COMPARTMENT DAMAGE CONTROL MARKING GUIDE

Many thanks for the help and support from the DC Dept on

USS ABRAHAM LINCOLN (CVN 72)

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ANY QUESTIONS REGARDING DC MARKINGS SHOULD BE ADDRESSED TO THE DCA, ADCA, OR FIRE MARSHAL!

COMPARTMENT NUMBERING

Compartments are numbered for identification to facilitate location. The identification number assigned locates each compartment specifically and generally indicates the function and use of the compartment. Compartment numbers consist of four parts, separated by hyphens, in the following sequence:

a. Deck number
b. Frame number
c. Position in relation to centerline of ship
d. Use of compartment.

Deck Numbering. The main deck is numbered 1. The first deck below the main deck is numbered 2; the second below is numbered 3, and the numbers continue consecutively for subsequent lower division boundaries. If a compartment extends down to the shell of the ship, the number assigned the bottom compartment is used. The first horizontal division above the main deck is number 01, the second above is number 02, and the numbers continue consecutively for subsequent upper division boundaries.

Frame Numbering. The frame number at the foremost bulkhead of the enclosing boundary of a compartment is the frame location number. If the forward boundary is located between frames, the number of the foremost frame within the compartment is used. Fractional numbers are not used except where frame spacing exceeds four feet.

Position in Relation to Centerline. Compartments located so that the centerline of the ship passes through them are assigned the number 0. Compartments located completely to starboard of the centerline are given odd numbers, and those completely to port of centerline are given even numbers. The first compartment outboard of the centerline to starboard is 1, the second is 3 and so forth. Similarly, the first compartment outboard the centerline to port is 2, the second is 4 and so forth. There may be cases in which the centerline of the ship would pass through more than one compartment, all of which may have the same forward bulkhead number. Wherever this occurs, that compartment having the portion of the forward bulkhead through which the centerline of the ship passes is assigned the number 0 and the others carry numbers 01, 02, 03, etc.

Compartment Use. A capital letter is used to identify the assigned primary use of the compartment. Only one capital letter is assigned, except that on dry and liquid cargo ships a double-letter identification is used to designate compartments assigned to carry cargo. The letters are selected in accordance with the following:

A– Storage areas such as Issue Rooms, Refrigerated Stores, Storerooms

AA– Spaces such as Cargo Holds, Cargo Refrigerated Compartments

C– Ship and fire control operating spaces that are normally manned, such as Combat Information Center (CIC), Communications Office, Electronic Operating Areas, Pilothouse, IC Rooms, Plotting Rooms

E– Machinery spaces that are normally manned, such as Auxiliary Machinery Rooms, Evaporator Rooms, Main Machinery Areas, Pump Rooms, Refrigerating Machinery Rooms, Emergency Generator Rooms, Steering Gear Rooms

F– Oil tanks such as DFM, NSFO and lubricating oil

G– Gasoline (MOGAS) tanks and cofferdams

GG– Cargo gasoline (MOGAS) tanks and cofferdams

J– JP–5 tanks

JJ– Cargo JP–5 tanks

K– Stowage of chemicals and hazardous materials, except oil and gasoline (MOGAS)

L– Living quarters, medical and dental areas and passageways

M– Ammunition (stowage and handling)

Q– Areas not otherwise covered, such as engineering, electrical and electronic areas that are not normally manned, galley, laundry, offices, pantries, shops and wiring trunks

T– Vertical access trunks

V– Void compartments, such cofferdams (other than gasoline tank cofferdams) and void or ballast wing tanks

W– Compartments storing water, including bilge, sump and peak tanks.

EXAMPLE: "2–152–3–L" is a compartment located on the second (2) deck with its forward boundary located at frame (152). It is the third (3) compartment to the starboard side of the ship's centerline at that frame. It is either a living quarters, a medical or dental space or a passageway (L).

Systems Markings. Systems markings frequently make use of abbreviations. A list of authorized abbreviations for damage control usage is provided at the end of this pamphlet.

DECK PLATE MARKINGS

The inscribing of deck plate covers, such as sounding tube caps, tank and void covers, shall be in accordance with drawing NAVSHIPS No. 810–1385848. In addition, a label plate having the same inscription content marking a tank or void cover shall be mounted on the nearest adjacent bulkhead, stanchion or other permanent structure at a distance not less than 12 inches or greater than 36 inches above the deck.
The first line of the plate inscription shall be the deck plate basic location timber. The second line shall identify the system function and the third line shall indicate the number of the tank or void.

EXAMPLE:
3-78-1
VOID
4-74-1-V

Sounding tube caps and remote operator valves can be labeled on the cap or a label plate can be mounted on the bulkhead with the tank or main valve number and the classification.

EXAMPLE:
2-24-3
BALLAST
6-24-1-V
X

DAMAGE CONTROL LABEL PLATES

Label plates with more than three lines of lettering shall be engraved, etched, or photographically reproduced, but not embossed or indented. The style of lettering shall be Uppercase Gothic conforming to Mil. Std. MS33558. The size of the letters shall be a minimum of ¼ inch high. Label plates fitted in the weather and high humidity areas shall be made of corrosion-resisting steel. Arabic numerals shall be used. Label plates for access closures shall be combined with the compartment designation plates. The first line of the inscription shall give the access closure number; the second line the name of the compartment to which access is provided; and the third line, the compartment number.

EXAMPLE:
2-16-2
CPO STOREROOM
2-14-2-A

Label plates for access closures located in a normal route to and serving several compartments shall indicate all compartments served. The name and number of the first compartment entered shall be placed highest and the compartments on the same level entered from it shall be listed under and indented. Only the topmost hatch and the highest point of direct entry to a trunk through a door shall list all the names and numbers of the compartments below for which access is provided.

Damage Control Closure Classification. Damage Control closure classification label plates shall have colors complying with the following:

W (WILLIAM) - Black Lettering
X (X-Ray) -Black Lettering
Y (YOKE) - Black Lettering
Z (ZEBRA) – Red (with black outline)

Circle W – Black lettering with Black circle around the W
Circle X – Black lettering with Black circle around the X
Circle Y – Black lettering with Black circle around the Y
Circle Z – Red lettering with Black outline and a Red circle with black out line
Dog Zebra – Red Z inside a black D

Access closure classification plates shall be 4 inches square wherever that size can be used; otherwise, the size may be reduced provided legibility is maintained. Pressure-sensitive vinyl closure classification labels, Mil.Spec. MIL-M-43719, type I, class 1, shall be used where such labels can be installed on vertical surfaces and on the undersides of hatches, manholes, and scuttles. Vinyl closure classification labels shall not be used for the following:

Spaces where temperatures exceed 125 degrees F
Foot traffic areas
System valves and fittings
Weather deck areas

All label and classification plates shall be mounted for maximum visibility. Where access closure covers hinge against a bulkhead, label plates shall be installed on the bulkhead just above the open position of the cover. Where access closure covers do not hinge against a bulkhead, the label plates shall be fitted on both sides of the cover about 6 inches from the edge on the side opposite the hinges.

