*United States Coast Guard*

# *T-BOAT INSPECTION BOOK*

| | |
|---|---|
| **Name of Vessel** | |
| **Official Number** | |
| **Date Completed** | **Location** |
| **SOLAS Certificates Issued**<br>❑ Yes ❑ No | |
| **Route**<br>❑ Oceans ❑ Limited Coastwise ❑ Lakes / Bays / Sounds<br>❑ Coastwise ❑ Great Lakes ❑ Rivers | |
| **Inspection Type**<br>❑Inspection for Certification (COI) ❑Annual Inspection | |
| ❑ Drydock Inspection<br>**Inspectors**<br>**1.** _____ **2.**_____ | |

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## DRUG & ALCOHOL PROGRAM CHECKLIST

| Inspection Item | Applicable Regs. | Yes | No |
|---|---|---|---|
| Do crew members know who the Designated Employee Representative (DER) is? | 49 CFR 40.3 | □ | □ |
| Is there a copy of the company's policy or policy statement aboard? | 46 CFR 16.401 | □ | □ |
| Are crew members aware of where to obtain Employee Assistance information? | 46 CFR 16.401 | □ | □ |
| Has supervisory and general crew member drug awareness training been conducted? | 46 CFR 16.401 | □ | □ |
| Are Hotline Numbers posted in a common space? | 46 CFR 16.401 | □ | □ |
| Knowledge of where to go or how to get drug and alcohol testing accomplished in the event of a Serious Marine Incident (2hr testing for alcohol; 32 hr testing for drugs) | 46 CFR 4.06 | □ | □ |
| Are Alcohol Testing Devices kept onboard? | 46 CFR 16.240<br>46 CFR 4.06 | □ | □ |
| Were crew members pre-employment tested? | 46 CFR 16.210 | □ | □ |
| Have crew members been randomly tested this year? | 46 CFR 16.230 | □ | □ |

### PROGRAM INFORMATION

Name of Consortium/TPA: or

□ "Self –Run Program" _____

SMI Testing Facility
***Must Test Drugs & Alcohol*** _____

24hr SMI Testing Facility:
□ "Same As Above" _____

**Drug & Alcohol Program Compliant?**

□ **Program Compliant**
□ _____ items corrected on-scene

□ **Program Not Compliant**
□ Full Audit Recommended
□ 835 No-Sail issued

**Notes:**_____
_____
_____
_____

***IMO Applicability Dates:***

| Reference | Date |
|---|---|
| SOLAS 1960<br>SOLAS 1974<br>1978 Protocol to SOLAS 1974<br>1981 Amendments (II-1 & II-2)<br>1983 Amendments (III)<br>*Various additional amendments to SOLAS* | 26 MAY 65<br>25 MAY 80<br>01 MAY 81<br>01 SEP 84<br>01 JUL 86 |
| MARPOL 73/78 Annex I<br>MARPOL 73/78 Annex V<br>MARPOL 73/78 Annex VI | 02 OCT 83<br>31 DEC 88<br>19 MAY 05 |
| COLREGS 1972<br>*Various additional amendments to COLREGS* | 15 JUL 77 |
| Load Line 1966 | 21 JUL 68 |
| STCW 1978<br>1991 Amendments<br>1994 Amendments<br>1995 Amendments | 28 APR 84<br>01 DEC 92<br>01 JAN 96<br>01 FEB 97 |

This document does not establish or change Federal laws or regulations. References given are only general guides. Refer to IMO publications, CFR's, NVIC's or any locally produced cite guides for specific regulatory references. Not all items in this book are applicable to all vessels. Due to recent regulatory revisions, OLD SUBCHAPTER T cites (applicable to existing vessels on or before March 10, 1996) are provided in addition to new Subchapter T cites. Example ***(46 CFR 184.10-1)***

**NOTE:** *Guidance on how to conduct inspections on U.S. flagged SPV can be found in Marine Safety Manual (MSM) Volume II, Chapter B1: Inspection of Vessels for Certification. All MSM cites listed in this book refer to MSM Volume II, unless otherwise indicated.*

## *Involved Parties & General Information:*

| |
|---|
| Vessel's Representatives: |
| Phone Numbers: |

| |
|---|
| Owner-Listed on DOC (if applicable) |
| |
| |
| |
| No Change |

| |
|---|
| Operator: |
| |
| |
| |
| No Change |

## *Vessel Information:*

| | | |
|---|---|---|
| Last Drydocking date: | | Next Drydocking date: |
| Location of Last Drydocking: | | |
| Built Date (use delivery date): | | |
| Overall Length (in feet): | | |
| Maximum Passenger Allowed: | | |
| Overnight Accommodations: | | |
| Yes | No | If yes, how many? |

## *Task 1: Pre-Inspection Administrative Items*

| Step | | Action | Ref |
|---|---|---|---|
| 1.1 | ☐ | Retrieve notice of arrival. | |
| 1.2 | ☐ | Review MISLE records/local file.<br>• Special notes<br>• Deficiency history<br>• Vessel Critical Profile (VCP)<br>• Determine user fee payment status | 46CFR 2.10 |
| 1.3 | ☐ | Determine proper type/scope of inspection.<br>• Certificate of inspection (COI)<br>• Obtain application of inspection<br>• Annual<br>• Hull/Drydock | 46CFR 176.400<br>46CFR 176.105<br>46 CFR 176.500<br>46 CFR 176.600 |
| 1.4 | ☐ | Prepare statutory certificates.<br>• Temporary COI<br>• SOLAS Passenger Ship Safety Certificate | 46CFR VOL II<br>46CFR176.910 |
| 1.5 | ☐ | Review regulatory applicability dates for “new” or “existing” vessels.<br>• CFR | 46CFR 175.400 |

Notes:

## *Certificates and Documents*

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Endorse Date** | | | | | | | |
| **Exp. Date** | | | | | | | |
| **Issue Date** | | | | | | | |
| **Port** Issued | | | | | | | |
| **ID #** | | | | | | | |
| **Issuing Agency** | **USCG** | **USCG** | | | | | **FCC** |
| **Name of Certificate** | **Certificate of Documentation** ❑ No Change | **Passenger Ship Safety (PSS)** ❑ No Change | **Load Line** ❑ No Change | **International Tonnage (ITC)** ❑ No Change | **Safety Management (SMC)** ❑ No Change | **Document of Compliance (DOC)** ❑ No Change | **FCC Station License** ❑ No Change |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Endorse Date** | | | | | | |
| **Exp. Date** | | | | | | |
| **Issue Date** | | | | | | |
| **Port** Issued | | | | | | |
| **ID #** | | | | | | |
| **Issuing Agency** | **FCC** | **FCC** | **FCC** | | | |
| **Name of Certificate** | **FCC Safety Certificate** ❑ No Change | **IFCC Operations Permit** ❑ No Change | **FCC Marine Radio Operator Permit** ❑ No Change | **International Ship Security Certificate (ISSC)** ❑ No Change | **International Air Pollution Prevention Certificate (IAPP)** ❑ No Change | **Engine International Air Pollution Prevention Certificate (EIAPP)** ❑ No Change |

## *Task 2: Certificate and Document Review*

| Step | Action | Ref |
|---|---|---|
| 2.1 | ☐ Verify Certificate of Inspection is posted (COI)<br>All pages should be visible. | 46 CFR 176.302<br>46 CFR 176.302 |
| 2.2 | ☐ Verify that Certificate of Documentation (COD)/ State registration is valid. | 46 CFR 67.7 |
| 2.3 | ☐ Verify that the stability letter is posted. | 46 CFR 176.306 |
| 2.4 | ☐ Verify that stability books/letters are available. | 46 CFR 176.306 |
| 2.5 | ☐ Verify that the Small Passenger Vessel (SPV) Decal is posted. | 46 CFR 176.310 |
| 2.6 | ☐ Verify that station bill is posted.<br>• Emergency duties<br>(Over 65 ft with crew of 4 or more) | 46CFR 185.514 |
| 2.7 | ☐ Examine the waste management plan.<br>(≥ 40 ft and ocean-going)<br>MARPOL V placard posted (≥ 26 ft) | 33 CFR 151.57<br>33 CFR 151.59 |
| 2.8 | ☐ Verify drug testing program. | 46 CFR 16 |
| 2.10 | ☐ Examine life raft servicing certificates. | 46 CFR 185.730<br>46 CFR 160.151-57(p) |
| 2.11 | ☐ Examine hydrostatic release units<br>(non disposable) | 46 CFR 185.740<br>46 CFR 160.062 |
| 2.12 | ☐ Verify international safety and pollution prevention convention certificates are:<br>• Valid<br>• Accurate | MARPOL/SOLAS |
| | **Note**: *If MARPOL IV, Certificate of Equivalence shall not be issued to Inspected Small Passenger vessels on international voyages. Instead the OCMI shall amend the COI.* | MOC Policy letter 03-03 |

Notes:

## *Task 2: Certificate and Document Review (Continued)*

| Step | Action | Ref |
|---|---|---|
| 2.12 | ☐ Verify International Ship Management (ISM) Code Document of compliance and Safety Management Certificate (SMC) on a foreign voyage. | SOLAS Chap IX<br>33 CFR 96 |
| 2.13 | ☐ Examine fire-servicing certificates. | 46 CFR 176.810 |
| 2.14 | ☐ Review packaged hazardous materials for appropriate cargo documents/records (explosives). | 49 CFR 176<br>46 CFR 185.356 |
| 2.15 | ☐ Vessel General Permit.<br>• Master aware of the VGP<br>(Provide master with copy of VGP fact sheet) | EPA VGP,<br>CG-543 Policy<br>Ltr 11-01 |

Notes:

## *Task 3: Crew Requirements*

| Step | Action | Ref |
|---|---|---|
| 3.1 | ☐ Examine Master's License.<br>☐ Original on board<br>☐ Expiration date<br>☐ Route<br>☐ Tonnage<br>☐ Endorsements | 46 CFR 185.402 |
| 3.2 | ☐ Examine Mate's License (if required).<br>☐ Original on board<br>☐ Expiration date<br>☐ Route<br>☐ Tonnage<br>☐ Endorsements | 46 CFR 185.402 |
| 3.3 | ☐ Verify Global Maritime Distress and Safety System (GMDSS) personnel certification. | STCW 95<br>47 CFR 80<br>NVIC 3-99 |
| 3.3 | ☐ Examine Sr. Deckhand Requirements (required for High Speed SPV).<br>☐ Designated in writing<br>☐ Written designation aboard<br>☐ Vessel experience<br>☐ Helm experience | NVIC 1-91 CH 1 |
| 3.4 | ☐ Discuss recommended Deckhand qualifications. (required for High Speed SPV). | NVIC 1-91 CH 1 |
| 3.5 | ☐ Examine Deckhand Red Cross First Aid / CPR Cards for 50% of crew | NVIC 1-91 |

Notes:

## *Task 4: Logs and Manuals*

| Step | | Action | Ref |
|---|---|---|---|
| 4.1 | ☐ | Examine current training records/logs.<br>• Date and general description of training topics<br>• Training record/log for each crewmember | 46 CFR 185.420 |
| 4.2 | ☐ | Examine emergency training and drills logs.<br>• Fire – Man Overboard – Abandon ship<br>• Date of drill and training with general description | 46 CFR 185.520<br>46 CFR 185.524 |
| 4.3 | ☐ | Examine lifesaving equipment maintenance. | |
| | ☐ | Required maintenance documented | 46 CFR 185.702 |
| | ☐ | Manufacturer's Instructions on board for survival craft, rescue boats, and launching appliances for vessels more than 65 feet | 46 CFR 185.720 |
| | ☐ | Weekly maintenance inspections survival craft, rescue boat, and launching appliance | SOLAS III/20.6<br>46 CFR 185.722 |
| | ☐ | Monthly inspections survival craft, rescue boat, and launching appliance | SOLAS III/20.7 |
| | ☐ | Quarterly inspections of winch control apparatus of the launching appliance | 46 CFR 185.724 |
| | ☐ | Annual inspections; rescue boat stripped, cleaned, and thoroughly inspected | 46 CFR 185.726 |
| | ☐ | Annual inspections; davit, winch, falls, or other launching appliance thoroughly inspected | 46 CFR 185.726<br>SOLAS IV/ 15 |
| | ☐ | Shore-Base Maintenance report for EPIRB | SOLAS V/26 |
| | ☐ | Steering gear test and drill | |
| | ☐ | Monthly test of EPIRB | 46 CFR 185.728 |

Notes:

## *Task 4: Logs and Manuals*

| Step | | Action | Ref |
|---|---|---|---|
| 4.4 | ☐ | Verify presence of training manual.<br>(SOLAS only) | SOLAS III/35 |
| 4.5 | ☐ | Examine official logbook.<br>• Vessels on a Foreign Voyage | 46 CFR 185.280 |
| 4.6 | ☐ | Verify crew and passenger list maintained<br>(Ocean/Coastwise {O\C} and overnight or disembark or embark at different ports). | 46 CFR 185.502 |
| 4.7 | ☐ | Verify voyage plan prepared (O/C or overnight). | 46 CFR 185.503 |
| 4.8 | ☐ | Verify passenger count. | 46 CFR 185.504 |
| 4.9 | ☐ | Verify safety orientation. | 46 CFR 185.506 |
| 4.10 | ☐ | Verify VGP compliance.<br>• Record of Routine visual inspections<br>• Record of annual inspections<br>• Record of dry-dock inspection<br>• Documentation of Corrective Action Assessments | VGP Part 4<br><br><br><br>VGP Part 3 |

Notes:

## *Task 5: Navigation Safety Systems*

| Step | | Action | Ref |
|---|---|---|---|
| 5.1 | ☐ | Verify navigation publications and charts.<br>☐ Current and corrected charts (large enough for safe navigation)<br>☐ U.S. Coast Pilot<br>☐ Coast Guard Light List<br>☐ Tide tables<br>☐ Tidal current tables<br>☐ Rules of the Road (COLREGS | 46 CFR 184.420 |
| 5.2 | ☐ | Test navigation lights and signals<br>(Vessels>65 feet must meet UL 1104). | 46 CFR 183.420<br>33 CFR Part 84 |
| 5.3 | ☐ | Test radars (O/C/LC/GL and >49 passengers). | 46 CFR 184.404 |
| 5.4 | ☐ | Inspect magnetic compass.<br>(Except rivers and short restricted routes) | 46 CFR 184.402 |
| 5.5 | ☐ | Inspect Sound Signaling devices<br>☐ Whistle/horn<br>☐ Bell proper size | 33 CFR 86 |

Notes:

## *Task 5: Navigation Safety Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 5.6 | ☐ Inspect Signaling devices (distress) | 46 CFR 180.68 |
| | ☐ Flares and day smokes (correct number and expiration) | |
| | ☐ Stowed in brightly colored, portable watertight container | |
| | ☐ Marked “Distress Signals” | 46 CFR 185.614 |
| | ☐ Substitutions with proper expiration date | |

| IF vessel travels | THEN it MUST carry: |
|---|---|
| Oceans / Coastwise / Limited Coastwise / Great Lakes Route | 6 red hand flares and 6 orange day smokes |
| Lakes, Bays, Sounds / Rivers Route | 3 red hand flares and 3 orange day smokes |

| | | |
|---|---|---|
| 5.7 | ☐ Test internal communications. | 46 CFR 184.602 |
| | ☐ A fixed means of two-way communication from:<br>• Operating station to machinery space (single screw vessels)<br>• Operating station to auxiliary steering (single screw vessels)<br>• Handheld radios acceptable | |
| 5.8 | ☐ Test public address system. | 46 CFR 184.610 |

| **IF** vessels is: | **AND** carries: | **THEN** vessel MUST have: |
|---|---|---|
| > 65 feet in length | | Fixed installation |
| ≤ 65 feet in length | > 49 passengers | Battery bullhorn |
| ≤ 65 feet in length | ≤ 49 passengers | NONE required |

Notes:

## *Task 5: Navigation Safety Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 5.9 | ☐ Verify propulsion engine control.<br>☐ Two independent means of controlling each propulsion engine<br>☐ Multiple engine vessel with independent remote propulsion control for each engine does not need a second means<br>☐ Must have engine shutdowns at the operating station | 46 CFR 184.620 |
| 5.10 | ☐ Engine operating gauges, rpm, jacket water, and lube oil pressure readily visible at the operating station | 46 CFR 182.410 (b) |
| 5.11 | ☐ Verify radio equipment operation | 46 CFR 184.502<br>47 CFR 80.905 |

| IF vessel travels | THEN it MUST carry: |
|---|---|
| More than 1,000 feet from shore but less than 20 NM | 1 VHF |
| 20 NM to 100 NM | 1 VHF and 1 MF |
| 100 NM to 200 NM | 1 VHF, 1 MF, 1 SSB or INMARSAT radio, and 1 NAVTEX receiver. |
| More than 200 NM | 1 VHF, 1 MF, 1 SSB or INMARSAT radio, and 1 NAVTEX receiver, 1 distress frequency receiver, and 1 automatic radiotelephone alarm signal generator |

Vessels 65 ft and over, operating in VTS waters, are required at least two VHF radios. One radio must be tuned to the VTS frequency under 33 CFR 161.12 as per 33 CFR 26.03(f)

Notes:

## *Task 5: Navigation Safety Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 5.12 | ☐ Verify emergency broadcast placard is posted next to all radio installations. | 46 CFR 184.506 |
| 5.13 | ☐ Verify that the emergency instructions are posted. | 46 CFR 185.510 |
| 5.14 | ☐ Witness operation of electronic position fixing device (oceans only). | 46 CFR 184.410 |
| 5.15 | ☐ Inspect EPIRB (high seas or >3 nautical miles on Great Lakes).<br>• Hydrostatic release date – 2yrs<br>• NOAA Registration – 2yrs<br>• Battery - per manufacture<br>• Name of vessel | 46 CFR 180.64<br>46 CFR 185.740 (b)<br>46 CFR 185.604 (c)<br>47 CFR 80.1061 (f) |
| 5.16 | ☐ Inspect bridge windows. | 46 CFR 177.1010 |
| 5.17 | ☐ Test bridge steering system and steering gear. | 46 CFR 182.600 |
| 5.18 | ☐ Inspect propulsion shaft tachometer (SOLAS only). | SOLAS CH II-1/31 |
| 5.19 | ☐ Inspect navigational warning system/NAVTEX. | SOLAS CH IV/7 |
| 5.20 | ☐ Inspect speed/distance indicator, 9 GHZ radar echo-depth sounder (SOLAS only). | SOLAS CH V/19/2.3 |
| 5.21 | ☐ Verify voyage data recorder (SOLAS only). | SOLAS CH V/20 |
| 5.22 | ☐ Long Range Identification & Tracking (LRIT) (SOLAS only).<br>• Conformance test report | SOLAS CH V/19-1<br>33 CFR 169 |

Notes:

## *Task 6: Structural Integrity*

| Step | | Action | Ref |
|---|---|---|---|
| 6.1 | ☐ | Examine external hull structure. | 46 CFR 176.802 |
| | | ☐ Decks | Aluminum NVIC 11-80 |
| | | ☐ Shell | FRP NVIC 8-87 |
| | | ☐ Bulkheads | Steel NVIC 7-68 |
| | | ☐ Strength members | Wood NVIC 7-95 |
| | | ☐ Visible damage | |
| | | ☐ Bulwarks, rails, and guards | |
| | | ☐ Welds | |
| 6.2 | ☐ | Review stability letter. | 46 CFR 171 H |
| | | ☐ Drainage (scuppers/freeing ports) | |
| | | ☐ Major changes/modifications affecting wind/heal sail area or weight | |
| | | ☐ Solid fixed ballast | |
| 6.3 | ☐ | Examine hull markings. | 46 CFR 185.602 |
| | | ☐ Draft marks and load marks (>65 feet or SOLAS) | 46CFR 185.30-3 |
| | | ☐ Load line (vsl >79 feet) | |
| | | ☐ Name/hailing port/ state number | 46 CFR 67.123 |
| | | ☐ Official number permanently affixed to interior structural member | 46 CFR 67.121 |

