

MILITARY SEA TRANSPORTATION SERVICE, PACIFIC
NAVAL SUPPLY CENTER
OAKLAND, CALIFORNIA 94625

SPECIFICATION NUMBER: MSTSP 70-73

9 March 1970

S P E C I F I C A T I O N S

For

TOPSIDE - INACTIVATION

USNS GEN. JOHN POPE (T-AP 110)

The General Conditions dated 15 July 1955 and Amendment No. 1 dated 23 November 1962 to the General Conditions for work under Department of Defense, Department of the Navy, Master Contract for Repair and Alteration of Vessels are a part of these specifications and any conflict between these specifications and the Master Contract for Repair and Alteration of Vessels shall be governed by the provisions of the Master Contract.

These specifications consist of the following pages:

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Pages 401-1 through 402-2 (A total of 4 pages)
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Approved: Dir., Transport/Tanker/Oceanographic Engr. Div.

Approved: Supt. Port Engineer

Geo. H. Norton
D. J. [Signature]

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INFORMATION REGARDING THE INVITATION FOR BIDS INCLUDING THESE SPECIFICATIONS

Prior to the time of bid opening and after award of job order, inquiries should be directed to one of the following:

Procurement and Contractual Matters
(Engineering Office)

<u>Title</u>	<u>Telephone</u>
Director, Procurement & Control Division	466-5185
Head, Contract Branch	466-5185

Legal Matters
(Office of Counsel)

<u>Title</u>	<u>Telephone</u>
Assistant Counsel	466-6481
Counsel	466-6481

Engineering and Technical Matters
(Engineering Officer)

<u>Title</u>	<u>Telephone</u>
Deputy Engineering Officer	466-6955

Statement of Manufacturer's Representative

On any specification item which calls for supervision by the manufacturer's representative the following shall be strictly complied with:

Submit a statement of supervision exercised by the representative, prepared and signed by the representative. The statement shall include certification of work actually performed and certification either that work was performed to the satisfaction of the representative, or that work deficiencies, explicitly identified by the manufacturer's representative, exist. The original plus four copies of each statement shall be delivered to the MSTSP Inspector.

Overtime Policy

The Contracting Officer may require of the Contractor's statement in writing regarding the need for overtime in the performance of the contract in the event of the issuance of a Change Order or a Supplemental Agreement for extra work. No overtime premium pay shall be considered in the price or equitable adjustment to be paid by the Government on account of the Change Order or a Supplemental Agreement unless authorized by the Contracting Officer.

The following list of plans form a part of these specifications.

<u>ITEM NUMBER</u>	<u>PLAN NUMBER</u>	<u>PLAN TITLE</u>
103	601-PAC-8123 Alt. A	"INACTIVATION LIFEBOAT STOWAGE"
112	T-AP 110-53801-1179048 MSTSP 2801	"DIAGRAMMATIC ARRGT. OF VENTILATION SYS."
112	T-AP 110-53801-1179049 MSTSP 2802	"DIAGRAMMATIC ARRGT. OF VENTILATION SYS."
112	T-AP 110-53801-117950 MSTSP 2803	"DIAGRAMMATIC ARRGT. OF VENTILATION SYS. MAIN DECK LEVEL"
116	T-AP 110-502-1173134	"DEHUMIDIFICATION DIA- GRAMMATIC ARRANGEMENT"
301	502-1173136	"DEHUMIDIFICATION ELECTRICAL DIAGRAMS"
526	S3805-1507226	"DEHUMIDIFICATION OF STEAM PROPULSION PLANT INSTALLATION"

CATEGORY "A" ITEMS

ITEM 001 - SERVICES: (MAC) (INACT)

Upon arrival of the ship in the Contractor's plant, the Contractor shall provide the following services for a period of thirty-five (35) continuous calendar days.

(a) ELECTRIC POWER

Provide adequate lighting for all compartments and spaces 120/240 volts DC 500 Amps minimum.

(b) VENTILATION

Provide portable blowers for ventilation as required for the safety of contractors assigned working personnel during the inactivation of the ship.

(c) FIRE PROTECTION

Provide temporary fire protection independent of the ship's facilities.

(d) TEMPORARY PUMPING FACILITIES

Provide temporary but adequate means for pumping of bilges, shaft alley and other spaces subject to collection of water.

CATEGORY "A" ITEMS

ITEM 002 - TELEPHONES AND GARBAGE: (MAC) (INACT)

During the entire period while the ship is in the contractor's plant, the contractor shall furnish the following services.

Garbage and Debris Removal:

Remove on a daily basis, all garbage and debris generated by the ship.

Telephones: (3)

One (1) Twenty-four hour telephone for official use only at ships access, at the established quarter deck.

Two (2) telephones through the contractor's plant switchboard during regular work day hours as follows:

- One (1) in Inspector's office
- One (1) in the Captain's office
- One (1) in the MSTS Inspector's office

CATEGORY "A" ITEMS

USNS POEE (T-AP 110)
MSTSP 70-73

ITEM 101 - DEEP TANKS DRAINING OF: (AM) (INACT)

Pump out and remove all water, scale, dirt and debris from the below listed fresh water deep tanks and thoroughly dry out. Install ~~expanded~~ metal covers over each tank opening.

