div> <div style="display: flex; justify-content: space-between;"><div><input checked="" type="checkbox"/> Nuclear Safety</div><div><input checked="" type="checkbox"/> Plant Betterment</div><div><u>A<sup>inst</sup></u></div></div> <div style="display: flex; justify-content: space-between;"><div>Other (specify) <u>Control Room design Section 2 attached.</u></div><div><u>B<sup>inst</sup></u></div><div></div></div>		
<div style="text-align: right;">Present Configuration</div> 		
PROPOSED CHANGE: (attach additional sheets if necessary)		
<p>Swap 2 HC-624 &amp; 2 HC-625 Controller Position.</p> <p>Presently M2 CHSI/RHR Inst., CS &amp; Mimic</p> <p>Base is a mirror Image of U1. HC 624/625 Controllers</p> <p>Should be swapped to maintain the "B" Train left</p> <p>"A" Train right relationship &amp; Not crisscross See Diag. above</p>		
Initiated by: _____		Date: <u>6-27-92</u>
<b>3.2 GROUP HEAD/SUPERVISOR COMMENTS:</b> (Include basis for due dates)		
<p><i>Good idea - see attached comments by TP.</i></p>		
Priority: 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input checked="" type="checkbox"/> Required due date _____		
<input checked="" type="checkbox"/> Recommended <input type="checkbox"/> Not Recommended B. _____ Date <u>7/21/92</u>		
<b>3.4 QA STATUS:</b>		
<h1>QA SCOPE</h1>		
By _____ Date _____		Form QP 3-1.3 Revision 6

QA SCOPING CLARIFICATION		MR NUMBER 92 - 141
1. QA Scope	<div><input checked="" type="checkbox"/> Entire Modification <input type="checkbox"/> Parts of Modification are QA-Scope</div> <h1>QA SCOPE</h1>	
2. Justification	<p>Panel (1C03/2C03) is a structure that supports/contains safety related controllers. These controllers are a portion of the RHR system which is necessary to provide core cooling in a design basis event.</p>	
3. QA Program Requirements	<div><input checked="" type="checkbox"/> QA <input checked="" type="checkbox"/> SR <input type="checkbox"/> AQ <input type="checkbox"/> EQ</div> <div>Criteria <u>4, 26</u></div> <div>Seismic Class <u>1</u> Date _____</div> <div>QA Review _____</div>	
4. Changes		
5. Final Design Review		
QA Review _____ Date _____		Form QAI 3.2-1 Rev: 1



POINT BEACH NUCLEAR PLANT MODIFICATION REQUEST		MR NUMBER <u>92-147</u>	Page 2 of 6
3.3	<b>SCE GROUP HEAD:</b> MODIFICATION REQUEST: <input checked="" type="checkbox"/> Recommended <input type="checkbox"/> Not Recommended Comments: <u>MARGINALLY ACCEPTABLE - SEE UNIT 1 MODIFICATION</u>		
Scope of Training: <u>PLANT STATUS UPDATE - LICENSED OPERATIONS PERSONNEL</u>			
Group Assignments: Engineering Evaluation <u>N/A</u> <input checked="" type="checkbox"/> Not Required Final Design <u>SCE</u> Installation <u>IEC</u> Acceptance <u>OPS</u>			
SCE GROUP HEAD: _____		Date: <u>9/1/92</u>	
3.9	<b>OTHER REVIEWS AND APPROVALS:</b>		
<div style="display: flex; justify-content: space-between;"><div>Manager's Supervisory Staff Review</div><div>Approved</div><div>Disapproved</div></div>			
<div style="display: flex; justify-content: space-between;"><div><u>NO</u> MSSM No. _____ by _____ Date _____ (for MSS)</div><div><input type="checkbox"/></div><div><input type="checkbox"/></div></div>			
<div style="display: flex; justify-content: space-between;"><div><u>YES</u> Other Reviews (specify) _____ by _____ Date _____</div><div><input type="checkbox"/></div><div><input type="checkbox"/></div></div>			
<div style="display: flex; justify-content: space-between;"><div>_____ by <u>[Signature]</u> Date <u>9/1/92</u></div><div><input checked="" type="checkbox"/></div><div><input type="checkbox"/></div></div>			
<div style="display: flex; justify-content: space-between;"><div>_____ by _____ Date _____</div><div><input type="checkbox"/></div><div><input type="checkbox"/></div></div>			
<div style="display: flex; justify-content: space-between;"><div>_____ by _____ Date _____</div><div><input type="checkbox"/></div><div><input type="checkbox"/></div></div>			
<div style="display: flex; justify-content: space-between;"><div>_____ by _____ Date _____</div><div><input type="checkbox"/></div><div><input type="checkbox"/></div></div>			
<div style="display: flex; justify-content: space-between;"><div>_____ by _____ Date _____</div><div><input type="checkbox"/></div><div><input type="checkbox"/></div></div>			
(Attach comments on Form QP 17-1.2.)			