Notes:

## *Task 6: Structural Integrity (Continued)*

| Step | Action | Ref |
|---|---|---|
| 6.4 | ☐ Examine internal compartment structures.<br>☐ Frames<br>☐ Floors<br>☐ Shelves, brackets, clamps<br>☐ Bulkheads<br>☐ Ventilation | 46 CFR 176.802<br>Aluminum NVIC 11-80<br>FRP NVIC 8-87<br>Steel NVIC 7-68<br>Wood NVIC 7-95 |
| 6.5 | ☐ Examine watertight integrity.<br>☐ Hull openings and closures<br>☐ Deadlight covers<br>☐ Deck openings and closures<br>☐ Sill heights, combings, knife edges, gaskets, hardware<br>☐ Watertight doors and subdivision bulkheads<br>☐ Piping<br>☐ Free of sluice valves | 46 CFR 176.802<br>46 CFR 179.360<br>46 CFR 171.24<br>Wood NVIC 7-95<br>NVIC 2-62<br>46 CFR 182.720 (d)<br>46CFR 182.40-1<br>46 CFR 179.320 (d) |
| 6.6 | ☐ Examine Scuppers / Freeing ports<br>☐ Vessels with cockpit<br>☐ Vessels with well deck | 46 CFR 171.145<br>46 CFR 171.150 |
| 6.7 | ☐ Examine dead light covers on port lights below main deck | 46 CFR 171.117<br>46 CFR 179.350 |
| 6.8 | ☐ Inspect rails.<br>☐ Deck rails (39.5 Inches minimum and 200 pound point load minimum)<br>☐ Storm rails | 46 CFR 177.900<br>46 CFR 177.920 |

Notes:

## *Task 7: General Health and Safety Systems*

| Step | Action | Ref |
|---|---|---|
| 7.1 | ☐ Test general alarms (vessels with overnight accommodations). | 46 CFR 183.550 |
| 7.2 | ☐ Verify upper decks marked for maximum number of passengers as per stability letter. | 46 CFR 185.602g |
| 7.3 | ☐ Inspect crew spaces.<br>• Overnight accommodations | 46 CFR 177.700<br>46 CFR 177.710<br>46 CFR 177.25 |
| 7.4 | ☐ Inspect passenger accommodations.<br>• Overnight accommodations<br>• Seating | 46 CFR 177.800<br>46 CFR 177.30 |
| 7.5 | ☐ Verify means of escape.<br>☐ Two widely separated<br>☐ Adequate size<br>☐ Operable for either side<br>☐ Open towards expected escape direction<br>☐ Properly Marked | 46 CFR 177.500<br><br><br><br><br>46 CFR 185.606 |
| 7.6 | ☐ Inspect cooking and heating system.<br>☐ Clear of combustible materials<br>☐ Properly fitted/installed for use in heavy seas<br>☐ No open flames without approval certification<br>☐ Grease trap<br>☐ Remote shutoff valve for gas systems<br>☐ No continuous pilot lights or glow plugs<br>☐ Ventilation ducts above frying vats or grills constructed of >11 gage steel<br>☐ Gas systems<br>☐ Cooking equipment, grab rails/sea rails | 46 CFR 177.410<br>46 CFR 184.210<br><br><br><br><br><br><br>46 CFR 184.240<br>46 CFR 184.220 |

Notes:

## *Task 7: General Health and Safety Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 7.7 | ☐ Conduct sanitation inspection.<br>☐ Quarters<br>☐ Toilets/washrooms<br>☐ Galleys<br>☐ Pantries<br>☐ Lockers and similar spaces | 46 CFR 176.818 |
| 7.8 | ☐ Verify presence of first aid kit.<br>☐ Marked “First Aid Kit”<br>☐ Watertight container<br>☐ Easily visible and readily available to crew<br>☐ Must be Coast Guard Approved | 46 CFR 184.710<br>46 CFR 160.041 |
| 7.9 | ☐ Inspect ventilation systems.<br>☐ Adequate ventilation to enclosed spaces normally occupied<br>☐ Must be capable of being shut down from the pilot house | 46 CFR 177.600 |
| 7.10 | ☐ Inspect portable lights.<br>☐ At least two on board<br>☐ Located at operating station and at access to propulsion machinery space | 46 CFR 183.430 |
| 7.11 | ☐ Ensure no unsafe conditions or practices exist.<br>☐ Slips, trips, and falls<br>☐ Sharp edges<br>☐ Swinging loads/gear adrift | 46 CFR 176.830 |
| 7.12 | ☐ Ensure proper ground tackle | 46 CFR 184.300<br>46 CFR 184.10 |
| 7.13 | ☐ Ensure sailing and rigging | 46 CFR 177.330 |

Notes:

## *Task 8: Lifesaving Equipment*

| Step | Action | Ref |
|---|---|---|
| 8.1 | ☐ Inspect life preservers. | 46 CFR 180.71 a |
| | ☐ Adequate number of PFDs | |
| | ☐ PFDs are USCG-approved | |
| | ☐ PFDs are serviceable and in good repair | |
| | ☐ Inflatable PFDs are serviced annually | |
| | ☐ PFDs are marked with vessel's name | 46 CFR 185.604 |
| | ☐ PFDs are correctly marked with retro-reflective tape | 46 CFR 180.75 |
| | ☐ PFDs are correctly fitted with approved serviceable lights (O/C only) | SOLAS III/7/3 |
| | ☐ Light batteries are in working order and not expired | |
| | ☐ Each PFD is fitted with a whistle (SOLAS only) | |
| | ☐ Immersion suit | |
| 8.2 | ☐ Inspect life preserver stowage. | |
| | ☐ Life preservers readily accessible and distributed throughout accommodation spaces | 46 CFR 180.78 (a) |
| | ☐ Stowage containers are not capable of being locked and when practical allow life preservers to float free | |
| | ☐ Overhead PFDs stowed for quick release | |
| | ☐ If stowed more than 7 feet above deck, release must be operable from the deck (not applicable to existing vessels (OLD T)) | 46 CFR185.604 (f) |
| | ☐ Stowage space clearly marked with "Life Preservers," "Child or Adult," and quantity | |
| | ☐ Child-size PFDs stowed separately | |

Notes:

## *Task 8: Lifesaving Equipment (Continued)*

| Step | Action | Ref |
|---|---|---|
| 8.3 | ☐ Inspect work vests.<br>☐ Additional PFDs must be USCG approved<br>☐ Additional PFDs are in serviceable condition<br>☐ Inflatable PFDs serviced by an approved facility | 46 CFR 180.72 (b) |
| 8.4 | ☐ Inspect work vest stowage.<br>☐ Stowed separately and in a manner so as not to be confused with passenger PFDs | 46 CFR 180.78 (b) |
| 8.5 | ☐ Verify that lifejacket donning placards are properly posted or available to the passengers. | 46 CFR 185.516 |
| 8.6 | ☐ Examine ring lifebuoys and water lights.<br>☐ Appropriate number of USCG-approved ring life buoys on board<br>☐ Must be orange on ocean or coastwise route<br>☐ Vessel <26ft in length may carry 20” rings<br>☐ In serviceable condition<br>☐ Properly marked with vessel’s name in block capital letters<br>☐ Properly marked with retro-reflective tape<br>☐ At least one fitted with approved water light<br>☐ Water lights are serviceable and batteries are replaced by their marked expiration date or if not marked, replaced annually<br>☐ Water light is attached with a lanyard at least 3 feet in length and secured around the body of the buoy<br>☐ If only one is carried, water light is to be attached to lanyard with a corrosion resistant clip to allow quick disconnect<br>☐ Stowage not permanently secured | 46 CFR 180.70<br>46 CFR 185.604<br>46 CFR 160.50<br>46 CFR 180.75 |

Notes:

## *Task 8: Lifesaving Equipment (Continued)*

| Step | Action | Ref |
|---|---|---|
| 8.7 | ☐ Verify number and type of survival craft. | 46 CFR 180.200 (c) |
| 8.8 | ☐ Inspect inflatable life rafts and inflatable buoyant apparatus (IBA).<br>☐ USCG-approved<br>☐ Meets approved capacity as noted on approval plate<br>☐ Properly equipped<br>☐ Has been serviced during the previous 12 months or immediately if container is damaged, or seals or straps are broken<br>☐ Marked with vessel's name and port of registry<br>☐ L/R-SOLAS A or B pack; IBA-per manufacturer's outfit | 46 CFR 180.175<br>46 CFR 180.200<br>NVIC 2-63 |
| 8.10 | ☐ Inspect life floats and buoyant apparatus.<br>☐ USCG-approved<br>☐ Has sufficient capacity as noted on approved label<br>☐ In serviceable condition<br>☐ Marked clearly with vessel's name and capacity<br>☐ Properly outfitted, pendants, painters, and lights<br>☐ Marked with retro-reflective tape | 46 CFR 180.200<br>46 CFR 180.175<br>NVIC 4-86<br>46 CFR 185.700<br>46 CFR 185.604<br>46 CFR 160.010-8<br>NVIC 1-83 |
| 8.11 | ☐ Verify that lifesaving placards are posted.<br>☐ Inflatable survival craft placards | 46 CFR 185.518 |

Notes:

## *Task 8: Lifesaving Equipment (Continued)*

| Step | Action | Ref |
|---|---|---|
| 8.12 | ☐ Inspect rescue boats/rescue platforms.<br>☐ Marked with vessel name<br>☐ Capacity<br>☐ Retro-reflective tape | 46 CFR 180.210<br>46 CFR 185.604<br>NVIC 1-87<br>46 CFR 180.10-35 |
| 8.13 | ☐ Verify that a CG-approved rescue boat is provided for vessels >65 feet.<br>Exemption:<br>• Vessel is sufficiently maneuverable, arranged and equipped to recover a helpless person from the water, and<br>• Recovery can be observed from the operating station, and<br>• Vessel does not routinely engage in operations that limit its maneuverability. | 46 CFR 180.210 |
| 8.14 | ☐ Verify that a rescue boat acceptable to the OCMI is carried on vessels ≤ 65 feet that:<br>☐ Carry passengers on open or partially enclosed decks<br>☐ Are designed, arranged, or engaged in operations that the vessel itself cannot serve as adequate rescue craft | 46 CFR 180.210 |
| 8.15 | ☐ Ensure rescue boat is:<br>☐ Small, lightweight boat, with built-in buoyancy<br>☐ Capable of being readily launched<br>☐ Easily maneuvered<br>☐ Of adequate proportion to take an unconscious person onboard without capsizing | 46 CFR 180.210 |
| 8.16 | ☐ Ensure any repairs made to rescue boat.<br>**Note**: *If rescue boats are inflatable, ensure repairs are made in accordance with manufacturer's instructions and at a CG-approved servicing facility.* | |
| Notes: | | |
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## *Task 8: Lifesaving Equipment (Continued)*

| Step | Action | Ref |
|---|---|---|
| 8.17 | ☐ Rescue platforms.<br><br>**<u>Note</u>:** *Vessels that are not required to carry a rescue boat may or may not be required to carry a rescue platform. If the vessel is configured in such a manner as to be able to recover a person from the water without a platform, no platform is required. It will be noted on the COI if the vessel is required to carry a rescue boat or a rescue platform.* | 46 CFR 180.210 |
| 8.18 | ☐ Ensure adequate means are provided for transferring a victim from a rescue boat or platform to the deck of the vessel. | 46 CFR176.808 (g) |
| 8.19 | ☐ Inspect survival craft stowage. Ensure each survival craft is:<br>☐ Secured to vessel by a painter with a weak link<br>☐ Stowed in a float-free arrangement (hydrostatic release unit needed when tied down)<br>☐ Automatically inflates where applicable<br>☐ Readily accessible to crew for quick launch<br>☐ Fully equipped as required<br>☐ Sheltered from breaking seas and fire damage<br>☐ Stowed to prevent shifting | 46 CFR 180.137<br>46 CFR 180.130<br>46 CFR 180.150 |

Notes:

## *Task 8: Lifesaving Equipment (Continued)*

| Step | Action | Ref |
|---|---|---|
| 8.20 | ☐ Ensure hydrostatic release units (HRUs) used in float-free arrangements are CG-approved.<br><br>If HRU is Then they must be...<br>• Non-disposable Serviced annually.<br>• Installed with body of HRU not making contact with survival craft or any other structure.<br>• Disposable Not expired.<br>• Installed right side up. | 46 CFR 160.062 |
| 8.21 | ☐ Ensure launching device is provided for any survival craft weighing more than 200 lb that requires lifting more than 1 vertical foot to launch. | NVIC 4-86 |

Notes:

## Task 8: Lifesaving Equipment (Continued)

| Step | Action | Ref |
|---|---|---|
| 8.22 | ☐ Ensure stowage of each life float and buoyant apparatus also meets each of the following:<br>☐ Secured with a CG-approved weak link (160.073) that is of proper strength for the capacity of the survival craft and that is attached at one end to the painter and at the other end to the vessel<br>☐ Means to secure weak link to vessel must have a breaking strength at least equal to strength of painter; if synthetic, be dark colored or UV resistant; and if metal, be corrosion resistant<br>☐ If painter attachment fitting is not provided, a means to attach the painter must be provided by a wire or line that encircles the device's body; will not slip off; has breaking strength that is at least the breaking strength of the painter; and is dark colored or UV resistant<br>☐ If a single painter is used for 2 or more life floats/ buoyant apparatus, ensure that:<br>• The total weight of the devices does not exceed 400 lb.<br>• Each device is attached to the painter with a line long enough (and of differing lengths) to ensure devices can float without contacting one another and that each device can be launched independently of the other(s).<br>• The strength of the weak link and the breaking strength of the painter (1,500 lb or, for 50 and more persons - 3,000 lb) is determined by the combined capacity of the devices attached to that painter.<br>• If stowed in tiers, ensure tiers are not more than 4' high and that spacers are used between devices. | 46 CFR 180.137 (e)(1)<br>46 CFR 180.175 (e)(3)(ii)<br><br>46 CFR 180.137 (f) |
| Notes: | | |
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## Task 8: Lifesaving Equipment (Continued)

| Step | Action | Ref |
|---|---|---|
| 8.23 | Inspect survival craft embarkation arrangements.<br>☐ Ensure a CG-approved launching appliance (160.163) or marine evacuation system (160.175) is provided for each inflatable life raft and IBA when either:<br>☐ The embarkation station is on a deck more than 15' above the waterline; OR<br>☐ The craft is to be boarding prior to being placed in the water<br>☐ Ensure a CG-approved embarkation ladder (160.017) is provided at every embarkation station whose deck is more than 10' above the waterline.<br>☐ Ensure ladder is in satisfactory condition (lines & steps not excessively worn or rotted, steps securely fitted to lines, etc.) and securely fastened to vessel (attachment points and shackles not wasted)<br>☐ Ensure deck area in vicinity of ladder is clear of any obstructions that may interfere with boarding or launching of survival craft | 46 CFR 185.700 (a)<br><br>46 CFR 180.150 (a)(1) & (2)<br><br>46 CFR 185.704 (c)<br>46 CFR 185.700 (a)<br><br>46 CFR 185.700 (b) |

Notes:

## Task 8: Lifesaving Equipment (Continued)

| Step | Action | Ref |
|---|---|---|
| 8.24 | Inspect launching appliances (davits & winches).<br>☐ Ensure structural integrity of any launching appliance (no excess wastage, no fractures, all fasteners tight, etc.).<br>☐ Ensure falls on launching appliances have been renewed at least every 5 years or when deteriorated (excess wear, flat spots, corrosion, broken wires, fishhooks, etc.).<br>☐ Ensure falls have been end for ended at least every 30 months.<br>☐ Ensure date of fall renewal/end for ending is recorded on a corrosion resistant tag affixed to the fall. | 46 CFR 185.700 (a)<br>46 CFR 176.808 (a)(1)<br>46 CFR 185.704 (b)<br>46 CFR 185.704 (a)<br>46 CFR 185.704 (c) |
| 8.25 | ☐ Conduct operational test of rescue boat (normally done in conjunction with man overboard drill). | 46 CFR 176.808 (a)(1) & (g)<br>46 CFR 185.520 (d)<br>46 CFR 185.720 |

Notes:

## *Task 9: Fire Protection Systems*

| Step | Action | Ref |
|---|---|---|
| 9.1 | ☐ Verify fire detection system is installed in the required spaces. | 46 CFR 181.400 |
| | ☐ Propulsion machinery space | |
| | ☐ A space containing an internal combustion engine of more than 50 hp | |
| | ☐ Space containing an oil-fired boiler | |
| | ☐ Space containing machinery powered by gasoline or other fuel with a flash point of 110°F or lower | |
| | ☐ Space containing a fuel tank for gasoline or other fuel with a flash point of 110°F or lower | |
| | ☐ A paint locker | |
| | ☐ A storeroom containing flammable liquids (including liquors of 80 proof or more, packed in individual containers of 2.5 gal or more) | 46 CFR 181.400 (a)(8) |
| | ☐ An enclosed vehicle space | 46 CFR 181.400 (f) |
| 9.2 | ☐ Verify fire detection has been serviced or tested annually. | 46 CFR 176.810 (a)(7) |
| 9.3 | ☐ Verify smoke detection systems are installed in the required areas (overnight passenger accommodation spaces). | 46 CFR 181.400 (e)<br>46 CFR 181.400 (c) |
| | ☐ Properly installed | 46 CFR 76.27 |
| 9.4 | ☐ Verify proper operation of fire and smoke detectors. | 46 CFR 176.810(a)(7)<br>46 CFR 181.450 |

Notes:

## *Task 9: Fire Protection Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 9.5 | ☐ Inspect fixed gas fire extinguishing systems. | 46 CFR 176.810<br>46 CFR 185.612 |
| | ☐ Complete operating instructions | NVIC 6-72 CH 1 |
| | ☐ Verify cylinders are weighted | NVIC 3-95 |
| | ☐ Verify cylinders are hydro-tested | |
| | ☐ Testing or renewal of flexible connections/ hoses (47 CFR 147.65) | 46 CFR 176.180 (a)(5) |
| | ☐ Must have manual ventilation closures on protected space | 46 CFR 182.15-45 |
| | ☐ Controls and valves must be located outside the protected space | 46 CFR 182.20-45 |
| | ☐ Must have local manual controls at the storage cylinders | 46 CFR 181.410 |
| | ☐ Must have remotes in a break glass enclosure | 46 CFR 182.465 (h) |
| | ☐ Piping | 46 CFR 181.20-35 |
| | • Pre-engineered – | |
| | • automatic shut down for power ventilation | 46 CFR 181.410 (b) |
| | • properly installed as per manufacture instruction | |
| | • light to indicate discharge | 46 CFR 181.410 (d) |
| | • audio alarm | |
| | • means to reset | |
| | • only one pre-engineered system per protected space | 46 CFR 181.420<br>46 CFR 181.20 |

Notes:

## *Task 9: Fire Protection Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 9.6 | ☐ Verify fixed gas fire extinguishing system has been serviced or tested annually. | 46 CFR 176.810 (b)(2) |
| 9.7 | ☐ Portable and semiportable fire extinguishers<br>☐ Annual service IAW NFPA 10<br>☐ Cylinders hydrotested<br>☐ Testing or renewal of flexible connections/ hoses (47 CFR 147.65)<br>☐ Required number and location | 46 CFR 176.810<br>NVIC 6-72 CH 1<br><br>46 CFR 176.180 (a)(5)<br>46 CFR 181.500 |
| 9.8 | ☐ Inspect fire main and hydrants. | 46 CFR 181.310<br>46 CFR 181.15 |
| 9.9 | ☐ Inspect fire axes. | 46 CFR 181.600<br>46 CFR 181.15-10 |
| 9.10 | ☐ Inspect fire buckets of 2.5 gals (if power fire pump not required). | 46 CFR 181.610 |
| 9.12 | ☐ Inspect fire pump. | 46 CFR 181.300<br>46 CFR 181.10 |