Covers shall be fabricated with steel angle frame with expanded metal tack welded and covers secured with four existing manhole cover nuts.

Stow manhole covers alongside, manhole opening.

<u>COMPARTMENT NO.</u>	<u>CAPACITY</u>
B-602-W Deep Tank #1P	88.9 Tons
B-601-W " " #1S	75.2 "
B-604-W " " #2P	88.5 "
B-603-W " " #2S	88.6 "
C-602-W " " #3Ø	314.0 "
C-602-W " " #3P	280.8 "

CATEGORY "A" ITEMS

USNS POPE (T-AP 110)
MSTSP 70-73

ITEM 102 - CARGO HOLDS, DECKS/ AND TROOP BERTHING AREAS CLEANING OF:
(MAC)

Accomplish the following, in Numbers 1 through 7 cargo holds and all troop berthing areas.

Remove all debris, dunnage and sweep broom clean. Damp mop dust free, all deck areas.

Broom sweep cleaning and dust freeing shall include all framing, and stiffeners, tops of lockers, ladders, piping, vent ducting and appurtenances.

Clean the metal hatch boards, overlapping joints, hand holes and angle framing around hatch coamings.

Install ship furnished stanchions and two course safety chains or wire rope around all tween deck hatch openings.

USNS POPE (T-AP 110)
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CATEGORY "A" ITEMS

ITEM 103 - LIFEBOATS INACTIVATION OF: (MAC)

Reference (a): MSTS Plan Number 601-PAC-8123 Alt. A, titled
"Inactivation Lifeboat Stowage"

Using reference (a) for guidance, install stowages for a total of twelve (12) 135-person, eight (8) 77-person and one (1) 43-person lifeboats.

All wood bearers and chocks shall be Douglas Fir, structural Grade or better.

Coat faying surfaces between gunwale bars and wood chocks or wedges with TFRPC Grade #1 or equal.

Install longitudinal adjustable wire rope stays and stay fittings to prevent longitudinal movement of the boats in their stowages.

Completely strip all lifeboats, a total of twenty-one (21), of all equipment, portable buoyancy tanks, provision tanks, fuel tanks, gear lockers, portable gratings, floor boards, engine housings and engines.

Provisions have previously been removed from all lifeboats.

Tag with non-ferrous metal tags denoting the exact location and from which boat the items were removed and stow and secure all removed equipment, tanks, lockers and portable units in a lower hold as designated, at least two (2) feet from the ship's sides and two (2) feet from the bulkheads. All material shall be stowed and secured on wood runners or pallets not less than six (6) inches off of the deck.

Deliver all provisions and canned water to a shore location as designated by the MSTS Inspector.

Remove the engine from the one (1) motor boat. Remove the spark plugs from engine and inject one-half pint of metal conditioning compound, Grade two (2), in each cylinder. Crank the engine over two revolutions. Wire spark plugs to the engine body; do not reinstall plugs. Remove all water from engine and blow all water passages dry.

(CONTINUED)

CATEGORY "A" ITEMS

USNS POPE (T-AP 110)
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ITEM 103 - LIFEBOATS INACTIVATION OF: (MAC) (CONT'D)

Stow the engine on suitable wood bearers with engine not less than 6-inches off the deck, in cargo hold as directed by the MSTS Inspector.

Drain, flush with water, blow dry and prove gas free the fuel tanks for the one (1) motorboat and stow in a lower hold with the balance of the lifeboat equipment.

Drain the gear boxes of the hand propelled boats and flush with Grade 2 rust preventive compound, Military Specification MIL-C-16173.

After coating interior of gear boxes, drain the excess compound from the boxes and reinstall the covers.

CATEGORY "A" ITEMS

USNS V **POPE**, (T-AP 110)
MSTSP 70-73

ITEM 104 - DRAIN WELLS: (MAC)

Open the below listed drain wells and remove all water, dirt and debris and leave each area in a dry condition.

Leave spaces open and stow covers and strainer plates in a vertical stowed position alongside their respective bilge wells lashed securely.

<u>SPACE</u>		<u>LOCATION</u>
No. 1 Hold	Drain Well	Fr 39 Port & Stbd
No. 2 Hold	" "	Fr 62 Port & Stbd
No. 3 Hold	" "	Fr 82 Port & Stbd
No. 4 Hold	" "	Fr 101 Port & Stbd
Fwd Eng. Room	" "	Fr 117 Port
Fwd. Eng. Room	" "	Fr 119 Stbd
Aux Eng Room	" "	Fr 129 Port & Stbd
Aft Eng Room	" "	Fr. 145 Port & Stbd
Aft Eng Room	" "	Fr 147 Port

CATEGORY "A" ITEMS

ITEM 105 - COFFERDAMS: (MAC)

Open the below listed cofferdams, remove all water, dirt and debris and leave each area in a dry condition.

Leave spaces open and stow manhole covers near their respective manholes.

Cover deck manholes with expanded metal screens bound all around with steel angle frames and secure in place with four (4) of the existing securing devices.

