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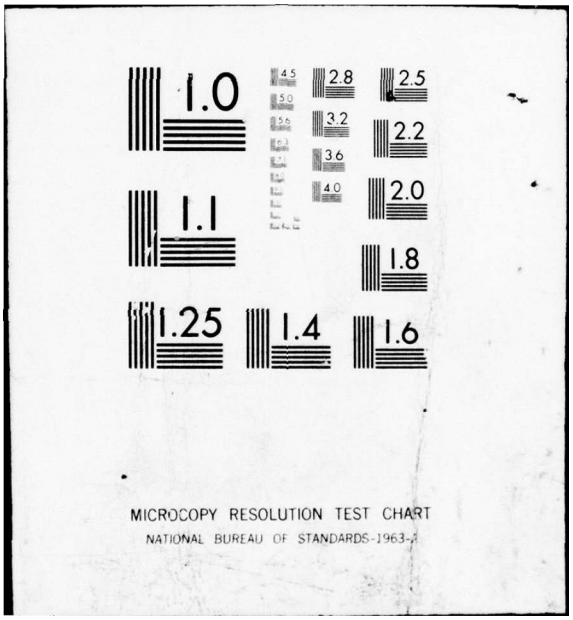
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MARCH 1976

Prepared for

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PHILADELPHIA NAVAL SHIPYARD
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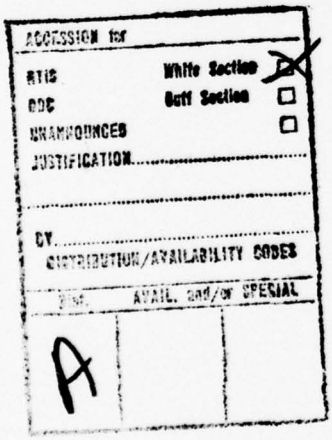

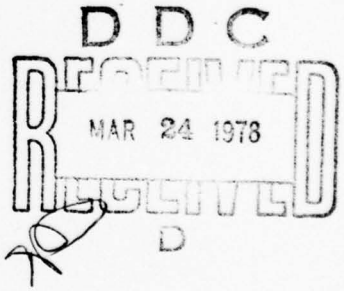

ARINC RESEARCH CORPORATION

CORPORATE HEADQUARTERS
2551 Riva Road
Annapolis, MD 21401

SAN DIEGO OFFICE
3565 Kenyon Street, Suite 7
San Diego, CA 92110

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FOR USE IN
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March 1976
(Revised)

Prepared for
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by
PERA(CRUDES)

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INTRODUCTION

The document, Management Plan and Milestones to Assist Ship's Force in Preparation for PEB/LOE, was prepared for the Commander, Cruiser Destroyer Force, U.S. Pacific Fleet (COMCRUDESPAC) by Planning and Engineering for Repairs and Alterations of Cruisers and Destroyers (PERA(CRUDES)). That document, issued in May 1974, identifies many areas in which elements of the Fleet need written guidance to assist them in meeting Navy standards when tested by the Propulsion Examining Board (PEB) during the Light-Off Examination (LOE). The material presented herein is part of a program of the Commander, Naval Surface Force, U.S. Pacific Fleet (COMNAVSURFPAC) and PERA(CRUDES) to develop the required guidance and to expand existing instructions of the Naval Sea Systems Command (NAVSEA) and Office of the Chief of Naval Operations (OPNAV).

This document was prepared by PERA(CRUDES) and has been developed within the context of existing Navy directives and requirements. However, some of the suggested courses of action and recommendations contained herein may conflict with, be inconsistent with, or vary from Navy documentation requirements. In such cases, the requirements of official Navy documentation will govern, and PERA(CRUDES) notified so that action can be taken to correct this document.

USE OF MANAGEMENT GUIDE

This document is designed to supplement and expand the LOE preparation segment of the overhaul POAM contained in the COMNAVSURFPAC Ship and Craft Material Maintenance Manual, Volume II: Ship Overhauls and Planned Restricted Availabilities (COMNAVSURFPACINST 4700.1 Series).

The first steps in making the best use of this document are to assess the present state of LOE readiness, then develop the Engineering Department Plan of Action and Milestones (EDPOAM) concurrently with the broader-scaled Overhaul POAM. (The term "Engineering Department POAM" is used here instead of "LOE POAM" because the POAM must be formulated to cover the corrective-action period after the LOE, generally up to Operational Propulsion Plant Examination (OPPE). The Engineering Department POAM will be reviewed by the PEB during the LOE.) To assist in establishing the EDPOAM, a sample with typical milestones is shown in Tab B. That sample can be modified as appropriate to suit individual ship needs. Following the sample is a blank, full-size chart that may be filled in and reproduced for general information and use. Space is provided to insert the ship name and hull number. The months before and after the start of the regular overhaul (ROH) are to be indicated in the margin at the top and bottom. Space is provided at the bottom for entry of significant portions of the ship's operating schedule.

It is suggested that the procedure outlined below be followed in developing and using the ship's Overhaul and Engineering Department POAMs:

(a) Step 1 – Planning: Review the LOE preparation requirements presented in the milestone chart of Tab B. Determine the present situation in each LOE-preparation task area. Develop a plan with recognizable, specific, incremental objectives; identify resources required; advise appropriate authority of additional assistance needed.

(b) Step 2 – Scheduling: Items requiring attention should be scheduled. A format such as that in Tab B is suggested. The Commanding Officer, together with his Department Heads, PERA(CRUDES) representatives, and other required assistance, should develop schedules for each task. It may be found that resources are insufficient to permit the tasks to be

scheduled for completion at the desired times prior to the PEB/LOE. In such cases, the best possible schedule should be developed and the Immediate Superior in Command/Type Commander (ISIC/TYCOM) advised of the situation. Once the schedule is developed, sufficient copies should be made for use in monitoring the progress of each task onboard. One copy each should be delivered to COMNAVSURFPAC and the ISIC to assure their timely assistance. (Note: PEB will review the EDPOAM.)

(c) Step 3 – Monitor Progress: Periodically review the progress of work on each task, and take corrective action as required. This review should be repeated at biweekly intervals throughout the planning period. When the situation dictates major revision, the chart should be updated to reflect the revised schedule. A marked up copy of the chart should be sent to COMNAVSURFPAC and the ISIC so their schedules and assistance plans can be revised accordingly.

In addition to posted schedules and normal files, maintenance of a loose-leaf notebook reflecting the status of the LOE preparation program and of the work in progress will aid in management of the program. The notebook should be arranged and tabbed in conformance with this document. Initial insertions in the notebook should consist of the documentation applicable to the requirements of the various task items. As work proceeds, documentation reflecting the current situation can be added. Once the Ship's Force Overhaul Management System (SFOMS) is operational, Engineering Department POAM tasks should be entered as jobs into the SFOMS work package under a "dummy" work center. SFOMS status reports should be kept in the notebook, such that the Commanding Officer will continuously have at his disposal current information concerning each of the tasks in the LOE preparation program for his ship. One complete copy of this notebook should be kept up to date in the file for modification and use in preparation for the next LOE.

COMMON DISCREPANCIES

Following is a list of discrepancies in the area of POAM development which were noted in review of PEB/LOE reports covering the period 1 July 1974 through 30 June 1975.

(a) Engineering Department POAM milestone dates were not in consonance with major events in the ship's schedule as given in the Overhaul POAM.

(b) The POAM reflected LOE as the final objective, instead of the attainment of fleet standards (which requires post-LOE work).

(c) The POAM was of limited effectiveness because it was not updated; its milestones were of insufficient scope; and it did not address all aspects of ship administration, material, and training.

(d) Although program elements purported to be under continuous monitoring, there were no records or entries in the task plan indicating progress.

(e) The POAM did not assign specific responsibility for monitoring progress of LOE-preparation tasks.

TAB A – DOCUMENTS
PERTINENT TO LOE PREP.

LIST OF DOCUMENTS PERTINENT TO LOE PREPARATION

Directives

1. BUMEDINST 6260.6 Series; Hearing Conservation
2. OPNAVINST 3120.32 Series; Standard Ship's Organization and Regulations Manual (SORM)
3. OPNAVINST 4790.4 Series; Ship's Maintenance and Material Management (3M) Manual
4. OPNAVINST 5100.19 Series; Navy Safety Precautions for Forces Afloat
5. CINCPACFLTINST 5101.2 Series; Tag-Out Procedures
6. CINCPACFLTINST 5400.15 Series; Engineering Department Organization Manual for Naval, Non-Nuclear, Steam Propulsion Surface Ships of the U.S. Pacific Fleet (EDOM)
7. COMNAVSURFPACINST 1500.3 Series; Force Shipboard Training Manual
8. COMNAVSURFPACNOTE 3500 (revised periodically); Minimum School Graduate Requirements
9. COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual
10. COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volumes I (Maintenance Manual) and II (Ship Overhauls and Planned Restricted Availabilities)
11. COMNAVSURFPACINST 5400.1 Series; Force Regulations
12. COMNAVSURFPACINST 9880.4 Series; Force Repair Party Manual
13. COMCRUDESPAC Msg 120108Z JUL 74; Procedures in Event of Propulsion Space Fire
14 Senior Member, PACFLT 1200 PSI PEB, CINCPACFLT Staff, ltr 03BP:___ (revised periodically); 1200 PSI Light-Off Examination (LOE), procedures for
15. CNETNOTE 3500, Revised; Personnel Qualification Standards Available
16. CTF 75 Logistics/Material Officer Memorandum of 12 SEP 73; Engineering Readiness
17. BUPERS Report 1080-14; Enlisted Distribution and Verification Report
18. OPNAV 43P2; Ship's 3M Manual
19. NAVEDTRA 43100-1 Series; PQS Implementation Procedures Aboard Ship

20. NAVPERS 16108 Series; Manual for Navy Instructors

21. NAVPERS 18068 Series; Manual for Qualifications for Advancement in Rating

22. NAVSEA Technical Manual; applicable chapters

23. NAVSEA Manual; Fuel and Lube Oil Strainer Shield Design Guidance, Volumes 1 and 2 (NAVSEA No. 0948-102-2010)

24. NEC Manual

25. EOSS User's Guide

26. Manufacturers technical manuals, applicable

Publications

The publications that will be reviewed by the PEB and listed in the Senior Member's letter to Commanding Officers (see Task A-18) are:

1. Ship's Training Program (Engineering Section)

2. 1200 PSI Personnel Qualification Standards

3. Damage Control Personnel Qualification Standards

4. 3M Personnel Qualification Standards

5. Boilerwater and Feedwater Treatment Personnel Qualification Standards

6. Duties and Responsibilities of Watchstanders to Include Assignment Practices (Watch Organization)

7. Engineering Department Plan of Action with Milestones

8. Engineering Operational Sequencing System

9. Engineering Operational Casualty Control Manual or Casualty Control Manual

10. Casualty Control Training Procedures and Organization and Assignment of Personnel to the Engineering Casualty Control Evaluation Team

11. Command Safety Program (Includes Mechanical, Electrical and Gas Free Safety Procedures)

12. Engineering Department Tag-Out Program

13. Engineering Department Management Program for the Detection and Correction of Material Deficiencies

14. Physical Security Program (Includes Installation of Locks and Seals on Key Components, Operator Procedures and Cold Iron and Sounding and Security Patrol Watch Procedures)

15. Repair V Organization, Assignment and Qualification of Personnel, Locker(s) Stowage and Operability of Equipment

16. Engineering Operational Logs and Records (Covering the Previous Two Steaming Months)

17. Ship's Organization and Regulations Manual

18. Engineering Department Organization Manual

19. Ship's Information Book

20. Engineering Department Steaming and Night Orders

21. Engineering Department Directives

22. Operational Trial Reports

23. Steam Generator Record of Inspections

24. Boiler Tube Renewal Records

25. Heat Balance Diagrams

26. Boilerwater and Feedwater Treatment Program

27. Technical Manual Status and Index (Includes Operative Cards Index)

28. Refueling and Transfer Instructions

29. Pollution Control Program

30. Doctrine for Combating a Major Propulsion Plant Fire or Major Contingency

31. Planned Maintenance Program

32. Heat and Humidity Control and Monitoring Program

33. Hearing Conservation and Monitoring Program

34. Repair V Party Manual

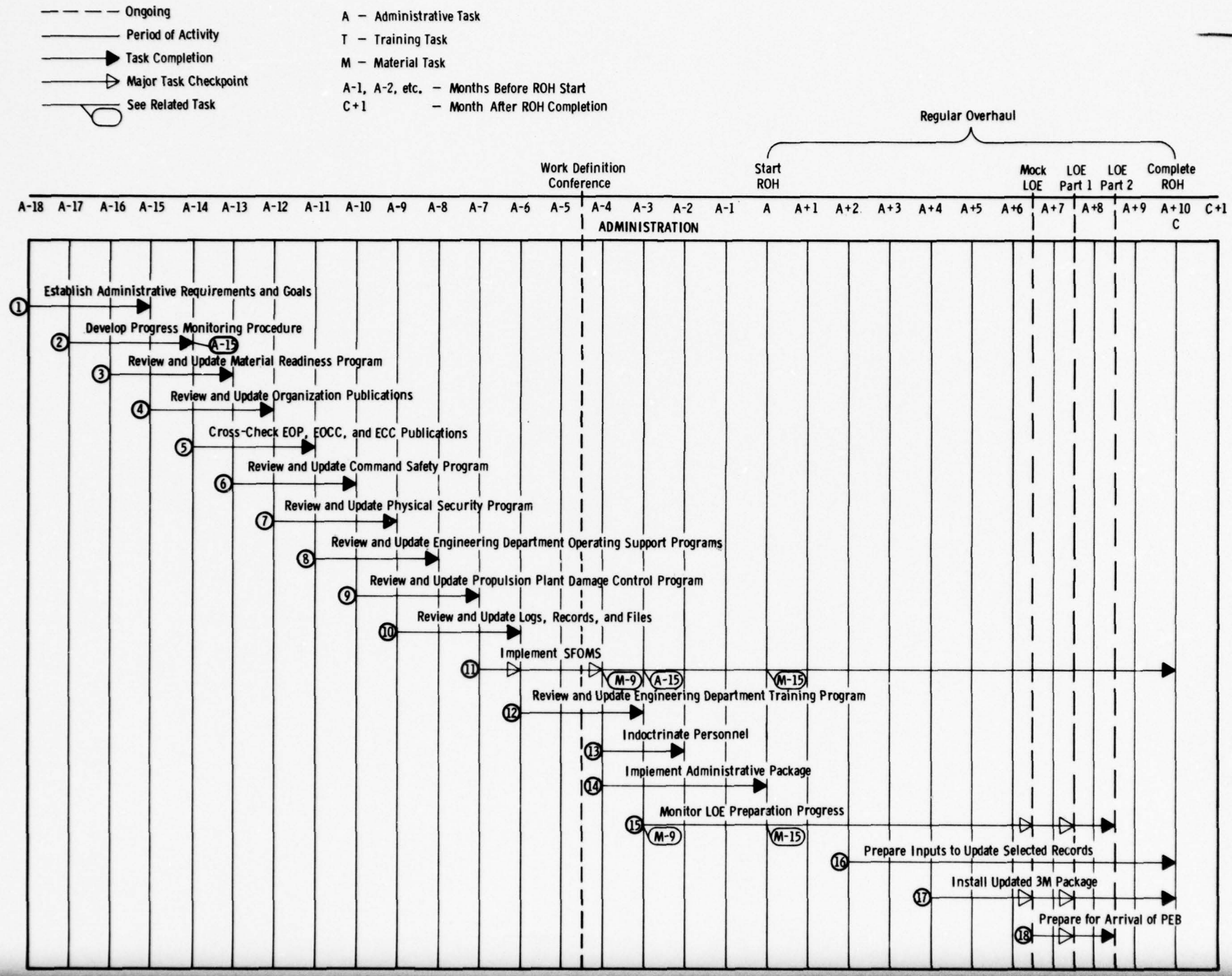
35. Damage Control Book

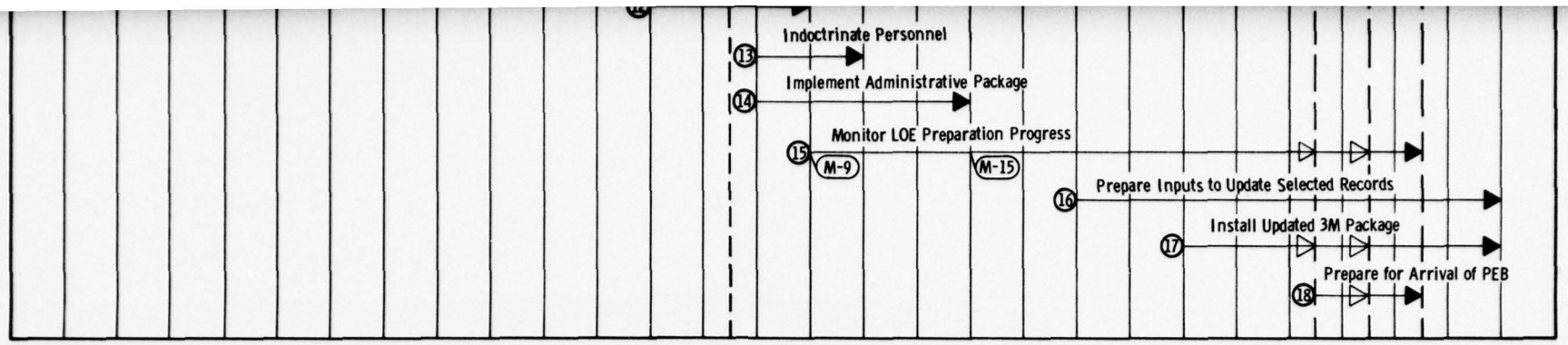
36. High Pressure Welder Administration

37. Regular Overhaul Test Memorandums

38. Lubricating and Fuel Oil Quality Management Program

TAB B – EDPOAM
FOR LOE PREPARATION


Ongoing
Period of Activity
Task Completion
Major Task Checkpoint
See Related Task
A – Administrative Task
T – Training Task
M – Material Task
A-1, A-2, etc. – Months Before ROH Start
C+1 – Month After ROH Completion
Regular Overhaul
Work Definition Conference
Start ROH
Mock LOE
LOE Part 1
LOE Part 2
Complete ROH
A-18 A-17 A-16 A-15 A-14 A-13 A-12 A-11 A-10 A-9 A-8 A-7 A-6 A-5 A-4 A-3 A-2 A-1 A A+1 A+2 A+3 A+4 A+5 A+6 A+7 A+8 A+9 A+10 C+1
C
ADMINISTRATION
1 Establish Administrative Requirements and Goals
2 Develop Progress Monitoring Procedure
A-15
3 Review and Update Material Readiness Program
4 Review and Update Organization Publications
5 Cross-Check EOP, EOCC, and ECC Publications
6 Review and Update Command Safety Program
7 Review and Update Physical Security Program
8 Review and Update Engineering Department Operating Support Programs
9 Review and Update Propulsion Plant Damage Control Program
10 Review and Update Logs, Records, and Files
11 Implement SFOMS
M-9
A-15
M-15
12 Review and Update Engineering Department Training Program
13 Indoctrinate Personnel
14 Impiement Administrative Package
15 Monitor LOE Preparation Progress
M-9
M-15
16 Prepare Inputs to Update Selected Records
17 Install Updated 3M Package
18 Prepare for Arrival of PEB



