

SS CURTISS LAY-UP PLAN

a. SPECIFICATION UPDATE PROCEDURES

AMSEA's RRF Lay-Up Plan has been developed based upon our experience of laying up our prior twelve RRF vessels after the Gulf War and numerous lay-ups since that time, as well as utilization of the applicable MARAD standard lay-up procedures as outlined in the RRF Operations Management Manual Section 31.

The lay-up specification will include and be updated to reflect the current issue of the MARAD standard lay-up procedures, as applicable to the specific vessel, and modified to reflect actual experience with the vessel. The status of the vessel will also be factored into the specification to ensure that the crewed ROS vessels plan/specification reflects lay-up work to be accomplished by the vessels ROS crew, that the ship remains habitable and that the applicable systems remain operable to support said ROS Crew.

Section 31 of the Marad Operations Management Manual will serve as the general outline for the specification since it covers the major lay-up areas as noted below:

- Sequence of work - tailored to each vessel's scope of work and lay-up schedule.
- Insulation Repairs - as applicable.
- Condition Survey - will be utilized to develop scope of lay-up.
- Drydocking - if required.
- Deck Department Requirements - subject to vessel status.
- Engine Department Requirements - subject to vessel status.
- Housekeeping Measures - subject to vessel status.
- Items to be Removed from Vessel - see h. below.
- Items to be Left Aboard Vessel - see h. below.
- Inventory - See h. below.
- Dehumidification - as applicable.

b. DEFERRED VOYAGE REPAIR SPECIFICATIONS

During the operational phase, the ships crew will perform routine maintenance and repairs plus emergency repairs, which are within their capability. Repairs which are beyond the crew's capability and can be deferred will be developed in specification text by the crew and or by the ships Port Engineer. Repair items descriptions/specifications will be forwarded to AMSEA. Additionally any deferred activation items will be addressed at this time. These items will be identified in the ship's MARTS status.

Amsea will solicit for industrial assistance to assist the vessels ROS crew with the lay-up process contained in the standard MARAD lay-up specification, modified as required to suit the SS Curtiss soft lay-up methodology. Separate solicitations to cover estimated repairs from Phase "O" will also be issued as noted below.

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c. ABS AND USCG WORK ITEM PROCEDURES

The Group Port Engineer tracks the USCG and ABS requirements through the MARTS program's regulatory documentation tracking module. Port Engineers will keep the Amsea Quincy office informed of certificate status as needed. Access to the system is located on board the vessel or in the outport office, which enables them to make decisions accordingly.

When the vessel is in Phase O (operation) the Drydocking date will be continuously updated to reflect the days of operation. If the Operating time approaches three years, Amsea will make preparations to dry-dock the vessel.

When the Amsea Quincy office is notified that the vessel will be deactivated, the Group Port Engineer will run the latest revision of the Regulatory Report from MARTS and discuss with the Amsea Quincy office expired certificates or certificates due to expire. Also discussed will be inspections that may have been extended to Phase V (Exercise/Lay-up). These will be identified for inclusion into the lay-up specification. In deciding which renewals of Certificates are to be incorporated into the lay-up specification the Memorandum of Understanding (MOU) will be consulted to determine which are applicable.

d. SELECTION OF LAY-UP CONTRACTOR

AMSEA's procedure to be utilized to solicit, evaluate and select a lay-up contractor in support of the ship terminating operations (with minimum notice) is as follows:

It is planned that the ships lay-up will take place at the layberth or a contractor's facility depending on nature of the voyage repair list.

A fixed price lay-up solicitation if required, with competition limited to the gulf coast area will be issued when approved by MARAD. Responses will be prioritized by cost.

Upon operation termination notification, Amsea will call the first prioritized contractor to verify availability. Should the contractor not be able to respond, the second prioritized contractor will be contacted, etc.

e. SHIPBOARD PROCEDURES TO PREPARE FOR LAY-UP

GENERAL INFORMATION:

Prior to commencing the vessel's lay-up of equipment, stores and supplies, the following shall be accomplished:

- a) Insure all controlled (MARAD) government equipage has been inventoried with model and serial numbers entered on the "controlled equipage inventory list".
- b) The three shipboard department heads shall meet with the Master to review the methodology, control, supervision, manpower, and time required to meet the lay-up procedures.
- c) Designate location of each locker.
- d) Keep a master list of all inventories in the Master's office (copy to Amsea Quincy office via port engineers)

