

*** UNCONTROLLED PROCEDURE - DO NOT USE TO PERFORM WORK or ISSUE FOR USE ***

PACIFIC GAS AND ELECTRIC COMPANY

NUMBER AD7.ID1

NUCLEAR POWER GENERATION

REVISION 2

INTER-DEPARTMENTAL ADMINISTRATIVE PROCEDURE

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TITLE: USE OF PIMS WORK ORDER MODULE

APPROVED:

PLANT MANAGER

12/31/96

DATE

01/22/97

EFFECTIVE DATE

APPROVED:

VP, NTS

01/15/97

DATE

SPONSORING ORGANIZATION: PROCEDURE SERVICES

PROCEDURE CLASSIFICATION: QUALITY RELATED

REVIEW LEVEL: "A"

1. SCOPE

- 1.1 This procedure provides instruction for the implementation of the Plant Information Management System (PIMS) Work Order (W/O) module. The W/O module provides an integrated method for planning, initiating, tracking, inspection and completion of Significant Maintenance or Plant Modification activities.
- 1.2 This procedure also provides instruction for the planning and processing of Preventive Maintenance (PM) and Surveillance Test Procedure (STP) W/O's used to perform work
- 1.3 For Minor Maintenance Tasks, Refer to AD7.DC1, "Minor Maintenance Program."
- 1.4 This procedure has been completely rewritten. For this reason, no other revision bars are included herein.

2. DISCUSSION

- 2.1 The PIMS W/O Module allows the plant to document Significant Maintenance, Inspection and Testing Activities through the use of Corrective Maintenance (CM) and Recurring Task (RT) W/O's. Following initiation of an Action Request (AR), a W/O is created. The planner can then plan, schedule and assign the W/O to a maintenance Crew for work. The PIMS W/O Module also interfaces with other PIMS Modules such as Clearances, RWP/SWP's and Parts.
- 2.2 The PIMS W/O module includes provisions for establishing detailed work process control. A screen, with a scrolling feature, is provided for establishing a general plan or set of instructions to complete a specific maintenance task. There are also provisions for inspection and task completion sign-offs.
- 2.3 When PIMS is not available, a hard copy A/R and W/O may be generated in accordance with Appendix 6.2, "Instructions for Processing A/R's and W/O's with PIMS Off-Line."
- 2.4 In cases of emergency or where immediate response is necessary, the Shift Supervisor may make a verbal request (followed with an A/R), directly to the General Foreman or Foreman. The General Foreman or Foreman will decide if the verbal work request should be processed by Planning or worked as Emergency Maintenance. Reference Section 4.1 for Work Order Classifications and Requirements.



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3. RESPONSIBILITIES

- 3.1 Section Directors with Equipment Maintenance Responsibilities are responsible for conducting maintenance activities in accordance with this procedure.
- 3.2 Nuclear Quality Services (NQS) is responsible for reviewing quality related W/O's and designating inspection/hold points when appropriate. NQS is not required to review W/O's prior to issue to the field that are investigative or are nonquality related.
 - 3.2.1 NQS review of PM and STP W/O's will be in accordance with the Maintenance/NQS Letter Of Agreement.
- 3.3 Planning Supervisor/Group Supervisor/General Foreman
 - 3.3.1 Assign work to the Planners.
 - 3.3.2 Monitor the over-all efficiency of the group and ensure all work is completed in accordance with DCPD Administrative Procedures.
 - 3.3.3 Perform periodic review of W/OA's prior to issuance to verify compliance with maintenance procedures and programs. This may be delegated to a peer review.
- 3.4 Maintenance/Outage Services Planner.
 - 3.4.1 Develop W/O Packages in accordance with this procedure.
 - a. Planners should be familiar with and knowledgeable of Maintenance and/or Administrative Procedures affecting specific W/O content.
 - b. Research the scope of the work including a job walkdown when feasible.
 - c. Identifies and coordinates support from other groups when required such as OS, MM, TM, ISI, ANI, TES, Engineering, etc.
- 3.5 Maintenance Foreman/Upgrades/Craft
 - 3.5.1 May initiate and process W/O's. Their principal responsibility, however, is to review, implement, status and provide work summary information for the W/O process.
- 3.6 Scheduler
 - 3.6.1 Develops schedules for on-line and outage work. Reference AD7.ID4, "On-Line Maintenance Scheduling" and AD8.ID1, "Outage Scheduling."
- 3.7 Engineering Services (ES)
 - 3.7.1 Provide engineering support and/or technical assistance as required, such as:
 - a. Preventive Maintenance Program Evaluation and Implementation.
 - b. ASME Section XI Repair/Replacement Plans. (Technical review of work plan, ISI review of Repair/Replacement Plan, etc).

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- c. DCN's and AT-MM's (Assist in execution and completion of design changes, including "As Built" sketches).

- 3.8 Director, Outage Services (OS) shall ensure section review of Work Packages that address welding, brazing and post weld heat treatment as defined in MA3.DC1, "Weld Inspection and Planning."
- 3.9 Fire Protection (PTEB) is responsible for reviewing any activity that impacts Fire Protection systems or structures as defined in Section 4.5.4.
- 3.10 Security (PSAS) is responsible for reviewing any activity that impacts plant security systems and/or security barriers as defined in Section 4.5.5.