POINT BEACH NUCLEAR PLANT MODIFICATION REQUEST		MR NUMBER <u>92 - 141</u>	Page 3 of 6
3.10	<b>MANAGER - NES APPROVAL:</b> Modification Request: Priority: Final Design, Final Design Reviews, Installation & Acceptance Assignments: Scope of Training: Comments:	<input checked="" type="checkbox"/> Approved <input checked="" type="checkbox"/> Concur <input checked="" type="checkbox"/> Concur <input checked="" type="checkbox"/> Concur	<input type="checkbox"/> Disapproved <input type="checkbox"/> Change (specify below)  <input type="checkbox"/> Change (specify below) <input type="checkbox"/> Change (specify below)
Manager - NES _____		Date <u>9/29/92</u>	
3.10	<b>MANAGER - PBNP APPROVAL:</b> Modification Request: Priority: Final Design, Final Design Reviews, Installation & Acceptance Assignments: Scope of Training: Comments:	<input checked="" type="checkbox"/> Approved <input checked="" type="checkbox"/> Concur <input checked="" type="checkbox"/> Concur <input checked="" type="checkbox"/> Concur	<input type="checkbox"/> Disapproved <input type="checkbox"/> Change (specify below)  <input type="checkbox"/> Change (specify below) <input type="checkbox"/> Change (specify below)
Manager - PBNP _____		Date <u>9/23/92</u>	
3.11	<b>DISTRIBUTION:</b>  Standard Distribution: <input checked="" type="checkbox"/> Supervisor - Staff Services <input checked="" type="checkbox"/> Manager - Technical Services  Team Assignment Requested: <input type="checkbox"/> Manager - MTN <input checked="" type="checkbox"/> Manager - OPS <input checked="" type="checkbox"/> Manager - I&C <input checked="" type="checkbox"/> Group Head - EIE <input type="checkbox"/> Group Head - MSE  <input checked="" type="checkbox"/> Control Room (first page only) <input checked="" type="checkbox"/> Manager - Training  <input type="checkbox"/> Manager - NTSS <input type="checkbox"/> Manager - NPASS <input type="checkbox"/> Manager - JSD <input type="checkbox"/> Other _____ <input type="checkbox"/> Other _____		
Distributed By: _____		Date <u>9/30/92</u>	

POINT BEACH NUCLEAR PLANT  
MODIFICATION REQUEST

MR NUMBER

92 - 141

Page 4 of 6

## 3.13 FINAL DESIGN GROUP HEAD:

Charge Account Number(s):

36645

Assignments:

Responsible Engineer

MR

Team Engineer(s):

Group

Team Member

Modification Controls:

☒ Full Design & Installation Controls (required if QA scope)☐ Exemptions (specify):

Final Design Group Head:

Date

## 3.14 DESIGN PACKAGE INFORMATION:

List the design packages for this MR if applicable and provide a concise scope statement for each.

MODIFICATION AFFECTS THE SIMULATOR:



YES



NO

Responsible Engineer

Date

9-17-91

**MR 92-141**  
**RHR Controller Repositioning**  
**Final Design Description**

**Scope:**

Modification MR 92-141 will reposition the existing residual heat removal (RHR) controllers on main control board 2C03 in order to maintain the 'A' train right and 'B' train left relationship used at PBNP. This will be done with Unit 2 shut down during the U2R22 outage. Unit 2 will be in full core offload.

**Background:**

Train 'A' and train 'B' main control board controls typically have a left to right convention on unit 1 and a right to left convention on unit 2. This convention is not followed, the present positions of RHR controllers 2HC-624 and 2HC-625 display an 'A' train left and 'B' train right configuration.

To correct this deficiency, MR 92-141 was initiated requesting the repositioning of the two RHR controllers. Additionally, 2HC-626 was requested to be positioned between 2HC-624 and 2HC-625, in order to improve the separation of the controllers.

**Design Description:**

This modification will reposition the RHR controllers as follows:

From behind MCB 2C03:

Present positions:

2HC-624 → center  
2HC-625 → left of 2HC-624  
2HC-626 → right of 2HC-624

Modified positions:

2HC-624 → left of 2HC-626  
2HC-625 → right of 2HC-626  
2HC-626 → center

**MR 92-141**  
**RHR Controller Repositioning**  
**Final Design Description**

Repositioning will entail:

1. Disconnecting power to the three controllers.
2. Disconnecting connection cords on the back of each individual controller.
3. Removal and repositioning of terminal blocks on the back of shelf 14 of MCB 2C03 per the modified position scheme.
4. Removal and repositioning of applicable RHR controllers on MCB 2C03 per the modified position scheme.