Cofferdam B-926-V
B-924-V
B-922-V
C-902-V
A-915 F Pipe Tunnel Fr. 82-103 port
B-912-V
A-605-V

CATEGORY "A" ITEMS

USNS POPE (T-AP 110)
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ITEM 106 - SHIPS KEYS: (MAC)

Install a pilfer proof staple, hasp and padlock assembly on each of the ship's key lockers located in the following areas: Chief Engineer's office, Chief Steward's office, Engineer's Log Room, Deck Yeoman office, Medical Officer's office and the C.O. Military Department office.

Lock the aforementioned key lockers in the presence of the MSTS Inspector and MARAD Representative.

Identify with non-ferrous metal tags, the master keys accommodating the aforementioned lockers and lock the master keys in the ship Master's safe in the presence of the MSTS Inspector.

CATEGORY "A" ITEMS

USNS POPE (T-AP 110)
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ITEM 107 - ACCOMMODATION LADDERS: (MAC)

Remove the port and starboard accommodation ladders, ladder platforms, stanchions, and ladder handling equipment from their installed shipboard locations. Tag each unit with a non-ferrous metal tag denoting its installed shipboard location.

Stow removed units in lower cargo hold as directed by MSTS Inspector and properly secure with wire lashing. Keep units at least 2 feet from ship's shell plating and 2 feet from bulkheads and at least 6 inches off deck with ladders landed on 6-inch by 6-inch bearers of Douglas Fir structural grade or better.

CATEGORY "A" ITEMS

ITEM 108 - LIFEFLOATS: (MAC)

Remove one hundred and fifty six (156) 25 Person and four (4) 60 Person Balsa wood lifefloats from their shipboard stowages.

Remove all rations and equipment from each float and hold for disposition by the MSTS Material Division.

Stow all lifefloats below decks on 6" x 6" timbers, Douglas Fir, structural grade or better.

Stowage shall be two (2) feet from shell plating and two (2) feet from bulkheads in cargo holds.

Use 3/4" wood spacers between each raft for circulation of dehumidified air.

Remove and stow the lifefloat pipe retaining stanchions from each lifefloat stowage station in an area adjacent to the lifefloats.

The MSTS Inspector will designate the holds and levels for the stowage of the lifefloats.

CATEGORY "A" ITEMS

ITEM 109 - MOORING WIRES:

Fabricate a total of ten (10) mooring lines from one (1) inch, 6 x 19 HGPS wire rope. Each wire rope mooring line shall be four hundred (400) feet long with a six (6) foot eye on one end and the other end served with wire. The eyes may be made up using suitable wire clamps, three clamps to each eye.

The lengths of mooring wire rope shall be neatly coiled and stored on deck, five (5) each forward and five (5) each aft, ready-for-use at the layup site.

CATEGORY "A" ITEMS

ITEM 110 - LIFEBOAT DAVITS: (MAC)

Remove all wire rope lifeboat falls, gripes, sheaves and blocks from each of the ship's fourteen (14) lifeboat stations. Worm gears, sheaves, rollers, and other moving parts on all davits shall be thoroughly greased. Clean and grease all blocks.

Wipe down all wire rope with Viscolite preservative compound. Neatly coil and lash all wire rope.

Secure by welding, each of the stopper bars, on all of the Welin gravity type davit trackways at twelve (12) lifeboat stations. The stopper bars shall be welded on one (1) side only. Do not weld the bars on the hinged side.

All wire rope and davit components specified herein for removal shall have a non-ferrous metal tag attached indicating location and unit from which they were removed.

Stow the lifeboat falls, blocks, sheaves and gripes in the cargo hold, 2 feet from ship's shell plating and bulkheads and at least 6-inches off deck on pallets, as designated by the MSTIS Inspector.

Scale and paint all fourteen (14) sets of Welin lifeboat davits, excluding the winches, as follows.

Remove all rust, scale and loosely adhering paint to bare metal. On all bare metal surfaces, apply one coat of brush or roller applied unthinned "WETSALL" red primer number 3240 manufactured by the Farboil Company or equal material approved by the Contracting Officer.

On all primed surfaces specified above, apply one (1) coat of brush or roller applied unthinned "WETSALL" grey primer number 3241 manufactured by the Farboil Company or equal material approved by the Contracting Officer.

CATEGORY "A" ITEMS

ITEM 111 - GENERAL CLEANING: (MAC)

Accomplish cleaning in areas and compartments of ship as indicated.

Staterooms, Living and Berthing Areas:

All drawers and lockers shall be opened, cleaned, and closed.

All rooms, compartments and passageways shall be swept clean, and damp mopped, dust free.

Storerooms, Ladderwells, Passageways, Lockers, etc:

All shipboard areas not heretofore specified, excluding cargo holds and tween decks, shall be swept clean free of debris and dust free, including piping and ventilation ducting.

Cargo holds and tween decks will be cleaned as specified in another item in these specifications titled "Cargo Holds, Decks and Troop Berthing Areas Cleaning Of."

All supplies and equipment in storerooms shall be stowed at least 4-inches clear of deck, bulkheads and ship's sides. Spare parts boxes weighing over 50-pounds shall not be tiered.