4. INSTRUCTIONS

4.1 W/O Classifications

- 4.1.1 Normal or Full Scope Maintenance - This W/O should be processed iaw applicable requirements of this procedure. W/O types are:

"CM" Corrective Maintenance (Plant Structures & Components)

"AT" Administrative Task (DCN's, AT-MM's, Inspection Activities, Shop Rebuilds, etc)

"PA" Plant Assist (Maintenance Support Activities such as a Tech Assist)

- 4.1.2 Investigative Maintenance - This W/O is an authorization that allows the foreman to proceed with a preliminary investigation of reported equipment anomalies without going through the complete planning process. It is designed to expedite authorized troubleshooting and on the spot minor maintenance. The use, requirements, guidelines and good practices of Investigative W/OA's are described in MA1.DC10, "Requirements for Troubleshooting Activities and Risk Level Assessment."

- a. Planner creates a W/O and enters "INVSTG" after the W/O Description on the W/O Header Page and after the W/OA Description on the W/OA Header Page. The W/OA Description should also be preceded by "Investigate."
- b. Describe the steps to be taken on the W/OA Detail Description Page. MA1.DC10 provides detailed guidance for preparing this type of W/O.
- c. Careful coordination with the SFM is required. SFM notification is required prior to AND after work is complete.
- d. If repairs can not be completed via the Investigative W/O, a CM W/O should be created and processed accordingly.

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4.1.3 Emergency Maintenance - Should operating conditions occur that require immediate CM in order to prevent or mitigate the release of radioactive material, hazards to personnel or extensive equipment damage, then the following applies:

- a. The Shift Supervisor (SS) or Department Manager shall designate the condition an emergency for the purposes of this section.
- b. Direct action can be taken to stabilize the condition and a W/O is not required at this time.
- c. Once the condition has stabilized, the initial corrective action taken shall be documented on an A/R and a W/O shall be required for any additional corrective maintenance.

4.1.4 Routine Task W/O - For Maintenance Activities that occur on a routine basis, a Routine Task W/O may be created using the Recurring Task Module in PIMS. RT W/O's may be created by any department. Scope and Control of these tasks are the responsibility of the initiating department.

- a. Routine Task W/O's shall not be used in lieu of a Preventive Maintenance (PM) W/O's.
- b. Routine Task W/O's shall be identified with an "O" designator in the W/O "CTD" field.
- c. Routine task W/O's will have a fixed frequency and due date.
- d. The Library AR for these routine tasks shall identify the requestor and the reason for the task. Changes to the task shall also have similar documentation added to this AR.

4.2 W/O Quality Classifications

4.2.1 Safety Related - This classification involves tasks on Quality Class "Q" equipment. NQS Review is required.

4.2.2 Graded Quality - This classification involves tasks on Quality Class "R, G, S and T" equipment. NQS review is required.

4.2.3 Nonquality related - This classification involves tasks on Quality Class "N" and "B" equipment. NQS review is not required.

4.3 Use of a W/O (Quality Related)

A W/O is required on all quality related work which is not routinely scheduled except work as described in AD7.DC1, "Minor Maintenance Program", and OM7.ID1, "Problem Identification and Resolution-Action Requests."

NOTE: STP and PM activities are considered routinely scheduled work.



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4.4 W/O General Usage and Limitations

- 4.4.1 The W/O is a planning document. It is used as a process control sheet to provide a general plan and/or set of general instructions for a specific job.
- 4.4.2 In cases where all the provisions of approved written procedure(s) are not required or appropriate for an activity, the W/O may be used to highlight those portions of the procedure(s) that apply by reference in the W/O. Steps may be extracted from the procedure and placed in the W/O if they will result in the clearest instructions to the person performing the work.
- 4.4.3 W/O's shall not be used in lieu of detailed written procedure(s). However, they may be used in conjunction with detailed procedure(s), i.e., use of the latter is specified in the W/O.
- 4.4.4 W/O's shall not contradict approved written procedures.
- 4.4.5 Significant maintenance that could affect the performance of quality related equipment shall be performed in accordance with written procedures, documented instructions or drawings appropriate to the circumstances as described in MA1, "Maintenance."
- 4.4.6 W/O's that implement DCNs, AT-MM's and MMP's should include steps required to correctly implement or install the design modification when appropriate. These implementation steps contained in the W/O need not repeat specific information or directions already contained in the Design; however, they should refer to the specific page, drawing, sketch or instruction, as appropriate.

4.5 General Instructions for W/O Review and Inspection/Hold Points

- 4.5.1 For General Hold Point Guidelines and Instructions, Refer to Appendix 6.1.
- 4.5.2 Cognizant supervision (Engineers, Planners, and Foremen) shall make sure that, if applicable, their maintenance hold points are included as part of the steps in the W/O.
- 4.5.3 For Quality Related W/O's, NQS shall review the W/OA and determine if an independent inspection is applicable. If it is decided that an inspection is applicable, the W/O "Activity Detail Description" field shall be annotated to indicate the required independent inspections and the W/OA screen "QC Plan Review" field shall be completed.
- 4.5.4 ES BOP Group (PTEB) Fire Protection shall perform a W/OA review for any activity that impacts Fire Protection except work that is routinely scheduled. This review includes but is not limited to:

NOTE: STP and PM activities are considered routinely scheduled work.