MR 92-141 will reposition the three RHR controllers on main control board 2C03 during the Unit 2 outage (U2R22) when the RHR system is out of service.

**Design Outputs:**

Work Plan 92-141

Applicable drawings:

Westinghouse	500B728	Sh. 203
Wolfe & Mann	E-1589E - A	
Wolfe & Mann	E-1591E - A	

POINT BEACH NUCLEAR PLANT  
MODIFICATION REQUEST

MR NUMBER

92 - 141

Page 5 of 6

## 3.15 FINAL DESIGN

SCOPE:

PAGE 5a OF 6

FINAL DESIGN DESCRIPTION:

PAGE 5a + 6 OF 6

Final design by

B

Date

8-29-96

## 3.16 FINAL DESIGN REVIEW

	SIGNATURE	DATE	COMMENTS
<input type="checkbox"/> MTN			<input type="checkbox"/> None <input type="checkbox"/> Attached
<input checked="" type="checkbox"/> OPS		9-16-96	<input type="checkbox"/> None <input type="checkbox"/> Attached
<input checked="" type="checkbox"/> I&C		09-16-96	<input checked="" type="checkbox"/> None <input type="checkbox"/> Attached
<input type="checkbox"/> MSE			<input type="checkbox"/> None <input type="checkbox"/> Attached
<input checked="" type="checkbox"/> EIZ		9-1-96	<input type="checkbox"/> None <input checked="" type="checkbox"/> Attached
<input type="checkbox"/> SCE			<input type="checkbox"/> None <input type="checkbox"/> Attached
<input type="checkbox"/> Other			<input type="checkbox"/> None <input type="checkbox"/> Attached
<input type="checkbox"/> Other			<input type="checkbox"/> None <input type="checkbox"/> Attached

(Attach Comments on Form QP 17-1.2)

Need to specify acceptance criteria for PMT steps of workplans.

## 3.17 QA FINAL DESIGN REVIEW:

Quality Engineer:

Date

Form QP 3-1.3  
Revision 6

<b>POINT BEACH NUCLEAR PLANT MODIFICATION REQUEST</b>	MR NUMBER <u>92 - 141</u>	Page 6 of 6
<b>3.18 FINAL DESIGN GROUP HEAD:</b>		
<input type="checkbox"/> Approved <del>IWP</del> Attached <u>W.D.</u> <u>9605772</u>		
50.59 Evaluation Required:		
<input type="checkbox"/> YES (attach copy), SER No. _____ MSSM No. _____		
<input checked="" type="checkbox"/> NO (attach screening)		
Manager's Supervisory Staff Review Required:		
<input type="checkbox"/> YES (if required by TS 15.6.5.1), MSSM No. _____		
<input checked="" type="checkbox"/> NO		
NRC Approval Required:		
<input type="checkbox"/> YES (attach copy of approval letter)		
<input checked="" type="checkbox"/> NO		
Final Design & IWP Approved: _____ Date <u>9/18/96</u>		
<b>3.20 SCE GROUP HEAD:</b>		
Installation Release:		
Final Design, 10CFR50 SR and IWR are approved and adequate.		
DEG SCE Group Head: _____ Date <u>9/18/96</u>		
<b>3.24 MODIFICATION CLOSEOUT:</b>		
MR complete including completion of the IWP and Document Update Sheet and Closeout Checklist (QP 3-1.6).		
Responsible Engineer: _____ Date _____		
SCE Group Head: _____ Date _____		
<b>3.25 QUALITY ASSURANCE REVIEW:</b>		
<input type="checkbox"/> N/A <input type="checkbox"/> ACCEPTED		
By: _____ Date _____		
<b>3.28 SUPERVISOR - STAFF SERVICES:</b>		
Documentation updates submitted and records complete.		
By: _____ Date _____		



**NUCLEAR POWER BUSINESS UNIT  
MODIFICATION REQUEST CHECKLIST**
**MR NUMBER** 92-141  
(WOW, if non-mod)

**DOCUMENTATION UPDATE SHEET AND CLOSEOUT CHECKLIST**

Required For

N/A

 Acceptance  
(Completion)

 Closeout  
(Submittal)

**A. TRAINING**

1. Lesson Plans
2. Plant Status Update/Just-in-Time Training
3. Training Handbook
4. Simulator Changes Initiated For HC-624, 625, 626