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1) **GENERAL CREW TASKS:**

- a) Clean out and lock all unused, unassigned spaces.
- b) Remove, inventory, and lock up all pilferables.
- c) Collect and tag all key sets and store in Captain's office key locker. This process is important in order to control access to spaces. Key to locker to be tagged and turned over to Port Engineer.
- d) Post notices, "It is a Federal Offense to Illegally Remove Government Property From Vessel".
- e) Designate storage location and immediately lock up high value items (VCR's, TV's, computers, typewriters, printers, microwaves) if proceeding to a contractor's facility.
- f) Collect and inventory all gear in custody of crew:

Life Jackets	Exposure Suits
Safety Manuals	Books & Publications

2) **DECK DEPARTMENT:**

Particular Attention for Deck Department Items should include:

- a) Storage Spaces: Cleaning of storage spaces and ensure any fire hazard material is removed.
- b) Inventory Paints and Greases: Segregate opened material from that which has not been opened.
- c) Cargo Gear: It is imperative for continuity, that the Cargo Gear Book is completely up to date. All spare wires, blocks, shackles, hooks etc. shall be inventoried and secured in a locked location. A summary sheet may be added to the front of the Cargo Gear Book detailing where spare cargo gear is stowed.
- d) Fire Fighting: All fire hoses shall be fully drained of water and re-stowed in racks. All fire nozzles, axes applicators and extinguisher shall be inventoried and stowed at stations. Fire fighting outfits and all SCBAs shall be cleaned inventoried and locked up in an identified space with other damage control equipment.
- e) Lifeboats: All boats shall be stripped clean. Provisions, water, and dated material shall be boxed in lots with expiration dates. All lifeboat equipment shall be inventoried and locked in an identified compartment.
- f) Bridge/Navigation Material: Items in this location are always considered "collectibles". Special care shall be taken to inventory and lock immediately all binoculars, navigation tools, sextants, clocks radios, clinometers, flags, etc. The radio officer should disconnect the VHF, SATNAV, Decca, Loran and other navigational instruments, remove from their locations, and lock them up.
- g) Safety Equipment: Remove from on deck all life rings lights, life lines, floating flares etc., clean and lock away. Life rings may be left by gangway and in other safety areas. Also secure pyrotechnics from bridge area in a clean, locked location.
- h) Mooring Gear: Inventory mooring lines and rat guards for vessel. New lines not used shall be stowed and secured for future use as directed.

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- i.) Deck Consumables: Need to be inventoried by item. There shall be a yearly inventory done with updates sent to the Port Captain to modify the vessel deck req.

3) **MEDICAL:**

Hospital shall be stripped and cleaned. All material shall be collected and inventoried.

The following is an outline of the approved and proper procedures recommended by Medical Advisory Systems, (MAS).

a) Narcotics:

The Master will be instructed, IN WRITING, by MARAD COTR how to dispose of the narcotics on board the vessel at lay-up.

If the Master is instructed to ship the narcotics to another vessel or designated Government receiver, he shall complete all necessary MARAD transfer documentation.

If the Master is instructed to destroy the narcotics he shall follow procedures outlined below:

- (1) The narcotics must be destroyed in the presence of a witness.
- (2) The date, time, and items destroyed are to be entered into the ship's log and signed by the Master and witness.
- (3) The Master is to complete a Destruction of Controlled Substance Form, sample at end of section, and send to MAS, and AMSEA. Copies will be forwarded to MARAD in accordance with the Ship Manager Contract.

b) Prescription Items (Other Than Syringes):

- (1) The Master will be instructed by MARAD COTR how to dispose of the prescription items on board the vessel at lay-up.
- (2) If the Master is instructed to ship the prescription items to another vessel or designated Government receiver, he shall complete all necessary MARAD transfer documentation.
- (3) If the Master is instructed to destroy the prescription items he shall destroy by decanting from containers into the ship's trash or incinerator in the presence of a witness, and recording into the ship's log.
- (4) Other pharmaceuticals may be disposed of as other trash.

c) Syringes:

- (1) Syringes pose a biological hazard, and therefore must be disposed of as medical waste.
- (2) All unused syringes must be boxed up and shipped back to Omega Labs for proper disposal, which will be recorded in the ship's log.
- (3) All other medication/materials shall be inventoried and boxed up. At the time of lay-up, decision will be made where to send the medical material, or if it will be picked up.

d) Loose Medical Support Items:

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Stretchers, backboards, splints, etc. shall be inventoried and locked in the hospital. Valuable medical equipment such as blood pressure cuffs, and other instruments shall be inventoried and locked up with other high value items.