Door and compartment designation plates shall be located on the bulkhead above the door. Where space above the door is insufficient, the label plates shall be located on the bulkhead adjacent to the door on the side away from the hinges. A stateroom or bunkroom label plate shall be located on the bulkhead outside each room over the center of the entrance.

Sounding tube caps and remote operator valves can be labeled on the cap or a label plate can be mounted on the bulkhead with the tank or main valve number and the classification.

EXAMPLE: A sounding tube cap for the Ballast sysytem that is located on the second deck will read:

2-24-3
BALLAST
6-24-1-V
X

Hazard and Warning Signs. Warning signs for magazine spaces shall be pressure sensitive vinyl or painted labels, 5 by 9 inches in size, and shall identify the external side of boundaries of ammunition stowage spaces. The label shall consist of ¾-inch black letters bordered by black slanted lines, all on a yellow background, with the words as follows:

EXAMPLE:
WARNING
AMMUNITION
FAR SIDE

For escape scuttles a label plate shall be installed on top of escape scuttles inscribed with 1 inch red letters as follows:

EXAMPLE:
WARNING
ESCAPE SCUTTLE
DO NOT OBSTRUCT
OR BLOCK

Tanks and voids require the following label plate:

EXAMPLE:
DANGER
THIS SPACE MAY CONTAIN DANGEROUS
GASES OR LACK ADEQUATE OXYGEN FOR LIFE.
BEFORE ENTERING, SPACE MUST BE CERTIFIED
BY GAS-FREE ENGINEER. CALL_____
FOR CERTIFICATION.

DAMAGE CONTROL MARKING SYSTEM

The primary purpose of the damage control marking system is to provide rapid emergency egress information and to identify the locations of selected damage control systems and equipment. Photoluminescent and retro–reflective materials are used to enhance damage control and emergency awareness to personnel. Self–adhesive signs, labels, letters and tape are an authorized application means to replace painting, applications that are no longer serviceable or effective. The highest priorities are given to egress markings, fixed DC systems, fire stations and portable damage control equipment. The photoluminescent marking system works as negative imagery designed to absorb energy from any nearby ambient light source such as fluorescent or incandescent lighting. When the light source is removed, the material immediately emits a light of its own. Maximum luminance is up to one hour, but it remains visible up to eight hours to dark–adapted eyes. Photoluminescent material can be reactivated an unlimited number of times if properly applied. Retro–reflective material stands out when exposed to a shining light. Damage control markings may be retro–reflective, photoluminescent or a combination of both, depending on the marking's purpose. Photoluminescent material may be paint, tape or adhesive labels. Use of photoluminescent material for purposes other than those specified herein
is not authorized. Photoluminescent and retro–reflective materials shall not be applied in areas exposed or opening to weather decks, such as the pilot house, gear lockers and light traps. Only NAVSEA–approved photoluminescent and retro–reflective materials are authorized for shipboard use.

Durability. The damage control marking system must withstand normal shipboard environments including humidity, abrasions from cargo and equipment transfer, normal cleaning and maintenance actions. The markings must perform with no measurable chipping or significant decrease in luminance for a minimum of three years when applied according to the guidelines and requirements for surface preparation and application. Successful application requires detailed surface preparation procedures for proper adhesion and requires more attention than normal shipboard painting procedures. Base coat and thickness of application of photoluminescent paint is very important. Attention to detail on stencil paint application to avoid such things as bleeding and drips is of vital importance. For proper adhesion, it is extremely important to properly prepare the surface area.

General Application. Under no circumstances are photoluminescent markings to be applied on weather decks or areas where they may be visible from weather decks. Also, photoluminescent markings will not be used in areas that normally remain dark and unoccupied (i.e., fan rooms, closets, gear lockers and storerooms). Red or blue light will not energize the materials and use in these areas is optional. Areas where photoluminescent and retro–reflective materials are not allowed or desired will be marked using standard striping paints or non–reflective labels or placards. When using paint, whether photoluminescent or standard, the stencil provided is the size of the painted background area, and may be used as a template.

a. Surface Preparation.

1. Degrease surface with detergent such as general purpose detergent spray. Rinse and let dry.

2. Lightly abrade with 120-grit sandpaper to roughen surface.

3. Wipe off dust with a damp cloth.

4. Dry the surface with a clean cloth.

b. Paint Specific Application.

1. Mix each paint thoroughly before use.

2. If painting on bare steel, use shipboard epoxy–based primer under white primer.

CAUTION

Do not paint CRES

3. Apply one coat of white primer. Let dry four (4) hours.

4. If kit–supplied primer is expended, the following paint shall be used as a primer:

1 gallon, NSN 8010–00–045–3478

5 gallons, NSN 8010–00–463–7063

5. Apply two (2) coats of photoluminescent paint, waiting 2.5 to 3 hours between coats. Remove masking tape after second coat of photoluminescent paint has been applied. (For best results, remove while paint is still wet and pull from center of sign outward).

6. After second coat of photoluminescent paint has dried for 2.5 to 3 hours, apply one (1) coat of clear sealer, allowing the sealer to overlap the edges of the photoluminescent paint. Let dry completely.

CAUTION

Do not stencil before the clear sealer has been applied and thoroughly dried (8 hours).

7. Apply stencil coat where required. The stencil paint, which is standard shipboard striping paint, may be applied using spray cans (surface ships only) or a stencil brush (NSN 7520–00–223–8000). Spray paint NSN's are as follows:

Red Color 11105, NSN 8010–00–721–9743

Black Color 17038, NSN 8010–00–079–3752, or NSN 8010–00–290–6984

Green Color 14062, NSN 8010–00–141–2951

MARKINGS APPLICABLE TO ALL SHIPS

a. Frame markings are to be applied to the frame or bulkhead at least once in each compartment less than 14 feet in fore–and–aft length as near the mid–distance as practical. For compartments greater than 14 feet in fore–and–aft length, one frame location marking is to be applied every 14 feet. Lettering is to be 2 inches high, with a one–inch border on all sides, a maximum of five feet above deck level. The letter and number sizes may be reduced for submarine applications.

b. Aqueous potassium carbonate (APC) extinguishing system markings are to be installed as near as practical to immediately above the actuators.

c. The markings for portable and installed firefighting systems and extinguishers are to be located as near as practical to immediately above the extinguisher, hose reel or actuator. The application of these markings directly to the cylinder is prohibited by Federal regulation.

d. Provide vertical or horizontal markings for the OBA and EEBD storage cabinets and OBA canister stowage cabinets. These markings are to be applied to the door of the cabinet that is normally visible. EEBD stowage cabinets installed under berths shall not be marked.