- a. W/OA's that repair, affect or modify Fire Rated Assemblies (walls, floors, ceilings, penetration seals, fire doors, fire dampers and fire rated enclosures).
- b. W/OA's that repair, affect or modify Fire System components or Structures including the RCP Lube Oil Collection System.
- c. W/OA's that repair, affect or modify Emergency Lighting systems.

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- 4.5.5 Security (PSAS) shall perform a W/OA review for any activity that impacts plant security systems and/or security barriers as follows:
- Any W/OA causing an opening in a security barrier greater than 96 square inches and/or an opening with one dimension greater than 6 inches.
NOTE: This includes, but is not limited to, Doors, Walls, Access Hatches, Fencing, DFO Vault and Trench Covers.
 - Any W/OA that affects electric power supply to security systems or equipment including perimeter fence lighting.
 - Any W/OA that identifies activity to be conducted in this Protected Area Isolation Zone Boundaries.
- 4.5.6 ES NSSS ISI Group (PTPI) shall perform a W/OA and Section XI Plan review for any Repair, Replacement or Modification activity within the ASME Section XI Boundary as shown on dwgs 102028 and 104628, including the containment pressure boundary, as required by MA1.ID13, "ASME Section XI Repair/Replacement Program."
- 4.5.7 ES SE Piping and Equipment Qualification Group (NPEQ) shall perform a W/OA review any time piping, piping components, pipe supports or seismic braces are loosened or dismantled, since structural qualification of the structures, systems and components (SSC) could be impacted. If the entire system and associated systems are cleared, this review is not required.
NOTE: Stress Analysis Boundary marked-up P&ID's may be used to help determine when review is required however should be considered info only.
- 4.5.8 ES SE Civil Group (NCFC) shall perform a W/OA review for any activity that installs or removes any attachments, temporary or permanent, to the containment liner. As an alternative, this approval can be documented using an A/R or A/E on a case by case basis.
- 4.5.9 ES BOP Group (PTEB) HVAC Engineer shall perform a W/OA review for any activity that installs a barrier, covering, etc. which has the potential to restrict airflow. An A/E should be sent to the HVAC Engineer for evaluation of the airflow concern for planning purposes.

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- 4.5.10 OS Support Services shall be notified for any activity that installs, repairs, replaces or modifies a penetration seal located in an inspected or uninspected fire barrier. An A/E shall be sent to the FP Engineer (PTEB) who will evaluate and specify the design details for the Seal. Notification is not required when specific design details have been provided via the Design Process and have been reviewed by the FP Engineer. Fire Barriers shall be identified by the latest revision of the DWG. 515562 through 515580.

NOTE: OS Support Services typically performs these types of repairs or modifications and will coordinate the above evaluation with the FP Engineer.

- 4.5.11 The planners hold flag should not be lifted until all required reviews are complete and hold points have been inserted in the W/OA.

4.6 General Instructions for W/O Creation and Processing

- 4.6.1 For PM and STP W/O's, Refer to MA1.DC51, "Mechanical Maintenance Preventive Maintenance Program", MA1.DC57, "Technical Maintenance Preventive Maintenance Program" and AD13.DC1, "Control of the Surveillance Testing Program" for specific W/O programmatic requirements.
- 4.6.2 Refer to Attachment 7.2, "Maintenance Planning Checklist" for Administrative and/or Procedural requirements that may apply to a specific W/OA. This Checklist should not be considered to be all inclusive, but rather a listing of the most commonly referred to requirements.
- 4.6.3 Use of PF10 and/or PF11 Keys on specific W/O fields will provide tutorial information to assist with data entries.
- 4.6.4 The following instruction describes the general flowpath of a W/O from initiation to closeout. The instruction includes responsibilities for preparation, review, processing and closure. Refer to Attachment 7.1, "W/O Flow Path."
- Planner evaluates and verifies the A/R for implementation of corrective action. Planner takes A/R to PLNNED status.
 - Based on the above evaluation, the Planner creates a W/O (Fast Path =4.3.2). The W/O status at this point is ONHOLD and remains in this status until the W/O is ready for the review and approval process.
 - Once the W/O required fields have been completed with at least one activity defined, the status can be changed to PLNNED. Other PIMS modules are then notified of the W/O and W/OA. The W/OA HOLD status is established by Planner setting the PLNR flag on the W/OA screen. This prevents the W/OA status from being changed to READY. Parts may be reserved during this status through the parts page/bom or temporary parts screen.