Notes:

| Step | Action | Ref |
|---|---|---|
| 9.13 | ☐ Test pump (all vessels)<br>☐ Vessel < 65ft & > 49 passengers & vessels > 65ft<br>☐ No excessive leaking<br>☐ Manual priming not required<br>☐ Pump is operable from main operating station and locally at the pump.<br>☐ Meets required capacity 50 gpm and pressure of 60psi<br>☐ Pump must have a pressure gauge | 46 CFR 181.300 |
| 9.13 | ☐ Inspect fire hoses and nozzles.<br>☐ Vessel < 65ft & > 49 passengers & vessels > 65ft<br>☐ Commercial lined fire hose (UL 19)<br>☐ 1.5 inches in diameter & 50 ft in length<br>☐ Fittings of brass or other suitable material (NFPA)<br>☐ Nozzle must be approved under 46 CFR 162.027 or type recognized by Commandant.<br>☐ Vessel < 65ft & < 49 passengers<br>☐ May have a garden type hose > .0625 inches in diameter and >25 ft but < 50 ft<br>☐ Fittings must be corrosion resistant material<br>☐ Nozzle must be corrosion resistant and be able to switch from stream to spray. | 46 CFR 181.320 |

Notes:

## *Task 9: Fire Protection Systems (Continued)*

| Step | Action | Ref |
|---|---|---|
| 9.14 | ☐ Test fire hoses using installed fire pump.<br>☐ Piping<br>☐ Valves<br>☐ Fittings | 46 CFR 176.810<br>46 CFR 181.310<br>46 CFR 181.320 |
| 9.15 | ☐ Inspect structural fire protection.<br>☐ Noncombustible trim<br>☐ Fire-resistant furnishing | 46 CFR 177.405<br>46 CFR 177.410 |
| 9.16 | ☐ Inspect paint lockers.<br>☐ Constructed of steel or equivalent material<br>☐ Protected by fire extinguishing system | 46 CFR 177.405 |
| 9.17 | ☐ Inspect emergency outfits and equipment (SOLAS only).<br>☐ Vessel provided with required number of outfits<br>☐ Spare charges for breathing apparatus are provided<br>☐ Storage locations are easily accessible, permanently and clearly marked, and separated as wide as practicable. | SOLAS II-2/10 |

Notes:

| Step | | Action | Ref |
|---|---|---|---|
| 9.18 | ☐ | Verify fire control plan (SOLAS only).<br>☐ Vessels on an international route must have general arrangement plans permanently exhibited with details of decks, divisions, fire fighting equipment<br>☐ Fire control plan must be in language required by administration and translated into English or French.<br>☐ Duplicate set of plans shall be provided in a prominent weather tight container outside deckhouse for aid of shore side firefighting personnel. | SOLAS II-2/15/3 |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery*

| Step | Action | Ref |
|---|---|---|
| 10.1 | Inspect propulsion machinery. | |
| | ☐ Ensure propulsion machinery is suitable and capable of operating at constant marine loads | 46 CFR 182.200 (a) |
| | ☐ Ensure propulsion machinery has not been changed out since last inspection (change in center of gravity and weight may adversely affect stability). | 46 CFR 176.702<br>46 CFR 176.402 (d)(3) & (4) |
| | ☐ Ensure all engines have at least two means for stopping the engine(s), one of which may be the shutoff valves required in fuel lines. | 46 CFR 182.200 (b) |
| | ☐ Ensure there is a reliable means of shutting down a propulsion engine at the main pilothouse control station. | 46 CFR 184.620 (a)<br>46 CFR 175.10-29 |
| | ☐ Ensure machinery guards are installed over exposed gears, belts or other rotating machinery | 46 CFR 184.620 (b)<br>46 CFR 177.960<br>46 CFR 177.35-15 |
| 10.2 | ☐ Inspect internal combustion engines (diesel and gasoline powered). | |
| | ☐ Ensure all starting motors, generators, and spark-producing devices are mounted as high above bilges as practicable | 46 CFR 182.410 (a)<br>46 CFR 182.410 (b) |
| | ☐ Ensure gauges for rpm, jacket water discharge temperature, and lubricating oil pressure are provided and are readily visible at the operating station (rpm gauge not required for existing vessels) | 46 CFR 182.15-5<br>46 CFR 182.20-5<br>46 CFR 182.410 (d) |
| | ☐ Ensure all flexible hoses are clamped at each end with two corrosion-resistant metal hose clamps where practicable (a single clamp is allowed when pipe end is expanded or beaded)<br>○ Hose meets SAE J-1942 standards and has end fittings that comply with SAE J-1475 standards which have been installed IAW the manufacturer's instructions. | 46 CFR 182.720 |

## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.3 | ☐ Inspect engine cooling system as follows: | |
| | ☐ Ensure the engine head, block, and exhaust manifold are cooled by water from a pump that operates whenever the engine operates. | 46 CFR 182.420 (a)(1) |
| | ☐ Ensure a suitable strainer is installed on the raw water intake line of the cooling system. | 46 CFR 182.420 (a)(2) |
| | ☐ On vessels ≤ 65 ft and carrying ≤ 12 passengers, a propulsion or auxiliary gasoline engine may be air cooled if in compliance with ABYC P-4. | 46 CFR 182.420 (c)&(d) |
| | ☐ An auxiliary gasoline engine may be air cooled if it is installed on an open deck and has a self-contained fuel system. | 46 CFR 182.420 (d)(1) |
| | ☐ A diesel engine may be air cooled or employ an air cooled jacket water radiator when sufficient ventilation is available, or is installed on vessels ≤ 65 ft and carrying ≤ 12 passengers and is in compliance with ABYC P-4. | 46 CFR 182.420 (e)<br>46 CFR 182.465 (b) |
| 10.4 | ☐ Ensure keel coolers are provided with a shutoff valve where the cooler penetrates the hull (not required for integral keel coolers). | 46 CFR 182.422 (b) |
| | ☐ Ensure all piping outboard of the shutoff valves is at least Schedule 80 and that any flexible hoses used at the machinery connections is approved hose and double hose clamped | 46 CFR 182.422 (c)&(d) |
| | ☐ Ensure all integral keel coolers are fabricated with material of the same thickness and quality of the hull using full penetration welds and with a slope at each end not greater than 4 to 1. | 46 CFR 182.422 (e) |

Notes:

| Step | Action | Ref |
|---|---|---|
| 10.5 | ☐ Inspect engine exhaust systems as follows (as an alternative, vessels may instead comply with ABYC P-1):<br>☐ Ensure dry exhaust pipes are clear of and suitably insulated from combustible materials and suitably insulated to prevent injuries.<br>☐ Ensure dry exhaust pipes installed on wood and FRP boats are installed IAW ABYC P-1 (designed to arrest sparks; metallic connections are flanged, threaded, or welded; and flexible sections are seamless stainless steel). | 46 CFR 182.425 (c)<br>46 CFR 182.430 (k)<br>46 CFR 182.425 (a)(1) & (2)(v)<br>46 CFR 177.405 (b) |
| 10.6 | ☐ Ensure horizontal dry exhaust pipes:<br>☐ Do not pass through living or berthing spaces.<br>☐ Terminate above the deepest load waterline.<br>☐ Are arranged to prevent entry of cold water from rough or boarding seas (i.e., flaps installed over exhaust outlet).<br>☐ Are constructed of corrosion-resisting material at the hull penetration. | 46 CFR 182.425 (a)(2) |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery (Continued*

| Step | | Action | Ref |
|---|---|---|---|
| 10.7 | ☐ | Ensure that exhaust pipe systems cooled by water are: | |
| | | ☐ Provided with cooling water obtained from the engine cooling system or from a separate engine driven pump. | 46 CFR 182.425 (b)(1) |
| | | ☐ Fitted so that cooling water is injected into the exhaust system as close as possible to the engine exhaust manifold and so that water passes through the entire length of the exhaust pipe. | 46 CFR 182.425 (b)(2) |
| | | ☐ Fitted with insulation or be water-jacketed between the exhaust manifold and the point of cooling water injection. | 46 CFR 182.425 (b)(3) |
| | | ☐ Either water-jacketed or insulated, if a vertical exhaust pipe, to ensure no water is mixed with exhaust gases. | 46 CFR 182.425 (b)(4) |
| | | ☐ Provided with a suitable warning device, visual or audible, installed at the operating station to indicate any reduction in water flow when the cooling water is provided from a source other than the engine cooling water system. | 46 CFR 182.425 (b)(5)<br>46 CFR 182.15-15 (b)(5)<br>46 CFR 182.425 (b)(6) |
| | | ☐ Provided with a suitable strainer in the intake line. | 46 CFR 182.430 (b)<br>46 CFR 182.15-20 (a) |
| 10.8 | ☐ | Ensure there are two independent means to control speed and direction of rotation for each propulsion engine (not required for vessels with multiple propulsion engines with independent control for each engine). | 46 CFR 184.620 (a) |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | | Action | Ref |
|---|---|---|---|
| 10.09 | ☐ | Ensure there is a fixed means of two-way communications from the operating station to the location of the means to control the engine (not required for multi-engine vessels with pilothouse controls for each engine). | 46 CFR 184.602 (a) |
| | ☐ | Two-way communications may be satisfied with handheld portable radios or, if locations are sufficiently close together, with direct voice communications (test while underway at full power). | 46 CFR 184.602 (d) & (e) |
| 10.10 | ☐ | Ensure machinery and boilers for steam and electrically propelled vessels comply with subchapter F (Marine Engineering) and subchapter J (Electrical Engineering). | 46 CFR 182.220 (b) |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.11 | ☐ Inspect auxiliary machinery. | |
| | ☐ Ensure heating boilers are tested or examined every 3 years | 46 CFR 182.310 |
| | ☐ Ensure water heaters comply with 46 CFR Parts 53 & 63 except: | 46 CFR 182.310 (c) |
| | ☐ Electric water heaters rated at not more than 100 psi and 250°F are acceptable if: | |
| | ☐ Capacity ≤ 120 gallons; | |
| | ☐ Heat input ≤ 200,000 Btu per hour; | 46 CFR 182.320 (a) & (b) |
| | ☐ UL listed (UL 174 or UL 1453); AND | |
| | ☐ Protected by pressure-temperature relief device | 46 CFR 182.320 (a) |
| 10.12 | ☐ Ensure water heaters are installed and secured from rolling and movement. | 46 CFR 182.320 (c) |
| 10.13 | Inspect boilers. | 46 CFR 182.310(c) |
| | ☐ Ensure machinery of steam or gas turbine type, auxiliary boilers, and heating boilers comply with subchapter F (Marine Engineering) | MSM Vol. II B1-G<br>NVIC 11-92 |
| | ☐ Verify boilers including associated piping and fittings meet applicable requirements of subchapter “F”. | 46 CFR 61.15-5<br>NVIC 1-71 |
| | ☐ Inspect boiler safety valves. | 46 CFR 61.05-10G |
| | ☐ Ensure no flex hose is used from the F/O pump to the burner. | 46 CFR 61.05-10 |
| | ☐ Test boilers | |
| 10.14 | ☐ Ensure unfired pressure vessels comply with subchapter F (Marine Engineering). | 46 CFR 182.330 |