CAUTION

Do not apply markings directly to OBA or EEBD.

e. Letter colors are as follows:

RED STENCILED LETTERING FOR PAINTED SURFACES (Color No. 11105, Formula 40) or RED RETRO–REFLECTIVE STENCILED LETTERING FOR SELF–ADHESIVE SURFACES

- Battle Dressing Stations
- DCREL
- DCRS
- DCUL
- DCUPS
- EAB
- EEBD
- Exits with Arrows
- Exits
- Fire Plug Bull's Eye (Interior)
- Fire Zone BHD
- Firefighting System Actuators
- OBA
- OBA Canister
- Red Cross Symbols
- SCBA
- SCBA Cylinders

BLACK STENCILED LETTERING FOR PAINTED SURFACES (Color No. 17038, Formula 38) or BLUE RETRO–REFLECTIVE STENCILED LETTERING FOR SELF–ADHESIVE SURFACES

- Compartment Bull's Eye (Interior)
- Frame Numbers

GREEN STENCILED LETTERING FOR PAINTED SURFACES (Color No. 14062, Formula 39) or GREEN RETRO–REFLECTIVE STENCILED LETTERING FOR SELF–ADHESIVE SURFACES

- "No Exit"
- Decon Arrow with "D"
- Decon Stations

NOTE

Ships with Exit Signs painted green fulfill the requirement as is. Replacement of Exit markings should be red retro–reflective material.

f. Black paint (Color No. 17038, Formula 38) will be used for all lettering on the following labels. Where it is not appropriate to apply photoluminescent material, the background colors listed below will be used.

- Fire Station Red
- Compartment Yellow
- Frame Number Yellow
- Firefighting System Actuator Red
- Portable Extinguisher Red
- Fire Zone Red

LOCATION OF MARKINGS.

a. The bottom edge of EXIT signs and arrows are to be no lower than 12 inches above the deck or higher than 36 inches. Where more than one sign is required in the same location, the top of the highest sign is to be no higher than 36 inches above the deck.

b. EXIT signs with arrows are to be located within 5 feet of each access (door, hatch) to a compartment, except where the access opens directly to weather. The arrow direction is to indicate nearest egress route to weather area (i.e., main deck, hangar, and flight deck). Subsequent EXIT signs and arrows are to be no more than 15 feet apart within the same compartment and along the bulkhead at each ladder. Arrows may be angled to point up or down ladders. Frame and Direction markings are depicted in Figure 1.

c. All EXIT signs and arrows are to be on the same side of the compartment or passageway insofar as practical and are to be located in areas that receive direct lighting for excitation and are easily seen from the surrounding area.

d. Double directional arrow EXIT signs (<—EXIT—>) are to be used in areas where an athwartship passage will provide access to egress routes to weather in either direction such as large berthing areas.

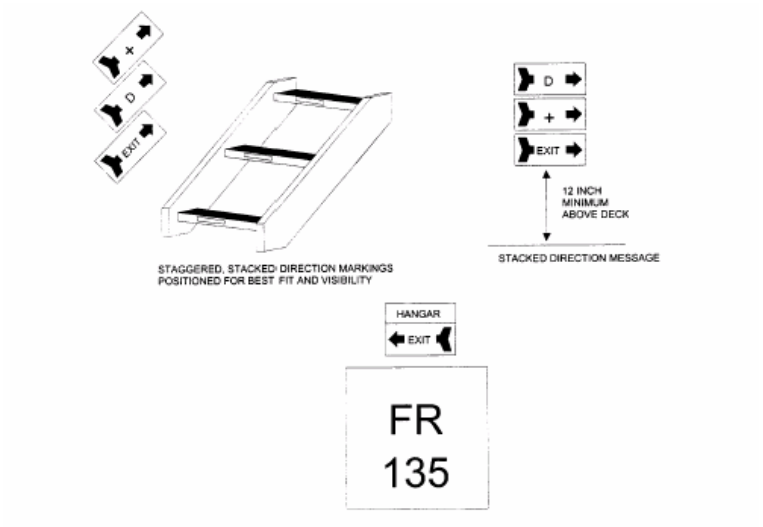

Figure 1

e. In compartments having dual egress routes through the space, both routes are to be marked.

f. Egress routes leading either to the hangar or flight deck, but not both, are to be marked with a specific exit sign stating, FLIGHT DECK or HANGAR, above the exit arrow.

g. Signs reading NO EXIT are to be placed where easily seen at the entrance into blind or dead–end passageways.

h. Where required, first aid and decontamination directional markings are to be stacked above previously applied egress markings as indicated. In instances where stacking is required, the EXIT marking will always be the bottom sign and the first aid directional marking will always be the top sign. The bottom edge of the lowest markings is to be no lower than 12 inches above deck level. The uppermost marking is to be no higher than 36 inches from the deck, except when a HANGAR or FLIGHT DECK strip must be added to a three–high sign stack.

EXAMPLES:

1	2	3
<— + —	— + —>	— + —>
<— D —	— D —>	<— + —
<– EXIT –	<– EXIT –	<– EXIT –

4	5	6
— + —>		
— D —>	— + —>	<— D —

i. Each door passed through along egress routes will be marked by photoluminescent strips around the outside perimeter to illuminate the opening as shown in Figure 2. The size of strips can be tailored to fit the door requirements. A minimum of one strip on each side, one above and one below the opening will be used. The same applies to openings without doors that must be stepped through along the route (i.e., knee–knockers, open man–ways). The word EXIT is to be placed on each door in a normal egress route, six inches above the bottom of the door. This includes doors of berthing compartments and workspaces. Doors opening to weather are not to be marked. Marking of doors leading out of staterooms is optional.