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- d. The W/OA HOLD status provides the opportunity for inspection planning of work activities prior to the W/OA being changed to the READY status. The NQS, ISI, or other inspection groups, will be notified by Work Planning by entering the Responsible Organization Code in the ORG-INSP/HOLD field as described above. The inspection groups may then search for those W/OA's assigned for their review.
- e. The inspection group will review the "Activity Detail Description" screen and determine where their inspection hold points should be placed, if any. If there are foreman inspection hold points, with appropriate inspection criteria, the inspection group may elect to verify these or they may provide additional hold points.
- f. When this process has been completed, the inspection group enters the reviewers name and date in the appropriate field on the screen and changes the entry in the ORG-INSP/HOLD to "H" or "I", if hold or inspection points are established, or an "X" if inspection is waived. When NQS enters the reviewer's name and date in the QC PLAN REVIEW field, the Activity Detail Description screen is protected. Any further processing of this screen can only be done with NQS concurrence. Consequently, it is beneficial to have the NQS entry appear last in the ORG-INSP/HOLD field.
- g. The Planner may then use the W/OA Search, or any other appropriate search, to determine when inspection planning has been completed, remove the PLNR hold, and proceed with W/O processing.
- h. In order to proceed with W/OA processing, the W/OA must be scheduled. This is accomplished by entering a labor assignment, through the secondary options menu. When the labor assignment fields are entered the W/O status is changed to ASIGND and the W/OA status is changed to SCHED pending a reported start date for further processing. The Planner may now issue a hard copy to the foreman for his review, concurrence, and signature.
- i. When a start date has been established, the "W/O Activity Status Update" screen is selected from the Secondary Options Menu and the date, job duration, and deferral code, if applicable, are entered. The W/OA status is now INPROG and the W/O status is ASIGND.
- j. As each W/OA is completed, the "W/O Activity Status Update" screen is given a finished date. This will change the status of the W/OA to COMPLT. The W/O status will remain in the ASIGND status until all W/OA's are COMPLT. When all W/OA's are COMPLT, the W/O status will change to ACTCMP. At this point, new activities may still be created or the W/O completion process started.

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- k. The W/O completion process is accomplished by selecting the "Work Order Completion Processing" module from the Secondary Options Menu. This module provides a final review and verification for the work activities prior to closure of the W/O. In addition, this module provides the opportunity for the comments from each W/OA hard copy to be summarized. When this portion of the module is entered, the W/O is taken to COMPLT and all W/O fields are protected. Completion Remarks may be entered in the W/O through HISTRY status.
- l. The W/O is now ready for entry into RMS, if Quality Related, or Disposition iaw Section Policy if Nonquality Related.
- m. After RMS processing is completed an "RLOC" number is entered, the W/O status is changed to HISTRY.

4.7 Conduct of Work

- 4.7.1 The W/OA Maintenance Supervisor Review should be performed and signed by the Maintenance Supervisor (Foreman, Engineer, etc) indicating acceptance of the Work Plan and associated documents.
- 4.7.2 Work shall be performed in accordance with the instructions provided by the W/O.
- 4.7.3 W/O steps are typically worked in sequence, however, they may be worked out of sequence unless adherence to a specific sequence is clearly identified or working the steps out of sequence will cause an inspection or hold point to be bypassed.
- 4.7.4 The appropriate inspection group shall be notified of work progress in anticipation of designated inspection points.
- 4.7.5 NQS should be notified prior to work start to allow inspection coverage to be determined. Inspection shall then be handled in accordance with AD5.ID1, "Independent Inspection Program."
- 4.7.6 During the conduct of the work, the inspector shall sign, initial, or stamp all inspection sequences on the W/OA issued copy to indicate acceptance or rejection of the inspection points including the date inspected.
- 4.7.7 Work shall not proceed past an inspection hold point until the inspection has been performed and accepted, or the inspection hold point waived by the appropriate inspector.
- 4.7.8 Work on that step of the W/OA shall stop when a hold point is rejected until the issue is resolved.
- 4.7.9 W/OA steps shall be signed off, initialed and dated, as soon as practicable after completion. Do not delay signing off a completed activity beyond the end of the work shift in which the activity was completed.

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- 4.7.10 The name and initials of the person signing the W/OA step should be entered on the Header Page of the W/OA.
- 4.7.11 Use of N/A
- a. Under certain circumstances, not all steps of a W/OA are applicable. If a sign-off or initial is required, an "N/A" (Not Applicable) should be used if the step does not apply. The recording individual shall initial and date the "N/A."
 - b. The reason for the use of "N/A" shall be explained in the work summary comments unless otherwise authorized by the W/OA.
 - c. If use of an "N/A" is authorized by the W/OA, only the N/A is required.
- 4.7.12 Use of "WORKING COPIES" of W/O's.
- a. A copy of the "ORIGINAL" W/O may be used to perform work in a Radiologically Controlled Area (RCA). This practice should help prevent the contamination of the "ORIGINAL" W/O and reduce radwaste.
 - b. The copy shall be noted as or stamped "WORKING COPY" and be used to document the work performed.
 - c. Any changes to the "WORKING COPY" shall be made in accordance with the requirements of this procedure.
 - d. Upon completion of work, information from the copy shall be transferred to the "ORIGINAL" and all applicable steps signed by the appropriate parties. If the copy cannot be removed from the RCA due to contamination, the information may be given over the phone or faxed to the person responsible for the "ORIGINAL" W/O.
- 4.7.13 If additional Parts are added to the W/OA in the field, the Parts Pages may have to be reprinted if the parts require Standard Clause Installation Inspection or Testing. Reference AD9.ID7, "Receipt Inspection and Acceptance Testing."
- 4.7.14 Work Completion Remarks should be entered on the Work Summary Page of the W/O describing the As Found condition as well as the work performed to correct the problem.
- 4.7.15 Measurement and Test Equipment should be entered in the M&TE section of the W/OA unless recorded on a procedure data sheet or in the PIMS M&TE module.
- 4.7.16 The W/OA Final Review should be signed and dated by the Maintenance Supervisor (Foreman, Engineer, etc) indicating his review and acceptance of the work performed and associated documentation.
- 4.7.17 Problems discovered during the work process shall be documented in the W/OA and reported in accordance with OM7.ID1, "Problem Identification and Resolution-Action Requests."