Notes:

| Step | Action | Ref |
|---|---|---|
| 10.15 | ☐ Conduct tests & inspections of UNFIRED pressure vessels IAW 46 CFR 61.10.<br>☐ Complete external and internal visual inspection at least every 5 years, except:<br>☐ Internal inspection is not required on Class I and II pressure vessels (see 46 CFR table 54.01-5(b)) with a volume of <5 cu ft which do not contain hazardous materials and are stamped with either the ASME "U" or "UM" symbols<br>☐ Complete hydrostatic test (water, not air) if visual inspection reveals defect which may effect safety of pressure vessel. Test pressure shall be 1-1/2 times the vessel's MAWP<br>☐ Complete check of safety or relief valves settings at least twice in 5 years and not more than every 3 years<br>☐ Ensure safety or relief valve setting does not exceed the pressure vessel's MAWP and that valve does not relieve at a pressure greater than the vessel's MAWP<br>☐ Ensure safety or relief valve relieves at a pressure not more than 10% above or below the valve's marked pressure<br><br>Service Working Pressure Relief Valve Setting<br>Date Tested or Examined | 46 CFR 176.812<br>46 CFR 182.15-25(b)(4)<br>46 CFR 61.10-5 (b)<br><br>46 CFR 54.01-5 (c)(3)<br><br>46 CFR 61.10-5 (b) (3)<br><br>46 CFR 61.10-5 (i)<br><br>46 CFR 54.15-10 (a)<br><br>46 CFR 54.15-10 (g) |
| Notes: | | |
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## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | | Action | Ref |
|---|---|---|---|
| 10.16 | ☐ | Ensure independent fuel tank(s) has not been replaced with a different sized tank or relocated since last inspection (change in center of gravity and weight may adversely affect stability). | 46 CFR 176.702<br>46 CFR 176.402 (d)(3) & (4) |
| | ☐ | Ensure fuel tank(s) is free of excessive corrosion, that no fittings are leaking, that independent fuel tanks are properly secured in place to prevent movement, and that tank is insulated from braces and supports by a nonabrasive and nonabsorbent material. | 46 CFR 176.804 (d)<br>46 CFR 182.440 (b)(3) |
| | ☐ | When the structural integrity of a fuel tank is in question, ensure the tank is replaced or, as an alternative, witness a satisfactory hydrostatic (use liquid only, not air) pressure test of the tank to 5 psig or 1-½ times the max pressure head the tank may be subjected to, whichever is greater. | 46 CFR 176.804 (c)(1) |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | | Action | Ref |
|---|---|---|---|
| 10.17 | ☐ | Ensure all fuel tanks are electrically bonded to a common ground. | 46 CFR 182.440 (b)(4)<br>46 CFR 182.15-25(b)(4) |
| 10.18 | ☐ | Ensure there is a means to accurately determine the amount of fuel in each tank. | 46 CFR 182.445 (b) |
| 10.19 | ☐ | Ensure fill pipes and sounding pipes are so arranged that overflow of liquid or vapor cannot escape to the inside of the vessel. | 46 CFR 182.445 (d) |
| 10.20 | ☐ | Ensure all fuel tank fill pipes and sounding pipes are suitably marked. | 46 CFR 182.445 (e) |
| 10.21 | ☐ | Each fuel tank is fitted with a vent pipe connected to its highest point (tanks without a vent line must be inspected as a pressure vessel).<br>☐ Ensure net cross sectional area of vent pipes are at least:<br>☐ .625 inches if fill pipe terminates at top of the tank;<br>☐ .75 inches if fill pipe extends into tank; or<br>☐ The cross sectional area of the fill pipe if the tank is filled under pressure.<br>☐ Ensure tank space is properly vented<br>☐ >500 cubic feet = gooseneck >2.5 inches<br>☐ <500 cubic fee = gooseneck >1.5 inches | 46 CFR 182.440 (c)(3)<br>46 CFR 182.450 (b)&(c)<br>46 CFR 182.450 (d)<br>46 CFR 182.450 (e)<br>46 CFR 182.15-35<br>46 CFR 182.460<br>46 CFR 182.470<br>46 CFR 182.15-45<br>46 CFR 182.20-50 |

Notes:

## *Task 10: Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.22 | ☐ Ensure discharge ends of vent pipes terminate outside of vessel, either on the hull exterior or in U-bends as high above the weather deck as possible.<br>☐ Ensure discharge ends of vent pipes are fitted with a flame screen or flame arrester of such design and size as to not reduce the net cross sectional diameter of the vent pipe and to permit cleaning or renewal (flame screens must consist of a single screen of corrosion resistant wire of at least 30 x 30 mesh). | 46 CFR 182.450 (e) |
| 10.23 | ☐ Verify when flexible hose is used in the vent pipe:<br>☐ Hose has high resistance to salt water, petroleum oils, heat, and vibration.<br>☐ Hose overlaps metal pipe ends at least 1-½ times the pipe diameter and is secured with 2 hose clamps. | 46 CFR 182.450 (g) |
| 10.24 | ☐ Vent pipes are installed with an upward gradient in a manner to prevent fuel from being trapped in the line. | 46 CFR 182.450 (h) |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.25 | Inspect fuel piping as follows:<br>☐ Ensure fuel lines are of one of the following materials:<br>☐ Annealed tubing of copper, copper-nickel, or nickel-copper having wall thickness of at least 0.035 inches; or<br>☐ For diesel fuels, piping which provides equivalent safety such as seamless steel pipe or tubing may be used; or<br>☐ For diesels fuels on aluminum hulled vessels, aluminum piping of at least schedule 80 may be used.<br>☐ Flexible hose meets the following requirements:<br>☐ Hose meets SAE J-1942 standards and has end fittings that comply with SAE J-1475 standards which have been installed IAW the manufacturer's instructions.<br>☐ Hose runs are visible, easily accessible, protected from mechanical damage, and do not penetrate watertight decks or bulkheads<br>☐ Hose used only for the purpose of flexibility in lengths ≤ 30 inches and subject to pressures ≤ 5 psig (normally used to connect metallic fuel pipe runs to the engine to eliminate effects of engine vibration) may meet the following requirements:<br>☐ Suitable compression-type connection fittings may be used or hose may be installed with two hose clamps at each end of the hose; and<br>☐ USCG Type A1, A2, B1, or B2 may be accepted instead of hose meeting SAE Standard J-1942 | 46 CFR 182.455 (a)(1)<br>46 CFR 182.455 (a)(1)(iii)<br>46 CFR 182.720 (e)<br>46 CFR 182.40<br>46 CFR 182.720 (e)(1)<br>46 CFR 182.720 (e)(3)<br>46 CFR 182.720 (e)(3)(v) |
| Notes: | | |
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## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.26 | ☐ Ensure no cock-type valves are in fuel lines except for the solid bottom type. | 46 CFR 182.455 (b)(3)<br>46 CFR 182.15-40(a)(5)<br>46 CFR 182.20-40(a)(4) |
| 10.27 | ☐ Ensure all fuel lines are accessible for inspection, protected from mechanical injury, and secured against excessive movement and vibration.<br>☐ Ensure fuel line securing straps are of soft, nonferrous metal which have no sharp edges and are insulated to protect against corrosion<br>☐ Ensure fuel lines passing through bulkheads are protected from damage by close fitting ferrules or stuffing boxes | 46 CFR 182.455 (b)(3) |
| 10.28 | ☐ Ensure manually operated shutoff valves are installed in the fuel supply lines at the fuel tank connection and the engine end of the fuel line.<br>☐ Ensure that the shutoff valve at the fuel tank connection (also known as the emergency fuel shutoff valve) can be manually operated from outside the compartment in which the valve is located.<br>☐ If the handle of the emergency fuel shutoff valve is located inside the machinery space, it must be located so operator does not have to reach more than 12 inches into space and must be shielded from flames.<br>☐ Ensure electric solenoid shutoff valves are used only if used in addition to the manual valves.<br>☐ Ensure remote fuel shutoff stations are marked indicating direction of turn | 46 CFR 182.455 (b)(4)<br>46 CFR 182.15-40(b)(3)<br>46 CFR 182.20-40(b)(3)<br><br>46 CFR 185.608<br>46 CFR 185.30-20 |
| Notes: | | |
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## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.29 | ☐ Ensure a loop of copper tubing or flexible hose is installed in the fuel supply line where it connects to the engine. | 46 CFR 182.455 (b)(5) |
| 10.30 | ☐ Ensure that a suitable metal marine type strainer is fitted in the fuel supply line in the engine compartment and meets the following:<br>☐ Is leak free; and<br>☐ Fuel filters fitted with bowls of other than steel construction (such as Raycor filter with clear bowls) must be approved by COMDT, be protected from mechanical damage, and be fitted with a flame shield if specified when approved by COMDT. | 46 CFR 182.455 (b)(6)<br>46 CFR 182.20-40(b)(5)<br>46 CFR 182.15-40(b)(5) |
| 10.31 | ☐ Ensure any accessory installed in the fuel line is independently supported. | 46 CFR 182.455 (b)(7) |
| 10.32 | ☐ Ensure any valves for removing water or impurities from diesel fuel water traps or strainers are fitted with caps or plugs. | 46 CFR 182.455 (b)(9) |
| 10.33 | ☐ Ensure portable fuel tanks are not used except when used for portable dewatering pumps and outboard engines. | 46 CFR 182.458 (a) |
| 10.34 | ☐ Ensure portable fuel tanks and any related fuel lines and accessories meet ABYC H-25 standards. | 46 CFR 182.458 (b) |