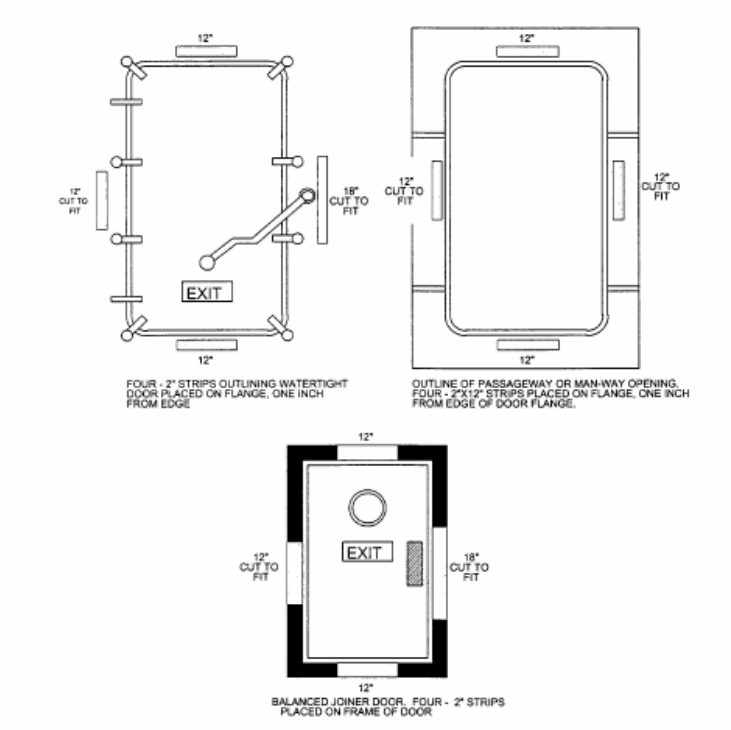

Figure 2

j. Balanced doors serving machinery spaces shall have an EXIT marker applied in the center of the door only.

k. The side of a hatch coaming where the ladder attaches will be marked with a photoluminescent strip to indicate the location of the coamings, as shown in Figure 3. Scuttles shall be marked with photoluminescent strips, also depicted in Figure 3.

l. Kickout panels are to have the word EXIT placed in the center of the panel. Kickout panel borders are to be marked around the entire perimeter with a six–inch photoluminescent strip on each side.

m. Inclined ladders are to be marked by applying photoluminescent strips on the inner frame, alternating sides with each step. The handrails will be marked with six bands wrapped on each side, as shown in Figure 4. Ladders having folding–leaf ladder chutes installed are to have alternating strips applied to the chute when in the stowed position. Ladders leading to hatches which open to weather are to only have photoluminescent material applied half the distance from the bottom of the ladder to avoid being visible when the hatch is open.

n. Vertical ladders are to have photoluminescent strips applied to both rails along the entire vertical length, alternating sides with each rung, also shown in Figure 4. Vertical ladders leading to scuttles that open directly to weather are to be marked only to midpoint of the ladders' vertical length from the bottom of the ladder. Wrap–around escape trunk ladders will be marked with a band of material wrapped around the ends of alternating rungs.

o. Entrance doors to damage control spaces shall be painted red. Retro–reflective signs shall be used to identify the space. Examples are DCRS 2, DCUPS 21, DCUL 31 and DCREL 5R, with the numbers placed below the letters.

p. Compartment bull's eyes are to be applied in each space or compartment to identify the space, setting forth the frames that bound the space and the division responsible. An example is shown in Figure 5.

1. A bull's eye should be visible from each access to the space.

2. Lettering will be two–inches in height applied over a 12–inch high by 15–inch wide photoluminescent label or yellow painted area.

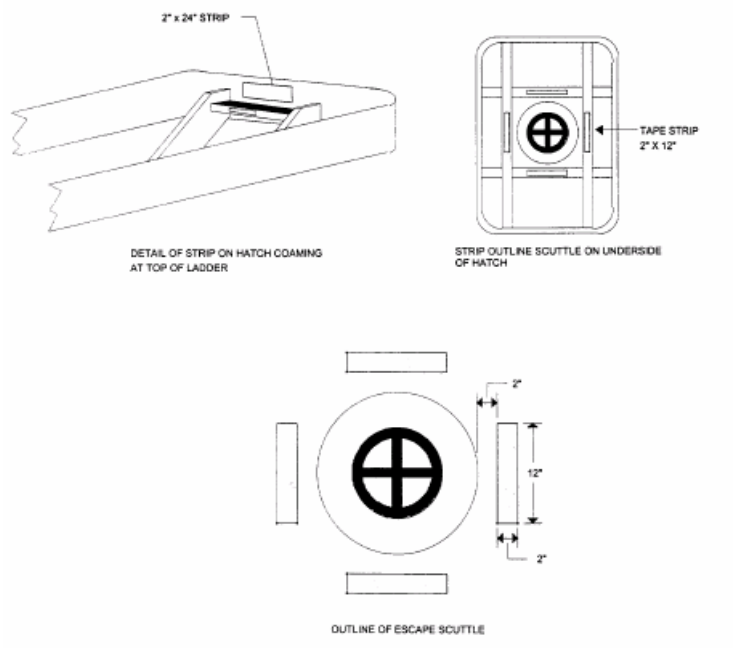

Figure 3

3. For photoluminescent adhesive material, use blue retro–reflective lettering, two inches high; for painted bull's eyes, use black lettering, two inches high.

q. Interior fire station bull's eyes are to be applied as near as possible to each interior fire plug, sized to best fit the area available, preferably immediately above the fire plug valve. Figure 5 also depicts fire station markings.

1. The bull's eye will identify the fire plug number and the valve number(s) necessary to isolate the fireplug in the event of damage.
2. Photoluminescent painted area background is 12 inches high by 15 inches wide and has red painted lettering, two inches high.
3. Photoluminescent adhesive material is 12 inches high by 15 inches wide with red retro–reflective lettering, two inches high.
4. Red painted area background is 12 inches high by 15 inches wide with white lettering, two inches high.

r. Firemain segregation valves classified ZEBRA are no longer to be identified with photoluminescent markings.

s. All bulkheads designated as fire zone bulkheads in general arrangement drawings, ship's damage control diagrams or the ship's damage control book are to be marked on both sides, as near the doors as practical. These markings are to be applied at eye level in an unobstructed location. The fire zone bulkhead serving as a boundary in any compartment is to be marked at least once. Tanks and voids are not to be so marked.

t. AFFF markings are to be applied at each actuation point, such as solenoid operated pilot valves (SOPV) not within an AFFF proportioning pump station and on bilge sprinkling actuators. Photoluminescent and retro–reflective markings will not be used at exterior (weather deck) locations.

u. Actuators for Halon flooding systems are to be identified by a photoluminescent marking, HALON on the actuator bottle cover as close to the actuator as possible.

v. EAB manifolds are to be marked with a six–inch wide strip of photoluminescent material in the center of the manifold. If EAB manifolds are recessed in the overhead, place an EAB stencil directly adjacent to the opening.