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4.8 Changes to W/O's

- 4.8.1 Changes to ASME Section XI W/O activities shall be evaluated and a new or revised Section XI Plan completed, if required, in accordance with MA1.ID13, "ASME Section XI Repair/Replacement Program."
- 4.8.2 Clearance Coordination, Scheduling and Rad Protection Planning should be notified of any W/OA Scope Change that may affect the Clearance, Scheduling or RWP/SWP for that activity.
- 4.8.3 Hard Copy W/O Changes (ie. Pen & Ink/Red-Lined)
If during the course of work, additions, deletions or changes to the W/OA Description are required, the original hard copy of the W/OA may be revised.
 - a. Nonquality Related W/O's do not require NQS review of changes.
 - b. Non-Technical or Editorial Corrections may be made without additional reviews.
 - c. Changes involving Technical Instructions, Inspection Criteria, Hold Points, or Weld Maps require Foreman, Planner, Engineer (or designee) approval depending on the scope of change.
 - d. Changes to Quality Related W/OA's that add, delete or modify scope, modify inspection criteria or alter inspection forms require approval by organizations (ie. NQS, ISI, ANI, WELD) that initially reviewed the W/OA in addition to the approval required in c. above.
 - e. Changes may be documented on the hard copy as follows:
 - 1. Deletion: Single line through with initials and date
 - 2. Addition: Clearly identified with initials and date

NOTE: Changes to W/O's may also be approved via Telecom or FAX if the work is being performed remotely or off-site.

4.8.4 Electronic W/O Changes

A new W/OA may also be generated.

- a. Mark up the original W/OA steps to be changed with reference to the new W/OA.
- b. The new W/OA may supersede, supplement, or change the original W/OA depending on the situation. In each situation, appropriately cross reference all W/OA's involved.
- c. All W/OA's involved in a change shall be processed and documented in accordance with the instructions established in this procedure. The original W/OA and any associated hard copy W/OA's shall be maintained as a complete job package.

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4.9 W/O Completion and Maintenance History

- 4.9.1 Review the W/O package for completeness and accuracy (work performed within the original or intended scope, verification of materials used, all required data entered and sign-offs made and signatures recorded).
- 4.9.2 Ensure accurate and applicable information is transferred to the W/O electronic summary (modifications, repairs, PM, etc.).
- 4.9.3 Completion Verification should include final W/O reviews from support groups as required, such as NQS, ISI and ANI, in addition to sign off by the person completing the W/O. Completion of these fields on the Hard Copy W/O is not required.
- 4.9.4 Submit documentation as required to ensure Plant Configuration Control (FCTs, PIMS Component Data Base Update, etc.).
- 4.9.5 Ensure RT Library W/O's are revised to reflect field comments as applicable.

5. RECORDS

- 5.1 Quality Related Work Packages shall be entered into RMS iaw AD10.ID1, "Storage and Control of Quality Assurance Records."
- 5.2 Nonquality Related Work Packages may be either entered into RMS or discarded iaw Section Policy.

6. APPENDICES

- 6.1 Hold Point Guidelines and Instructions
- 6.2 Instructions For Processing A/R's and W/O's With PIMs Off-Line

7. ATTACHMENTS

- 7.1 "Work Order Flowpath," 11/12/96
- 7.2 "Maintenance Planning Checklist," 11/12/96

8. REFERENCES

- 8.1 CF4.ID3, "Design Change Package Implementation."
- 8.2 CF3.ID8, "Maintenance Modification Package Development."
- 8.3 CF3.ID10, "Maintenance Modification Action Requests."
- 8.4 OM8, "Fire Protection Program."
- 8.5 STP M-70, "Inspection of Fire Barrier Penetrations."

9. SPONSOR

John Mellinger

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APPENDIX 6.1

HOLD POINT GUIDELINES AND INSTRUCTIONS

1. Hold points are milestones in a maintenance activity which may be identified as inspection or witness points. These inspection or witnessing activities may be performed by Maintenance or Engineering personnel or by an independent inspection organization. The organization that will be performing the inspection should be specified in the Hold Point.
2. Hold points for inspection requirements shall include clearly defined acceptance criteria with reference to the design documents, drawings or procedures that are the basis for the criteria.
 - a. An exception to the requirement for including acceptance criteria may be made if the inspection is performed to determine equipment condition or gather baseline data and no evaluation of acceptability is made.
3. Hold points to witness activities need not include acceptance criteria; however, they should be clearly written, stating specific activities to be witnessed and the individual or group who will witness the activity.
4. NQS inspection requirements may or may not be included in specific written work procedures.
5. NQS hold points are specified in the W/OA for those activities selected by NQS for inspection or assessment. To minimize confusion or misunderstanding during the work activity the following guidance should be used:
 - a. The hold point should be included in the work step to which it applies, and
 - b. The hold point should follow the work instruction in the W/O step.
 - c. Refer to QCP-10.2, Appendix 7.2, "Inspection Activities", for additional guidelines.
6. NQS may provide additional guidance or coordination information in the W/OA, if necessary, to ensure that the individuals performing the work understand the inspection requirements and know when the work is to stop for a hold point. The following is an example currently in use.
 - a. For each W/OA requiring inspection or assessment, the NQS Planner should enter a brief outline of the verification requirements in the prerequisites section of the activity description. The format and content of the outline may change as needs dictate; however, the outline will contain a statement that NQS is to be contacted.