**B. FINAL DESIGN ORGANIZATION**

1. Drawings
  - a. Pen & Ink changes to Control Room Drawings - Logics, P&IDs, 499 series elementaries.
  - b. Pen & Ink changes to Work Control Center Drawings - P&IDs
  - c. Pen & Ink changes to I&C Drawings - Reactor Protection and Safeguards Elementaries.
  - d. Master Data Book - Control Room, Work Control Center, and Local Panel - PBF-2093
  - e. Drawing Revisions - PBF-1508
  - f. New Drawings - PBF-1592
  - g. Drawings Voided - PBF-1592
  - h. Working Drawings Transferred/Voided - PBF-1592
2. Purchase Orders - (also contract numbers)
3. Specifications
4. Component Instruction Manuals (for issue, revision, deletion) - PBF-1586
5. Cable and Raceway Data Schedule Revisions - PBF-0091
6. WERLDS Data Base Revision - Design Guideline DG-E08.
7. Environmental and Seismic Qualification Documentation Updates - Ref. NP 7.7.1, NP 7.7.2.
8. FPD Revision - NP 5.2.11
9. Calculations added/deleted / revised - PBF-1608
10. FSAR - change; NP 5.2.6
11. Technical Specification - change; specify section(s) affected and change request number, if known.

# NUCLEAR POWER BUSINESS UNIT MODIFICATION REQUEST CHECKLIST

 MR NUMBER 92-141  
(WO#, if non-mod)

## DOCUMENTATION UPDATE SHEET AND CLOSEOUT CHECKLIST

Required For

N/A	Acceptance (Completion)	Closeout (Submittal)	
<u>X</u>			12. Report major changes to radwaste treatment systems with annual FSAR update per PBNP Tech Spec 15.7.8.5.
<u>X</u>			13. NPRDS Update - report MR changes to the NPRDS Coordinator.
<u>X</u>			14. ALARA Review - specify minutes or review document.
<u>X</u>			15. Report major changes to the containment aluminum inventory list with FSAR update.
<u>X</u>			16. DBD Revisions - PBF-1611
<u>X</u>			17. PSA Models and Documentation - PBF-1626

### C. CHAMPS DATABASE

<u>X</u>			1. Equipment Identification - additions assigned from CHAMPS
<u>X</u>			2. Permanent Labeling - labels on new equipment; PBF-9900
<u>X</u>			3. Temporary Labeling - labels on new equipment; PBF-2074
<u>X</u>			4. Equipment Record - update to CHAMPS coordinator specify change(s); PBF-9922
<u>X</u>			5. Spare parts stocking and scrapping inputs into CHAMPS; PBF-9925, PBF-1023
<u>X</u>			6. Unused material removed from modification bin.

### D. OPERATIONS

<u>X</u>			1. Abnormal Operating; Normal Operating, and Refueling Procedures - PBF-0026a
<u>X</u>			2. Operating Instructions and Checklists - PBF-0026a
<u>X</u>			3. Alarm Response and RMS Alarm Setpoint and Response Books - PBF-0026a
<u>X</u>			4. Testing - TS, IT, ORT, other - PBF-0026a
<u>X</u>			5. EOPs, ECAs, CSPs - PBF-0026a
<u>X</u>			6. Periodic Callups - PBF-9920
<u>X</u>			7. Fire Protection Procedure - PBF-0026a
<u>X</u>			8. EOP Setpoints, EOP Instrument Uncertainty Calculations - PBF-8001
<u>X</u>			9. Tank Level Book - PBF-0026a

**NUCLEAR POWER BUSINESS UNIT  
MODIFICATION REQUEST CHECKLIST**
**MR NUMBER** 92-141  
(WO#, if non-mod)

**DOCUMENTATION UPDATE SHEET AND CLOSEOUT CHECKLIST**

Required For

N/A

 Acceptance  
(Completion)

 Closeout  
(Submittal)

X

10. Emergency Plan and EPIPs - PBF-0026a

**E. MAINTENANCE/I&C**

X

1. Maintenance Procedures/Instructions - PBF-0026a

X

2. ICPs - PBF-0026a

X

3. Setpoint Document - PBF-8001

X

4. Preventative Maintenance - initiate/revise CHAMPS callups;  
PBF-9921/9920
**F. SECURITY**

X

1. Security Procedures

X

2. Security Plan

**G. ENGINEERING/MISC.**

X

1. ISI Program

X

2. Miscellaneous HX ECT/Cleaning program

X

3. Reactor Engineering Instructions - change; specify section(s)  
affected.

X

4. Reactor Engineering Refueling Procedures - change; specify  
section(s) affected.

X

5. Software Control - specify system affected and software change  
request number.

X

6. Component maintenance programs.

X

**H. OTHER (CHEM, HP, ETC.)**

X

1. ECRs



## POINT BEACH UNIT 2 RESTART COMMITMENT INDEPENDENT REVIEW RESULTS

### Commitment ID Number 41

### Commitment Description

The following modification will be in an accepted status (i.e., the applicable physical work completed, post-maintenance and return to service testing completed satisfactorily, and the associated component/system being declared operable) prior to being required to be operable per Technical Specifications: Modification 92-141 - relocate the RHR flow control valve controllers on 2CO3 for human factoring.