Weather Decks:

Sweep down broom clean all weather decks, cleaning shall include removal of all debris, rags and litter on decks.

Miscellaneous:

Remove all water which collects in any of the ship's spaces, including cargo holds as a result of work specified in other items in these specifications.

All waterclosets, commodes and urinals soiled or used by the Contractor's personnel for any purpose shall be thoroughly cleaned and dried prior to the ship leaving the Contractor's plant.

CATEGORY "A" ITEMS

ITEM 112 - AIRTIGHT CLOSURES: (MAC)

Reference (a) Plan No. T-AP 110-S3801-1179048 titled, "Diagrammatic Arrangement of Ventilation Systems, Super DK, NAV Bridge DK. and Top of Navigation Bridge Dk.

Reference (b) Plan No. T-AP 110-S3801-1179049 titled, "Diagrammatic Arrangement of Ventilation Systems, Upper and Focsle Decks

Reference (c) Plan No. T-AP 110-S3801-117950 titled, "Diagrammatic Arrangement of Ventilation Systems, Main Deck"

With Reference (a), (b), and (c) for guidance accomplish the following.

Close, seal and make airtight as follows all openings to the weather from port to starboard, from bow to stern, from the main deck to and including the top of the uppermost houses and access to lower limits of both stacks and those additional items noted and located on the hull between the floatation line and the main deck.

A. All Dogged Weather and Watertight Doors, All Dogged Watertight Hatch Covers and All Dogged Airport and Portlight Covers.

Clean all dirt, paint, grease, rust and oils from all gasket and knife edge surfaces.

Adjust all dogs and hinges and chalk test to assure proper bearing of the knife edges on the gaskets.

Replace with new, all missing or damaged lugs, bolts, nuts and gaskets.

With the exception of the door or doors selected for "Access", seal the remaining weather and watertight doors, airports and portlight covers, and access hatch covers as follows.

Apply rubber adhesive cement equal to Specification MIL-A-5092 (AER) to all gasket and knife edge surfaces. When the applied adhesive is tacky and free or any foreign matter, close and tightly dog down the doors, hatches and covers.

All the above includes access doors to the ventilation plenum chambers located on the weather decks.

Seal all glass vision lights installed on doors, all around, inboard and outboard with a gun applied sealer equal to Specification MIL-C-18969B Type II.

On the door or doors selected for "Access" install suitable hasp and staple for padlocking. Stencil each access door with the legend "ACCESS" on both sides. Letter size = 2".

CATEGORY "A" ITEMS

ITEM 112 - AIRTIGHT CLOSURES: (CONTINUED)

Secure all doors not equipped with dogs from the interior side by tack welding a flat bar strap across door and door frame opposite hinged side.

Secure all doors equipped with dogs, except the "Access" doors by installing a 1" x 1" x 1/4" angle secured by welding to the door frame or panel opposite of the hinge sides across the movement path of the door dog. The MSTS Inspector will designate the exact position.

Stencil all doors except the "Access" doors on both sides with the legend "SEALED-DO-NOT-OPEN". Letter size = 1".

B. Ventilation: (Supply and Exhaust, Excluding Tank Vents)

Remove and seal as follows all mushroom vents, gooseneck vents, hooded vents and trunks that penetrate and stand above all the weather decks and are part of the ships natural and mechanical supply and exhaust systems.

Where a bolted flange exists, remove the above noted, including the control dampers by unbolting at the first flange above the weather decks.

Where a bolted flange does not exist accomplish the removals by cutting the trunks at not more than two (2) inches above the brackets at the weather deck penetrations. Where brackets do not exist, establish the cut at six (6) inches above the weather decks.

Tag all removals with non-ferrous metal tags stenciled with 1/4" high letters showing number of the vent system served and location. Stow and secure all removals below deck in an area designated by the MSTS Inspector.

Spot scale all ventilation mushroom vents, gooseneck vents, hood vents and trunks removed from weather decks for stowage below deck in D/H spaces.

Remove all loose paint, scale, rust and dirt from interior and exterior surfaces of the vents at their weather termini.

Vent systems that contain ventilation fans are being removed by another item in these specifications.

The foregoing shall include removal of all vents attached to booby hatches.

On completion of the above, close and seal the stump ends of each exposed vent system with No. 14-USSG galvanized steel blanks, seal welded all around the perimeter of each opening and make airtight by caulking with compound, Specification MIL-C-18969B Type II.

CATEGORY "A" ITEMS

ITEM 112 - AIRTIGHT CLOSURES: (CONTINUED)

C. Plenums:

Close and seal as follows all ventilation plenums located on the weather decks and house sides, serving the ventilation supply systems.

Remove all canvas covers in their entirety.

Remove the paint coatings to clean bare metal around the flat bar and angle bar framing surrounding each plenum opening.

Close each opening with No. 14-USSG, galvanized steel blanks, seal welded all around to the flat bar and angle framing noted above and make airtight.

Seal all drain openings in the plenums with No. 14-USSG, galvanized steel plate blanks, seal welded all around and make airtight by caulking with compound, Specification MIL-C-18969B Type II.