Amsea will proceed with the above, unless otherwise directed by MARAD. If you should need additional guidance on the medical equipment, please contact the Chief of Insurance and Claims or MAS directly.

- 4) **STATIONERY:** (Including AMSEA)
 - a) Stationery not used in ROS is to be inventoried and boxed. A copy of the inventory is to be transmitted to the personnel secretary.

- 5) **USCG DOCUMENTS:** (official log book, copies of certification of discharge, etc.)
 - a) Lock up and copies sent to the Amsea Quincy office c/o personnel secretary.

- 6) **PAYROLL DOCUMENTS:** (All ships copies)
 - a) Payroll data will be boxed up and sent to the Amsea Quincy office, c/o the personnel secretary.

- 7) **ENGINE DEPARTMENT:**
 - a) The engineer's and electrician's workshops and storerooms are to be thoroughly cleaned and put into good order.
 - b) Selected tools are to be removed from workshops, cleaned and stored in designated, locked storerooms. Special care shall be taken to inventory and lock up high value, pilferable items such as power tools, measuring instructions, etc.
 - c) Lubricants, solvents, chemicals and cleaners are to be consolidated for ROS use.
 - d) Trash, debris and used rags, etc. are to be removed from the vessel and properly disposed of.
 - e) Log books and engine department records are to be straightened up and properly filed in the Chief Engineers office.
 - f) Diesel, lube and hydraulic oil storage and day tanks are to be filled to the extent that all drums on board are left completely full or completely empty.
 - g) Tank tops, bilge wells, drip pans and containments are to be surveyed and cleaned as required.
 - h) Steering gear grease and oil systems are to be left full and the space left clean and dry.
 - i.) Tools, spares, and lubricants for emergency generator are to be left in the space to allow normal routine maintenance on the generator.
 - j) Compressed gas cylinders (except CO₂) shall be marked empty or full and segregated for removal from the vessel or use during ROS.

- 8) **STEWARD DEPARTMENT**
 - a) **VESSEL PRE-LAY-UP INSTRUCTIONS AS APPLICABLE FOR ROS CREWED SHIP:**

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(1) **INVENTORIES:**

A copy of each inventory is to be submitted to: Amsea Quincy office
Attention: Port Steward, Vessel's Captain, and Chief Engineer.

(2) **PROVISIONS:** (Food)

(a) When vessel is advised of lay-up a complete inventory of all food stores is to be submitted to the Amsea Quincy office. Provisions to be utilized by the ROS crew or disposed of as directed by MARAD.

(b) Provisions, consumable/expendable stores are never to be disposed of, without prior permission in writing from MARAD and the Amsea Quincy office. A complete inventory is to be submitted to the Amsea Quincy office explaining why stores must be disposed of.

(3) **STORAGE SPACES:**

(a) Lockers/Storerooms are to be designated for the following:

Linen (pillows/drapes/sheets/etc.)

Mattresses (cover and leave in each room.)

(b) Lockers/Storerooms are to be thoroughly cleaned before using.

(c) Until actual vessel lay-up, post inventories outside each door of storage areas. Place inside door when vessel is layed-up.

(4) **EQUIPMENT:**

(a) Defective and outdated equipment, which can no longer be used, is to be inventoried and a copy submitted to the Amsea Quincy office. Upon receipt this office will submit to MARAD for disposal instructions.

(5) **LINEN:**

Clean linen not in use is to be inventoried and put into clean designated storage locker. Linen includes pillows, drapes/curtains, sheets, towels, face cloths, pillow cases and blankets.

(6) **ROOMS:**

(a) Rooms not in use are to be stripped and thoroughly cleaned. (This includes misc. storage and cleaning lockers)

(7) **OPENED CLEANERS:**

Opened cleaners which will not be used and are not hazardous are to be collected and stowed safely for use during ROS.