EXAMPLE

CONTACT NQS AT EXT 4733. QC SPECIALIST TO:

1. VERIFY CLOSING COIL MOVEMENT.
2. VERIFY ARCING AND PRIMARY CONTACT WIPE.
3. VERIFY CAM SET SCREWS ARE INSTALLED.
4. WITNESS CONTACT RESISTANCE TEST.
5. VERIFY OPENING AND CLOSING TIMES.

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- b. The contact with NQS should be made by the job supervisor or foreman prior to starting the work. This contact is intended to provide the job supervision with an opportunity to discuss the inspection or assessment requirements with QC and to exchange information required to ensure effective coordination during the work activity.
 - c. The outline of the NQS verification requirements plus any additional information obtained from NQS during the initial contact should be used by the job supervisor or foreman during his tailboard of the work crew to inform the workers of the NQS inspection or assessment requirements.
7. The responsibility for stopping the work activity at appropriate hold points and not proceeding until inspection or witnessing activities are performed rests with the job supervisor and individual workers. If they do not understand the requirements of a hold point, prior to starting the W/OA step containing the hold point, they should contact the individual or organization responsible for the inspection or witnessing activity and obtain clarification of the requirements.

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APPENDIX 6.2

INSTRUCTIONS FOR PROCESSING A/R'S AND W/O'S WITH PIMS OFF-LINE

COMPUTER OUTAGES

NOTE: During computer outages, it may be necessary to generate A/R's and W/O's manually on blank hard copy forms. The hard copy forms are available from General Services and should be kept in a binder in the Discipline Planning Group.

1. It is the responsibility of the Planning Supervisor or General Foreman to ensure that the following instructions are adhered to:
 - a. The Planning Group will maintain a control log for computer outage W/O's. Each entry into the log will contain as a minimum, the date, the number assigned, problem description, assigned Planner, responsible department, computer generated A/R and W/O numbers and final verification sign-off.
 - b. Maintain an adequate supply of blank hard copy A/R Forms 69-10417-1&2 which are used for initiation of manual problem reporting per OM7.ID1, "Problem Identification and Resolution-Action Requests."
 - c. Maintain an adequate supply of blank hard copy W/O Forms 69-10416-1 thru 8 which is used for initiation of manual processing of work instructions in accordance with this procedure.
 - d. To assign a manual control log number for a manually generated A/R, begin with the number 88-1-001 for example, and proceed sequentially. 88 being representative of the year. 1 being representative of the Unit. 001 is the number of A/R's issued in any given year. With each new year the sequence will start over such as 89-1-001.
 - 1) W/O's shall follow the sequence listed above with the addition of the seventh digit being representative of the W/O number, by assigning a unique number to multiple W/O's common to the A/R.
 - e. The Planning Supervisor or General Foreman shall verify control log entries and shall sign and date the verification block to indicate approval.

NOTE: Upon verification and approval of an entry, the entry shall be considered closed.
 - f. The control log shall remain valid for a period of one year and upon closure shall be entered into RMS.
 - g. To ensure all information from the manually generated A/R or W/O is entered into the electronic numbering system in PIMS, create an electronic version of the A/R and W/O. Normal electronic reviews by NQS will be performed as necessary to reflect processing of the hard copy.
 - h. To ensure the computer generated hard copy with the work summary closure remarks are entered and that the manual W/O's are attached prior to the document being sent to RMS as required by this procedure.

TITLE: USE OF PIMS WORK ORDER MODULE

APPENDIX 6.2 (Continued)

2. When the Planner receives a manually processed A/R he will proceed as follows:
 - a. Obtain a preprinted W/O Form 69-10416-1 thru 8.
 - b. Manually enter the information available in the appropriate fields.
 - c. Manually process the W/O through the approval, implementation and closeout cycles. The W/O should consist of a Work Plan and shall receive all reviews as required by this procedure. No other processing such as status changes is required.
 - d. At the first available opportunity after the computer outage has ended, the Planner will generate an electronic A/R and associated W/O from the terminal. The computer A/R's and W/O's shall reference the control log number assigned to the manually processed documents, as well as the statement specified in Step 1.g. above.
 - e. The Planner will enter the computer A/R and W/O into the control log adjacent to the associated manual A/R and W/O's. The control log will be verified and signed by the Planning Supervisor or General Foreman upon completion of this process and considered closed.
 - f. To conform to the existing requirements of AD13.ID1, "Conduct of Plant and Equipment Tests" and OP2.ID1, "DCPP Clearance Process" and AD9.ID1, "Procurement of Items and Related Services", it will be the Planners responsibility to ensure that these items are contained within the body of the manually generated W/O, and as a documented equivalent, a phone Telecom from the responsible department shall be in the package.
3. The manually generated A/R and W/O's shall be attached to, and closed with, the corresponding computer generated W/O of the lead discipline.
 - a. The close out process shall be in the same manner as normally processed W/O's including the editing and transfer of information from the original/manual W/O's to the computer generated version on the Maintenance Summary Screen.
 - b. The hard copies of these manually generated documents will be entered into the RMS System for storage in accordance with AD7.ID1, "Use of PIMS Work Order Module" and AD10.ID1, "Storage and Control of Quality Assurance Records."