Train "A" and train "B" main control board controls typically have a left to right convention on Unit 1 and a right to left convention on Unit 2. This convention was not followed for the RHR controllers 2HC-624 and 2HC-625, and this modification corrects that. Also, the common flow controller 2HC-626 will be positioned between these two RHR controllers to improve their separation.

### Review Methodology

Review modification with Responsible Engineer.

Review modification scope, and if scope was changed, determine change rationale and if there is any safety impact.

Review modification design and installation documents against scope. Identify and review documentation acceptance items.

Verify that the documentation is adequate and that the documentation acceptance items have been completed and documented.

Review the modification tests to verify that the tests are appropriate and were successfully completed.

Determine if Condition Reports (CRs) were generated in performance of this modification and verify that they are documented/tracked.

### Review Results

Discussed modification with the Responsible Engineer (RE). No issues or concerns regarding installation and acceptance of the modification were identified by the RE.

The modification package (MR 92-141), safety evaluation screening, and MWR Work Plan were reviewed. The safety evaluation screening matched the modification final design (both in scope and content). The scope of the modification was not changed during installation.

The safety evaluation screening and MWR Work Plan were adequate.

The modification package documents were adequate with the exception of the Documentation Update Sheet and Closeout Checklist. The A.2 checklist item "Plant Status Update/Just-in Time Training" was identified as N/A on



## POINT BEACH UNIT 2 RESTART COMMITMENT INDEPENDENT REVIEW RESULTS

### Commitment ID Number 41

the checklist. On the Modification Request Approval Form, the SCE Group Head indicated the need for Plant Status Update Training for the Licensed Operations personnel under "Scope of Training". Also, discussion with Operations training personnel noted that any changes to the main control panels would warrant training prior to returning the system to service.

Follow-up interviews were conducted with the Operations Training department with respect to repositioning of the RHR controllers on the 2C03 panel. Operations Training had become aware of the proposed changes of the controllers and trained the Operators to this change in Plant Status Update Training (LOR 96-6) under Lesson Plan 2500. Therefore, training was conducted and is complete.

The modification package did not address any SQUG related issues with respect to the 2C03 panel evaluations. Per discussion with the RE, the SQUG program was not considered for the design of the modification. Subsequent discussion with the SQUG coordinator indicated that any changes to the Main Control Boards should be identified to the SQUG group for assessment. The RE has been made aware of this issue and will obtain a documented review by the SQUG group.

The modification has been satisfactorily installed. Other than Plant Status Update Training (which is complete), no other documentation acceptance items were required to be completed.

IT-395 was performed as an Operability Test and Inservice Test for the modification. Testing was satisfactorily completed and signed off. IT-395 is an ASME Section XI test which manually stroke tests the 2RH-624, 2RH-625, and 2RH-626 valves. Valves 2RH-624, 625 are manual valves while 2RH-626 has automatic actuation. A review of the installation work plan was performed against electrical diagrams and schematics. The physical work performed under MR 92-141 did not change the wiring associated with the automatic actuation of the 2RH-626 valve. Therefore, the manual stroke test of IT-395 appropriately tested the modification.

Review of the work plan and design package did not address any work associated with moving labels or re-labeling the controllers (outside and inside of the control board). The RE could not confirm how the labels were moved. A verification was performed in the Control Room to assure that the labels associated with the controllers have been switched on the front and back of the panel. The labels are physically placed on the controller switches (front side) and controller (backside) such that the labels moved with the repositioned components. Therefore, no action with this issue exist.

The Return to Service Testing Review sheet for Work Order 9605772 did not have a sign off for Post-RTS approval of the PMT testing. The appropriate I & C individual was notified and indicated that the Work Order review sheet would be reviewed and approved. The I & C approval signature has been verified, and no further action with this issue exists.

No Condition Reports have been generated in performance of MR 92-141. This was concluded based on an interview with the Responsible Engineer and performing an electronic search of the NUTRK system using the Modification number and Work Order number as search criteria.

The Operations DSS has signed off Work Order No. 9605772 indicating that the modification is at an accepted status.



POINT BEACH UNIT 2 RESTART COMMITMENT  
INDEPENDENT REVIEW RESULTS

Commitment ID Number 41

Recommendations

The recommendations provided below will not impact the Unit 2 restart. The issues identified are only provided to improve or clarify work which will be performed under the Unit 1 scope of MR 92-140.

Modification 92-140 will perform the same controller repositioning on the 1C03 panel. The RE has been notified of the need for Plant Status Update Training as a documentation acceptance item and has acknowledged that it will be added to the Documentation Update Sheet and Closeout Checklist.

Conclusion

The RE shall issue a memo (or other documented method) to the SQUG coordinator addressing the changes to the 2C03 panel associated with MR 92-141. The SQUG coordinator shall assure that a review of the 2C03 panel changes is performed to verify that the impact to the existing SQUG evaluation of the panel is not impacted. This documented review should be retained in the MR 92-141 file.