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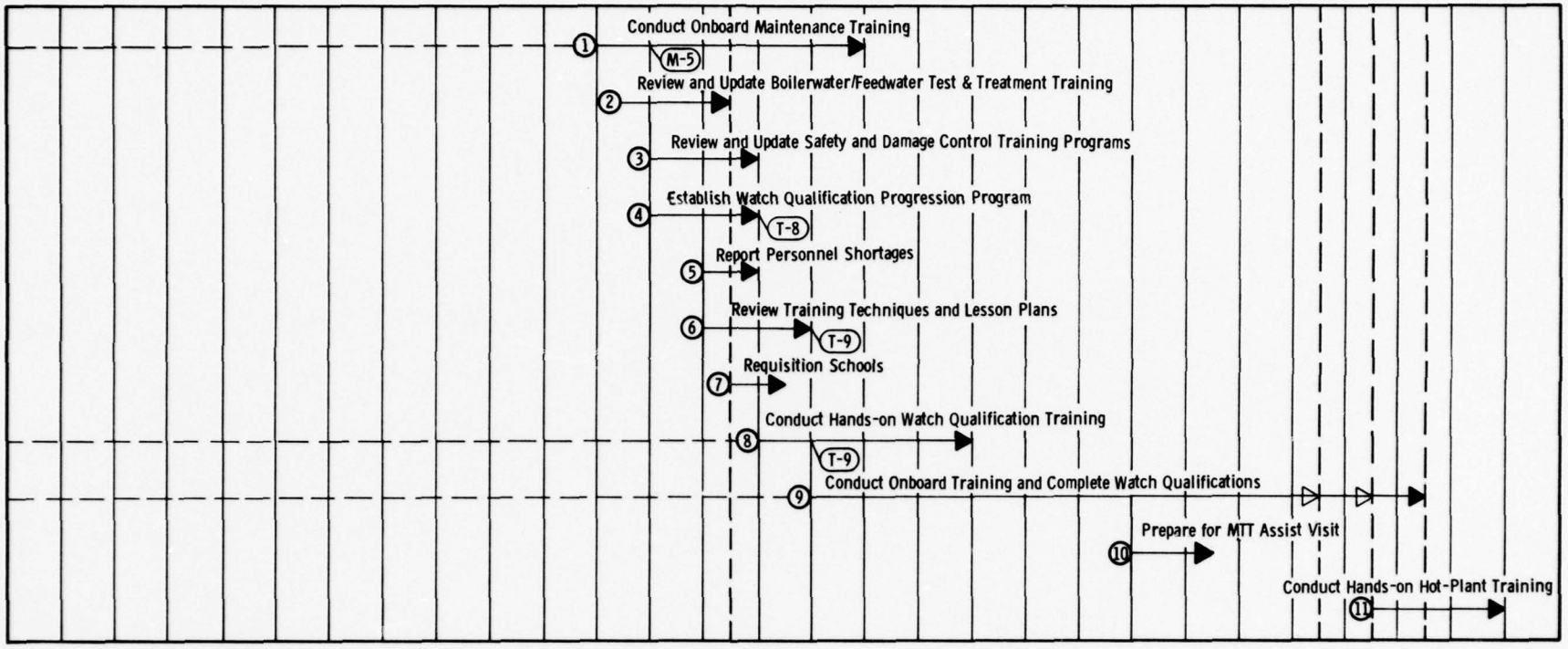

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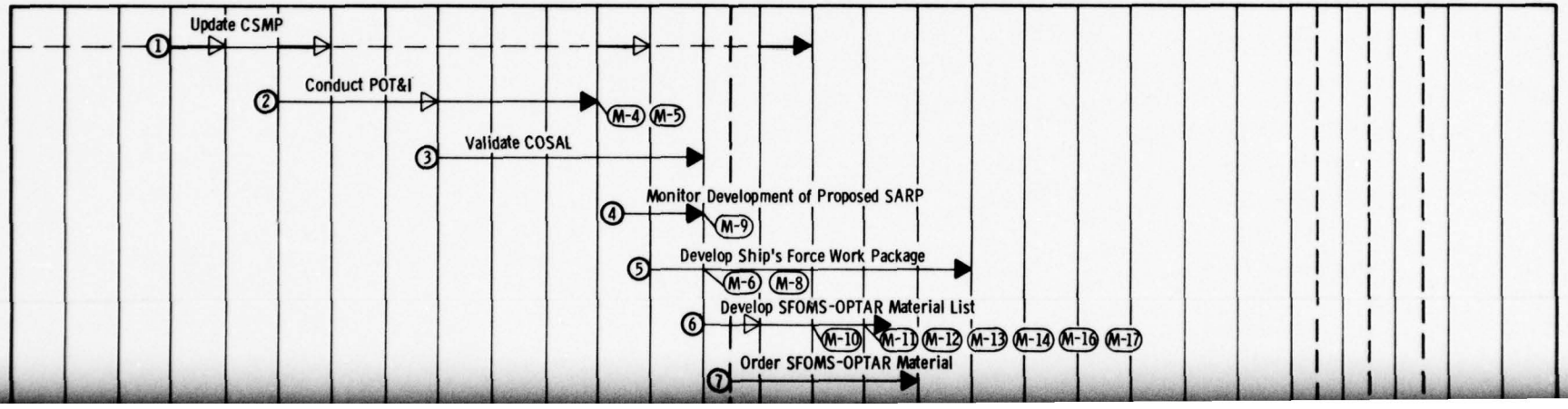
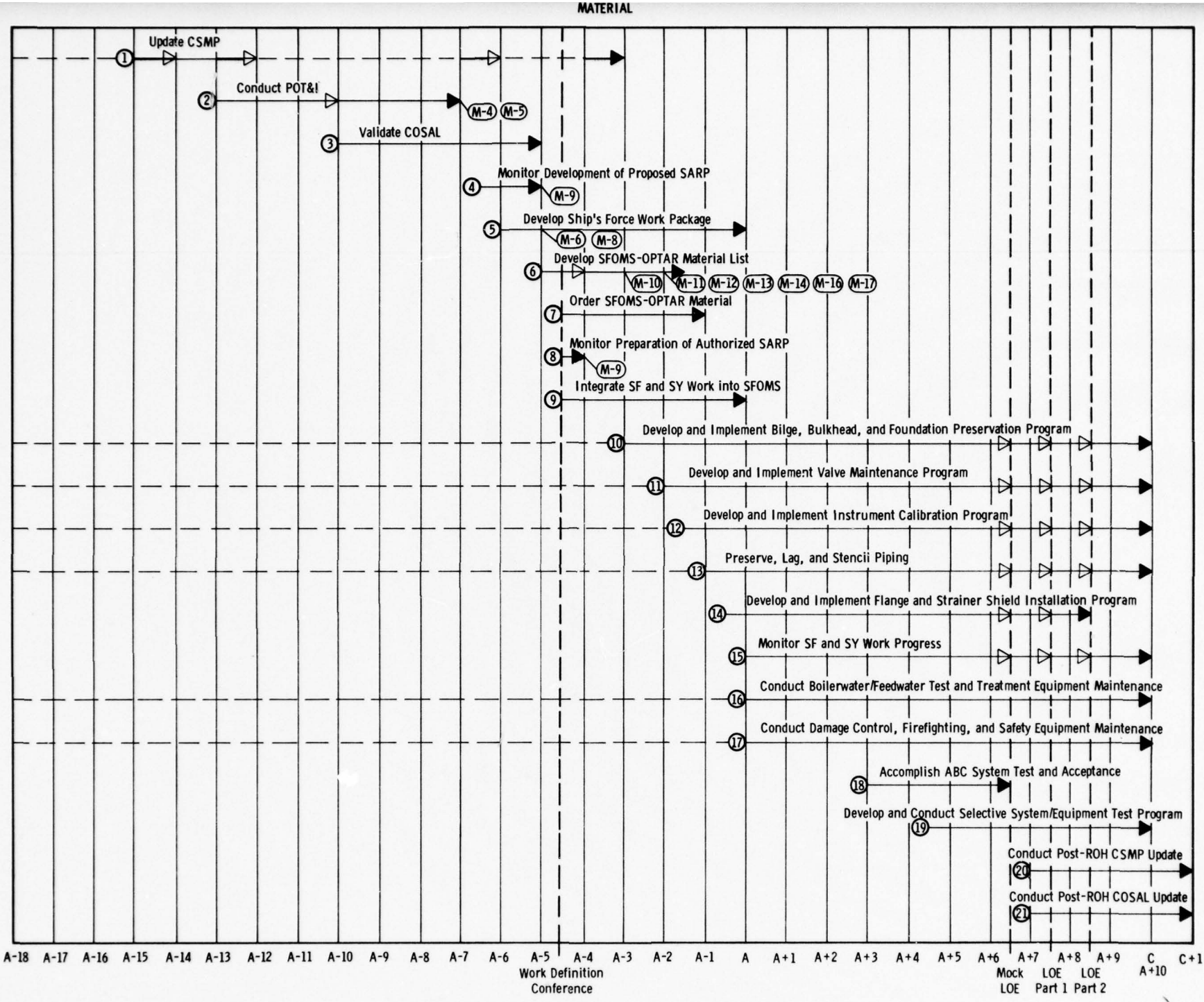


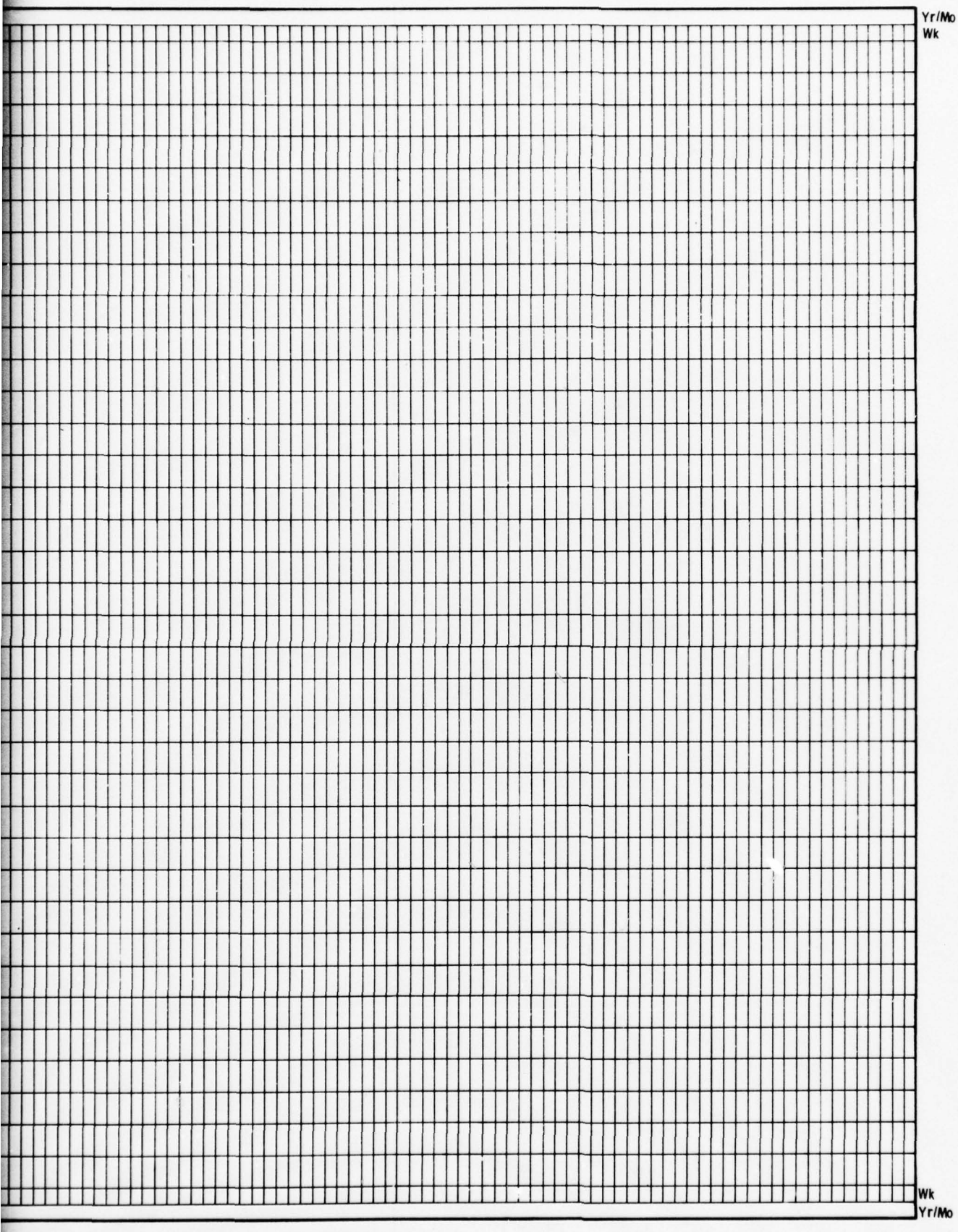


ENGINEERING DEPARTMENT PLAN OF ACTION AND MILESTONES (EDPOAM)

USS _____ PEB/LOE PREPARATION TASKS (Sheet 1 of 2)

Task Category	Respons.
ADMINISTRATIVE	
A-1. Establish Admin Reqmts & Goals	
A-2. Dev Progress Monitoring Proc	
A-3. R&U Material Readiness Pgm	
A-4. R&U Organization Pubs	
A-5. Cross-Check EOP, EOCC & ECC Pubs	
A-6. R&U Command Safety Pgm	
A-7. R&U Phys Security Pgm	
A-8. R&U Engrg Dept Oper Support Pgms	
A-9. R&U Propul Plant DC Pgm	
A-10. R&U Logs, Records & Files	
A-11. Implement SFOMS	
A-12. R&U Eng Dept Training Pgm	
A-13. Indoctrinate Personnel	
A-14. Implement Admin Package	
A-15. Monitor LOE Prep Progress	
A-16. Prep Inputs to Update Selected Recs	
A-17. Install Updated 3M Package	
A-18. Prepare for Arrival of PEB	
TRAINING	
T-1. Conduct Onboard Maint Training	
T-2. R&U BW/FW Test Training	
T-3. R&U Safety and DC Training Pgms	
T-4. Estab Watch Qual Progression Pgm	
T-5. Report Personnel Shortages	
T-6. Review Tng Techniques & Lesson Plans	
T-7. Requisition Schools	
T-8. Cond Hands-On Watch Qual Tng	
T-9. Cond Onboard Tng & Compl Watch Qual	
T-10. Prepare for MTT Assist Visit	
T-11. Cond Hands-On Hot-Plant Tng	