D. Bulkhead Penetrations: (Ventilation)

Close and seal as follows, all ventilation openings not equipped with watertight closures, penetrating and terminating at the weather bulkheads including all those serving both natural and mechanical exhaust and supply ventilation systems and all openings serving fan rooms.

Remove the paint coating to clean bare metal around the flat bar and angle bar framing and stub ends of vent trunks surrounding each opening.

Close each opening with No. 14-USSG, galvanized steel blank seal welded all around. Seal and close all those vents covered by half-sections of pipe, with seal welded blanks at each end and make airtight by caulking with compound, Specification MIL-C-18969B, Type II.

Close and seal as follows, all ventilation openings equipped with watertight closures penetrating and terminating at the weather bulkheads including all those serving both natural and mechanical exhaust and supply ventilation systems and all openings serving the fan rooms.

Clean all dirt, paint, rust, grease and oil from all gasket and knife edge surfaces.

Adjust all dogs and hinges. Caulk test to assure proper bearing of knife edges on gaskets.

Replace with new, all missing or damaged lugs, bolts, nuts, hinges and gaskets. Replace all composition gaskets with new rubber gaskets.

Apply rubber adhesive cement, equal to Specification MIL-A-5092-(AER) to all gasket and knife edge surfaces.

CATEGORY "A" ITEMS

ITEM 112 - AIRTIGHT CLOSURES: (CONTINUED)

When the applied adhesive is tacky and free of any foreign matter, close all vent covers and tightly dog down.

E. 03 Level House Vent:

The housing on the 03-level, frame 120 to 128 centerline has a screened natural vent opening built around the outer forward perimeter at the top of the bulkhead. Close this opening with a No. 14-USSG, galvanized steel blank seal welded all around, attached to the bulkhead plating and the lower edge of the house-top coaming plate and make airtight by caulking with compound, Specification MIL-C-18969B, Type II.

F. Overboard Discharges:

Remove all half round pipe guards installed on the shell plating port and starboard sides in way of overboard discharges.

Remove the overboard discharge guards forward of frame 146 port and starboard by scarf buring at the weld intersection of the shell plating.

Care shall be taken not to undercut the shell plating and the remaining portion of the welds shall be chipped off flush and smooth with the adjacent shell plating.

All overboard discharge guards from frame 146 to the stern shall be scarfed off at least two (2) inches from the shell plating.

The tanks in the areas of aforementioned overboard discharge guards are presently pumped to low suction and are not gas free.

The remaining portions of the overboard discharge guards shall be chipped off flush and smooth with adjacent shell plating.

Blank all the outer shell overboard discharge openings below the main deck with 1/4-inch thick seal welded mild steel blanks; approximately, but not limited to 60 openings from 4-inch to 8-inch diameter. Accomplish on completion of blanking of main deck drains as outlined on another item of these specifications. Paint interior of blanks with one coat of red lead MSTS Code 52.

G. Side Port Doors:

Seal a total of ten (10) side port doors as follows.

Free up and chase threads on all dog studs.

Straighten all dogs.

Clean all gasket faces and gasket bearing surfaces, removing all paints, oil, grease and rust.

CATEGORY "A" ITEMS

ITEM 112 - AIRTIGHT CLOSURES: (CONTINUED)

Coat all gasket faces and gasket bearing surfaces with adhesive equal to Specification MIL-S-5092-(AER).

When the applied adhesive is tacky and free of any foreign matter close all side port doors and tightly dog down.

On completion of the above, seal all inboard and outboard voids, cracks and crevices all around with a caulking gun applied sealer equal to Specification MIL-C-18969-B Type II.

H. Cargo Hatch Covers:

Remove the canvas covers and battens from four (4) weather deck cargo hatches. Stow below decks in area designated by the MSTS Inspector.

Make the hatch openings airtight by installing a No. 14 USSG, galvanized steel cover, over the entire hatch opening, seal welded to the hatch square framing and leaving the hatch pontoons in place for support.

HATCH SIZES

LOCATION

No. 2 - 21'6" x 25'0"
No. 6 - 13'0" x 25'0"
No. 7 - 13'0" x 16'0"
No. 3 - 12'6" x 25'0"

Main Deck, Frame 46-55
Main Deck, Frame 175-181
Main Deck, Frame 195-201
Boat Deck, Frame 67-74

I. Fire Pump Exhaust Silencers:

Remove the exhaust silencer bolted assembly of the forward and after emergency diesel fire pumps.

Blank the flanged ends of the exhaust piping with No. 14-USSG, galvanized steel plates, seal weld all around the flange inside diameter.

Approximate silencer locations:

Diesel Fire Pump, Forward, 1-23-0
Diesel Fire Pump, Aft, 1-192-0

J. Stowages:

Stow all removals specified in this item on 6 x 6-inch wood timbers and secure with wire fastened to staples on the decks or framing. Maintain a 24-inch clearance between the stowage and the ships vertical bulkheads and side plating.

CATEGORY "A" ITEMS

ITEM 112 - AIRTIGHT CLOSURES: (CONTINUED)

K. Test:

On completion of the above and coordinated with other related items of these specifications apply the following air tests.

Using a contractor furnished, 2000 CFM capacity exhaust fan or blower, installed and sealed in a suitable location, apply an air test to determine the airtightness of the closures prepared as specified in this specification item.