Notes:

| Step | Action | Ref |
|---|---|---|
| 10.35 | ☐ Inspect the following on vessels equipped with GASOLINE-powered internal combustion engines ONLY:<br>☐ Ensure electrical equipment in spaces containing machinery powered by and fuel tanks for gasoline are explosion-proof, intrinsically safe, or ignition protected for use in a gasoline atmosphere.<br>☐ Ensure enclosed spaces containing machinery powered by gasoline are equipped with a flammable vapor detection system.<br>☐ Ensure flammable vapor detection system meets UL Standard 1110 “Marine Combustible Gas Indicators”<br>☐ Ensure system is operational for at least 30 seconds prior to engine startup and continues sensing the entire engine is running<br>☐ Ensure system provides a visual and audible alarm at the operating station<br>☐ Ensure a system sensor is located in the lowest part of a machinery space and a fuel tank space above expected bilge water levels<br>☐ Ensure that system operating instructions are posted at the operating station and that the system's operations and maintenance manual is onboard<br>☐ Ensure all carburetors (except downdraft types) are equipped with an integral or externally fitted drip collector of adequate capacity. | 46 CFR 182.410 (a)<br>46 CFR 182.410 (c)<br>46 CFR 182.480 (a)<br>46 CFR 182.480 (c)<br>46 CFR 182.480 (d)<br>46 CFR 182.480 (e)<br>46 CFR 182.480 (b)&(h)<br>46 CFR 182.415 (a) |
| Notes: | | |
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## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.35 (Con't) | ☐ Ensure all gasoline engines (except outboard engines) are fitted with an acceptable means of backfire flame control as follows:<br>☐ A clean backfire flame arrester complying with, and marked, SAE J-1928 or UL 1111 secured to the air intake with a flametight connection<br>☐ An engine air and fuel induction system that provides adequate protection equivalent to a backfire flame arrester<br>☐ An arrangement of the carburetor or engine air induction system that will disperse any flames to the atmosphere outside the vessel in a safe manner, or<br>☐ An air induction system approved, marked, and tested under 46 CFR 162.043 | 46 CFR 182.415 (c) |
| 10.36 | ☐ Ensure gasoline is stored only in fuel tanks that are independent of the hull. | 46 CFR 182.435 (a) |
| 10.37 | ☐ Ensure fill pipes and sounding pipes for gasoline fuel tanks extend to within one-half of their diameter from the bottom of the tank. | 46 CFR 182.445 (e) |
| 10.38 | ☐ Ensure valves in gasoline fuel lines are of a suitable nonferrous type. | 46 CFR 182.455 (a)(4) |
| 10.39 | ☐ Ensure all gasoline fuel lines are connected at the top of the tank and run at or above the level of the tank top to a point as close as possible to the engine connection (fuel lines may be run below the level of the tank top if fitted with antisiphon protection). | 46 CFR 182.455 (b)(1) |
| Notes: | | |
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## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.40 | ☐ Ensure a drip pan fitted with a flame screen is installed under each gasoline strainer. | 46 CFR 182.455 (b)(6) |
| 10.41 | ☐ Ensure no outlets to permit drawing of fuel below deck are present in gasoline fuel lines. | 46 CFR 182.455 (b)(8) |
| 10.42 | ☐ Ensure flexible hose used for alcohol-gasoline blend fuels meets the permeability requirements of 33 CFR 183, subpart J (SAE Class 1 or Class 2 hose or USCG A1, A2, B1 or B2 hose). | 46 CFR 182.720 (e)(3)(iv)<br>46 CFR 182.455 (g)<br>46 CFR 182.20-30 (d) |
| 10.43 | ☐ Operational test of all overboard discharge and intake valves and watertight bulkhead pipe penetration valves;<br>☐ Operational test of the means provided for pumping bilges; and (i) Test of machinery alarms including bilge high level alarms.<br>☐ Ensure vessel has been provided with bilge pumps in accordance with Table 182.520(a).<br>☐ If there is a portable hand bilge pump must be:<br>☐ Capable of pumping water, but not necessarily simultaneously, from all watertight compartments; and<br>☐ Provided with suitable suction hose capable of reaching the bilge of each watertight compartment and discharging overboard. | 46 CFR 176.804 (g)<br>46 CFR 176.804 (h)<br>46 CFR 182.520 (a)<br>46 CFR 182.520 (b)<br>46 CFR 182.25-5(d) |

Notes:

## *Task 10*: *Machinery and Auxiliary Machinery (Continued)*

| Step | Action | Ref |
|---|---|---|
| 10.43 | ☐ Ensure that a vessel of at least 26 feet in length, has a visual and audible alarm at the operating station to indicate a high water level in each of the normally unmanned spaces<br>☐ Ensure that a vessel of at least 26 feet in length has been provided with individual bilge lines and bilge suctions for each watertight compartment, the arrangement of the vessel is such that ordinary leakage may be removed from this compartment by the use of a hand portable bilge pump or other equipment, and such equipment is provided.<br>☐ Ensure a bilge pipe in a vessel of not more than 65 feet in length must be not less than 1 inch nominal pipe size.<br>• A bilge pipe in a vessel of more than 65 feet in length must be not less than 1.5 inches nominal pipe size.<br>• A bilge suction must be fitted with a suitable strainer having an open area not less than three times the area of the bilge pipe. | 46 CFR 182.530 (a)<br>46 CFR 182.510 (a)<br>46 CFR 182.25-5(d)<br>46 CFR 182.510 (b) |
| 10.44 | ☐ Ensure all vital systems piping is appropriate and meet subpart F | 46 CFR 182.710<br>46 CFR 182.40-5 |

Notes:

## *Task 11: Electrical*

| Step | Action | Ref |
|---|---|---|
| 11.1 | ☐ Inspect independent generators. | 46 CFR 183.310 (b) |
| | ☐ Ensure that when a ship service generator driven by a propulsion engine is used as a source of electrical power, a vessel speed change, throttle movement or change in direction of the propeller shaft rotation must not interrupt power to any of the loads specified in paragraph (a)(1) of this section. | |
| 11.2 | ☐ Inspect batteries and alternator (if required). | 46 CFR 183.310 (a)(2) |
| | ☐ Ensure a vessel with batteries of adequate capacity to supply the loads specified in paragraph (a)(1) of this section for three hours, and a generator or alternator driven by a propulsion engine, complies with the requirement in paragraph (a)(1) of this section. | |
| | ☐ Inspect of batteries for condition and security of stowage | 46 CFR 176.806 (f) |
| | ☐ All batteries must be located as high above the bilge as practicable, secured to protect against shifting with the roll and pitch of the vessel, and free from exposure to water splash or spray | 46 CFR 183.350 |
| | ☐ All batteries must be mounted in trays lined with, or constructed of, a material that is resistant to damage by the electrolyte | 46 CFR 183.350 (d) |
| | ☐ Battery charger with ammeter connected to charging circuit | 46 CFR 183.05-20 |

Notes:

| Step | Action | Ref |
|---|---|---|
| 11.3 | ☐ Inspect switchboards and distribution panels. | 46 CFR 183.330 |
| | ☐ Ensure location is dry, adequately ventilated, totally enclosed, has drip shield, non-conducting mat or grating, and over current | 46 CFR 183.380<br>46 CFR 183.376 (a) |
| | ☐ Check that if a grounded distribution system is provided, there must be only one connection to ground, regardless of the number of power sources. This ground connection must be at the switchboard or at the common ground plate, which must be accessible | |
| | ☐ Ensure each propulsion, power, lighting, or distribution system having a neutral bus or conductor must have the neutral grounded | 46 CFR 183.376 (b) |
| | ☐ The neutral bus must be permanently connected to the neutral bus on the main switchboard; | 46 CFR 183.376 (c) |
| | ☐ No switch, circuit breaker, or fuse in the neutral conductor of the bus-tie feeder connecting the emergency switchboard to the main switchboard | |
| | ☐ Ensure on a metallic vessel, a grounded alternating current system must be grounded to the hull. On a nonmetallic vessel, the neutral must be connected to the common ground, except that aluminum grounding conductors must not be used. | 46 CFR 183.376 (d) |

Notes:

| Step | Action | Ref |
|---|---|---|
| 11.3 (cont) | ☐ Ensure all metallic enclosures and frames of electrical equipment are permanently grounded to the hull on a metallic vessel. On a nonmetallic vessel, the enclosures and frames of electrical equipment must be bonded together to a common ground by a normally non-current carrying conductor. Metallic cases of instruments and secondary windings of instrument transformers must be grounded. | 46 CFR 183.372 (a) |
| | ☐ Ensure that on a nonmetallic vessel, where a ground plate is provided for radio equipment, it must be connected to the common ground. | 46 CFR 183.372 (b) |
| 11.4 | ☐ Inspect radios fused at the main panel (INSPECT RADIO POWER SUPPLY). | 46 CFR 183.392 |
| 11.5 | ☐ Inspect cable, wiring, receptacles, outlets, and accessories. | |
| | ☐ Inspect all cable as far as practicable without undue disturbance of the cable or electrical apparatus | 46 CFR 176.806 (a) |
| | ☐ Test all circuit breakers by manual operation; | 46 CFR 176.806 (b) |
| | ☐ Inspect fuses including ensuring the ratings of fuses are suitable for the service intended; | 46 CFR 176.806 (c) |
| 11.6 | ☐ Inspect lighting fixtures. | 46 CFR 183.410<br>46 CFR 183.30-1 |