NOTE: R&U = Review and Update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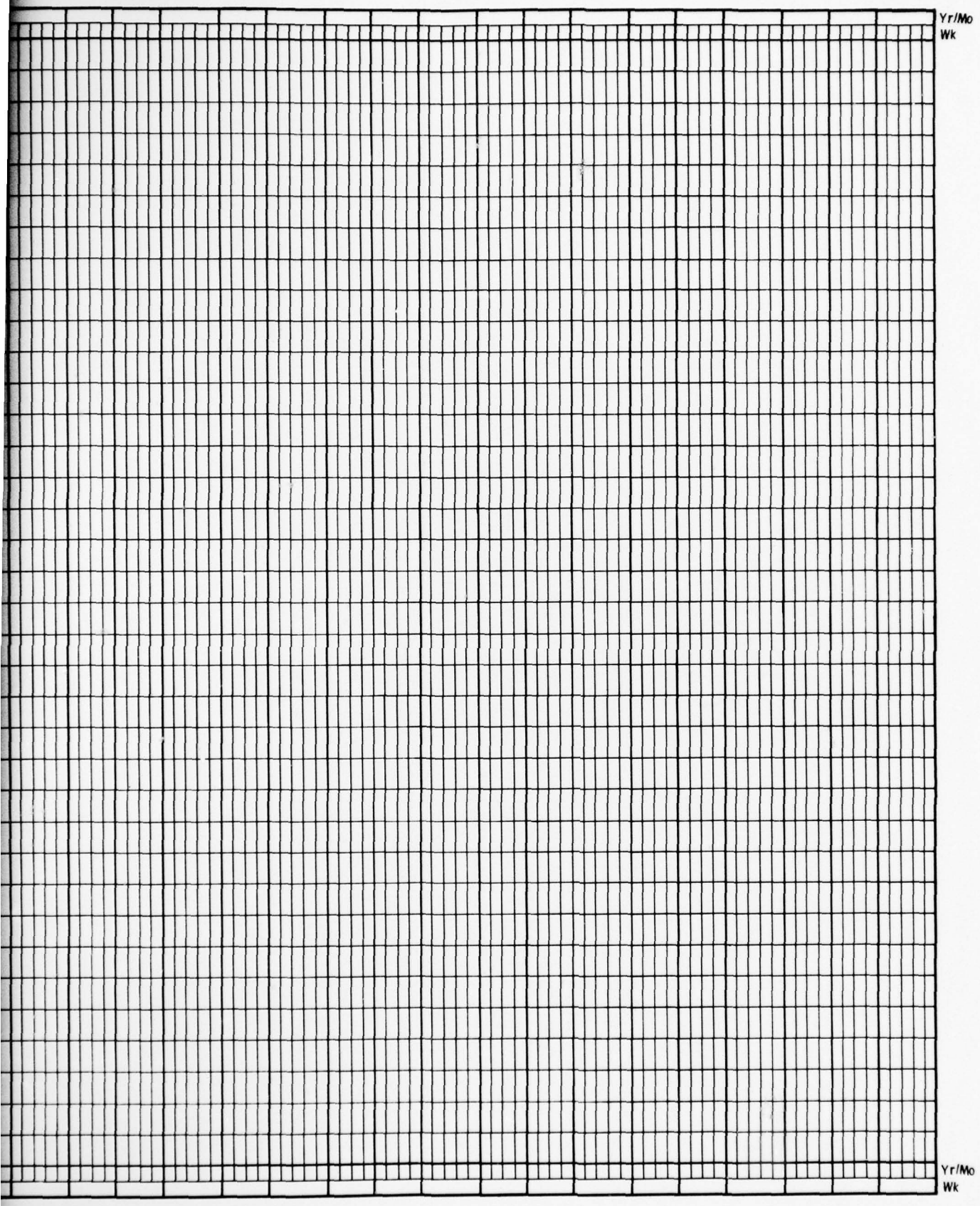
Yr/Mo

USS _____ PEB/LOE PREPARATION TASKS (Sheet 2 of 2)

Task Category	Respons.
MATERIAL	
M-1. Update CSMP	
M-2. Conduct POT&I	
M-3. Validate COSAL	
M-4. Monitor Develop. of Proposed SARP	
M-5. Develop SF Work Package	
M-6. Develop SFOMS-OPTAR Mat. List	
M-7. Order SFOMS-OPTAR Mat.	
M-8. Monitor Prep. of Authorized SARP	
M-9. Integ SF & SY Work into SFOMS	
M-10. Develop & Impl BBF Pgm	
M-11. Develop & Impl Valve Maint Pgm	
M-12. Develop & Impl Instru Calib Pgm	
M-13. Pres, Lag, & Stencil Piping	
M-14. Dev. & Impl Flange Inst Pgm	
M-15. Monitor SF & SY Work Prog	
M-16. Cond BW/FW T&T Eqpt Maint	
M-17. Cond DC, FF, & Safety Eqpt Maint	
M-18. Accomplish ABC Sys Test & Accept	
M-19. Dev & Cond Sys/Eqpt Test Pgm	
M-20. Cond Post-ROH CSMP Update	
M-21. Cond Post-ROH COSAL Update	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TAB C – EDPOAM
ACTION-REQUIRED FORM

EDPOAM ACTION-REQUIRED FORM (Sheet 1 of 6)

Task No.	Plan Activity	Responsibility	Action Required	Complete
	ADMINISTRATIVE PREPARATION			
A-1	Establish Administrative Requirements and Goals			
A-2	Develop Progress Monitoring Procedure			
A-3	Review and Update Material Readiness Program			
A-4	Review and Update Organization Publications			
A-5	Cross-check EOP, EOCC, and ECC Publications			
A-6	Review and Update Command Safety Program			
A-7	Review and Update Physical Security Program			
A-8	Review and Update Engineering Department Operating Support Programs			
A-9	Review and Update Propulsion Plant Damage Control Program			
A-10	Review and Update Logs, Records, and Files			

EDPOAM ACTION-REQUIRED FORM (Sheet 2 of 6)

Task No.	Plan Activity	Responsibility	Action Required	Complete
	ADMINISTRATIVE PREPARATION (Cont)			
A-11	Implement SFOMS			
A-12	Review and Update Engineering Department Training Program			
A-13	Indoctrinate Personnel			
A-14	Implement Administrative Package			
A-15	Monitor LOE Preparation Progress			
A-16	Prepare Inputs to Update Selected Records			
A-17	Install Updated 3M Package			
A-18	Prepare for Arrival of PEB			
	TRAINING PREPARATION			
T-1	Conduct Onboard Maintenance Training			
T-2	Review and Update Boilerwater/Feedwater Test and Treatment Training			

EDPOAM ACTION-REQUIRED FORM (Sheet 3 of 6)

Task No.	Plan Activity	Responsibility	Action Required	Complete
	TRAINING PREPARATION (Cont)			
T-3	Review and Update Safety and Damage Control Training Programs			
T-4	Establish Watch Qualification Progression Program			
T-5	Report Personnel Shortages			
T-6	Review Training Techniques and Lesson Plans			
T-7	Requisition Schools			
T-8	Conduct Hands-On Watch Qualification Training			
T-9	Conduct Onboard Training and Complete Watch Qualifications			
T-10	Prepare for MTT Assist Visit			
T-11	Conduct Hands-On Hot-Plant Training			

EDPOAM ACTION-REQUIRED FORM (Sheet 4 of 6)

Task No.	Plan Activity	Responsibility	Action Required	Complete
	MATERIAL PREPARATION			
M-1	Update CSMP			
M-2	Conduct POT&I			
M-3	Validate COSAL			
M-4	Monitor Development of Proposed SARP			
M-5	Develop Ship's Force Work Package			
M-6	Develop SFOMS-OPTAR Material List			
M-7	Order SFOMS-OPTAR Material			
M-8	Monitor Preparation of Authorized SARP			
M-9	Integrate SF and SY Work into SFOMS			
M-10	Develop and Implement Bilge, Bulkhead, and Foundation Preservation Program			
M-11	Develop and Implement Valve Maintenance Program			

EDPOAM ACTION-REQUIRED FORM (Sheet 5 of 6)

Task No.	Plan Activity	Responsibility	Action Required	Complete
	MATERIAL PREPARATION (Cont)			
M-12	Develop and Implement Instrument Calibration Program			
M-13	Preserve, Lag, and Stencil Piping			
M-14	Develop and Implement Flange and Strainer Shield Installation Program			
M-15	Monitor SF and SY Work Progress			
M-16	Conduct Boilerwater/ Feedwater Test and Treatment Equipment Maintenance			
M-17	Conduct Damage Control, Firefighting, and Safety Equipment Maintenance			
M-18	Accomplish ABC System Test and Acceptance			
M-19	Develop and Conduct Selective System/ Equipment Test Program			

EDPOAM ACTION-REQUIRED FORM (Sheet 6 of 6)

Task No.	Plan Activity	Responsibility	Action Required	Complete
	MATERIAL PREPARATION (Cont)			
M-20	Conduct Post-ROH CSMP Update			
M-21	Conduct Post-ROH COSAL Update			

TAB D – PERT NETWORK,
EDPOAM ACTIVITIES


Develop Progress Monitoring Procedures
A-2
Make Administrative Preparations for Arrival of PEB
A-18
101 Assess LOE Preparation Status
102 Prepare EDPOAM
103 Establish Admin. Reqmts & Goals
A-1
104 Cross-Check EOP, EOCC, and ECC Directive
Review SORM 108 Draft SORM Changes
Review EDOM 112 Draft EDOM Changes
Review Night & Steaming Orders 113 Draft
Review Eng. Dept. Directives 114 Draft
Review Watch Organization 115 Draft W
Review Rep. V Organization 116 Draft
Review Prop. Space Fire Doctrine 120 Draft
Review Rep. Party Manual 121 Draft Re
Review DC Book 122 Draft DC
Review Mech. Safety Directives 123 Draft
Review Elec. Safety Directives 127 Draft
Review Gas-Free Directives 128 Draft Ga
Review Tag-Out Directives 129 Draft Ta
Review Physical Security Directives 130 Draft
Review Ship's Training Directives 133 Draft S
Review PQS Directives 137 Draft PQ
Review ECC Training Directives 138 Draft
Review Matl. Def. Corrn. Prgm. Dir.
Review PMS Directives and Records 143
Review OOC Logs 144 Prepare
Review Work Deficiency Logs
Review Operating Logs & Records
Review BW/FW Directives 145 Draft BW/FW Dir
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Review FO/LO Management Directives 152 D
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Review Heat Stress Dir. 159
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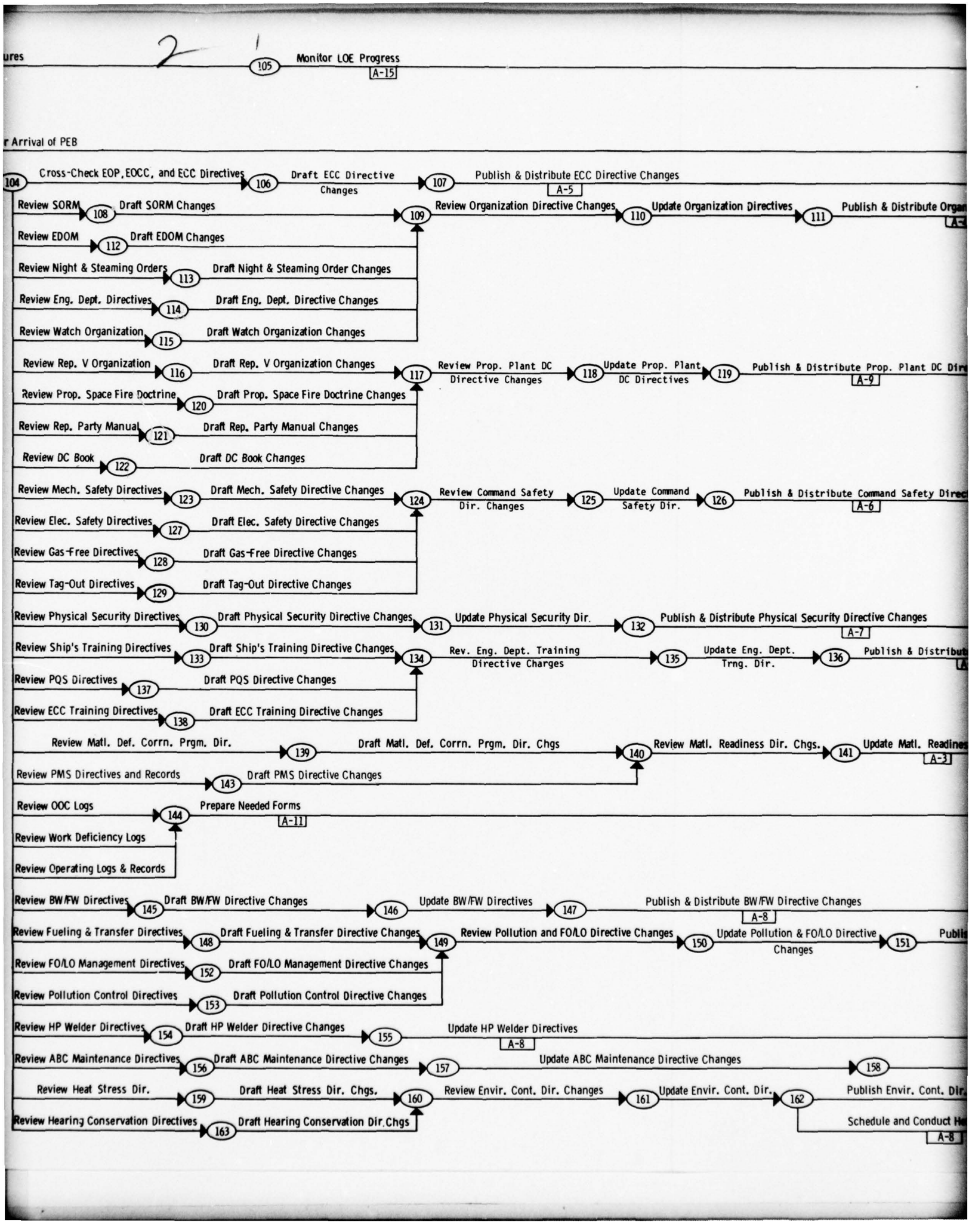
1XX - Administrative Event
2XX - Training Event
3XX - Material Event
A-X T-X M-X - Associated EDPOAM Task