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(8) TRANSFERRING STORES TO ANOTHER MARAD VESSEL:

In order to assist in facilitating the transfer of stores from one MARAD vessel to another; the following inventories will be completed and prepared for those listed under inventories and send a copy to the vessel receiving the stores.

- (a) Inventory all whole case/containers/units of provisions consumable/expendable stores.
- (b) Partial cases/containers may be transferred as miscellaneous. stores.
- (c) A total inventory of all slop chest items will be necessary.

b) VESSEL LAY-UP INSTRUCTIONS AS APPLICABLE TO A ROS CREWED SHIP:

(1) STEWARD DEPARTMENT LAY-UP GENERAL:

- (a) Rooms, passage ways, storerooms, and lockers are to be stripped and thoroughly cleaned.
- (b) Mattresses are to be covered and left in each room.
- (c) Drapes/curtains are to be left in each room.
- (d) Dirty linen is to be inventoried and sent out to be laundered. Upon return check inventory and put into designated linen locker. Drapes/Curtains, see above instructions.
- (e) Small equipment: microwaves, dishes utensils and pots/pans, which were still in use, are now to be cleaned.
- (f) Stationary galley, pantry and mess room equipment is to be cleaned including ovens, mixers, refrigerators, coffee machines, etc.
- (g) Counter, lockers, drawers, and shelves are to be cleaned off and/or emptied out and cleaned.
- (h) Reefers are to be completely emptied, scrubbed and cleaned. Shelves, flooring, and racks are to be removed and thoroughly cleaned. Shelves, flooring and racks are to be replaced in reefers. Selected reefers should then be re-stowed for use during ROS.
- (i.) A list of any and all broken/inoperative equipment is to be given to the Captain, listing equipment, problem, location, model number, and any other information pertaining to the equipment.
- (j) Steward department cleaning chemicals, which can be hazardous, are to be gathered and placed in a locker for further instructions. The Captain is to be given an inventory and advised of the location of the locker.

(2) SLOP CHEST

- (a) The Slop Chest is the property of MARAD and will be removed from the vessel with instructions from Amsea/MARAD. Bonded items will require U.S. Customs authorization prior to transfer.

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- (b) Slop Chest proceeds are to be in order and complete inventory is to be taken of ALL ITEMS. All items are to be inventoried including opened cases, containers, or units.
- (c) Slop Chest proceeds shall be turned over to the Captain, who will submit to the Amsea Quincy office. A receipt, from the Captain, is to be attached to the slop chest report.
- (d) A copy of the Slop Chest inventory and report is to be given to the Captain and sent to the Amsea Quincy office Attn: Port Steward.
- (e) After inventorying, box all Slop Chest items. Label each box and keep all bonded stores separated.

Attachment:

Destruction Expired Controlled Substance Form

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TO: MASTER/ _____

DATE: _____

VESSEL: _____

FROM: MEDICAL ADVISORY SYSTEMS INC

ACCORDING TO OUR RECORDS REPLACEMENT MEDICATIONS WERE DELIVERED TO YOUR VESSEL. PLEASE COMPLETE THE FOLLOWING INFORMATION REGARDING THE DESTRUCTION OF YOU EXPIRED CONTROLLED SUBSTANCES; THIS IS REQUIRED TO COMPLY WITH FEDERAL DRUG ENFORCEMENT ADMINISTRATION REGULATIONS.

MAS#	QTY	DESCRIPTION LOT	SIZE	EXPIRED
201C		MORPHINE SULFATE INJ. 10MG/ML 1ML	25's	_____
203C	_____	ACETAMINOPHEN W/CODEINE	100's	_____
204C	_____	CODEINE SULFATE TABS 30MG	100,s	_____
205C	_____	MEPERIDINE TABS 50MG	100's	_____
206C	_____	MEPERIDINE INJ. 50MG/MI 1ML	100's	_____
211C	_____	DARVON CAPSULES 32MG	100's	_____
1002C	_____	LOMOTIL TABLETS 30MG	100's	_____
2401C	_____	TERPIN HYDRATE W/CODINE	PINTS	_____
3701C	_____	DALMANE TABLETS 30MG	100's	_____
3702C	_____	PHENOBARBITAL TABS	100's	_____
3703C	_____	VALIUM TABS 5MG	100's	_____
3704C	_____	VALIUM INJ. 10MG/2ML	10ML	_____
3706C	_____	PHENOBARBITAL INJ. 6MG	25's	_____
3709C	_____	OXAZEPAM CAPSULES 30MG	100's	_____

THE ABOVE LISTED CONTROLLED SUBSTANCES WERE DESTROYED AT
LATITUDE _____ LONGITUDE _____ ON _____

PLEASE MAIL TO:

MEDICAL ADVISORY SYSTEMS, INC.
BOX 193 PENNSYLVANIA AVENUE EXTENDED
OWINGS, MARYLAND 20736 U.S.A.