Based on this independent review, following completion of the SQUG review, there are no items involved with Restart Commitment #41 which would impede Unit 2 start up.

Reviewer: \_\_\_\_\_

2

Date: Thursday, 27 March 1997 3:01pm CT  
To: . . .  
Cc: .  
From:  
Subject: MR 92-141 RHR Controller Repositioning

Modification MR 92-141 repositioned the RHR controllers mounted on main control board shelf 2C03-14. Controllers 2HC-624, 2HC-625, and 2HC-626 were repositioned to bring them into conformance with Plant Installation and Design Guidelines, DG-G01 section 1.2.2 and section 2.5. The mounting of the controllers was not changed only the position of the controllers on the main control board.

The repositioning of the controllers was not accepted via the SQUG process. This was discovered during the close out review of the WO and Modification by . . . of Duke Engineering. . . did talk to Tim Muehlfeld about the repositioning of the controllers and it was felt that there were no seismic concerns. The Mod only repositioned the controllers. There were no changes to the way that the controllers were mounted on 2C03-14.

If you have any further concerns or questions please contact me.

Thanks  
Paul Bruening

(This is the memo which was recommended in the Conclusion section of Restart Commitment #41's Independent Review Documentation, dated 2/25/97)

## ACTION ITEM STATUS REPORT

PAGE 1  
03/31/97

\*\*\*\*\* Responsible Person:  
\* Trkid: U2R22 RESTART \* Urgency: DONE  
\* Action Number: 70 \* Work Priority: 99  
\*\*\*\*\*

Activity Pending is: DONE

ASSOCIATED WITH A COMMITMENT

## -----TITLE AND TASK DESCRIPTION-----

## Unit 2 Refueling 22 Startup Commitments

Prior to criticality, provide closeout documentation for installing a new level control system for the T-118 brine tank per MR 92-008\*Q. The tank overflows because the installed automatic level control system is not effective, and there is no high level alarm for the tank.

## -----DATES-----

Source Record: 01/10/97	***** Evaluation *****	***** Correction *****
Commitment:	Eval Due:	Corr Act Due: 02/28/97
Action Create: 01/14/97	Orig Eval Due:	Orig CA Due: 02/13/97
Action Closed: 03/31/97	Eval Done:	Corr Act Done: 02/28/97

## -----PEOPLE-----

Responsible for Overall Action: CHE  
Responsible for Current Pending Activity:  
Issue Manager:  
Initiator:  
Punchlist Administrator:

## -----UPDATE-----

(01/28/97) ECR 97-008 has been initiated to modify the brine tank standpipe to improve level equalization between the standpipe and the bulk of the tank, thereby improving the reliability of the high-high level switch.

Preparation of the work plan, safety evaluation, and other documents is in progress. Expected release date is 1/31/97.

A contractor is scheduled to make the standpipe modification on 2/5/97. Expected acceptance date is 2/17/97.

(02/06/97) Installation was completed 2/5/97. Testing and system restoration are scheduled for 2/10/97. Work package is with

(02/14/97) Testing of the standpipe modification was resumed on 2/14/97. The standpipe modification testing proceeded as expected; however, the sensor on the high-high level switch seems to have broken. The level switch will be sent back to the manufacturer for repair or replacement on 2/17/97. Expect to complete testing by 2/21/97.

(02/18/97) Requested Due Date: 02/28/97

(02/18/97) Changed the Due Date from: 02/13/97 to 02/28/97  
Two setbacks occurred during testing of the installation. First, testing on 2/10 revealed that the contractor made a mistake when installing the standpipe modification. The contractor then returned on 2/11 to make repairs, which then pushed the testing activities back to 2/14. During the testing on 2/14, LE-9212 (brine tank high-high level switch) was found to be broken. The level switch was shipped back to the manufacturer for troubleshooting and repair on 2/17/97. The repaired level switch is expected to be delivered to PBNP by 2/21/97. Testing is then expected to resume during the week of 2/24. Because of these setbacks, I am requesting that the due date be changed to 2/28/97.

(02/28/97) 1) The level switch testing was completed today and the mod has been accepted.

(02/28/97) Passed to / for acceptance of work.

(02/28/97) Passed to / for Verification.  
The brine tank standpipe was modified under ECR 97-0008 and IWP 92-008\*Q-02 to improve the ability of the brine tank high-high level switch (LE-9212) to prevent brine from overflowing the tank. Installation and testing of the mod have been completed satisfactorily and the mod has been accepted. A copy of the completed IWP has been forwarded to Parks Walker for closeout of Unit 2 Restart Commitment # 70. No significant issues were identified during the conduct of the modification.

## ACTION ITEM STATUS REPORT

PAGE 2  
03/31/97

(03/28/97 ... Passed to ... for Final Close Out.  
Verified DSS signatures and gathered documentation package. This is ready  
for closeout.