ures
2
1
105 Monitor LOE Progress
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r Arrival of PEB
104 Cross-Check EOP, EOCC, and ECC Directives
106 Draft ECC Directive Changes
107 Publish & Distribute ECC Directive Changes
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108 Draft SORM Changes
109 Review Organization Directive Changes
110 Update Organization Directives
111 Publish & Distribute Organ
Review EDOM
112 Draft EDOM Changes
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113 Draft Night & Steaming Order Changes
Review Eng. Dept. Directives
114 Draft Eng. Dept. Directive Changes
Review Watch Organization
115 Draft Watch Organization Changes
Review Rep. V Organization
116 Draft Rep. V Organization Changes
117 Review Prop. Plant DC Directive Changes
118 Update Prop. Plant DC Directives
119 Publish & Distribute Prop. Plant DC Dire
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120 Draft Prop. Space Fire Doctrine Changes
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121 Draft Rep. Party Manual Changes
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122 Draft DC Book Changes
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123 Draft Mech. Safety Directive Changes
124 Review Command Safety Dir. Changes
125 Update Command Safety Dir.
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128 Draft Gas-Free Directive Changes
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129 Draft Tag-Out Directive Changes
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131 Update Physical Security Dir.
132 Publish & Distribute Physical Security Directive Changes
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135 Update Eng. Dept. Trng. Dir.
136 Publish & Distribut
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137 Draft PQS Directive Changes
Review ECC Training Directives
138 Draft ECC Training Directive Changes
Review Matl. Def. Corrn. Prgm. Dir.
139 Draft Matl. Def. Corrn. Prgm. Dir. Chgs
140 Review Matl. Readiness Dir. Chgs.
141 Update Matl. Readines
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143 Draft PMS Directive Changes
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144 Prepare Needed Forms
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Review Work Deficiency Logs
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Review BW/FW Directives
145 Draft BW/FW Directive Changes
146 Update BW/FW Directives
147 Publish & Distribute BW/FW Directive Changes
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149 Review Pollution and FO/LO Directive Changes
150 Update Pollution & FO/LO Directive Changes
151 Publis
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152 Draft FO/LO Management Directive Changes
Review Pollution Control Directives
153 Draft Pollution Control Directive Changes
Review HP Welder Directives
154 Draft HP Welder Directive Changes
155 Update HP Welder Directives
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156 Draft ABC Maintenance Directive Changes
157 Update ABC Maintenance Directive Changes
158
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159 Draft Heat Stress Dir. Chgs.
160 Review Envir. Cont. Dir. Changes
161 Update Envir. Cont. Dir.
162 Publish Envir. Cont. Dir.
Review Hearing Conservation Directives
163 Draft Hearing Conservation Dir. Chgs
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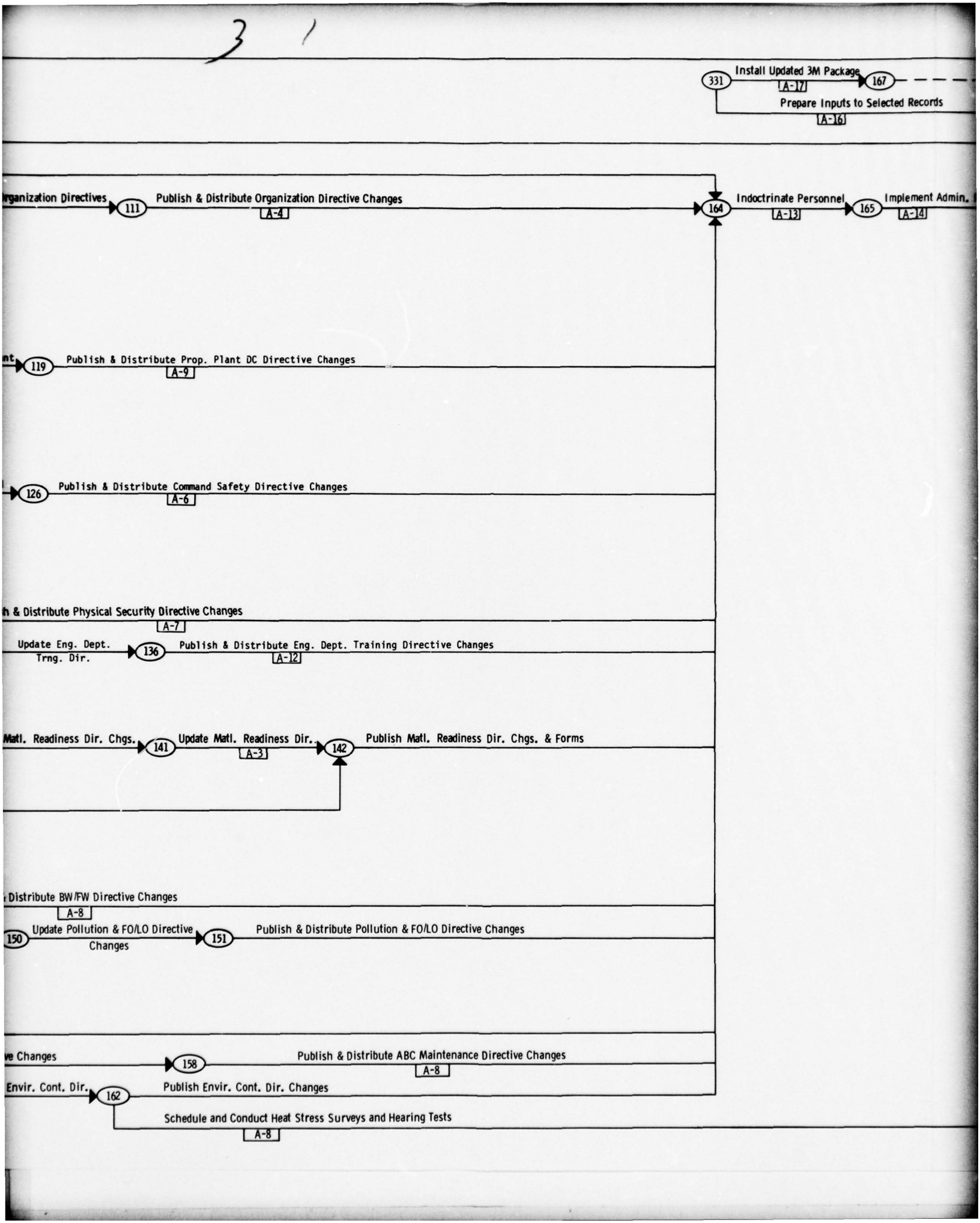
A-8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rganization Directives
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ve Changes
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Publish & Distribute ABC Maintenance Directive Changes
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162
Publish Envir. Cont. Dir. Changes
Schedule and Conduct Heat Stress Surveys and Hearing Tests
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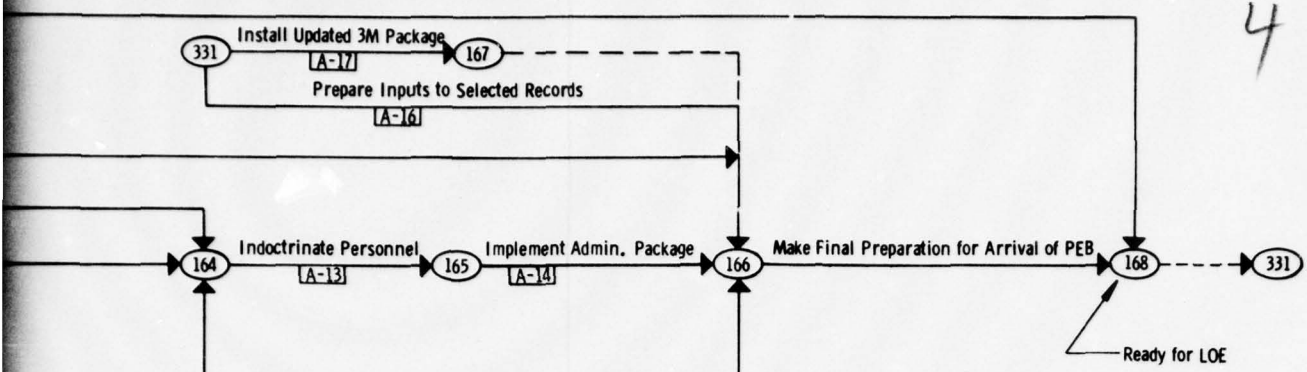
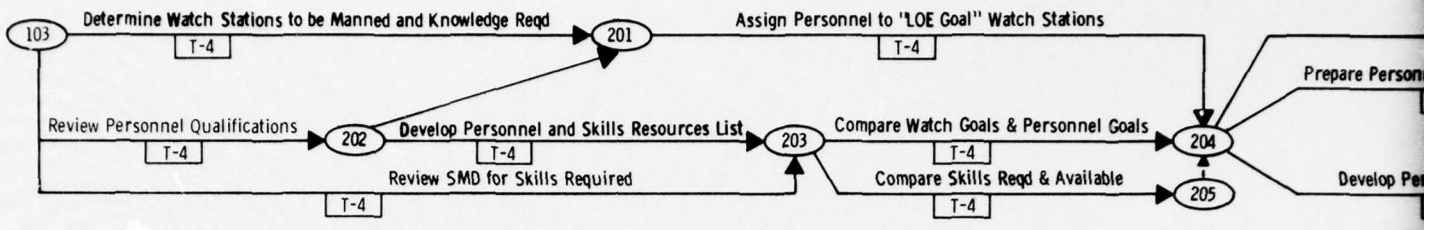


Flow Chart of PERT Network
for EDPOAM Activities
(Administration)



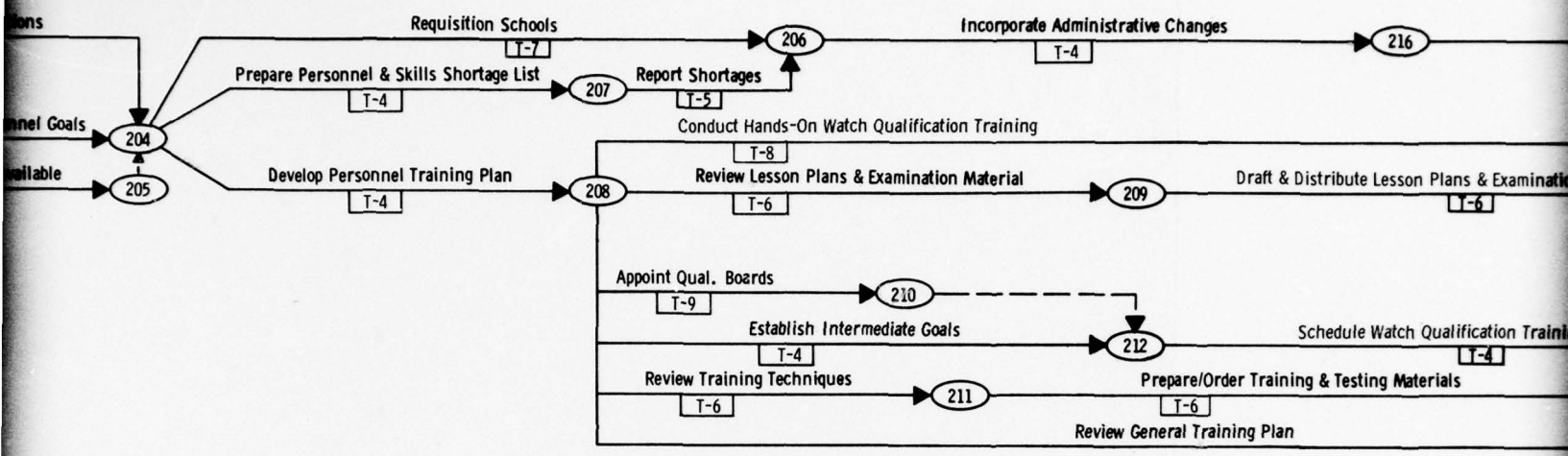
(1XX) - Administrative Event

(2XX) - Training Event

(3XX) - Material Event

[A-X] [T-X] [M-X] - Associated EDPOA&M Task

2-1


ons
nel Goals
ilable
204
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Requisition Schools
T-7
206
Incorporate Administrative Changes
T-4
216
Prepare Personnel & Skills Shortage List
T-4
207
Report Shortages
T-5
Conduct Hands-On Watch Qualification Training
T-8
Develop Personnel Training Plan
T-4
208
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T-6
209
Draft & Distribute Lesson Plans & Examinati
T-6
Appoint Qual. Boards
T-9
210
Establish Intermediate Goals
T-4
212
Schedule Watch Qualification Traini
T-4
Review Training Techniques
T-6
211
Prepare/Order Training & Testing Materials
T-6
Review General Training Plan

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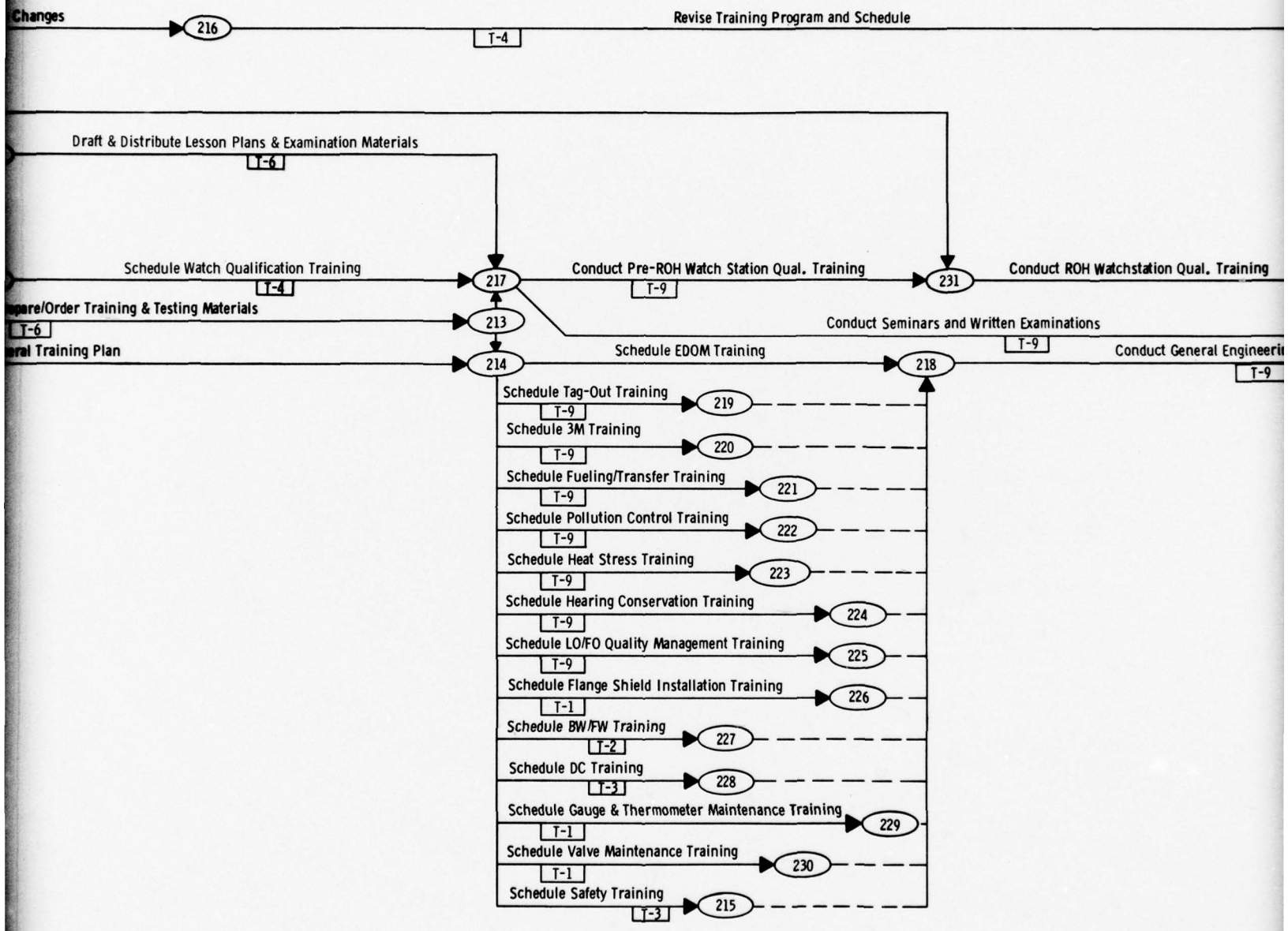
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216
T-4
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Draft & Distribute Lesson Plans & Examination Materials
T-6
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Conduct Pre-ROH Watch Station Qual. Training
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Conduct ROH Watchstation Qual. Training
pare/Order Training & Testing Materials
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214
Schedule EDOM Training
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Conduct General Engineeri
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Schedule Tag-Out Training
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219
Schedule 3M Training
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220
Schedule Fueling/Transfer Training
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Schedule Pollution Control Training
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222
Schedule Heat Stress Training
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223
Schedule Hearing Conservation Training
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224
Schedule LO/FO Quality Management Training
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Schedule Flange Shield Installation Training
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Schedule DC Training
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228
Schedule Gauge & Thermometer Maintenance Training
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229
Schedule Valve Maintenance Training
T-1
230
Schedule Safety Training
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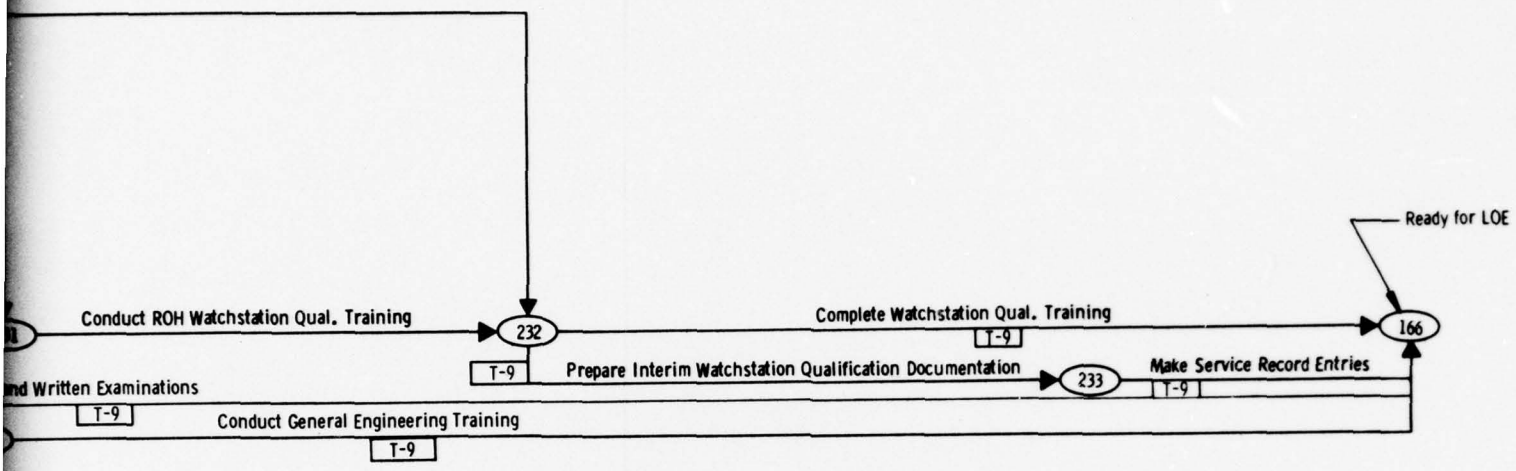
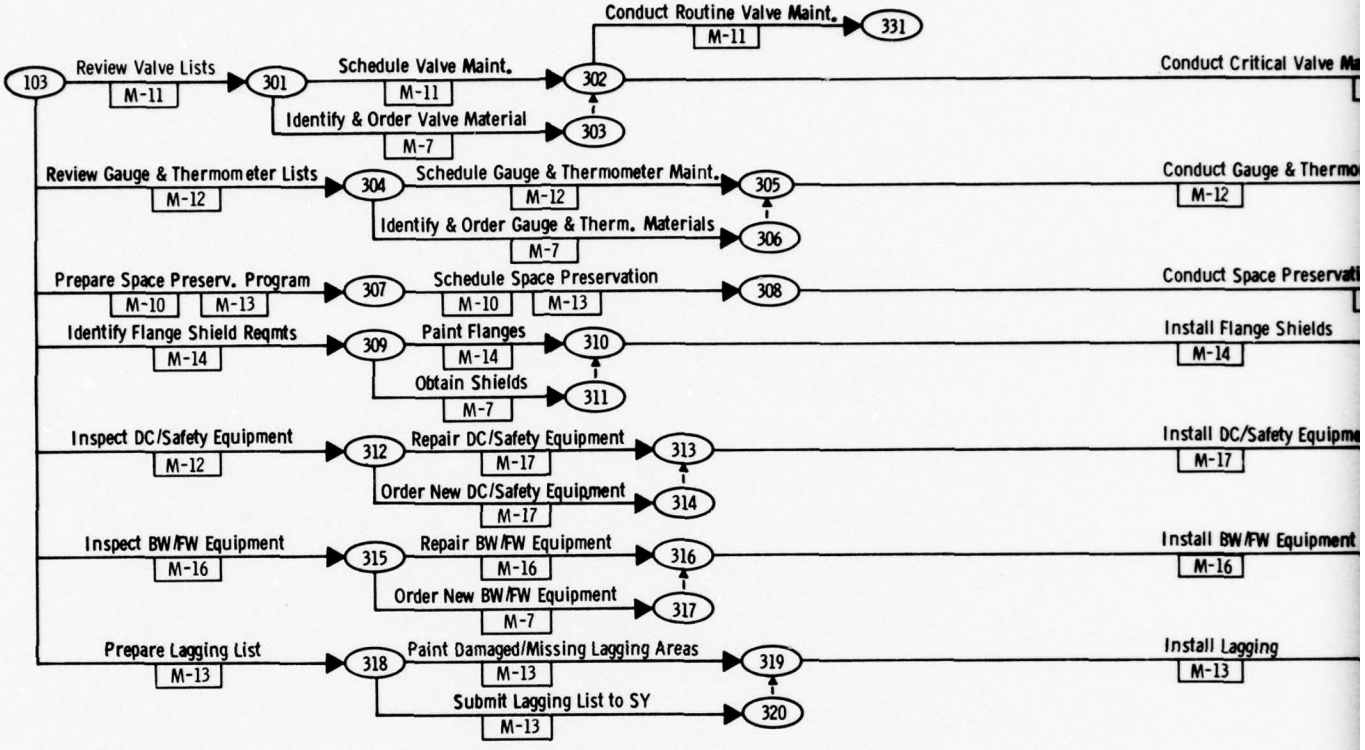