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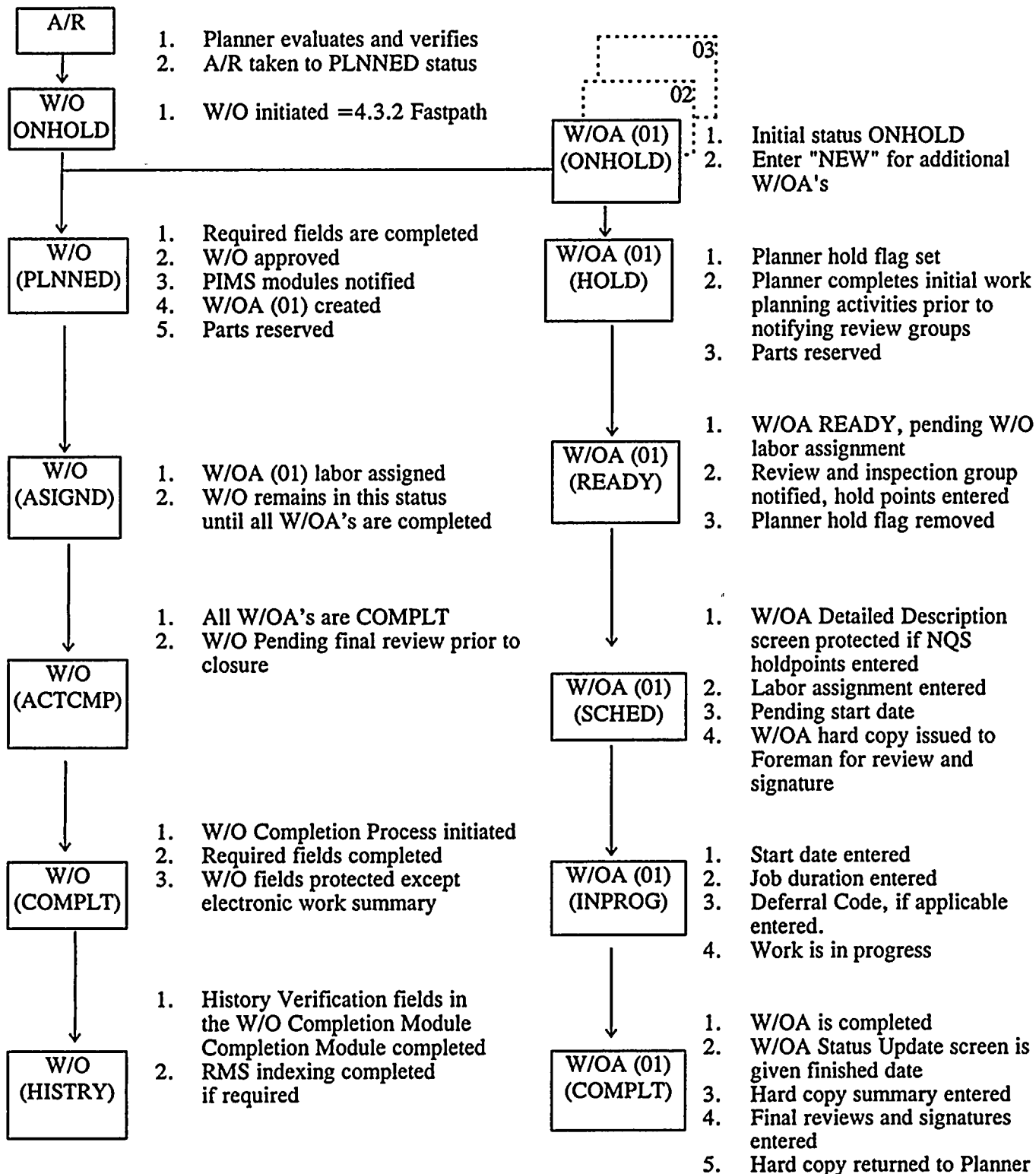
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NUCLEAR POWER GENERATION