Six (6) zones will require testing.

Conduct the air test in accordance with NAVSHIPS Technical Manual, Chapter 9030, titled "Readiness and Care of Vessels in Inactive Status", Section 1, Part 2, 9030.95, as last amended.

Include testing of all electric cable stuffing tubes penetrating weather decks and bulkheads.

Leaks found shall be sealed with caulking gun sealer equal to Specification MIL-C-18969B Type II.

CATEGORY "A" ITEMS

ITEM 113 - CO₂ SYSTEM INACTIVATION OF: (MAC)

Under the supervision of the manufacturer's representative disconnect and remove all remote controls serving the fixed CO₂ flooding systems.

Disconnect all pull cables, coil and stow adjacent to cylinder stowage.

Spray non-rust lubricant on all cutter valves, control and flex loops.

Disconnect the hose connections from each control valve at each CO₂ cylinder. Remove the control valve from each cylinder and stow as directed by the MSTSP Inspector.

The cylinders are in the following locations.

Forty-five (45)	100 lb.	Main CO ₂ Room
Two (2)	50 lb.	Fwd. Eng. Room
Two (2)	50 lb.	Aft. Eng. Room
Three (3)	50 lb.	Emerg. Gen. Room
One (1)	50 lb.	Fwd. Lamp Locker
Two (2)	50 lb.	Aft. Paint Locker
Two (2)	50 lb.	Fwd. Fire Pump Room
Two (2)	50 lb.	Aft. Fire Pump Room
Two (2)	50 lb.	Fwd. Paint Locker

CATEGORY "A" ITEMS

ITEM 114 - SAFETY RAILS, REMOVAL OF: (MAC)

Remove the four (4) course pipe safety rails flush with the deck in way of the twelve (12) lifeboat stations on the 01 deck, port and starboard sides and at the two (2) lifeboat stations on the maindeck at frame 162 port and starboard sides.

Install a two (2) course wire rope safety rail at each lifeboat station, complete with padeyes, shackles and turnbuckles. The new wire rope safety rails shall be installed flush with the outboard periphery of the ship at each station.

Stow the removed pipe safety rails on the main deck adjacent to the deck house and securely wired to pipe handrails on the deck house bulkhead.

Identify each removed section of safety rail with non-ferrous metal tags denoting the location from which the rail was removed.

CATEGORY "A" ITEMS

ITEM 115 - TOPSIDE REMOVALS: (MAC)

Remove items listed below from weather deck locations and stow in area of holds designated by the MSTSP Inspector.

All components removed herein shall have a non-ferrous metal tag attached indicating frame number and deck location from which removed.

All material stowed shall be placed on pallets or wood bearers and raised not less than six (6) inches above the decks and twenty-four (24) inches away from ships verticle structural members to allow free circulation of air and periodic inspection.

All wiring associated with removals shall be tagged with non-ferrous metal tags identifying equipment from which removed and shall be pulled back inside the ship.

Disconnect piping to Kidde smoke detecting unit and remove piping back to within the ship.

All openings resulting from removals shall be blanked with air tight closures welded in place and caulked with sealer specification MIL-C-18969B Type II.

<u>ITEM</u>	<u>QUANTITY</u>	<u>LOCATION</u>
(a) Man Overboard Smoke Signal Stowage Boxes	4-each	03 Deck, Fr. 85 Port & Stbd.
(b) Smoke Signal Boxes	2-each	04 Deck, Fr. 90 Port & Stbd.
(c) Name Boards	2-each	04 Deck, Fr. 83 Port & Stbd.
(d) Lyle Gun Stowage	1-each	04 Deck, Fr. 90 Centerline
(e) Flag Bags	2-each	03-Deck, Fr. 93 Port & Stbd.
(f) Kidde Smoke Detecting Unit	1-each	04 Deck, Fr. 95 Port
(g) Lifeboat Stations Debarkation Ladders	14-each	01 Deck, Port & Starboard
(h) Insurance Wire Reels	2-each	Fr. 211, Fr. 33 Main Deck
(i) Garbage Chute	1-each	Main Deck, Stern

(CONTINUED)

CATEGORY "A" ITEMS

ITEM 115 - TOPSIDE REMOVALS: (MAC)

<u>ITEM</u>	<u>QUANTITY</u>	<u>LOCATION</u>
(j) Shore Power Cable Reel	1-each	Main Deck, Fr. 204, port
(k) Jackstaff	1-each	Main Deck, Stern
(l) Deck Gear Stowage Lockers	2-each	03 Deck, Fr. 103, Port & Stbd.
(m) Bridge Wood Gratings		03 Deck, Port & Stbd.
(n) Lifejacket Lockers	2-each	Fr. 58, Main Deck Port & Stbd.
	2-each	Fr. 61, 01 Deck Port & Stbd.
	4-each	Fr. 144, 01 Deck Port & Stbd.
	6-each	Fr. 160, 01 Deck Port & Stbd.
	2-each	Fr. 161, 01 Deck Port & Stbd.
	2-each	Fr. 170, 01 Deck Port & Stbd.
	2-each	Fr. 182, 01 Deck Port & Stbd.