SHIP SEAL

NAME

TITLE

WITNESS/NAME

TITLE

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f. PRE-LAY-UP SEA TRIALS (IF REQUIRED BY MARAD)

Prior to conducting the pre lay-up sea trials, Amsea will secure the services of a thermographic and vibration analysis company. Amsea will develop a list of equipment to be tested, the axis to be tested and the standard that they will be tested to. A report will be provided, which will identify the results of the tests and give recommendation. From this report work items will be identified for accomplishment during the lay-up process. During the pre lay-up sea trials, Amsea will assist the MARAD material condition survey team in assessing the condition of machinery throughout the vessel by starting, warming up, and placing on the line, machinery identified by MARAD as requiring surveying.

g. TEMPORARY LAYBERTHING (IF REQUIRED)

Prior to the lay-up process, if the CURTISS can't be accepted directly into its scheduled permanent lay-up berth, Amsea will arrange through its agents a temporary berth. The agent will be advised of the vessels characteristics (length, beam, height, etc.) and its maximum draft. AMSEA's Group Port Engineers will discuss with MARAD services that will be required at the layberth and AMSEA's Port Captain will convey to the agent.

Temporary berths will be selected that are en route to the permanent lay-berth to minimize costs. All berths will have sufficient depth of water, mooring points and fendering to safely accommodate the vessel.

h. VESSEL MATERIAL DISPOSAL/SECURING PROCEDURES

Included in Section "e".

i. **CREW PHASE DOWN**

SCHEDULE CREW PHASE DOWN- CURTISS

Art. No.	RRF Crew	Day No.			
		0 FOS	-1	-2	ROS -3
"A"	Master	X	X	X	
01	Chief Mate	X	X	X	X
02	2nd Mate	X	X	X	
03	3rd Mate	X			
04	Radio Officer	X			
05	Bosun	X	X	X	X
06	A.B.G.	X	X	X	X
07	A.B.G.	X	X	X	
08	A.B.G.	X	X	X	
09	A.B.	X			
10	A.B.	X			
11	A.B.	X			
12	O.S.	X	X		
13	O.S.	X	X		
14	O.S.	X			
15	Chief Engineer	X	X	X	X
16	1/A Engineer	X	X	X	X
17	2/A Engineer	X	X	X	X
18	3/A Engineer	X	X	X	
19	3/A Engineer	X			
20	Electrician	X	X	X	X
21	Oiler	X	X	X	X
22	Oiler	X	X	X	
23	Oiler	X	X		
24	Fireman/WT	X	X		
25	Fireman/WT	X			
26	Fireman/WT	X			
27	Wiper	X			
28	Chief Steward	X	X	X	X
29	Chief Cook	X	X		
30	Stwd. Asst.	X	X	X	
31	Stwd. Asst.	X	X		
32	Stwd. Asst.	X	X		
33	Stwd. Asst.	X			
34	Total	34	23	16	9

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j. PROCEDURE FOR SECURING PLANT AND MACHINERY

Prior to the start of securing the plant, unnecessary auxiliary machinery will be secured, such as distillers. One boiler will be cut out and secured. The electrical load will be reduced to a level that can be carried by shore power. The engine room machinery will be secured in three phases by the ship's engineers assisted by the engine unlicensed crew. The phases are (1) main propulsion unit with associated equipment, (2) main electrical generating equipment with associated equipment, and (3) boilers with associated equipment.

1. Main Propulsion Equipment

The main unit will be secured using the following sequence of events:

- A. Shut ASTERN guarding valve.
- B. Shut AHEAD and ASTERN inlet steam valves.
- C. Obtain wheel clearance from bridge and engage turning gear immediately after shaft has stopped.

NOTE: Prior to engaging jacking gear, all AHEAD and ASTERN steam lines are to be drained properly of any steam pressure.