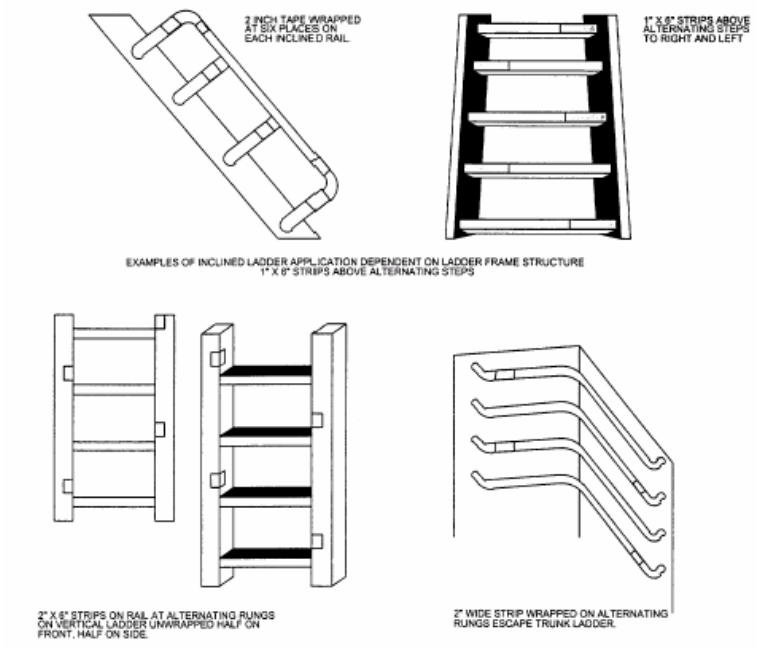

Figure 4

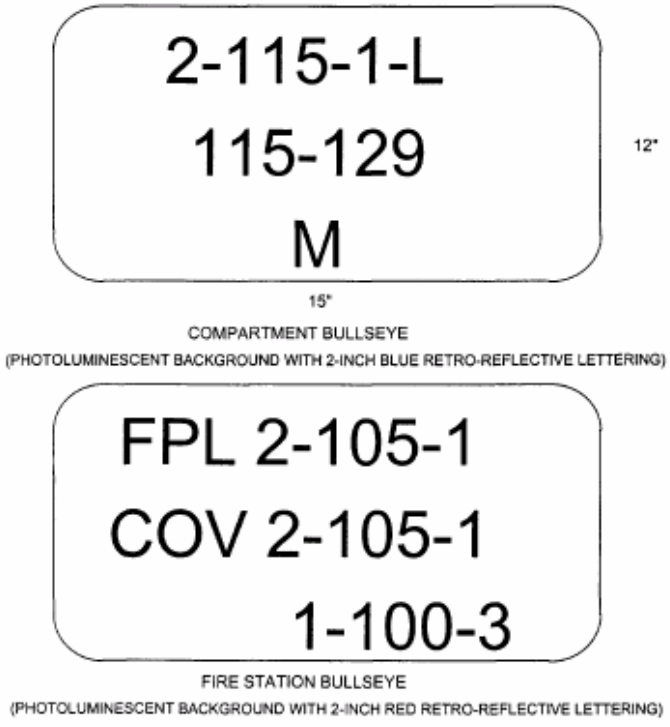

Figure 5

PIPING SYSTEMS AND VALVE HANDWHEELS.

Color, number, letter and symbol shall mark every pipe, tube and valve in a surface ship piping system. Piping systems other than JP-5, refrigerent, and oxygen piping systems should be the same color as the surrounding bulkhead. These markings occur throughout each piping system at intervals to facilitate tracing the system from end–to–end for training, troubleshooting, quick identification, proper operation of particular systems, and critical damage control or casualty control purposes.

Fluid	Valve Handwheel & Operating Lever	Valve Bodies Painted	Piping Painted	Color No.
Steam and Steam Drains	White			17886
Potable Water	Dark Blue			15044
Nitrogen	Lt Gray			16376
H.P. Air	Dark Gray			16081
Ship Service Air (L.P. Air)	Tan			10324
Deballast Air	Striped tan/black			10324/17038
Oxygen	Green	Green	Green	14449
Seawater (**Not** Firemain, Sprinkling or Washdown)	Dark Green			14062
JP-5	Purple	Purple	Purple	17142
Fuel Oil	Yellow			13538
Lube Oil	Striped Black /Yellow			17038/13538
Fire Plugs	Red	Red		11105
AFFF Discharge Plugs	Striped Red/Green			11105/14062
Gasoline	Yellow			13538
Feedwater	Lt Blue			15200
Hydraulic Oil	Orange			12246
Refrigerant (Freon)	Dark Purple	Dark Purple	Dark Purple	17100
Hydrogen	Chartreuse			23814
Amine	Brown			10080
Helium	Buff			10371
Helium/Oxygen	Striped Buff/Green			10371/14449
Sewage	Gold			17043
HALON	Striped Gray/White			16187/17886
Fire Main (Including Root Valves)	Red			11105
Chilled Water	Striped Lt Blue/Dark Green			15200/14062
Demineralized (Electronic Cooling Water)	Striped Lt Blue/Dark Purple			15200/17100
AFFF Concentrate (AFFF Concentrate/Salt Water Mix)	Striped Lt Blue/Red			15200/11105
Jacket Water	Striped Lt Blue/Black			15200/17038
AFFF Solution	Striped Red/Green			11105/14062

NOTE

Handwheels and operating levers on surface ship reactor plant system valves are not color-coded except where specifically required by Government-furnished reactor plant drawings.

Pipe System Identification. All piping systems shall be labeled by the functional name of the system it serves (Waste Drain, Potable Water etc.) using 1inch high stencils for pipes that have a outside diameter of 2 inches or more. For smaller pipes reduce the lettering size as necessary but not less than 3/8 inch high. Where piping systems are too small to be stenciled, a label plate shall be made. The label plate will include the system serves and shall be wired or banded to the pipe. Direction of flow arrows shall also be painted on the pipes. Stencil paint shall be black paint for all systems except oxygen and refrigerant piping; these piping systems shall be stenciled using white paint.

Markings of pipes shall not be spread out more than 15 feet apart and shall be applied at a conspicuous location. Where piping is hidden behind sheathing, one label plate shall list all pipes installed. Piping that passes through spaces such as tanks, voids, cofferdams, bilges, and similar unmanned spaces shall be marked at least once in each space by label plate curved to fit the piping and attached in place by full circumferential wiring or banding. Piping in machinery spaces shall be marked at least twice, once near entry and once near exit. Systems serving propulsion plants and systems conveying flammable or toxic fluids shall be marked at least twice in each space.