Flow Chart of PERT Network
for EDPOAM Activities
(Training)


Conduct Routine Valve Maint.
M-11
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103
Review Valve Lists
M-11
301
Schedule Valve Maint.
M-11
302
Conduct Critical Valve Ma
Identify & Order Valve Material
M-7
303
Review Gauge & Thermometer Lists
M-12
304
Schedule Gauge & Thermometer Maint.
M-12
305
Conduct Gauge & Thermo
M-12
Identify & Order Gauge & Therm. Materials
M-7
306
Prepare Space Preserv. Program
M-10
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307
Schedule Space Preservation
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308
Conduct Space Preservati
Identify Flange Shield Reqmts
M-14
309
Paint Flanges
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310
Install Flange Shields
M-14
Obtain Shields
M-7
311
Inspect DC/Safety Equipment
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Repair DC/Safety Equipment
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313
Install DC/Safety Equipme
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315
Repair BW/FW Equipment
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316
Install BW/FW Equipment
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317
Prepare Lagging List
M-13
318
Paint Damaged/Missing Lagging Areas
M-13
319
Install Lagging
M-13
Submit Lagging List to SY
M-13
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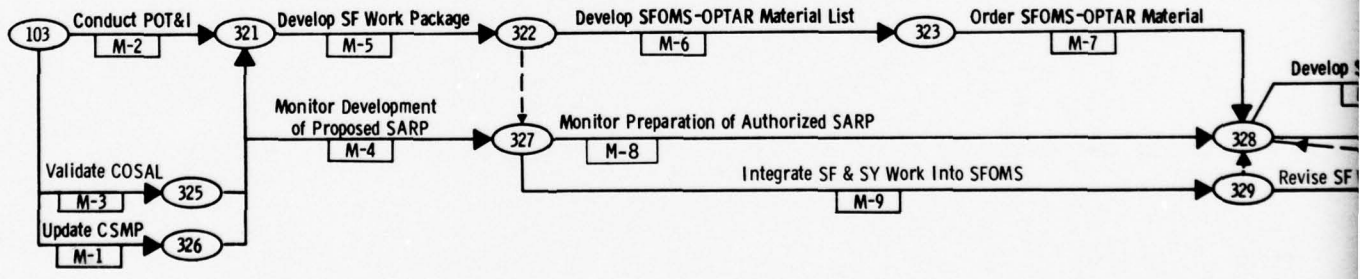
103
Conduct POT&I
M-2
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Develop SF Work Package
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322
Develop SFOMS-OPTAR Material List
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323
Order SFOMS-OPTAR Material
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Validate COSAL
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325
Integrate SF & SY Work Into SFOMS
M-9
329
Revise SF
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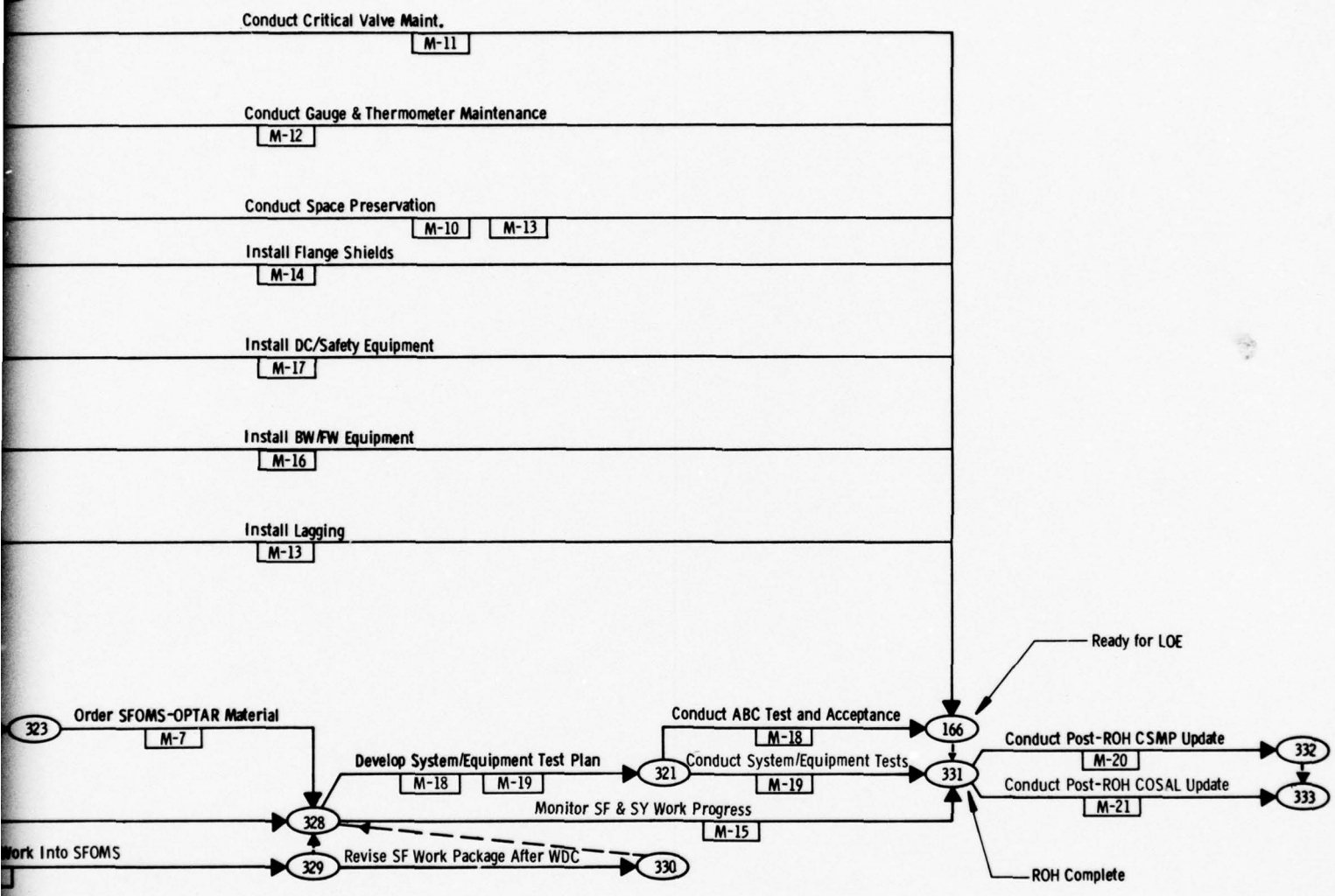

Flow Chart of PERT Network
for EDPOAM Activities
(Material)

TAB E – LIST OF ABBREVIATIONS

LIST OF ABBREVIATIONS

ABC	–	Automatic boiler control
AFFF	–	Aqueous film forming foam
APL	–	Allowance parts list
BS&W	–	Bottom sediment and water
BTOW	–	Boiler Technician of the Watch
BUMEDINST	–	Bureau of Medicine and Surgery Instruction
BW	–	Boilerwater
CID	–	Component identification (number)
CINCPACFLTINST	–	Commander-In-Chief, U.S. Pacific Fleet Instruction
CNET	–	Chief of Naval Eduction Training
COMCRUDESPAC	–	Commander Cruiser Destroyer, U.S. Pacific Fleet
COMNAVSURFPACINST	–	Commander Naval Surface Force, U.S. Pacific Fleet Instruction
COSAL	–	Coordinated Shipboard Allowance List
CSMP	–	Current Ship's Maintenance Project
CTF-75	–	Commander, Task Force 75
DA	–	Deaerating
DC	–	Damage control
DCPO	–	Damage control petty officer
DFT	–	Deaerating feed tank
EAOS	–	End of active obligated service
ECC	–	Engineering casualty control
ECCET	–	Engineering Casualty Control Evaluation Team
EDO	–	Engineering duty officer
EDOM	–	Engineering Department Organization Manual
EDPOAM	–	Engineering Department Plan of Action and Milestones
EGL	–	Equipment Guide List
EOCC	–	Engineering Operational Casualty Control
EOOW	–	Engineering Officer of the Watch
EOP	–	Engineering Operational Procedures
EOSS	–	Engineering Operational Sequencing System
EPDOPAC	–	Enlisted Personnel Distribution Office, Pacific
FCA	–	Field calibration activity
FDB	–	Forced draft blower
FO	–	Fuel oil
FW	–	Feed water
HP	–	High pressure
IMA	–	Intermediate maintenance activity
ISIC	–	Immediate superior-in-command
LO	–	Lube oil
LOE	–	Light-Off Examination
LVP	–	Low voltage protection
LVR	–	Low voltage release
MFBP	–	Main feed booster pump
MFP	–	Main feed pump
MIP	–	Maintenance Index Page
MIRCS	–	Mechanical instrument repair and calibration shop
MMOW	–	Machinist's Mate of the Watch
MRC	–	Maintenance requirement card
MTT	–	Mobile Training Team

NAVEDTRA	–	Naval Education and Training
NAVPERS	–	Bureau of Naval Personnel
NAVSEA	–	Naval Sea Systems Command
NAVTRA	–	Naval training
ND	–	Naval distillate
NEC	–	Naval Enlisted Classification
NSTM	–	Naval Sea Systems Command Technical Manual
OBA	–	Oxygen breathing apparatus
OOC	–	Out of commission
OOD	–	Officer of the Deck
OPNAV	–	Office of the Chief of Naval Operations
OPPE	–	Operating Propulsion Plant Examination
OPTAR	–	Operating target
ORDALT	–	Ordnance alteration
PACFLT	–	U.S. Pacific Fleet
PEB	–	Propulsion Examining Board
PERA(CRUDES)	–	Planning and Engineering for Repairs and Alterations of Cruisers and Destroyers
PERT	–	Performance, Education and Review Technique
PKP	–	Purple-K powder (potassium bicarbonate)
PMDO	–	Planned Maintenance During Overhaul
PMS	–	Planned Maintenance Subsystem
POAM	–	Plan of Action and Milestones
POT&I	–	Pre-Overhaul Test and Inspection
PQS	–	Personnel Qualification Standard
PRD	–	Projected rotation date
RIR	–	Repair Inspection Record
ROH	–	Regular overhaul
SARP	–	Ship Alteration and Repair Package
SECAS	–	Ship's Equipment Configuration Accounting System
SF	–	Ship's force
SFOMS	–	Ship's Force Overhaul Management System
SHIPALT	–	Ship alteration
SIB	–	Ship's Information Book
SITREP	–	Situation report
SMD	–	Ship's Manning Document
SORM	–	Ship's Organization and Regulations Manual
SSTG	–	Ship's service turbogenerator
SY	–	Shipyard
TYCOM	–	Type commander
WDC	–	Work Definition Conference
WESTPAC	–	Western Pacific
3M	–	Maintenance and Material Management

TAB F – ADMINISTRATIVE PREPARATION

TASK A-1: ESTABLISH ADMINISTRATIVE REQUIREMENTS AND GOALS

1. PURPOSE

To establish an overall coordinated program to review and update the administrative manuals, instructions, and procedures relating to the propulsion plant.

2. REFERENCES

(a) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual (two volumes)

(b) COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual

(c) CINCPACFLTINST 5400.15 Series; Engineering Department Organization Manual for Naval, Non-Nuclear, Steam Propulsion Surface Ships of the U.S. Pacific Fleet (EDOM)

(d) COMNAVSURFPACINST 1500.3 Series; Force Shipboard Training Manual

(e) COMNAVSURFPACINST 9880.4 Series; Force Repair Party Manual

(f) Senior Member PACFLT 1200 PSI PEB 1tr 03BP:____(revised periodically); 1200 PSI Light-Off Examination (LOE), procedures for

3. METHOD

References (a) through (c) are Fleet/Type Commander instructions written or revised to reflect the most recent policies and procedures in the subject areas. References (b) through (d) are designed to be promulgated as a ship's instruction in their present form, but should be closely reviewed to ensure that any included policies for which modification is authorized actually reflect the way of doing things onboard. References (a) through (f) represent the nucleus of material to provide policies and procedures in preparation for and conduct of the LOE, and all personnel should be familiar with those sections dealing with their preparation assignments. In addition to review of these instructions, ship's personnel must take the following actions.

3.1 Assess the status of all other manuals, instructions, orders and procedures with regard to consistency, redundancy, and overlapping of responsibility and authority in the Engineering Department.

3.2 Make a list of ship's instructions that require revision, and schedule the accomplishment of those revisions.

3.3 Assign responsibilities for the review and revision.

3.4 Develop a plan to indoctrinate ship's personnel in the new procedures.

3.5 Set a cut-off date and implement the new instructions in time to be fully effective for the PEB/LOE.

3.6 Establish the above as the Command administrative requirements and goals.

TASK A-2: DEVELOP PROGRESS MONITORING PROCEDURE

1. PURPOSE

To provide a simple system capable of keeping ship's force management personnel advised of the status of all preparations for PEB/LOE prior to the implementation of the Ship's Force Overhaul Management System.

2. REFERENCES

None

3. METHOD

The large number of diverse activities involved in preparing for PEB/LOE, as well as an extensive ROH, requires some system for monitoring the status of those activities. That system must be usable by the upper-level management of the ships prior to installation of the SFOMS. The following steps are recommended for proper monitoring of LOE preparation.

3.1 A ship's "Propulsion Board" should be established whose primary function is to ensure that the propulsion plant and personnel are operating in a safe condition and that this state continues through the LOE. The Propulsion Board can consist of as few persons as the Commanding Officer and the Engineer Officer, or as many as all Engineering Department supervisory personnel, Commanding Officer, Executive Officer, and any others associated with PEB/LOE or ROH preparations. This board should meet biweekly until the LOE, and as required thereafter.

3.2 From the recommendations of the Propulsion Board, establish a master list of items similar to those presented in Tab C of this Management Guide.

3.3 Break down the items or tasks into manageable steps, and assign responsibilities and an estimated completion date for each task or major step.

3.4 Update the master list biweekly and use copies of that list as an agenda for the Propulsion Board meeting. Individuals responsible for managing or conducting the action involved should report on the status of their efforts. Deficiencies should be emphasized and corrective actions indicated or planned.

3.5 Develop a chart similar to that in Tab B, using the sample enclosed to show the planned actions of the Propulsion Board and to provide a visual record of progress for all hands.

3.6 Transfer the incomplete tasks for PEB/LOE preparation to SFOMS for monitoring when that system becomes available (see Task A-11). The EDPOAM chart (Gantt type) may continue to be used as backup to SFOMS tracking, if desired.

TASK A-3: REVIEW AND UPDATE MATERIAL READINESS PROGRAM

1. PURPOSE

To provide the necessary instructions and procedures for review of the Material Readiness Program as required by the Type Commander and examined by the PEB, and to alert ships to the procedures for Planned Maintenance During Overhaul (PMDO) that must be followed during ROH in accordance with the Type Commander's schedule.

2. REFERENCES

(a) CINCPACFLTINST 5400.15 Series; EDOM, Chapter 5 and Appendix D

(b) COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual, Chapters 11 and 12

(c) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume I, Chapters 4, 5, and 8

(d) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume II, Chapter 2

(e) OPNAVINST 4790.4 Series; 3M Manual

(f) OPNAV 43P2, 3M Manual

3. METHOD

3.1 The present PEB policy is to review the following publications:

(a) Material deficiency/correction program directives, including valve, gage, and thermometer maintenance instructions

(b) Work Center Deficiency Log

(c) Out-of-Commission (OOC) Log

(d) Planned Maintenance Subsystem (PMS) directives (including PMDO) and records.

3.2 Sufficient detail is given in the referenced documents for ships to establish, manage, monitor, and utilize a Material Readiness Program.

3.3 Additional guidance from the COMNAVSURFPAC Staff Maintenance and Material Management (3M) Office and the implementation team for PMDO will be

provided for those ships specifically designated to use this system during ROH. In conjunction with the instructions of the references, the following steps are recommended:

3.3.1 Review the existing ship's instruction as compared with the new requirements and procedures of reference (a).

3.3.2 Rewrite or modify the ship's instruction, if required.

3.3.3 Include in the ship's training program sufficient training sessions to indoctrinate the crew in the new procedures.

3.3.4 Determine the schedule for PMDO implementation, and make allowance for the time required in the training schedule.

3.3.5 Ensure that everyone is made aware of the fact that the shipyard is responsible for proper maintenance of equipment that is to be overhauled or modified until the completed job is accepted by the ship.

3.3.6 Order PMS materials for new or significantly altered equipment, and include these materials as training aids for those persons who will operate the new equipment.