AD7.ID1

ATTACHMENT 7.1

TITLE: WORK ORDER FLOWPATH



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NUCLEAR POWER GENERATION

AD7.ID1

ATTACHMENT 7.2

TITLE: MAINTENANCE PLANNING CHECKLIST

<u>Codes/Administrative Requirements</u>	<u>YES</u>	<u>N/A</u>
1. Safety Related "Q"	<input type="checkbox"/>	<input type="checkbox"/>
2. Graded Quality Class R, G, S or T	<input type="checkbox"/>	<input type="checkbox"/>
3. Non Safety Related "N" or "B"	<input type="checkbox"/>	<input type="checkbox"/>
4. ASME Section XI Repair/Replacement Program. Reference MA1.ID13	<input type="checkbox"/>	<input type="checkbox"/>
5. Heavy Load Exclusion Areas	<input type="checkbox"/>	<input type="checkbox"/>
6. DCP, AT MM, MMP. Reference CF4.ID3, CF3.ID10, CF3.ID8	<input type="checkbox"/>	<input type="checkbox"/>
7. Environmental Qualification (EQ) Program. Reference CF3.ID3	<input type="checkbox"/>	<input type="checkbox"/>
8. Fire Protection/Fire Barrier Impairment. Reference OM8 and STP M-70	<input type="checkbox"/>	<input type="checkbox"/>
9. Special Safety Requirements/Permits Required Welding/Open Flame (OM8.ID1) <input type="checkbox"/> Confined Space (OM6.ID3) <input type="checkbox"/> Chemical Hazard <input type="checkbox"/> Transient Combustible Materials (OM8.ID4) <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Special Processes. Reference MA3	<input type="checkbox"/>	<input type="checkbox"/>
11. Weld Inspection and Planning. Reference MA3.DC1	<input type="checkbox"/>	<input type="checkbox"/>
12. Housekeeping Requirements. Reference AD4.ID1	<input type="checkbox"/>	<input type="checkbox"/>
13. Foreign Material Exclusion (FME) Program. Reference AD4.ID6	<input type="checkbox"/>	<input type="checkbox"/>
14. PMT specified. Reference AD13.ID4 or AD13.ID2	<input type="checkbox"/>	<input type="checkbox"/>
15. SISI concerns? Reference SISIP Training Manual	<input type="checkbox"/>	<input type="checkbox"/>
16. Control of Activities near Plant High Voltage Lines and Equipment. Reference OM6.ID7	<input type="checkbox"/>	<input type="checkbox"/>
<u>Planning/Content</u>		
1. Job Walkdown Performed	<input type="checkbox"/>	<input type="checkbox"/>
2. Clearance Required? If YES Reference OP2.ID1. If NO Reference OP1.DC18	<input type="checkbox"/>	<input type="checkbox"/>
3. RWP/SWP Required	<input type="checkbox"/>	<input type="checkbox"/>
4. Applicable Documents, Drawings, Vendor Manuals, Included	<input type="checkbox"/>	<input type="checkbox"/>
5. Applicable Maintenance Procedures Included	<input type="checkbox"/>	<input type="checkbox"/>
6. RP Monitor for H2 When Breaching RCS/CVCS Boundary	<input type="checkbox"/>	<input type="checkbox"/>
7. Hold Points/Acceptance Criteria Specified	<input type="checkbox"/>	<input type="checkbox"/>
8. Scaffolding Required. Reference AD7.ID5	<input type="checkbox"/>	<input type="checkbox"/>
9. Parts Identified/Staged. Reference AD9.ID1. AD9.ID7 and CF5.ID3	<input type="checkbox"/>	<input type="checkbox"/>

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AD7.ID1
ATTACHMENT 7.2

TITLE: MAINTENANCE PLANNING CHECKLIST

<u>Planning/Content (Continued)</u>	<u>YES</u>	<u>N/A</u>
10. Maintenance Engineering Support Identified	[]	[]
11. ISI/NDE Requirements Specified	[]	[]
12. CL and FL- Smears for Insulated Lines/Equipment > 2"	[]	[]
13. Consumable Materials Identified and Approved. Reference CF5.ID12	[]	[]
14. A/R Tag Removal Step	[]	[]
15. Bolt Tensioning Requirements. Reference MP M-54.1	[]	[]
16. Data Base Reviewed for Concurrent Work	[]	[]
17. PM's Reviewed for Inclusion with CM Work	[]	[]
18. AEs Cut to Support Organizations	[]	[]
19. Special Tooling Requirements Identified	[]	[]
20. NPDES Permit Precautions Identified	[]	[]
21. ES (NPEQ) electronic review for any piping, piping component, pipe support or seismic brace that is altered for impact on the structural qualification of SSC. Refer to 4.5.7.	[]	[]
22. Include MSDS Sheets for Hazardous Materials identified. Reference EV2.ID2	[]	[]
23. Temporary Plant Configuration Alterations	[]	[]
24. Rigging Required. Reference MA1.ID11/MA1.ID8	[]	[]
25. HVAC System Engineer electronic review for potential airflow restrictions. Refer to 4.5.9.	[]	[]
26. Coating requirements identified for newly installed, rebuilt or repaired plant components or structures. Reference DCP 206 for Class 1 Containment Field Coatings	[]	[]
27. Door Impairment. Reference AD7.DC5	[]	[]
<u>Planning/Completion</u>		
1. PIMS Component Data Base Updated. Reference CF2.ID7	[]	[]
2. FCT's/As Builts Submitted, if required. Reference CF4.ID4	[]	[]
3. RT Library W/O updated if required	[]	[]
4. Verify All Signatures	[]	[]
5. Verify Hold Points are Initialed	[]	[]
6. Ensure Package is Complete	[]	[]
7. Route Package to Inspection Organizations	[]	[]
8. Route Completed Package to RMS Personnel	[]	[]