CATEGORY "A" ITEMS

ITEM 116 - INSTALLATION OF DEHUMIDIFICATION SYSTEM: (MAC)

Reference (a) Plan No. T-AP 110-502-1173134 titled, "Dehumidification Diagrammatic Arrangement"

Reference (b) Plan No. S3805-1507266 titled, "Dehumidification Preservation of Steam Propulsion Plant Installation"

Install six (6) government furnished 500 CFM dry air discharge dehumidification machines, one (1) each in the six (6) airtight zones in accordance with reference (a) and (b) and as hereinafter specified.

Install No. 26 ~~US64~~ galvanized steel, sheetmetal, lock seam airtight round duct for distribution of D/H air within each zone from the D/H machine, for horizontal runs.

Elbows installed in steel ducts for further distribution of air shall be secured and made airtight at their connections, with fire resistant tape ASTM specification D626.

Install spool pieces where penetrations of bulkheads are required within the zones.

Install flame proof vinyl coated wire inserted, airtight duct for vertical runs between ducts and vertical drops within ladder wells.

All ducting shall be installed and sufficiently secured as near as practicable to the overhead of passageways, compartments, berthing areas, engine rooms, auxiliary machine spaces and storerooms in such a manner that they will not obstruct the passage of personnel in compartments.

Where reference (a) delineates the installation of D/H air into tanks and cofferdams remove the manhole covers and store near their respective manhole openings.

Fit each manhole opening with heavy gauge, steel, expanded metal cover bound all around with a 1-1/2-inch by 1-1/2-inch by 3/16-inch steel angle shaped to fit the bolt circle of the manhole cover securing studs. Install a No. 14 galvanized steel spool piece through and tack welded to the expanded metal manhole covers to receive the vinyl coated wire inserted airtight vent ducts. Secure each expanded metal cover to the manhole studs with four (4) existing nuts.

Accomplish necessary removals and cut openings as required for distribution of D/H air, and cut accesses to compartments as shown on reference (a).

Install sheetmetal airtight ducting from each D/H machine to the atmosphere for ingress of fresh air and egress of wet air exhaust.

(continued)

CATEGORY "A" ITEMS

ITEM 116 - INSTALLATION OF DEHUMIDIFICATION SYSTEM: (MAC) (CONT'D)

Openings shall be cut through bulkheads to the atmosphere at the closest location to the D/H machine where fresh air intakes and wet air exhaust are required.

Install in an airtight manner a 5.1 pound galvanized steel flanged spool piece at each bulkhead opening to receive the ducts. On the weather side of each bulkhead penetration, install a 45 degree elbow turned down. On each elbow terminus install a screen of 1/2-inch mesh galvanized bound all around with a No. 16 USSG galvanized steel binding strip secured with brass fasteners.

The wet air exhaust ducts from the D/H machine shall be sloped to provide drainage of water exhausted from the machines.

Install damper regulators in sheetmetal ducts, for modulation of D/H air within zones, as shown on general notes of reference (a).

Secure D/H machines to deck with studs and nuts to prevent movement.

Install temporary airtight seals at the top of the chain pipes at the anchor windlass, 01 Deck level prior to conducting the air test of zone one (1).

Upon completion of all installations conduct a test of all D/H machines and prove in proper operation.

Conduct an forty-eight (48) hour continuous operational test of the six (6) dehumidification machines to prove proper operations of the entire systems.

Provide the services of a Ventilation Engineer to check and balance the dry air distribution of all D/H systems. Record the quantity of air flowing, cubic feet per minute, at the terminus of each D/H vent duct.

Submit record of the as installed condition, noting the recorded cubic feet per minute of each duct terminus, to MSTSPAC Code P-4E4 via the MSTS Inspector.

Additional copies of reference (a) and (b) will be submitted to the contractor for the foregoing recording.

Install 50 per D/H zone, paint stencilled arrows to indicate the location and number of the D/H machine and the location of the humidistats in each zone.

Work specified in this item shall be accomplished in conjunction with Items titled, "Dehumidification Electrical" and titled, "Dynamic Dehumidification Steam Propulsion Plants" which form part of these specifications.

CATEGORY "A" ITEMS

ITEM 117 - SECURITY LOCKERS: (MAC)

Cut two (2) one (1') foot square holes near the top of each of the fore and aft bulkheads of designated security lockers, in ship's sales exchange, main deck and install heavy gauge expanded metal screens complete with retaining frames on the interior side of the lockers. The foregoing spaces shall be fitted with locking bars across the entrance doors.

Upon direction of the MSTS Inspector, install welded flat bar exterior locking bars to the door frames or bulkhead with the doors in their closed positions.

Accomplish all of the aforementioned work in a one (1) day working shift and in the presence of ship's personnel.

CATEGORY "A" ITEMS

ITEM 118 - STACK AIRTIGHT CLOSURES: (LJM)

LOCATION: Forward Main Stack and After Main Stack

Seal and make airtight, the forward and after stacks as follows.

Clean the internal areas of the outer stack from the 03-level to the top stack deck.

Clean the external areas of the inner stack from the forced draft blower compartment overhead to the top stack deck.