3.3.7 Review ship's directives concerning material deficiency detection and correction programs to ensure that they agree with the above references. It should be noted that both the Commander-in-Chief, U.S. Pacific Fleet Engineering Department Organization Manual (CINCPACFLT EDOM) (Ch. 5), and the COMNAVSURFPAC 1200 PSI Engineering Management Manual (Ch. 12) address the subject of valve maintenance programs. There are discrepancies between the two instructions (e.g., the valve inventory form), and if both of these directives are promulgated as ship's instructions the discrepancies must be eliminated. This should be done by eliminating references to pages from the 1200 PSI Engineering Management Manual since the COMNAVSURFPAC Ship and Craft Material Maintenance Manual, Article 10501, states the CINCPACFLT EDOM shall be followed in valve maintenance.

3.3.8 Schedule an inspection of the material deficiency detection and correction program to ensure that its operation is in conformance with directives.

4. COMMON DISCREPANCIES

4.1 PMS

(a) No PMS monitoring program implemented.

(b) Numerous maintenance scheduling errors noted.

(c) Required maintenance functions not scheduled.

(d) Personnel not assigned by name for specific PMS action on weekly schedules.

(e) Maintenance Index Page (MIP), Maintenance Requirement Card (MRC), and Equipment Guide List (EGL) documentation found missing during record review.

(f) Supervisory level monitoring not provided for in program.

(g) No weekly formal reports made to Commanding Officer on status of PMS.

4.2 General

(a) Onboard supply of main boiler burner assemblies deficient.*

*This discrepancy was specifically noted as a cause of failure of an LOE.

TASK A-4: REVIEW AND UPDATE ORGANIZATION PUBLICATIONS

1. PURPOSE

To provide guidance in updating the publications dealing with the organization of the Engineering Department and duties and responsibilities of personnel.

2. REFERENCES

(a) CINCPACFLTINST 5400.15 Series; EDOM

(b) OPNAVINST 3120.32 Series; Standard Ship's Organization and Regulations Manual (SORM)

(c) COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual, Chapter 9

3. METHOD

3.1 The directives that detail the organization of the ship and Engineering Department to support propulsion plant operation and publications to be reviewed by the PEB, will include:

(a) Ship's Organization and Regulation Manual (SORM)

(b) EDOM

(c) Duties and responsibilities of watchstanders (watch organization)

(d) Engineering Department steaming and night orders

(e) Engineering Department directives.

3.2 Personnel reviewing the SORM and EDOM must be familiar with these directives prior to review of other ship's directives. Particular attention should be given to those portions of the SORM and EDOM that involve the Engineering Department and other departments in policies, procedures, and action requirements relative to LOE matters.

3.3 A checklist of actions required by the SORM and EDOM should be developed to support a review of other administrative publications. Some of the items that should be listed are shown below.

3.3.1 Appointments in writing, e.g., Engineering Officer of the Watch (EOOW), Engineering Watch Supervisors, and Water and Oil Kings (Article 1210.c, EDOM).

3.3.2 Forms must have blanks for Commanding Officer authorizing signature, when required. For example, the Commanding Officer must approve main propulsion light-off schedules, and trial and casualty drill plans (Articles 1210.a and 1210.d, EDOM).

3.3.3 Ensure that forms are made up, where required. For example, training scheduled but not conducted must be reported to the Engineer Officer weekly (Article 4100.3.5, EDOM).

3.4 Review carefully for inconsistencies between the SORM and EDOM and other ship-developed documents.

3.5 All paragraphs that state policy but authorize modification must be scrutinized to ensure they are changed if desired.

3.6 The EDOM (issued by CINCPACFLT for direct promulgation as a ship's instruction) must be carefully reviewed for specific applicability. Key examples are as follows:

3.6.1 Article 1610.14 (duties of Oil King) lists logs and reports to be maintained. Items listed that are not applicable to a particular ship must be deleted.

3.6.2 Article 5003c (boilerwater treatment logs) lists logs to be used. Listed logs not applicable to a particular ship must be deleted.

3.6.3 Figures V-10, 11, 12, and 13 (boilerwater treatment logs) show logs to be used. Listed logs not applicable to a particular ship must be deleted.

3.7 Assign personnel to review all publications for required additions or insertions, and develop those needed.

3.8 Ensure that there is a master file of all Engineering Department directives in the Log Room. There should be a master list of these directives showing the date of issue and last review for effectiveness.

4. COMMON DISCREPANCIES

4.1 Watch Organization

(a) Not all required watchstanders assigned for various plant conditions in watch organization bill.

(b) Insufficient qualified personnel for three-section watch bill.*

(c) Administrative requirements not in force or in writing to ensure that only qualified personnel are assigned to watch stations.

(d) Cold Iron Watch structure not clearly defined.

(e) Inport Auxiliary and Cold Iron Watch Organizations delineated in two different chapters of EDOM.

(f) Specific watchstander assignments for various steaming conditions (full power, auxiliary, etc.) not promulgated.

(g) Requirement that only personnel qualified for watch may be assigned to watch bill not promulgated.

*This discrepancy was specifically noted as a cause of failure of an LOE.

TASK A-5: CROSS-CHECK EOP, EOCC, AND ECC PUBLICATIONS

1. PURPOSE

To provide a systematic approach to the implementation of Engineering Operational Procedures (EOP), Engineering Operational Casualty Control (EOCC), and Engineering Casualty Control (ECC) publications.

2. REFERENCES

(a) EOSS User's Guide

3. METHOD

3.1 The PEB will review the following publications during the LOE:

(a) EOP

(b) EOCC

(c) ECC Manual.

3.2 Proper implementation of EOP and EOCC, which form the Engineering Operational Sequencing System (EOSS), requires that watchstanders not only be qualified to stand the watch to which they are assigned, but also know the effects on other parts and systems in the engineering plant of their actions in operating machinery or piping systems. Use of EOP and EOCC in conjunction with Task T-4 will meet these requirements.

3.3 A cross-check of EOP, EOCC, ECC Manual, and engineering instructions should be made to ensure consistency of policies and procedures.

3.4 Should EOCC not be already onboard or scheduled for delivery in time to be used in the training effort, the Engineering Casualty Control Manual must be reviewed and updated to reflect current policies and procedures. It also must be compared with the EOP to ensure consistent policies and procedures. If the EOCC is onboard, the ECC Manual must support and be compatible with the EOCC.

TASK A-6: REVIEW AND UPDATE COMMAND SAFETY PROGRAM

1. PURPOSE

To provide guidance in reviewing and updating the Command Safety Program.

2. REFERENCES

(a) COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual, Chapters 6, 7, and 14

(b) CINCPACFLTINST 5101.2 Series; Tag-Out Procedures

(c) CINCPACFLTINST 5400.15 Series; EDOM, Chapters 2, 3, and 5

(d) OPNAVINST 5100.19 Series; Navy Safety Precautions for Forces Afloat

(e) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume II, Chapter 5

(f) NAVSEA Technical Manual:

Chapter	Title	No.
9411	Propulsion Turbines (Steam)	0901-411-0002
9412	*Diesel Engines (Propulsion and* General Purpose)	0901-412-0002
9416	Gas Turbines	0901-416-0003
9420	Reduction Gears	0901-420-0002
9430	Shafting, Bearings, and Seals	
9450	Lubricating Oils, Greases, and Hydraulic Fluids and Lubrication Systems	
9460	Condensers and Air Ejectors	0901-460-0004
9470	Pumps	0901-470-0002
9480	Piping Systems	0901-480-0002
9490	Compressed Air Plants	0901-490-0003
9500	Auxiliary Steam Turbines	0901-500-0002
9510	Boilers	0901-510-0003
9530	Blowers	
9550	Fuel Oil Stowage and Equipment	0901-550-0003
9560	Boilerwater/Feedwater, Test and Treatment	0901-560-0002
9562	Feedwater System and Apparatus	0901-562-0002
9580	Distilling Plants	
9600	Electric Plant — General	0901-600-0002
9610	Electric Power Generators and Conversion Equipment	0901-610-0002
9621	Electric Power Distribution System	0901-621-0002
9630	Electric Motors and Controllers	0901-630-0002

3. METHOD

3.1 Publications that detail policies and procedures concerning the Command Safety Program will be reviewed by the PEB. Subjects that must be addressed by the program include:

(a) Mechanical safety

(b) Electrical safety

(c) Gas-free safety procedures

(d) Engineering Department Tag-Out Program.

3.2 All references and publications concerned with the Command Safety Program must be reviewed for coverage of important factors, consistency, and to eliminate repetition.

4. COMMON DISCREPANCIES

4.1 Command Safety

(a) Safety council did not meet monthly, as required.

(b) Required safety inspections not being conducted.

(c) No effective discrepancy correction follow-up program established.

(d) Program for control of personally owned electrical equipment not being monitored or periodically reviewed by responsible management personnel.

(e) Number of completed authorization forms for personal electrical equipment not in agreement with equipment onboard.

(f) Command Safety Officer tasked with overall training and program monitoring responsibility; however, key assistants, such as the Electrical Safety Officer, not reporting to him.

(g) Program monitoring procedures not in effect.

(h) Minutes for Safety Council meetings not maintained.

(i) Danger Tag-Out Log not being maintained or reviewed in accordance with directives.

(j) No workbench or rubber matting in Tool Issue Room.

(k) Safety hazards noted in Boilerwater/Feedwater (BW/FW) Test Lab (unauthorized electrical plug on solubridge conductivity meter; glass jar of mercury in cabinet).

TASK A-7: REVIEW AND UPDATE PHYSICAL SECURITY PROGRAM

1. PURPOSE

To provide guidance in reviewing and updating the Physical Security Program.

2. REFERENCES

(a) COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual, Chapter 2

(b) CINCPACFLTINST 5400.15 Series; EDOM, Chapter 6, Articles 6113 and 6400

(c) COMNAVSURFPACINST 5400.1 Series; Force Regulations, Chapter 10

3. METHOD

3.1 Publications that detail policies and procedures concerning the Physical Security Program will be reviewed by the PEB.

3.2 Review the references and publications listed above and all ship directives for coverage of important factors, consistency, and to eliminate repetition.

4. COMMON DISCREPANCIES

4.1 Physical Security

(a) Propulsion system components lacked required locks, seals, and protective screens.

(b) Operator inspection responsibilities prior to placing a key component in operation missing.

(c) Periodic inspection program for cold iron watchstanders to monitor condition of locks, seals, and system lineup not implemented.

(d) Inspection guide forms not prepared covering title and location of key system-locked valves.

(e) Security inspection requirements not incorporated into Zone Inspection program.

(f) Key security and handling procedures not promulgated for locked spaces.

(g) Duties and responsibilities of Cold Iron and Sounding and Security personnel not updated to meet current TYCOM program standards.

(h) Access procedures for propulsion space personnel during nonworking hours not established.

(i) Locking of unmanned spaces not being carried out.

(j) Specific responsibilities not defined for conducting pre-underway inspection of physical security devices.

(k) No procedure for control of visitors or workmen to secured spaces.

TASK A-8: REVIEW AND UPDATE ENGINEERING DEPARTMENT OPERATING SUPPORT PROGRAMS

1. PURPOSE

To guide ship's force in review of directives concerned with operational support of the Engineering Department.

2. REFERENCES

(a) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance manual, Volume I, Chapters 8 and 10

(b) CINCPACFLTINST 5400.15 Series; EDOM, Chapters 1, 2, 3, and 6

(c) COMNAVSURFPACINST 3540.7 Series; 1200 PSI Engineering Management Manual, Chapters 3, 4, and 8

(d) NAVSEA Technical Manual, Chapter 9560; Boilerwater/Feedwater Test and Treatment (NAVSEA No. 0901-560-0002).

(e) BUMEDINST 6260.6 Series; Hearing Conservation

3. METHOD

3.1 The PEB will review directives, manuals, and other publications that support the following Engineering Department operating programs:

(a) BW/FW Test and Treatment Program

(b) Refueling and Transfer Instruction

(c) Lube Oil/Fuel Oil (LO/FO) Quality Management Program

(d) Pollution Control Program

(e) Heat and Humidity Control and Monitoring Program

(f) Hearing Conservation and Monitoring Program

(g) High Pressure (H.P.) Welder Administration

(h) Automatic Boiler Controls (ABC) Maintenance Program

3.2 All publications concerned with the above subjects must be reviewed with a view to accomplishing the following:

3.2.1 Compiling all applicable directives.

3.2.2 Eliminating duplication of policies and procedures, thus reducing the sources of information for reference and the possibility of conflicting directions.

3.2.3 Ensuring that all procedures that are at the ship's option are optimum for ship operation.

3.2.4 Comparing published policies and procedures with actual methods in use for possible rewriting of directives or training of personnel in correct procedures.

3.3 A Medical Department representative will be asked by the PEB to provide hearing test records. This process can be simplified if a list is maintained showing the date and results of hearing tests of Engineering Department personnel.

4. COMMON DISCREPANCIES

4.1 Fuel Oil and Lube Oil Quality Management

(a) No operable flash-point tester onboard.

(b) Oil King had not collected chemical wastes from testing evolutions for proper disposal.

(c) Minimum LO quality standards not established.

(d) Frequency of LO sampling requirements not delineated.

(e) Samples not dated.

(f) Test results for FO received not recorded.

4.2 Environmental Pollution Control (including fueling and fuel transfer procedures)

(a) Duties/responsibilities of fueling team members not promulgated.

(b) Specific personnel not assigned to fueling team.

(c) Noise and air pollution not covered in program guidance.

(d) Fueling memorandum checklists not being used during fueling evolution.

(e) Personnel not assigned specific fueling and transfer responsibilities.

(f) Ship's fueling directive not in accordance with Fleet/TYCOM directives.

(g) Maximum level for FO overflow tanks specified as 95% vice 85% within 50 miles of shore, contrary to Fleet/TYCOM directives.

(h) Oil spill kit incomplete.

(i) Environmental Quality Program Coordinator not designated.

4.3 Boilerwater/Feedwater Test and Treatment Program

(a) Guidance contained in Engineering Department instructions incomplete.

(b) Boilerwater/Feedwater Test and Treatment Program not administered in accordance with applicable provisions of Naval Sea Systems Command Technical Manual (NSTM).

(c) Program not receiving review by key management personnel.

(d) Logs contained variances from NSTM standards.

(e) Required entries not made in feedwater logs.

(f) Oil and Water Test Lab supplies incomplete, with numerous essential chemicals missing.

(g) Boilers not tested or treated within time frames required by NSTM Ch. 9560.

(h) Engineering Department instruction amplifying EDOM at variance with NSTM and EDOM, missing important procedural requirements and partially incorrect.

(i) Feedwater tanks not tested daily.

(j) Treatment logs during overhaul period not completely maintained, and thus not correctly reflecting repairs and maintenance conducted on boilers.

(k) Boiler tube renewal sheets incomplete.

(l) Boiler blowdown and water treatment requirements not complied with.

(m) Method of boiler layup not properly identified.

(n) Effective log monitoring not accomplished by supervisory personnel.

(o) No accurate scale for weighing treatment chemicals onboard.

(p) Several required standard chemical solutions for proofing test chemicals not onboard.

(q) Oil King not senior boiler technician.

(r) Bottom blowdowns done twice in series vice three times.

(s) No equipment onboard for conducting required Navy distillate (ND) fuel oil flash-point tests.

(t) No morpholine solution onboard for condensate treatment.

(u) No disodium phosphate onboard for boilerwater treatment.

(v) Reserve feedwater and feedwater required tests and maximum limits not included in Oil King guidance.

(w) Test solutions outdated.

(x) Post-treatment tests not conducted.

4.4 Heat and Humidity Control Program

(a) Weekly heat surveys not conducted.

(b) Dry bulb thermometers not installed nor on order.

4.5 Hearing Conservation Program

(a) Noise survey not completed.

(b) Designated personnel not given baseline audiograms.

(c) Hazardous noise level signs not installed.

4.6 ABC Maintenance Program

(a) ABC Shop not complete and operative.

(b) Technical documentation not available to support new components.

(c) Preliminary ABC system cold checks not completed.

TASK A-9: REVIEW AND UPDATE PROPULSION PLANT DAMAGE CONTROL PROGRAM

1. PURPOSE

To provide guidance in the update of the ship's Propulsion Plant Damage Control Program.

2. REFERENCES

(a) COMNAVSURFPACINST 9880.4 Series, Force Repair Party Manual

(b) COMCRUDESPAC msg 120108Z JUL 74; Procedures in Event of Propulsion Space Fire

(c) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume I, Chapter 13

3. METHODS

3.1 The publications that describe the organization and functioning of the damage control program that will be inspected by the PEB include:

(a) Repair V organization, personnel assignment, locker stowage, and equipment operation

(b) Propulsion Space Fire Doctrine

(c) Repair V Party Manual

(d) Damage Control (DC) Book.

3.2 The above listed references and publications must be reviewed to ensure consistency in policy and procedures, and elimination of duplication in directives.

3.3 Although the Force Repair Party Manual specifies the organization and functions of Repair V in paragraph 110, the information is general and must be expanded in detail concerning the duties of each member of the party with regard to a propulsion space fire.

3.4 The repair locker equipment should be inventoried, shortages eliminated, and all spaces locked to reduce loss by removal. All repair lockers will be inspected for a complete equipment inventory. If access to the repair lockers will be required for work during the overhaul, the equipment should be moved to a locked storeroom.

3.5 The referenced COMCRUDESPAC message regarding the Propulsion Space Fire Doctrine provides guidance for preparation of this important directive by the ship.

3.6 The Repair Party Manual for Repair V should be reviewed along with the daily duty assignment lists to ensure that all positions required by the manual are actually being filled.