NOTE

All weather deck piping shall be the same color of the exterior of the ship with the exception of valves and valve handwheels which shall be painted using their appropriate color code. Exterior piping shall be labeled using label plates only.

NOTE

Fire Plug markings should include their functional service, the label FIRE PLUG, its basic location number, and the designation letter and basic location number of its cutout valve..

System Componenets Indentification. All piping system components, including valves, should be provided with a label plate. Label plates may be located on the component or adjacent ship structure. Label plates generally contain a four-part designation and a basic location number. However, refer to the ship's DC Book, EOSS, SDOSS, CSOSS, etc. as the primary source for component label plate data.

a. Shaft or plant number (for valves located in a propulsion plant piping system)
b. System designation
c. Componenet identification letters
d. Individual component number

EXAMPLE: "1-MCN-V-15" is a valve part of plant number 1. MCN idicates the valve is located in the main condensate system, V identifies the component as a valve, 15 indicates the valve is the fifteenth componenet in the system.

Component letter dsignations are as follows:

Differential Pressure Detector	DP
Fitting	F
Gauge	GA
Liquid Level Switch	LS
Orifice	OR
Pressure Switch	PS
Pressure Transmitter	PT
Pulsation Damper	PD
Salinity Cell	SC
Thermometer	TH
Valve	V

Componenet label plates may also be marked as follows with a basic location code.

EXAMPLE: "FM COV 2-34-3" is a firemain cutout valve located on the second deck (2) at frame 34 (34). "3" denotes the component number sequentially from centerline (odd numbers starboard, even numbers port).

NOTE

Material condition of readiness ("X", "Y", "Z", "William", "Circle Willam") will also mark the componenet as required.

CHT PIPING

Removable drip pans shall be installed beneath valves and takedown joints in horizontal CHT piping runs.

AUTHORIZED ABBREVIATIONS FOR DAMAGE CONTROL USE

Abbreviation	Description
ABT	Automatic Bus Transfer
AC	Air Condition
ACTGV	Actuating Valve
ACTGV HALON	Actuating Valve Halon
AD	Armored Door (Non–Magazine Related)
ADBAL	Deballast Air
AED	Electronic Dry Air
AEB	Emergency Breathing Air
AFFF	Aqueous Film Forming Foam
AFFF PMP	Pump, AFFF
AFFFCOV	Aqueous Film Forming Foam Cutout Valve
AFFFV	Aqueous Film Forming Foam Valve
AH	Armored Hatch
AHC	Ammunition Hoist Cover
AHD	Ammunition Hoist Door
AHP	High Pressure Air
AIR ESC	Air Escapes
AIRLK	Air Lock
AJP	Auxiliary JP–5
AL	Air Lock
ALM	Alarm
ALP	Low Pressure Air
ALPV	Low Pressure Air, Vital
AP	Airport
APC	Deep Fat Fryer Fire Extinguishing
AQAES	Armored Quick Acting Escape Scuttle
AS	Automatic Sprinkler
ASW	Auxiliary Seawater Cooling
AT	Airtight
AT DOOR	Airtight Door
ATC	Air Test Cap
ATD	Airtight Door
ATF	Air Test Fitting
ATMH	Airtight Manhole
ATS	Airtight Scuttle
AUX	Auxiliary
AUX JP	Auxiliary JP–5
AUX PWR SUPPLY	Auxiliary Power Supply
AUX SW	Auxiliary Seawater Cooling
AVHC	Air Vent Hose Conn
AWTD	Armored Watertight Door
AWTH	Armored Watertight Hatch
BALF	Ballast Firemain Fill
BALH	Ballast Hydraulic
BALR	Ballast Tanks Relief Valves
BALV	Ballast Vent and Blow
BDS	Battle Dressing Station
BERP	Bolted Equipment Removable Plate
BFW	Boiler Feed Water
BHD	Bulkhead
BLST	Ballast
BLST PMP	Pump, Ballasting
BLTRN–P	Battle Lantern Portable
BLTRN–S	Battle Lantern Solenoid
BP	Battle Port
BYP	Bypass
BYP HALON	Bypass Halon
C	Cover
C	Cap
C	Closure
CAP	Cap
CASUALTY PWR	Casualty Power
CASUALTY PWR CPC	Casualty Power Cable
CBR–D	Chemical, Biological, Radiological Defense
CCS	Central Control Station
CHT	Collection, Holding and Transfer
CHTV	Collection, Holding and Transfer Valve
CHW	Chilled Water
CHW PMP	Pump, Chilled Water

Abbreviation	Description
CHWCOV	Chilled Water Cut Out Valve
CHWDRV	Chilled Water Drain Valve
CHW	Chilled Water Valve
CKT	Circuit
CKT BKR	Circuit Breaker
CLOS	Closure
CMWD	Countermeasure Water Washdown System
CMWWDV/WDCM	Countermeasure Water Washdown Valve
CO_2	Carbon Dioxide Fire Extinguishing
CONFLAG	Conflagration Station
COMPT	Compartment
CONTROLLER	Controller Ventilation
COV	Cutout Valve
CP	Casualty Power
CPPT	Casualty Power Passing Tube
CPS	Collective Protection System
CPT	Casualty Power Terminal
CPW	Cold Potable Water
CPWCOV	Cold Potable Water Cut Out Valve
CPWV	Cold Potable Water Valve
CV	Check Valve
CW	Circle WILLIAM
CW RTN	Chilled Water Return
CW SPLY	Chilled Water Supply
CWR	Chilled Water Return
CWS	Chilled Water Supply
CX	Circle XRAY
CY	Circle YOKE
CZ	Circle ZEBRA
D	Door
DC	Damage Control
DCC	Damage Control Central
DCRS	DC Repair Station
DCUL	DC Unit Locker
DCUPS	DC Unit Patrol Station
DCREL	DC Reentry Locker