Remove all loose rust, loose paint, soot, dirt and dust from all structural bracing, framing, piping, gratings, ladders, decks, vertical stack plating and forced draft blower intake casings.

Surfaces shall be cleaned by broom sweeping augmented by vacuum process.

Emergency Diesel Generator Room, Forward Stack, 03-Level:

Seal and make airtight, as follows, the watertight closures covering the forward air intake for the diesel generator and the port and starboard natural exhaust louvers on the starboard side of the emergency diesel generator room. Doors are approximately 3'-0" above the 03-deck. Doors are in two (2) sections.

Remove in their entirety, all gaskets for the above closures and install new cemented in place rubber gasketing all around. The existing gasketing is canvas or other composition and there are no knife edges. Bearing surfaces for gaskets are flat.

Free up and adjust all dogs and hinges and replace with new, any missing or worn parts.

Clean the steel gasket bearing surface of all the closure frames to clean bare metal. Coat all the bare metal surfaces and gasket faces with rubber adhesive equal to Specification MIL-A-5092 (AER). When the applied adhesive is tacky and free of any foreign matter, tightly dog down each closure and seal all remaining voids, crevices, or other openings with a gun applied caulking compound equal to Specification MIL-C-18969B, type II.

Closing of watertight door in the generator room will be accomplished on another item of these specifications titled, "Airtight Closures".

Forward and After Stack, Top Watertight Deck:

Remove the ship's inner stack cover and lashing gear and stow below decks in a location designated by the MSTS Inspector.

Cut one (1) inch diameter limber holes in each vertical plate and angle bracket around the perimeter of the outer stack deck..

Cut two (2), two (2) inch diameter drain holes immediately above the stack deck bounding angle and located one (1) each port and one (1) each starboard of the after centerline of each stack.

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CATEGORY "A" ITEMS

ITEM 118 - STACK AIRTIGHT CLOSURES: (LJM) (CONTINUED)

Seal as follows, two (2) sleeved openings, approximately two (2) inches in diameter, located below the lower watertight after half deck, one (1) each port and one (1) each starboard of the after centerline. Plug each opening with a No. 14 USSG steel cap plates seal welded all around to the sleeves.

Airtightness test for all of the above shall be accomplished as outlined in another item of these specifications titled, "Airtight Closures".

Cut two (2) 6-inch by 6-inch holes in the forward and aft inner stacks to allow egress of D/H air to the outer stack. Hole shall be cut one foot below the top stack deck. A total of four (4) holes are required.

Seal off the after deck drain in its entirety with $\frac{1}{4}$ -inch thick, mild steel, doubler plate, seal welded all around to make watertight.

Seal off the top of the inner stack with a $\frac{3}{16}$ -inch thick, mild steel cover plate, seal welded all around to make air and watertight.

Where the inner stack, galley smoke pipe and all other exhaust, water or vent piping penetrate the top deck plating without a watertight connection, seal and make air and watertight as follows.

Install a cone shaped $\frac{1}{8}$ -inch, mild steel, plate seal welded all around with the bottom diameter larger than the inner stack deck penetration and the top diameter equal to the outside diameter of the inner stack. The cone shall completely cover the inner stacks galley smoke pipe and all other exhaust or vent piping deck penetrations.

Seal and make water and airtight with a $\frac{1}{8}$ -inch thick, mild steel, seal welded all around, insert plate, on all atmospheric terminals of all galley smoke pipe and all other exhaust or vent piping terminating above the stack top decks.

Remove the top deck access cover plates and coamings in their entirety and install a new 18-inch diameter, quick acting, raised scuttle, with the handwheel below and installed on a 4-inch coaming. On completion of work, seal the scuttle and make watertight and airtight as outlined on another item of these specifications titled, "Airtight Closures".

Galvanized plating is required for all the above specified closure plates.

Close the eight (8) natural vent openings in each stack as follows.

Openings are in the outer stack plating, below the top deck and are located four (4) each port and four (4) each starboard aft of the transverse centerline of the stacks.

Openings are approximately 24" x 60" with 2-inch radius on all corners.

Seal the eight (8) openings in the stacks with No. 14 USSG galvanized steel blanks seal welded, airtight, all around the inside perimeter of each opening and

(CONTINUED)

CATEGORY "A" ITEMS

ITEM 118 - STACK AIRTIGHT CLOSURES: (LJM) (CONTINUED)

make airtight.

On completion of all work clean and paint in the following areas.

Weather sides of each stack top deck.

Inboard sides and framing of each outer stack casing extending above each stack top deck.

All new installations on and above each stack top deck.

All piping, atmospheric exhausts and inner stack plating extending above each stack top deck.

Clean to bare metal, the above specified areas in their entirety, using scrapers, chippers, wire brushes or other approved method.

Brush or roller apply to all prepared surfaces, one (1) overall coat of "WETSALL" No. 3240, red primer as manufactured by the Farboil Company or equal material as approved by the Contracting Officer.

Brush or roller apply to all prepared and primed surfaces one (1) overall finish coat of "WETSALL" No. 3241, gray primer as manufactured by the Farboil Company or equal material as approved by the Contracting Officer.