3.7 The Damage Control Book should not be overlooked when publications are being gathered for submittal to the shipyard for update. An extra copy of the DC Book should be marked to show the effect of newly accomplished ship alterations (shipalts) so a picture of the ship's current DC capability is available at all times.

3.8 The COMNAVSURFPAC Maintenance Manual, Volume I, reference (c), lists maintenance that should be performed on damage control equipment during overhaul, and are typical of discrepancies noted by the PEB.

4. COMMON DISCREPANCIES

4.1 Repair V Organization and Equipment

(a) Individual and team assignments not made to support propulsion space fire doctrine.

(b) Equipment missing from locker.

(c) Remanning detail, oxygen breathing apparatus (OBA) tenders, and space isolation teams not designated in Repair V organization.

(d) Individual team member assignments not made for non-battle situations.

(e) Locker inventories not verified with Coordinated Shipboard Allowance List (COSAL) to determine locker equipment requirements.

(f) Inoperative equipment in locker.

(g) No qualified engineroom supervisor assigned to Repair V.

4.2 Propulsion Space Fire Doctrine

(a) Instructions for lighting and ventilation to propulsion spaces not delineated.

(b) Personnel assigned not qualified for remanning watch station.

4.3 Damage Control

(a) Foam firefighting system serving all propulsion spaces not set up for automatic operation.*

(b) Operating instructions not posted and technical manuals not available at all fire stations.*

(c) Twin agent station nozzle assemblies not bracketed in a manner to support immediate use.*

(d) Twin agent system not lined up for operation.

(e) AFFF hoses crimped at reel connections.

(f) Exhaust fan missing from fireroom.*

(g) Fireroom escape trunk door in disrepair.*

(h) Deck plates not secured.

(i) Escape trunk door not automatically closable.

(j) No operating instructions for chemical injection tank.

*This discrepancy was specifically noted as a cause of failure of an LOE.

TASK A-10: REVIEW AND UPDATE LOGS, RECORDS, AND FILES

1. PURPOSE

To guide ship's force in bringing Engineering Department logs, records, and files up to date and in line with the standards that will be applied to their review at the LOE.

2. REFERENCES

(a) CINCPACFLTINST 5400.15 Series; EDOM, Chapter 5

(b) CTF 75 Logistics/Material Officer memorandum of 12 September 1973; Engineering Readiness

3. METHOD

3.1 Publications being examined by the PEB during the LOE include:

(a) Operating logs and records (last two steaming months)

(b) Operational trial reports

(c) Steam generator record of inspections

(d) Boiler tube renewal sheet

(e) Heat balance diagram

(f) Technical manuals and index

(g) ROH test memorandums

(h) Ship's information book.

3.2 The review and update of logs, records, and files noted above is a sizable task. A methodical approach is required to put these items in their proper condition, and continuous attention is required to maintain that condition. Steps in accomplishing these objectives are generally as follows.

3.2.1 Read Chapter 5 of the EDOM, reference (a), listing all logs and records and noting all requirements with regard to each. Review each log or record described for conformity with directives, and make any necessary corrections. Steps in updating selected records are described in Task A-16.

3.2.2 Edit CINCPACFLT EDOM to fit the ship exactly before its promulgation as a ship's instruction. As an example of this editing, paragraph 5003c of the EDOM lists all boilerwater treatment logs that can be used. Those logs not actually used aboard a particular ship should be deleted. (Other problems in this publication are discussed in paragraph 3.6 of Task A-4.)

3.3 Legal Records

3.3.1 Bell Book – Ensure that every throttleman is fully aware of his responsibility in keeping the Bell Book, and of the necessity for absolute accuracy. It is suggested that instructions regarding the Bell Book be posted at each throttle station. Ensure that there is a procedure for maintaining, signing, turning in, and safekeeping of the Bell Book, and that the procedure is followed.

3.3.2 Engineering Log – Ensure that a written procedure exists for preparing the Engineering Log, and that all engineering watch officers are well versed in preparation requirements. The Engineering Log must be signed by the Commanding Officer.

3.4 Technical Library

3.4.1 NAVSEA Technical Manual (NSTM) – Ensure that a complete set of the latest revision to all chapters of the NAVSEA Technical Manual is in the Log Room. Ensure that separate copies of chapters pertaining to the ship and its equipment are onboard in sufficient numbers that individuals studying technical areas to which such chapters pertain may have their personal study copies.

3.4.2 Technical Manuals – Ensure that there is available at least one technical manual for every machinery and equipment item in the ship and a master copy in the Log Room. Ensure that additional copies are available, or on order, to provide working copies in sufficient quantity to meet the ship's training program requirements. An index of technical manuals must be ready for review by the PEB.

3.4.3 Ship's Plans – Ensure that there is one complete set of ship's drawings on board in the microfilm format, and that the reproduction capability for such drawings is on board and in working order.

3.4.4 Ship's Allowance List – Ensure that there is an Engineering Department copy of the ship's COSAL available in the Log Room and that it conforms to the Supply Officer's records.

3.4.5 Other Technical Data – Identify and acquire other technical data pertaining to the ship, such as:

(a) Heat balance for different power levels

(b) Squadron and Type Commander technical instructions and notices.

3.5 Operating Records – During the review of operating records, any errors or questionable readings should be circled in red to provide an indication of action in this area and for use as a training aid.

3.6 Forms

3.6.1 Check technical manuals and NSTM to ensure that all required forms are identified.

3.6.2 Make an inventory of available forms.

3.6.3 Check forms for applicability in all details to the ship and its equipment.

3.6.4 Design new forms as appropriate, and correct existing forms. Request printing services for adequate supplies. Advise ISIC of changes desired to standard forms.

3.6.5 The EDOM requires that high and low limits of each parameter to be recorded be indicated on all logs. It is suggested that existing forms be reprinted with limits indicated in red. If times does not permit this, the limits can be indicated in ink at the top or bottom of each column and the form then reproduced. The latter procedure has proven acceptable in complying with paragraph 5001.a of the EDOM.

3.6.6 Identify any forms for removal/revision as a result of ROH action, shipalt installation, etc. Ensure that new logs are listed or discussed in a revision to the EDOM.

3.6.7 Establish a file for each record and log form. Establish procedures for review of each by proper authority prior to filing.

3.7 General Files

Ensure that Engineering Department general files are established in conformance with the Navy Filing Manual; that provisions are made in office procedures to correlate instructions and notices received with equipments and machinery; and that written information and guidance is provided to operating and maintenance personnel concerned.

3.8 Message Traffic

Ensure that a system of accountability for action messages is established within the Engineering Department; and that a master file, by date-time group, is maintained of all messages affecting that department.

3.9 Review

Reference (b) is a memorandum to all ships deploying to the Western Pacific (WESTPAC), outlining a number of areas in which self-examination during deployment can greatly enhance engineering readiness and assist in preparing for the PEB/LOE. The Commander Task Force (CTF) 75 Material/Logistics Officer realized that preparations such as those required by ships going through their first LOE should begin far in advance of the ROH. His guidance is extremely sound, and the questions asked about logs and records provide excellent criteria for review. These questions are repeated below as an aid to ships now approaching their LOE:

(a) Do logs and record sheets indicate standard operating temperatures, pressures, etc. ?

(b) Are orders to watchstanders effective and current? Have all cognizant personnel signed an acknowledgement of their understanding of these instructions?

(c) Has a required reading list (plant capabilities and procedures, casualty control procedures, etc.) been promulgated, and do appropriate personnel sign, indicating they have read them?

(d) Are records of ultrasonic testing of bottom blow and soot blower piping maintained?

(e) Is a copy of the plant's heat flow diagram available?

(f) Are plant operating parameters governed by the heat flow diagram?

(g) Are inspection checkoff sheets used by petty officers-in-charge to check for tampering with major equipment? Are records of these maintained?

(h) Are provisions made for Commanding Officer's personal review of the engineering logs? Does the Commanding Officer review any other logs? How frequently?

(i) Are recent and current logs accessible yet properly stowed in the Log Room? (Standard Navy magazine racks can prove of benefit toward care of logs and neatness of stowage.)

(j) Are required technical publications available and filed in proper order?

(k) Can you show records of an effective vent cleaning program?

(l) Are records of lube oil sample tests maintained?

(m) Does the department maintain a complete list of PEB advisories?

(n) Has a viable cleaning bill been promulgated with meaningful accountability assigned for each space?

(o) Do you have a tickler system for renewal of boilerwater test chemicals?

(p) Does the Engineer Officer maintain a repository for all department keys?

(q) Do you maintain a history of depth micrometer constants for your main engines and generators?

3.10 Publication Accountability

Technical publications are frequently removed from the Log Room for reference. A system of accountability for removed documents must be maintained.

4. COMMON DISCREPANCIES

4.1 Engineering Operating Logs and Records

(a) Log review not being conducted.

(b) No guidance for supervisor's review of logs promulgated.

(c) Engineer Officer had not signed Engineering Smooth Log daily.

(d) ROH test memorandums not available for PEB.

TASK A-11: IMPLEMENT SFOMS

1. PURPOSE

To guide ship's force in becoming familiar with and implementing the Ship's Force Overhaul Management System.

2. REFERENCES

(a) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume II, Chapter 2, Section 3, Article 2302

3. METHOD

3.1 SFOMS is a computer-based system that aids the ship in scheduling and monitoring progress of its assigned jobs and associated material.

3.2 COMNAVSURFPAC and PERA(CRUDES) will provide a SFOMS familiarization team to brief the ship on the general concepts of the SFOMS at approximately A - 8 months.

3.3 The Commanding Officer will select a "SFOMS team" of key personnel who will implement, operate, maintain, and aid in monitoring the SFOMS. The SFOMS team will be responsible for entering all known ship's force work items and a preliminary manpower budget for the ROH into the SFOMS program. Other items such as the EDPOAM, parts requisitions, and key shipyard tasks that must be monitored for LOE should also be entered by this team. Additional data should be available for use by ship's force at the Work Definition Conference (WDC).

3.4 The SFOMS familiarization team will commence close-in training of ship's personnel at about A - 6 months. Tasks will include:

3.4.1 Instruct the ship's force SFOMS team in methods of data analysis and recording, and assist ship personnel in loading the initial input data for the SFOMS.

3.4.2 Instruct work center supervisors in manpower budget and work data form preparation.

3.4.3 Review ship's force use of the SFOMS relating to format, printing, input coding, and general debugging, and recommend improvement or provide assistance in problem areas.

3.4.4 Review SFOMS data entry forms for inclusion of those items necessary to monitor progress toward accomplishment of the LOE preparation items, and for completeness and correctness of the entries prior to loading the SFOMS.

3.4.5 Instruct ship's force management personnel in uses of SFOMS in making management decisions.

TASK A-12: REVIEW AND UPDATE ENGINEERING DEPARTMENT TRAINING PROGRAM

1. PURPOSE

To provide guidance in updating the Engineering Department training program.

2. REFERENCES

(a) COMNAVSURFPACINST 1500.3 Series; Force Shipboard Training Manual

(b) CINCPACFLTINST 5400.15 Series; EDOM, Chapter 4

(c) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume I, Chapter 4, Section 1, Article 4103

(d) CNETNOTE 3500, Revised; Personnel Qualification Standards (PQS) Available

(e) NAVEDTRA 43100-1 Series; PQS Implementation Procedures Aboard Ship

3. METHOD

3.1 The following publications are listed for review by the PEB during LOE:

(a) Ship's Training Program (Engineering Section)

(b) 1200 PSI PQS

(c) Damage Control PQS.

(d) 3M System PQS

(e) Boilerwater/Feedwater PQS

(f) Casualty Control Training Organization and Procedures.

3.2 All of the references and publications dealing with the Engineering Department Training Program must be reviewed for consistency and applicability and compared with the Ship's Training Program directives.

3.3 The training records must be reviewed to ensure that the program is being carried out as the directives specify.

3.4 The training program must specify the progression of watch stations each person must follow in his qualification training effort.

3.5 A review of the PQS program operation as it supports the training program and comparison with policy and procedures directives must be conducted and variances eliminated. The PQS program directives must:

3.5.1 Specify what parts of each standard are required to be completed for interim qualification for each watch station.

3.5.2 List which standards apply and must be completed for final qualification for each watch station.

3.5.3 Define "interim" and "final" qualifications.

3.6 Training directives and record review should be conducted early so that errors or noncompliance can be corrected and proper implementation made during the LOE preparation effort.

4. COMMON DISCREPANCIES

4.1 Training Directives, and Program Management

(a) No lesson plans drawn up concerning high noise hazards.

(b) Lesson plans not prepared to support required Command Safety Program training.

(c) Long-range training schedule not maintained.

(d) Quarterly training schedule not updated monthly, or maintained in ship's master record of training.

(e) No detailed Engineering Department training schedule.

(f) Division training records do not reflect training scheduled but not conducted.

(g) Records of training incomplete in areas of safety training for engineering personnel.

(h) Attendance records for oil spill containment training not maintained.

(i) Training program for refueling and transfer team not established.

(j) Monitoring reports filed by the 3M Coordinator instead of being routed, thereby preventing management feedback to work center supervisors.

(k) No training program for hearing conservation.

(l) Division officers not monitoring safety training lectures.

4.2 Personnel Qualification Standards

(a) 3M, DC, and 1200 PSI PQS judged ineffective within the Engineering Department.*

(b) No ongoing 3M PQS training program.

(c) Completion goal dates not established and promulgated.

(d) Majority of Engineering Department personnel had not begun Damage Control PQS although PQS onboard for one year.

(e) Personnel not issued necessary PQS qualification cards.

(f) Departmental PQS progress charts not being maintained in accordance with Naval Education and Training (NAVEDTRA) publication 43100-1 series.

(g) Provisional qualification program for watchstanders required watchstanders to complete only the system and theory sections of the qualification, but did not include the watch station discussion sections.

(h) Qualification goal dates elapsed with no reevaluation of the goals by program managers.

(i) Interim qualifications not assigned to personnel who had not completed their watch station final qualification.

(j) Criteria for interim watch station qualifications not established.

(k) Main propulsion watchstanders unfamiliar with purpose or mechanics of PQS System.

(l) Blank cards issued to watchstanders day before examination.

(m) Low percentage of personnel presented completed qualification card for watch station assigned.

(n) Qualifiers not requiring complete knowledge of subject material prior to signoff.

(o) DC and 3M PQS not being vigorously pursued.

(p) Several months elapsed between signoffs and updating progress charts.

(q) Weekly progress reports not submitted to Commanding Officer.

*This discrepancy was specifically noted as a cause of failure of an LOE.

4.3 Engineering Casualty Control

(a) Drill scenarios not developed to support ECC training.

(b) Personnel assignments to Engineering Casualty Control Evaluation Team (ECCET) not made.

(c) Published shipboard casualty control procedures not in accordance with EOCC and EOP.

TASK A-13: INDOCTRINATE PERSONNEL

1. PURPOSE

To provide guidance to ship's force management in indoctrinating ship personnel for LOE, and in gaining their concurrence with and support of the objectives of that examination.

2. REFERENCES

None

3. METHOD

3.1 All personnel involved with LOE preparation and conduct must be aware of all objectives, policies, procedures, and requirements of all pertinent publications, and be prepared to carry out all programs in the prescribed manner. Special emphasis should be placed on areas of change to eliminate confusion.

3.2 Effort should be made to indoctrinate personnel in a manner that promotes their active support through understanding and acceptance of policy objectives. Involvement of all levels of management in the development of the new procedures should avert any major resistance to the new package before it is implemented.

TASK A-14: IMPLEMENT ADMINISTRATIVE PACKAGE

1. PURPOSE

To provide guidance to ship's force in the implementation of the administrative package for the LOE.

2. REFERENCES

None

3. METHOD

Implementation of the administrative package for LOE should be started prior to the beginning of the overhaul in order to provide sufficient time for ship's force to become familiar with the new requirements/procedures. This can be accomplished by holding a meeting of all key department heads, furnishing them with the administrative package and instructions required to implement each procedure. The successful dissemination of information by each department head to all concerned personnel in the department will enhance the achievement of well-administered functions, duties, and drills required by the PEB. Adherence to these administrative procedures on a day-to-day basis is of prime importance in passing the LOE.

TASK A-15: MONITOR LOE PREPARATION PROGRESS

1. PURPOSE

To provide guidance in monitoring preparations for the LOE.

2. REFERENCES

None

3. METHOD

3.1 The procedures for monitoring progress prior to the implementation of SFOMS (established in Task A-2) must be adhered to and modified as required until SFOMS is initiated.

3.2 SFOMS is the primary tool used from the date of its initiation until LOE to indicate remaining tasks and the resources available. Once SFOMS is initiated it should be continuously used and updated so that problem areas may be identified for those items that are not going to be accomplished as scheduled. This will permit timely management action and lessen or eliminate the effects of problems as they arise.

3.3 COMNAVSURFPAC, ISIC, and PERA(CRUDES) should be informed as soon as possible when major material or resource problems arise that could impact on accomplishing a successful LOE. This includes completion of work by the shipyard in a timely manner, allowing ship's force sufficient time to complete the necessary grooming and training.

3.4 The EDPOAM can be used to aid in reallocation of resources from areas where work is ahead of schedule or completed early to areas where additional assistance is needed. This chart can be a visual supplement to SFOMS.

3.5 Tasks in the EDPOAM, together with names of those responsible for accomplishment and estimated start and completion dates, should be entered into the SFOMS as key-ops in a "dummy" work center. Use this SFOMS work center to monitor progress toward the LOE in all three major categories (Administrative, Training, and Material), and to maintain schedule.