Abbreviation	Description
DD	Deck Drain (Without Closure Device)
DDV	Deck Drain Valve
DECON	Decontamination
DECON STA	Decon Station
DEWTRG	Dewatering
DIAL TEL	Dial Telephone
DISCH PMP	Pump, Discharge Drainage
DK	Deck
DK PLUG DRAINA	Deck Plug Drainage
DK PLUG FUEL	Deck Plug Fuel Oil
DK PLUG JP–5	Deck Plug JP–5 Fuel
DK PLUG VAC SE	Deck Plug Vacuum Sewage/CHT
DK SKT CHT	Deck Socket (Reach Rod)
DK SKT DRAINAGE	Deck Socket (Reach Rod)
DK SKT FIREMAIN	Deck Socket (Reach Rod)
DK SKT FUEL	Deck Socket (Reach Rod)
DK SKT JP–5	Deck Socket (Reach Rod)
DR	Drain
DRCOV	Drainage Cut Out Valve
DS ( ) *	Deck Socket (List: i.e., Reach Rod)*
DV	Drain Valve
DZ	Dog ZEBRA
EAB	Emergency Breathing Air
ECC	Electronics Casualty Control
ECW	Electronic Cooling Water
ECWR	Electronic Cooling Water Return
ECWS	Electronic Cooling Water Supply
ED	Eductor
EDUC	Eductor
EDUC OVBD	Eductor Overboard
EEBD	Emergency Escape Breathing Device
ELEC	Electric or Electrical
ELEC PNL	Electric Panel
ELEC PWR DIST	Electric Power Distribution
ELEC PWR SUPPLY	Electric Power Supply
ELEC PWR UNIT	Electric Power Unit

Abbreviation	Description
ELEC VENT CONT	Electrical Ventilation Controller
ELEC VENT MOTOR	Electrical Ventilation Motor
ELEV	Elevator
EMERG PWR	Emergency Power
ENCL	Enclosure
ESC	Escape
EVC	Electrical Ventilation Controller
EVM	Electrical Ventilation Motor
EXH	Exhaust Ventilation
FAN	Fan Ventilation
FCA	Fan Coil Assembly
FCU	Fan Coil Unit
FD	Fire Door
FD WTR	Feed Water
FD WTR PMP	Feed Water Pump
FDR	Fire Door
FFC	Fixed Foam Connection
FFE	Firefighter's Ensemble
FIRE EXT AFFF	Fire Extinguisher Portable AFFF
FIRE EXT CO_2	Fire Extinguisher Portable CO_2
FIRE EXT HALON	Fire Extinguisher Portable Halon
FIRE EXT PKP	Fire Extinguisher Portable PKP
FLAM LKR	Flammable Locker
FLWV	Flushing Water Valve
FM	Fire Main
FM PMP	Firemain Pump
FMCOV	Firemain Cutout Valve
FME	Firemain to Eductor
FMEOB	Firemain to Eductor Overboard
FMES	Firemain to Eductor Suction
FMR	Fire Main Riser
FMRV	Firemain Riser Valve
FMV	Firemain Valve
FO	Fuel Oil
FO PMP	Fuel Oil Pump
FO TK	Fuel Oil Tank
FO TRAF PMP	Fuel Oil Transfer Pump
FOCOV	Fuel Oil Cutout Valve
FOV	Fuel Oil Valve
FOVV	Fuel Oil Vent Valve
FP	Fire Pump
FPL	Fire Plug
FR	Frame
FT	Fuel Transfer and Filling
FT	Fume Tight
FTD	Fire Tight Door
FTS	Fuel Stripping
FMCOV	Fresh Water Cut Out Valve
FW	Fresh Water
FWFF	Fresh Water Firefighting
FWV	Fresh Water Valve
FUEL	Fuel
FZ	Fire Zone (Boundary)
FZD	Fire Zone Door
GCOV	Gauge Cutout Valve
GSV	Gagged Scupper Valve
GT	Gas Tight
H	Hatch, Hoist
HALON	Halon Fire Extinguisher
HATCH	Hatch
HAZMAT	Hazardous Materials
HFP	Heptafluropropane (Fire Extinguishing)
HMHC	Hinged Manhole Cover
HNDST	Handset
HOSE CONN	Hose Connector
HOSES	Fire Station Hoses
HP	High Pressure
HPA	High Pressure Air
HPAC	High Pressure Air Compressor
HPACOV	High Pressure Air Cutout Valve
HPAV	High Pressure Air Valve
HPS	High Pressure Steam

Abbreviation	Description
HPW	Hot Potable Water
HPWC	Hot Potable Water Circulating
HPWCOV	Hot Potable Water Cut Out Valve
HPWCOV	Hot Potable Water Valve
HR	Hosereel AFFF or CO_2
HSD	Heat Sensing Device
HVAC	Heating, Ventilation & Air Conditioning
HYDR	Hydraulic
HYDR AFFFV	Hydraulic AFFF Valve
HYDR DRV	Hydraulic Drainage Valve
HYDR FMV	Hydraulic Firemain Valve
HYDR SPKV	Hydraulic Sprinkling Valve
HYDR SWV	Hydraulic Saltwater Valve
HYDR WDCM	Hydraulic WDCM Valve
IC	Interior Communication
IC ( )*	Interior Communication (list system, i.e., 1MC, 2JZ)*
IVCS	Internal Voice Communication System
JP–5	JP–5
JP–5 PMP	JP–5 Pump
JP–5 TK	JP–5 Tank
JP–5 COV	JP–5 Cut Out Valve
JP–5V	JP–5 Valve
JPS	JP–5 Service
JPST	JP–5 Stripping
JPT	JP–5 Transfer and/or Filling
LC	Locked Closed
LC	Load Center
LEL	Lower Explosive Limit
LHP	Line Handling Port
LIGHT COVER	Darken-Ship Light Cover
LKR	Locker
LO	Lubricating Oil Fill, Transfer and Purification
LO	Locked Open
LOCAL HALON AC	Local Halon Act Station
LOUD SPEAKER	1MC

Abbreviation	Description
LP	Low Pressure
LPA	Low Pressure Air
LPAC	Low Pressure Air Compressor
LPACOV	Low Pressure Air Cutout Valve
LPAV	Low Pressure Air Valve
LTG	Lighting
LTRN	Lantern
LUBOV	Lube Oil Valve
MAG	Magazine
MAGSPR	Magazine Flooding and Sprinkling
MBT	Manual Bus Transfer
MCHRY	Machinery
MCS	Machinery Control System
MCV	Manual Control Valve
MD	Main Drainage
MH	Manhole
MHC	Manhole Cover
MHCH	Manhole Cover Hinged
MLC	Mooring Line Cover
MN	Main
MNL OPR	Manually Operated
MOGAS	Automotive Gasoline
MOPP	Mission–Oriented Protective Posture
MPA	Medium Pressure Air
MPA COMP	Medium Pressure Air Compressor
MPACOV	Medium Pressure Air Cutout Valve
MS	Main Steam
MSCOV	Magazine Sprinkler Cutout Valve
MULTI LINE TEL	Multiline Telephone
MULTI PURP	Multipurpose Outlets
NAP	Navy All–Purpose (Nozzle)
NFTI	Naval Firefighter’s Thermal Imager
N–O	Normally Open
N–S	Normally Shut
N_2	Nitrogen
N_2 V	Nitrogen Valve