- D. Secure first - stage air ejector. Secure second - stage air ejector when vacuum drops to approximately 15" Hg.

NOTE: Do not secure the lubrication system until turning gear operation is completed with main unit being cooled to proper temperature.

- E. When vacuum has dropped to 5" Hg, perform the following:

- 1) Shut valve in supply line to steam seal regulator.
- 2) Shut off gland exhaust system.
- 3) Shut off all boiler bulkhead stops to isolate turbines from boiler pressure.
- 4) Secure main condensate system and associated equipment.

- F. Leave turbines on turning gear until temperature of oil leaving bearings is within 15°F of oil entering bearings, then stop turning gear and disengage.

- G. Shut down main engine lubrication systems leaving the gravity tank and main engine sump at proper working levels.

- H. Secure cooling water to main engine lube oil cooler and all associated equipment.

- I. Secure main circulating water pump and all associated valves including suction and discharge skin valves.

2. Proper securing of electrical generating units and associated equipment will be carried out by the following sequence of events:

- A. If two generators are operating in parallel the load will be shifted to one generator. The generator without the load will then be taken off line and secured.

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- 1) Once the generator is off the line close main steam stop valve to the generator and test low lube oil throttle trip and with low lube oil alarm.
 - 2) Once the main lube oil pressure has dropped below 3 psi the hand operated lube oil pump is to be operated until the prime mover has stopped rotating.
 - 3) Once the generator that has been taken off the line stops rotating, the following equipment will be secured.
 - a) Secure gland sealing steam and leak off to gland exhaust condenser.
 - b) Secure vacuum pump and associated equipment.
 - c) Secure condensate pump and related valves.
 - d) Secure cooling water to both the condenser and lube oil cooler.
 - 4) Hook up shore power from dock to vessel's shore connection box side and perform the following to change from ship's power to shore power:
 - a) Use shore power volt meter to verify power available to shore power breaker.
 - b) Reduce load on main board to essential circuits.
 - c) Trip the generator breaker and then close the shore power breaker.

NOTE: Verify shore power in proper phase by checking rotation of a three phase motor in operation. If rotation is backwards, trip the shore breaker and reverse two leads at the shore power connection box on the dock. "Do not try to parallel to shore power with ship's power."
 - d) Turbo generator that was on the line may now be secured in same manner as the one taken off the line previously listed above in Section (2) - proper securing of electrical generating units.
3. Securing of boilers and associated equipment.
- A. Prior to entering port, properly blow tubes on both boilers to ensure fire sides are free of as much soot as possible. This would include superheaters, generating banks and air heaters.
 - B. Once main propulsion unit is secured, one boiler will be taken off the line and secured in the following manner:
 - 1) Reduce load on boiler to be secured and secure fuel and atomizing steam to burners.
 - 2) Secure main and auxiliary steam stop valves.
 - 3) Open superheater vent valve and throttle same to avoid dropping pressure too quickly.

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- 4) Operate forced draft blower at a minimum to clear fire boxes of gases. Shut air registers and remove atomizer.
- 5) Before securing feed stops, raise water level 3-5 inches above normal and as boiler cools, add more water when required to keep level at 2 inches above normal level.
- 6) When steam pressure in drum reaches 50 psi, open steam drum vent.
- 7) When steam pressure is 15 psi, open drains on superheater headers and desuperheater.

NOTE: After a few hours of cooling, the forced draft fan may be used to cool boiler if absolutely necessary to assist in cooling the unit. Rapid cooling should be avoided at all times. Never cool boiler by draining and refilling using cold water.

- 8) When turbo generator is taken off the line and shore power is energized, the second boiler is to be taken off the line and secured in the same manner as the first, noting that the steam driven feed pump will be required to be secured at this time.
- 9) Steam to the fuel oil heater to be secured and fuel oil re-circulated until the oil temperature is below 150°F before securing pump and system.
- 10) The in port reciprocating feed pump is to be used to maintain proper level in the boilers once the steam driven feed pump is secured.
- 11) If the outside temperature warrants, connect the package boiler to the ships "Shore Steam Connection". Line up the auxiliary steam system on the vessel to accept shore steam, and operate the boiler to supply steam to the vessel.