TASK A-16: PREPARE INPUTS TO UPDATE SELECTED RECORDS

1. PURPOSE

To provide a means of ensuring that changes made during ROH to machinery plant systems, components, or equipment which affect safety of operation of the plant are reflected in plans, manuals, and records.

2. REFERENCES

(a) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume II, Chapter 2, Section 2, Article 2202

3. METHOD

During ROH alterations to machinery plant systems, certain components or equipment may be required that affect the safe operation of the machinery plant. Reference (a) defines the procedure and funding required for correction and updating by shipyards of selected record drawings and selected record data to reflect such alterations. It should be anticipated that formal correction of documentation may not be complete in time for the LOE. If the shipyard cannot provide selected record drawings and data one month prior to the LOE for use in training and operation, the ship must undertake to complete the following actions by that time:

3.1 Identify all alterations in the Ship Alteration and Repair Package (SARP) which modify or affect the machinery plant and associated piping and power systems.

3.2 Review technical substance of these alterations as provided in shipalt briefs and referenced documents. If background references are not available in the ship's files, obtain copies from the shipyard design superintendent or ship superintendent. Obtain piping alteration diagrams from the same sources.

3.3 Determine those alterations that affect or are required for safe operation.

3.4 Identify the systems, machinery, or components involved in the alterations. Prepare a short description of each alteration using the shipalt brief, amplified as necessary to identify the item involved and the safety impact of the alteration on it. Identify any changes in operation procedures.

3.5 Obtain all copies of technical manuals affected by the alteration and insert a copy of the alteration description and its effects in the front of each manual. Where piping or power systems are involved, obtain all working copies of the diagrams in use in the ship. Make notations in red pencil on the diagrams showing new and modified piping runs and power line changes. Print on or attach to the diagrams a written description of these changes, and of any changes in operation of the system. Cite the shipalt brief number and location on each changed page.

3.6 Ensure that officers and petty officers responsible for plant operation are apprised of the changes and that watch station training includes training in the operation of the changed system, machinery, and equipment.

3.7 Request that the shipyard, before departure of the ship after overhaul, provide the ship with corrected drawings and interim or final inserts for all technical manuals and other documentation affected.

TASK A-17: INSTALL UPDATED 3M PACKAGE

1. PURPOSE

To provide guidance for incorporation of the updated 3M package after overhaul, including any new maintenance index pages, maintenance requirements cards, and revised scheduling charts or manuals reflecting any change in equipment or system configuration.

2. REFERENCES

(a) COMNAVSURFPACINST 4700.1 Series; Ship and Craft Material Maintenance Manual, Volume I, Chapter 4

(b) OPNAVINST 4790.4 Series; Ships' 3M Manual

(c) OPNAV 43P2, 3M Manual

3. METHOD

The updated and validated COSAL will serve as the primary guide for updating the 3M package. The COSAL will contain all new or changed system/component configurations that must be incorporated into the updated 3M package.

3.1 All ship alterations must be reviewed to determine the impact on 3M requirements.

3.2 New PMS materials for new or significantly altered equipment must be ordered as early as possible. Training aids for these items should also be ordered for those persons who will operate the new equipment.

3.3 As soon as spaces are sufficiently groomed to ensure that 3M material will not be lost or damaged, the updated 3M package should be installed.

TASK A-18: PREPARE FOR ARRIVAL OF PEB

1. PURPOSE

To delineate the steps necessary to prepare for arrival of the PEB.

2. REFERENCES

(a) Senior Member, PACFLT 1200 PSI PEB, CINCPACFLT Staff, ltr 03BP: ____(revised periodically); 1200 PSI Light-Off Examination (LOE), procedures for

3. METHOD

3.1 The following attachments are included in this task:

(a) Senior Member, U.S. Pacific Fleet (PACFLT) 1200 PSI PEB ltr to Commanding Officer (reference (a))

(b) Sample PEB Member Pre-LOE Remarks

(c) Sample PEB Member Oral Questions to EOOW/EDO and Other Watchstanders

(d) Sample PEB/LOE Critique

(e) Discrepancies Noted in Review of LOE Reports (1 July 1974-30 June 1975)

(f) Categorization of Discrepancies Noted in PEB/LOE Reports (1 July 1974-30 June 1975)

3.2 Reference (a) should be received by the Commanding Officer about two months prior to the LOE. The letter contains the following information concerning the 1200 PSI LOE:

(a) General information about the examination

(b) Sample schedule for the examination

(c) Records to be reviewed during the examination

(d) Material readiness requirements

(e) Equipment/systems to be checked

(f) Sample personnel information sheets

(g) Sample interview schedule for the examination

(h) List of recurring LOE/OPPE discrepancies

3.3 Reference (a) is reproduced herein as attachment 1. The information requested requires a significant amount of time to gather, organize, and present. These actions should not be deferred to the end of LOE preparation. Additionally, the information provided by the PEB on the conduct of the LOE should be disseminated to all concerned so each can make his own personal preparations for the examination.

3.4 The enclosed sample PEB member opening remarks (attachment 2) and critique (attachment 4) should provide a flavor for how the LOE is conducted.

3.5 The sample PEB member questions (attachment 3) are a sampling of those asked orally. This information is intended to provide an indication of the topics that are covered in the training program, but is not to be construed as the only material to be covered.

3.6 LOE reports of the PEB published between 1 July 1974 and 30 June 1975 have been reviewed and a list of significant discrepancies (those which contributed directly to an unsatisfactory finding by the Board) and other discrepancies is included as attachment 5 to this task. A suggested use of this list is to assign each discrepancy to an individual responsible for ensuring that sometime before the LOE the problem is eliminated and the Engineer Officer so advised. This practice has proven effective in reducing or eliminating the number of items overlooked in the myriad details requiring the attention of LOE preparation managers.

3.7 Also enclosed is a tabulation of all discrepancies noted in the LOE reports review (attachment 6). This indicates the areas where the most problems are found and should provide an idea as to which areas may require concentrated effort.

ATTACHMENT 1 TO TASK A-18

PACIFIC FLEET 1200 PSI
PROPULSION EXAMINING BOARD
CINCPACFLT STAFF
Box 70, Naval Station
San Diego, CA 92136

Refer to: 03BP:WPA
REV. 6/75

To: Commanding Officer,

Subj: 1200 PSI Light-Off Examination (LOE); procedures for

Ref: (a) OPNAVINST 3540.4A
(b) CINCPACFLTINST 3540.2A

Encl: (1) Sample Schedule for 1200 PSI Light-Off Examination
(2) Records to be Reviewed during 1200 PSI Light-Off Examination
(3) Material Readiness Requirements
(4) Equipment/System Checks
(5) Sample Personnel Information Sheets
(6) Sample Interview Schedule for 1200 PSI Light-Off Examination
(7) Listing of Recurring LOE/OPPE Discrepancies (updated 22 SEP 75)

1. A 1200 PSI Light-Off Examination (LOE) has been scheduled for your ship to be conducted within the next few weeks. This letter has been prepared to assist you in preparation for the examination and to outline administrative requirements incidental to its conduct. The purpose of the LOE is to provide a means by which the responsibilities of Commander in Chief U. S. Pacific Fleet, outlined by reference (a), may be carried out. The examination will be conducted in accordance with references (a) and (b) and the provisions of this letter. The LOE is a comprehensive examination oriented towards the state of training of propulsion plant personnel, adequacy of administrative procedures and material readiness of the propulsion plant and associated machinery spaces prior to initial light-off as they affect impending propulsion operations.

2. Two days will be scheduled for the examination. On multiple plant ships an examination of each plant will be conducted and may be scheduled as separate events at Tycom direction. The initial day will include a pre-examination briefing, administrative review, oral and written examinations and the material readiness inspection. The second day will be utilized for critique and for carryover of any examination areas not completed during the preceeding day. Enclosure (1) contains the schedule of events. Modification of this schedule will be considered on a case basis.

3. The Board examining your ship will consist of a Senior Examiner with the rank of Captain/Commander and at least three other members. The Board will arrive onboard at 0800 on the day of the examination. It is requested that the Commanding Officer, Executive Officer, Engineer Officer and work center supervisors be available for a pre-examination briefing to discuss the chronology of events and the general schedule for the conduct of the examination. During this briefing the Commanding Officer

will be provided with the list of watchstanders, selected from the provided watch bill, that will receive formal oral examinations. It is anticipated that all matters concerning the examination and its conduct will be discussed and firmed up at this time.

4. The following is a resume of the methodology to be employed by the Board in each of the four examination areas:

a. Personnel Knowledge and Qualification of Watchstanders: The Boards finding in this examination area will be determined through written and oral examinations including an Engineer Officer of the Watch Seminar. On-station query of prospective watchstanders and observation during conduct of the examination will also be undertaken by Board members and will form a basis for evaluation.

(1) Engineer Officer-of-the-Watch Seminar: Participants shall include the Engineer Officer, all department officers, including the Damage Control Assistant, and all ship-qualified Engineer Officers-of-the-Watch (EOOW). The seminar will take approximately one and one-half hours and should be conducted in the ship's wardroom or other suitable location. Participants can anticipate that questions concerning propulsion plant operating parameters, capabilities and limitations and casualty control procedures taken from applicable 1200 PSI and Damage Control PQS Programs and onboard EOP/EOSS publications will be asked. Additionally, participants may be requested to sketch schematically a propulsion plant system. Example: main condensate system, main lube oil system, boiler ABC system, etc.

(2) Written Examinations: All departmental officers and enlisted EOOW's will take the EOOW examination. All other personnel assigned to the main Propulsion Watch Bill including Switchboard Operators will be required to take a watchstation written examination. In addition, written examinations on general level of knowledge will be administered to personnel E-5 and above in the BT, MM, EM ratings and to the Oil and Water Lab personnel. The primary sources for examination questions are the 1200 PSI Personnel Qualifications Standards (PQS) and Engineering Operational Sequencing System (EOSS). The Board will deliver the examinations to the ship during the pre-examination briefing. It is desired that ship's personnel administer, monitor and grade the examination. A ship's officer should be designated to proctor and prepare a test result sheet and to return this sheet and all examinations to the Board's Examination Coordinator. The ship may retain copies of composite examination results and is encouraged to note any general areas of weakness reflected in the exams; however, the examination package is privileged material and its content shall not be compromised. No portion of the examination may be copied or otherwise reproduced. The ship's proctor should coordinate with the PEB coordinator immediately after the pre-examination briefing.

(3) Oral Examinations: Board Members will conduct oral examinations of selected supervisory personnel from the approved watch bill and personnel summary submitted by the ship to determine the supervisor's level of understanding concerning his duties as they are related to the operation of the propulsion plant. These examinations will be conducted in seminar format with a maximum of six attendees. Each session will require approximately 50 minutes. It is requested that staterooms or other suitable space be reserved for Board members to conduct these seminars. Those supervisory personnel who have been selected for oral examinations will be identified by the Board at the pre-examination brief. Watchstanders not selected for oral interview can anticipate questions to be asked of them during other phases of the examination. The Personnel Qualifications Standards for 1200 PSI Steam Propulsion Plant and the Engineering Operational Sequencing System serve as the primary sources of examination questions. Supervisory personnel will present their 1200 PSI, Damage Control and 3M PQS qualification cards to the Examiner. Personnel should be cautioned not to discuss elements of the interview until all of the interviews have been completed. Examiners will not indicate if the answer given to questions are right or wrong. The research of the question is left to the Examinee.

(4) PQS Programs: The 1200 PSI Damage Control and 3-M Personnel Qualification Standards (PQS) will be reviewed at all management levels to determine program effectiveness. Documentation related to the administration of these programs should be available to the designated Examiner. In addition, personnel can anticipate questions during oral interviews covering administrative elements of these programs. The source of these questions are the ship's program implementing directives and NAVTRA 43100-1.

b. Administrative Review: At the pre-examination briefing, the ship will be provided with a listing of programs that will be reviewed during the administrative phase of the examination. Enclosure (2) lists those programs from which the Board will make its selection. Those programs and records marked with an asterisk will be examined on each ship. Records should be assembled in the Log Room and other locations where they can be readily examined. Personnel, preferably the key management personnel associated with each of the programs, should be available to assist the respective examiner. The purpose of this review is to determine the effectiveness of each of the programs selected with primary emphasis placed upon those programs that are in direct support of propulsion plant maintenance and operation.

(1) Normally, the operating logs and records covering the last two steaming months will be reviewed.

(2) Repair V organization, personnel procedures, qualification of assigned personnel and operability and stowage of equipment within the locker(s) will be reviewed. Equipment inventories and the doctrine for combating a major propulsion plant fire or contingency will be reviewed.

(3) The following evolutions will be required to be demonstrated as part of the evaluation of the ship's Boiler Water and Feed Water Treatment Program:

(a) Boiler Water Test (Sample provided on first exam).

(b) Boiler Water Test of ship's steaming boiler.(Dual Plant Ships)

c. Material Examination: This phase of the examination will include an inspection of all main propulsion, electrical and auxiliary equipment required to support the ship in port and underway. Cleanliness, preservation and maintenance of each major piece of equipment and space together with the supporting auxiliaries will be examined. It is desireable that an officer or leading Petty Officer familiar with the space to be examined (preferably the Work Center Supervisor) be assigned to accompany the designated Board Examiner. Light-off of propulsion or auxiliary equipment will not be required during the examination except as necessary to demonstrate system integrity or test specific safety devices/features. However, the readiness for light-off, i.e., line-up preparatory to light-off will be an examination element. A boiler to be selected by the Board and its associated up-take space will be opened for inspection (fireside only). No other major equipment will be required to be opened or disassembled for inspection, though if opened at the time of examination, the internals may be inspected. Enclosure (3) outlines the propulsion plant material readiness requirements for the examination. Enclosure (4) is a listing of equipment and system checks which ship's personnel may be required to perform/demonstrate for the Board.

5. The ship is requested to provide to the Senior Examiner at the time of the pre-examination briefing a copy of the Engineering Department Integrated Plan of Action with Milestones (POAM). This POAM will be reviewed by the Board to determine effectiveness of past and present management practices and to review the manner in which the ship intends to attain fleet standards. It is requested that key management personnel (CO/XO) be prepared to review the POAM in detail with the Senior Examiner.

6. The ship is requested to make the following advance preparations for the examination:

a. Furnish the Board with the data outlined in Enclosure (5) for the Commanding Officer, Executive Officer, Engineer Officer, Engineering Department Officers and other main propulsion personnel. For the purpose of this compilation main propulsion personnel will include all Boiler Technicians, Machinist Mates, Electrician's Mates and all personnel striking for these ratings.

b. Furnish a tabulation by rate and rating of all engineering department personnel indicating ship's manning as allowed by SMD/Complement/EDP and the actual onboard count. The Commanding Officer may comment on any relevant manning subject such as adequacy of numbers, unusual turnover, etc.

c. Provide a three section underway watch bill extracted from the training element of the department POAM which will be used during impending sea trials and the ship initial post ROH operations. Watchstanders in this bill who will also be utilized as auxiliary watchstanders should be identified by asterisk and the auxiliary watch station identified in parenthesis. The auxiliary Watch Bill will form the basis for selection of watchstanders for interview under paragraph 4.

d. Furnish the personnel data requested in Page 2 of Enclosure (5) for all 1200 PSI trained personnel assigned to the ship.

The above data should be mailed to the Board to arrive at least two weeks before the scheduled date of the examination. If watch bill assignments change, the Board should be provided with an updated copy upon arrival. The following address should be utilized when forwarding material to the Board.

Senior Member
1200 PSI Propulsion Examining Board
Box 70, CINCPACFLT Staff
San Diego, Ca. 92136

The Board can be reached at any of the following phone numbers.

Area Code 714, Autovon 958
235- 1562/1563/1564/1565

7. During the pre-examination briefing the ship is requested to provide to the Senior Examiner the following information:

a. A copy of the schedule of events as per Enclosure (1).

b. A formatted interview schedule with block times assigned in accordance with subparagraph 4a(3). This will facilitate the scheduling when the list of oral examinees is provided by the Board. Approximately two hours (four for CVA) should be allocated for orals in the schedule. Enclosure (6) contains the schedule format.

c. A list of all known administrative deficiencies pertinent to the Engineering Department.

d. A list of out-of-commission equipment in the propulsion plant(s) less that equipment that is simply awaiting steam/power for test.

e. A list of additional known material deficiencies that have a significant impact on Main Propulsion Plant performance.

f. The ship's master engineering file of completed or partially completed Test Memorandums.

8. The following areas of assistance are requested to be made available to the Board:

a. Assistance of ship's typists to type the Boards notes. A handout will be provided upon the Boards arrival to serve as a guide in preparation of the report.

b. Local transportation to and from the ship and to and from the location of the Board's accomodations and to and from the airport if requested by the Board.

9. Critique and Reports:

a. A complete copy of the Board's rough notes together with findings and assessments will be provided to the Commanding Officer at the critique conducted at a mutually agreeable time following the examination. The Commanding Officer governs the attendance at the critique.

b. The final written report of the examination, prepared from the rough notes provided to the ship, will be forwarded normally within 30 days following the examination.

c. Reports of corrective action will be submitted by the ship in accordance with reference (b).

10. It is essential that all elements of the examination, together with the Board methodology, be understood by the Commanding Officer prior to the conduct of the examination. If questions should arise following receipt of this letter the Board should be reached by telephone. The Senior Examiner with responsibility for your ship will effect liaison, when possible, during the week preceeding the examination to solidify final details. Enclosure (7) is a compiled list of recurring deficiencies that are given particular attention. This list should prove helpful in your assignment of POAM priorities and in evaluating your ship's readiness for examination.