Abbreviation	Description
NT	Non–Tight
NTD	Non–Tight Door
NTH	Non–Tight Hatch
NWT	Non–Watertight
O2	Oxygen
O2 COV	Oxygen Cut Out Valve
O2 V	Oxygen Valve
OBA	Oxygen Breathing Apparatus
OBDV	Overboard Drain Valve
OCUA	Outer Clothing Undressing Area
OT	Oil Tight
OTK	Oil Tank
OVBD	Overboard
OVFL	Overflow
OW	Oily Waste
OWT	Oily Waste Transfer
P	Port
P&S	Port and Starboard
PHS	Controllable Pitch Propeller Hydraulic System
PKP	Potassium Bicarbonate Powder (formerly Purple–K Powder)
PKPV	Potassium Bicarbonate Powder Valve
PKPVV	Potassium Bicarbonate Powder Vent Valve
PL	Pressure Lock
PLMB	Plumbing
PLMBV	Plumbing Drain Valve
PLMBVV	Plumbing Drain Vent Valve
PLUG	Plug
PMP	Pump
PMP DISCH	Pump Discharge
PNL	Panel
PORT	Port
POTW	Potable Water
POTW PMP	Pump Potable Water
POTWFV	Potable Water Fill Valve
POTWH	Potable Water Heater
POTWV	Potable Water Valve
PRI	Primary
PRI	Priority
PRP	Pneumatically Released Pilot (Valve)
PS	Passing Scuttle
PT WC	Passing Tube With Cap
PT WOC	Passing Tube Without Cap
PUSHBUTTON AFFF	Pushbutton Station AFFF
PUSHBUTTON DR	Pushbutton Station Drainage
PUSHBUTTON FIR	Pushbutton Station Firemain
PUSHBUTTON FU	Pushbutton Station Fuel
PUSHBUTTON SPL	Pushbutton Station Ventilation
PVV	Plumbing Vent Valve
PWR	Power
PWR PNL	Power Panel
PWR XFMR	Power Transformer
PZ	Pressure Zone (CPS)
QAAD	Quick Acting Armored Door
QAAH	Quick Acting Armored Hatch
QAAS	Quick Acting Armored Scuttle
QAATD	Quick Acting Airtight Door
QAES	Quick Acting Escape Scuttle
QAWTD	Quick Acting Watertight Door
QAWTH	Quick Acting Watertight Hatch
QAWTS	Quick Acting Watertight Scuttle
RC	Remote Control
RCV DR	Remote Control Valve Drainage
RCV ( )*	Remote Control Valve (List Sys: f, cht, i.e.)*
RECIRC	Recirculation
RECIRC	Recirculate
RECP	Receptacle
RDCR	Reducer
RLO	Main Reduction Gear Lube Oil Fill, Transfer and Purification
RLSE	Release
RSV	Reserve

Abbreviation	Description
RTN	Return
RV	Relief Valve
S	Scuttle
S	Starboard
SBM	Submersible
SBM PMP OVBD	Submersible Pump Overboard
SCBA	Self Contained Breathing Apparatus
SCOV	Sprinkler Cutout Valve
SCU	Shaft Control Unit
SCUP	Scupper
SCZ	Smoke Control Zone
SD	Secondary Drainage
SDRV	Soil Drain Valve
SDRVV	Soil Drain Vent Valve
SDRW	Secondary Drainage
SEED	Supplementary Emergency Egress Device
SES	Smoke Ejection System
SGCOV	Sight Glass Cutout Valve
SKT	Socket
SLF	Security Light Fixture
SND PWR TEL	Sound Powered Phone
SOIL DRAIN	Soil Plumbing Drain
SOPV	Solenoid Operated Pilot Valve
SPK	Sprinkler
SPKCOV	Sprinkler Cutout Valve
SPLY	Supply
SPNR	Spanner
SPOD	Submersible Pump Overboard
SS	Ship Service
SSDG	Ship Service Diesel Generator
SSGTG	Ship Service Gas Turbine Generator
SSTG	Ship Service Turbo Generator
ST	Sounding Tube
ST FUEL	Sounding Tube Fuel
ST JP–5	Sounding Tube JP–5
ST POTW	Sounding Tube Potable Water
ST VOIDS	Sounding Tube Voids
STA	Station
STBD	Starboard
STC	Sounding Tube Cap
STC W/V	Sounding Tube Cap With Valve
STFG TUBE	Stuffing Tube
STFG TUBE W/W	Stuffing Tube with Wire
STFG TUBE WO/W	Stuffing Tube without Wire
STM DR	Steam Drains
STOKES STRETCH	Stokes Stretcher
STR	Strainer
SUCT	Suction
SUMP TK	Sump Tank
SV	Safety Valve
SW	Seawater
SW FLCOV	Saltwater Flushing Cutout Valve
SW PMP	Sea Water Pump
SWBD	Switchboard
SWCOV	Salt Water Cutout Valve
TK	Tank
TKV	Tank Drain Valve
TV	Sounding Tube
TV	Air Escapes
TV	Overflow
UEL	Upper Explosive Limit
V	Valve
VALVE CO	Valve Cut Out ST and Air Test
VALVE CO	Valve Cut Out Air SPLY BLST
VALVE CO	Valve Cut Out Main Drain Cross Conn
VALVE MANF CO	Valve Manifold Cut Out
VC	Ventilation Closure
VCHT	Vacuum, Collection, Holding and Transfer
VENT	Ventilate, Ventilation, Vent
VENTC	Ventilation Cover
VENTV	Ventilation Valve
VOID	Void

Abbreviation	Description
W	WILLIAM
WD	Waste Drain
WASTE DRAIN	Waste Plumbing Drain
WDCM	Countermeasure Water Washdown System
WDR	Waste Drains
WDRVV	Waste Drain Vent Valve
WEA DK	Weather Deck
WERP	Welded Equipment Removable Plate
WIFCOM	Wire Free Communication
WM	Watermist Fire Extinguishing
WT	Watertight
WT DOOR	Watertight Door
WT HATCH	Watertight Hatch
WT SCUTTLE	Watertight Scuttle
WTC	Watertight Cover
WTD	Watertight Door
WTH	Watertight Hatch
WTMH	Watertight Manhole
WTS	Watertight Scuttle
X	XRAY
XCONN	Cross Connection
Y	YOKE
Z	ZEBRA
ZONE	Zone