NOTE: Any additional information required to secure the main unit, generators and boilers may be obtained from Engineering Operating Manual located in the Chief Engineer's office.

k. STATUS OF EQUIPMENT REQUIRED FOR LAY-UP

Equipment removed during activation and stowed either in a 20 foot container box or in a store room will remain on board the vessel if at all possible during operational status.

These items would include the following: hull blanks, DH hoses, alarm system equipment and any associated lay-up equipment that may have been removed during activation and are required to be reinstalled during lay-up.

Amsea will inventory and survey the lay-up equipment prior to the start of the lay-up to ensure that all required items are on board the vessel.

D/H machines will remain in the present operational locations during the operational status. The machines will be test run prior to the lay-up by the Chief Engineer. Any required repairs will be accomplished during the lay-up period.

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I. MOVEMENT OF VESSEL TO LAY-UP SITE (IF REQUIRED)

If the vessel is to be shifted to its permanent lay-up berth after it is fully deactivated (without use of ships propulsion and crew), Amsea will arrange for sufficient tugs and horsepower to safely move the vessel. Docking Masters with local knowledge and expertise will be consulted and employed to ensure a favorable/safe transit. Transits will be scheduled for straight time.

m. MOORING

The CURTISS will be moored in a safe - seaman like manner with good leads and drift on all lines.

All lines will have been checked while the vessel is operational so that mooring lines will be of sufficient size and length to hold the vessel. Bow and stern lines will be secured to bits/bollards forward and aft of the vessel with the angle and the lines approximately 30 degrees to the center line of the vessel. Spring lines will be in good condition and set with leads to allow warping of the vessel if it should be required.

When mooring, the lines will be covered with chaffing gear to protect at any hard wear points. Lines will also get rat guards positioned to protect the vessel from possible infestations.

Moorings will be tended to and checked as necessary. In ports with hurricane potential, any additional moorings issued through USCG hurricane planning will be attended to per USCG directives.

n. RE-ACTIVATION OF LAY-UP EQUIPMENT/SYSTEMS

The vessels fire, and flood alarms that were previously removed for activation will be restored to operation with it's proper alarm board containing audible and visual alarms.

There are a total of 6 D/H machines aboard the CURTISS in the following locations:

1. Anchor Windless Machinery Room
2. Mast house
3. Forward MCDS module
4. Mast house
5. 2nd deck mid-ship transverse passage
6. Aft MCDS module

All will be made operational with required duct work, hydrosensor, elapsed time indicators, switches etc., as required to maintain a relative humidity of 35% at 70 degrees Fahrenheit.

The boilers will be returned to wet lay-up using the equipment removed at the time of activation.

o. PROCEDURES FOR LAYING MORE THAN ONE VESSEL

If both vessels in the group require lay-up simultaneously and **these are the only** Amsea vessels being layed-up, then our in-house surge capability will be utilized. The assigned Group Port Engineer will lead the site team on one vessel and an additional RRF Port Engineer will be utilized to lead the site team on the second vessel.

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If there are more than two ships being layed-up simultaneously, then AMSEA's external surge capability will be utilized. The RRF Program Manager will augment the existing RRF Ship Management Organization with the pre-established external surge force in order to provide a Port Engineer, an Administrative Support Person for each ship site lay-up team. External surge resources and telephone numbers are listed in Section h. of the Activation Plan.

Amsea has clearly demonstrated its capability to lay-up more than one vessel at one time. Subsequent to the Gulf War, Amsea had as many as four vessels undergoing lay-up at the same time. Also, any unique events/items that occurred during the activation will be addressed during the lay-up, and if specification changes are required, they will be incorporated.

p. LAY-UP PLAN UPDATES

Amsea considers the Activation/Lay-up Plans and Specifications, living documents and will review and update as required by the contract:

- ♦ Upon completion of a Phase O period
- ♦ yearly if no activations occur

q. RECOMMENDATIONS FOR VESSEL UPGRADE

Upon lay-up the ship's Master will be instructed to have each ship's officer provide a turnover letter to the Master upon his departure from the vessel.

This letter will contain a list of deficiencies and offer recommendations for vessel enhancements within the officer's respective duty areas. The Master will make a consolidated list of vessel upgrade recommendations supported by the turnover letters. This report shall be forwarded to Amsea Quincy office via the Port Engineer who in turn will provide copies to the Regional COTR and MARAD headquarters MAR 613.

A copy will be retained in the ship's central files.