(03/31/97 ... PLA Closure of Item.  
IWP 92-008\*Q-02, ECR 97-0008 and WO 9701182 were provided as closeout  
documentation.

## -----REFERENCES-----

IWP 92-008\*Q-02                      WO 9701182  
ECR 97-0008

## -----MISCELLANEOUS-----

Originating Agency:	System:	XX
NRC Open Item Number:	NRC Status:	
Related Outages:	U2R22	
Engineering Work Type:	None Specified	
Person Hours:	Original Estimate	=
	Current Estimate	=
	Actual Hours	=



# WCC TRACKING

CE

JH

ORIGINAL \*\*\*\*\* PBNP \*\*\*\*\* WO No: 9701182  
WO Priority: 4 \* UNIT 0 \* MWO, \* UNIT 0 \*  
Resp Group: CE \*\*\*\*\* HEADER PAGE \*\*\*\*\* Step Print: 02/03/97  
Equipment: T-118 System: WT HP Zone:  
Equipment Name: BRINE TANK  
Physical Location: 0/NSB/WT Discovery Date: 01/25/97

## Problem Description:

INSTALL U-SHAPED PLASTIC OR FIBERGLASS TUBE ON T-118 STAND PIPE INSIDE  
TANK TO FACILITATE LEVEL EQUALIZATION BETWEEN BULK TANK AND STAND PIPE.  
WORK TO BE DONE BY CONTRACTOR BEFORE U2 STARTUP. (CONTINUED ON TEXT)

Originator: CHE Outage ID: U2R22 Activity: 6524  
Tag/Sticker Placed: N Tag/Sticker Lctn: 103178  
Job Type: CORRECTIVE MAINTENANCE Project ID: Condition Report:  
Work Function: WORK ORDER  
Mod Req #: 92 - 008 Q

QA: N SEIS: 3 Operability Pre-Test: N Procedures:  
SR: N LCO: N  
EQ: N PMT: Y Operability Post-Test: N Procedures:  
SSA: N CIV: N MRULE: N  
A/P: CACC:  
RRN: - - - - - Tech Spec Ref:  
QA Codes: Sect XI Class:  
Tools Needed:

Work Plan/Instructions reviewed. Planner: 468  
LINE SUPERVISOR: P. B. 1210101 NAME: DATE: 2/3/97

Plant Conditions: REFUELING (ANY plant conditions Ignition Control Permit: N  
Other Conditions: 8/NSB/WT are acceptable. WT Transient Combustible Permit: N  
Fire Barrier Penetration Permit: N Conditions are RWP: N  
Equipment Isolation Required: Y addressed in the work plan. To be FME: Y  
Isolation Tag Series #: completed, however, U2R22) 774 4/1/97

Operability Pre-Test Complete. 47-102 97-136 Equipment Isolation as requested. \_\_\_\_  
Permission granted to perform Work.  
Ops DSS Notification Req: Y Ops DSS Signature: Date: 2/5/97

Special Notification:  
CAUTION: CONFINED SPACE PERMIT MAY BE REQUIRED

Number of Steps: 001  
Acct #: 00 - 0000N - 9600001 - 00000  
MFG Code: Tech Manual Cntl #:

\* WORK ORDER CLOSEOUT \*

Group Head Signature:

Date: 3/18/97

CHAMP: LARRY MOHT

MAR 8 1997

# WCC TRACKING

CE

JHE

ORIGINAL  
WO Priority: 4  
Resp Group: CE  
Equipment: T-118  
Equipment Name: BRINE TANK  
Physical Location: O/NSB/WT

\*\*\*\*\*  
\* UNIT 0 \*  
\*\*\*\*\*

PBNP  
MWO,  
HEADER PAGE

\*\*\*\*\*  
\* UNIT 0 \*  
\*\*\*\*\*  
System: WT

WO No: 9701182

Step Print: 02/03/97  
HP Zone:

Discovery Date: 01/25/97

## Problem Description:

INSTALL U-SHAPED PLASTIC OR FIBERGLASS TUBE ON T-118 STAND PIPE INSIDE  
TANK TO FACILITATE LEVEL EQUALIZATION BETWEEN BULK TANK AND STAND PIPE.  
WORK TO BE DONE BY CONTRACTOR BEFORE U2 STARTUP. (CONTINUED ON TEXT)

Originator: CHE Outage ID: U2R22 Activity: 6524

Tag/Sticker Placed: N Tag: 103178 Tag/Sticker Lctn:

Job Type: CORRECTIVE MAINTENANCE

Project ID:

Condition Report:

Work Function: WORK ORDER

Mod Rev #: 92 - 008 Q

QA: N SEIS: 3 Operability Pre-Test: N Procedures:

SR: N LCO: N

EQ: N PMT: Y Operability Post-Test: N Procedures:

SSA: N CIV: N MRULE: N

A/P: CACC:

RRN: Tech Spec Ref:

QA Codes: Sect XI Class:

Tools Needed:

Work Plan/Instructions reviewed. Planner: 468

LINE SUPERVISOR: P. B. 12 16 10 10 NAME: DATE: 2/13/97

Plant Conditions: REFUELING (ANY plant conditions Ignition Control Permit: N

Other Conditions: 8/NSB/WT are acceptable. WT Transient Combustible Permit: N

Fire Barrier Penetration Permit: N Conditions are RWP: N

Equipment Isolation Required: Y addressed in the work plan. To be completed, however, U2R22) FME: Y

Isolation Tag Series #: 97-102 97-136

Operability Pre-Test Complete. Equipment Isolation as requested. ---

Permission granted to perform Work.

Ops DSS Notification Req: Y Ops DSS Signature: Date: 2/15/97

## Special Notification:

CAUTION: CONFINED SPACE PERMIT MAY BE REQUIRED

Number of Steps: 001

Acct #: 00 - 0000N - 9600001 - 00000

MFG Code: Tech Manual Cntl #:

\* WORK ORDER CLOSEOUT \*

Group Head Signature:

Date: 3/18/97

CHARGE ENTRY POINT

MAR 21 1997



ORIGINAL \*\*\*\*\* PBNP \*\*\*\*\* WD No: 9701182001  
WC Priority: 4 \* UNIT 0 \* MWO \* UNIT 0 \*  
Resp Group: CE \*\*\*\*\* STEP DETAIL \*\*\*\*\* Step Print: 02/03/97  
Equipment: T-118 System: WT HP Zone:  
Equipment Name: BRINE TANK  
Physical Location: 0/NSB/JT  
Sequence No: 01  
Short Desc: INSTALL TUBE ON STAND PIPE

PLANNED: WORK PROCEDURES:  
Crew: X X X X IWP 92-008\*Q-02  
Shift: 2 2 2 2  
Class: 321 440 521 470

Work Plan Description:  
MODIFY THE BRINE TANK HIGH-HIGH LEVEL ALARM STANDPIPE PER  
IWP 92-008\*Q-02.

QC REVIEW REQUIRED: N DATE: \_\_/\_\_/\_\_

WORK PERFORMED: U-tube installed in T-118 standpipe per  
IWP 92-008\*Q-02, and ECR 92-0008

MTE: NA QAR: NA

ACT'AL USED:	CREW:	MTN	X
	SHIFT: 2	2	2
	WORKER CLASS: 321	440	5470
	NUMBER OF WORKERS: 1	1	2
	TOTAL HOURS: 5	10	12
	TTL EXPOSURE/STEP (MREM): 0	0	0

PARTS USED LIST ATTACHED: Y  
WD TAGS REMOVED: Y / N / NA  
EMPLOYEE NUMBER: 1181216101 WORK COMPLETE DATE: 2/28/97  
EMPLOYEE NAME: \_\_\_\_\_

\* WORK COMPLETED \*  
Cause Failure Code: PM / SV / NRM / MOD 92-008\*Q  
As Found-Out of Spec: 7 / N / NA Machine History Review Required: Y / N  
Failed Component: NA  
Corrective Action: NA RP/RE/  
LINE SUPERVISOR: 1181216101 NAME: \_\_\_\_\_ Downtime: \_\_\_\_\_ hrs  
DATE: 3/13/97

\* EQUIPMENT RETURN TO SERVICE \*  
Operability Post Testing: None  
EQUIP. TAKEN OOS - DATE: \_\_/\_\_/\_\_ TIME: \_\_\_\_\_ RETURN DATE: \_\_/\_\_/\_\_ TIME: \_\_\_\_\_  
Operability Tests Performed: None  
NON OPS SUPV: 1181216101 NAME: \_\_\_\_\_ DATE: \_\_/\_\_/\_\_  
DSS: 1181216101 NAME: \_\_\_\_\_ DATE: 3/14/97

ORIGINAL \*\*\*\*\* PBNP \*\*\*\*\* WO No: 9701182  
WO Priority: 4 \* UNIT 0 \* MWO \* UNIT 0 \*  
Resp Group: CE \*\*\*\*\* TEXT DETAIL \*\*\*\*\* Step Print: 02/03/97  
Equipment: T-118 System: WT HP Zone:  
Equipment Name: BRINE TANK  
Physical Location: 0/NSB/WT Discovery Date: 01/25/97

TEXT ID: WO-9701182 PAGE: 001  
(PROBLEM DESCRIPTION CONTINUATION):  
(REFER TO ECR 97-0008). \*THIS IS A UNIT 2 RESTART COMMITMENT\*  
(COMMITMENT ID #70).  
WILL REQUIRE MTN/I&C SUPPORT.