Notes:

## *Task 11: Electrical (Continued)*

| Step | Action | Ref |
|---|---|---|
| 11.7 | ☐ Inspect portable lighting. | 46 CFR 183.430 |
| 11.8 | ☐ Test emergency lighting. | |
| | ☐ Ensure each vessel has adequate emergency lighting fitted along the line of escape to the main deck from all passenger and crew accommodation spaces located below the main deck | 46 CFR 183.432 (a)<br>46 CFR 183.30 |
| | ☐ The emergency lighting required by paragraph (a) of this section must automatically actuate upon failure of the main lighting system. If a vessel is not equipped with a single source of power for emergency lighting, it must have individual battery powered lights that: | |
| | ☐ Are connected to an automatic battery charger; and Have sufficient capacity for a minimum of 2 hours of continuous operation | 46 CFR 183.432 (b) |

Notes:

## *Task 11: Electrical (Continued)*

| Step | Action | Ref |
|---|---|---|
| 11.09 | ☐ Inspect general electrical installation. | 46 CFR 183.340 |
| | ☐ If individual wires, rather than cable, are used in systems greater than 50 volts, the wire must be in conduit. | 46 CFR 183.05-40 |
| | ☐ All cable and wire must have stranded copper conductors with sufficient current carrying capacity for the circuit in which they are used; | 46 CFR 183.05-45<br>46 CFR 183.05-50 |
| | ☐ Be protected from the weather; | 46 CFR 183.10-20 |
| | ☐ Be installed with metal supports spaced not more than 24 inches apart, and in such a manner as to avoid chafing and other damage. | |
| | ☐ Operationally test electrical apparatus, which operates as part of or in conjunction with a fire detection or alarms system installed on board the vessel, by simulating, as closely as practicable, the actual operation in case of fire; and | 46 CFR 176.806 (g) |
| | ☐ Operationally test of all emergency electrical systems | |
| | ☐ A portable or temporary electric cord or cable must be constructed and used in compliance with the requirements of Sec. 111.60-13 in subchapter J of this chapter for a flexible electric cord or cable | 46 CFR 176.806 (h)<br>46 CFR 183.340 (r) |
| 11.10 | ☐ Inspect over current protection. | 46 CFR 183.380 |

Notes:

## *Task 12: Pollution Prevention Systems*

| Step | Action | Ref |
|---|---|---|
| 12.1 | Verify oil pollution placard posted. (Vsl >26 ft length) | 33 CFR 155.45( |
| 12.2 | ☐ Verify garbage placard. (Vsl >26 ft in len<br>☐ Prominent locations: readable by crew a passengers | 33 CFR 151.59 |
| 12.3 | ☐ Examine marine sanitation device.<br>• Operable<br>• Labeled type I, II, or III (not required for typ that store affluent at ambient air pressure a temperature) | 33 CFR 159.7 |
| 12.4 | ☐ Verify bilges are free of debris and exces amounts of oil. | 46 CFR 176.83( |
| 12.5 | ☐ MARPOL VI Compliance<br>• COI Endorsement for vessel on internation voyage if less than 400 GT ITC | 40 CFR 94 or 1042<br>CG-543 Policy l 09-01 |
| 12.6 | ☐ Verify VGP compliance.<br>• Is the state of deck and work areas housekeeping adequate?<br>• Deck is free of clutter, garbage, fuel/oil sp<br>• Are spill rails and drip pans in place and | VGP Parts 2.1 and 2.2.1 |

Notes:

## *Task 13:* MTSA/ISPS Compliance (International Voyages Only)

| Step | | Action | Ref |
|---|---|---|---|
| 13.1 | ❑ | Compliance documentation<br>• Approved Vessel Security Plan | 33 CFR 104.120<br>ISPS, Part A, 9.1 |
| 13.2 | ❑ | Waiver<br>• Approved by CG-543 | 33 CFR 104.130 |
| 13.3 | ❑ | Equivalents<br>• Approved by CG-543 | 33 CFR 104.135 |
| 13.4 | ❑ | Maritime Security (MARSEC) directive<br>• Proper safeguards<br>• Incorporated into VSP | 33 CFR 104.145 |
| 13.5 | ❑ | Master<br>• Aware of responsibility and authority with regards to MTSA | 33 CFR 104.205 |
| 13.6 | ❑ | Company Security Officer (CSO)<br>• Training / experience<br>• Valid TWIC<br>• See list of example questions | 33 CFR 104.210<br>ISPS, Part A, 11 |
| 13.7 | ❑ | Vessel Security Officer (VSO)<br>• Training / experience<br>• Valid TWIC<br>• See list of example questions | 33 CFR 104.215<br>ISPS, Part A, 12 |

13.8 ❑ Company or vessel personnel with security duties

- Training / experience
- Valid TWIC
- See list of example questions

33 CFR 104.220
ISPS, Part A, 13.3

## *Task 13:* MTSA/ISPS Compliance (Continued)

| Step | | Action | Ref |
|---|---|---|---|
| 13.9 | ❑ | Security Training for all other vessel Personnel | 33 CFR 104.225<br>ISPS, Part A, 13.3 |
| 13.10 | ❑ | Vessel Record Keeping Requirements<br>• Training<br>• Drills and exercises<br>• Breaches of security<br>• Change in MARSEC levels<br>• Maintenance, calibration, and testing of security equipment.<br>• Security threats<br>• Annual audit of the VSP<br>• Declaration of Security (DoS)<br>• Retained for Two years | CFR 104.235<br>ISPS, Part A, 10 |
| 13.11 | ❑ | MARSEC level coordination and implementation<br>• Proper MARSEC level<br>• MARSEC level at least at current port level | 33 CFR 104.240 |
| 13.12 | ❑ | Communications<br>• Vessel security personnel<br>• Facility<br>• National and local authorities<br>• Demonstrate communications operations consistent with the VSP | 33 CFR 104.245<br>ISPS, Part A 7.2.7 |
| 13.13 | ❑ | Declaration of Security (DoS)<br>• Required for cruise ships or manned CDC bulk vessels and any vessel or facilities with which it interfaces.<br>• Valid (for MARSEC level and effective time period)<br>Must have last 10 or continuous DoS reviewed at interval consistent with MARSEC level.<br>• Signed | 33 CFR 104.255<br>ISPS, Part A, 5.1 |

## *Task 13:* MTSA/ISPS Compliance (Continued)

| Step | | Action | Ref |
|---|---|---|---|
| 13.14 | ❑ | Security systems and equipment maintenance<br>• Testing completed IAW manufacturer's recommendations<br>• Working properly, effectively functions IAW VSP.<br>• Ship Security Alert System (SSAS) | 33 CFR 104.260 |
| 13.15 | ❑ | Security measures for access control<br>• Access points examined – signs posted in conspicuous locations.<br>• Control areas for authorized dangerous substances / devices<br>• Means of identifying unauthorized personnel<br>• TWIC for unescorted access to secure areas | 33 CFR 104.265<br>ISPS,Part A, 7.2.2 |
| 13.16 | ❑ | Security measures for newly hired employees (Pending receipt of TWIC)<br>• Access permitted for up to 30 days if:<br>• Has applied for TWIC<br>• Accompanied by TWIC holder in secure areas<br>• Operator enters new hire personal info in HOMEPORT<br>• Notified via HOMEPORT that new hire has passed initial name check.<br>• Provision does not apply to CSO, VSO or individual hired to perform security duties | 33CFR 104.267 |
| 13.17 | ❑ | Security measures for restricted areas<br>• Secure areas protected<br>• Properly marked<br>• Control measures adequate<br>• Do not conflict with safety measures | 33 CFR 104.270<br>ISPS,Part A 7.2.4 |

## *Task 13:* MTSA/ISPS Compliance (Continued)

| Step | | Action | Ref |
|---|---|---|---|
| 13.1 | ❑ | Security measures for handling ca<br>• Identifying cargo tamper<br>• Identifying approved cargo<br>• Access point – inventory contro<br>• Checking cargo for dangerous | 33 CFR 104<br>ISPS, Part A<br>7.2.6 |
| 13.1 | ❑ | Security measures for delivery of and bunker<br>• Security procedures followed<br>• Standing agreements valid | 33 CFR 104<br>ISPS, Part A<br>7.2.6 |
| 13.2 | ❑ | Security measures for monitoring<br>• IAW VSP<br>• Lighting<br>• Test intrusion alarms<br>• Emergency search procedures | 33 CFR 104<br>ISPS, Part A<br>7.2.5 |
| 13.2 | ❑ | Security Incident Procedures<br>• Witness during drill | 33 CFR 104 |
| 13.2 | ❑ | Additional requirements for passe ferries | 33 CFR 104 |
| 13.2 | ❑ | Vessel Security Assessment Repo<br>• Reviewed and attached to VSP | 33 CFR 104.305(d) |
| 13.2 | ❑ | Vessel Security Plan Reviewed | 33 CFR 104 |

## *Task 13:* MTSA/ISPS Compliance (Continued)

| Step | | Action | Ref |
|---|---|---|---|
| 13.25 | ❑ | Amendment and audit<br>• CSO / VSO audit letter attached to VSP as required ISSC<br>• Audits conducted as required (annually or after vessel modifications) | 33 CFR 104.415 |
| 13.26 | ❑ | Ship Security Alert System (vessels subject to SOLAS only)<br>• On the bridge and one other location<br>• Designed to prevent inadvertent activation<br>• Covert (unmarked, silent, and need to know)<br>• Tested IAW VSP | ISPS Part A, 9.4.18 |

| Step | Action | Ref |
|---|---|---|
| 13.27 ❑ | **<u>Security Drill</u>:**<br>• Observe security drill exercising the activation of the provisions in t or ASP related to a security threat, breach, security communication change of security level, or other security related incident or action describe in the VSP or ASP.<br>• Drill selection and location shall be as directed by the Master and V<br>• Critique Drill with VSO/CSO | |

Location: _____

Notes: _____

## *Task 14: Fire Drill*

| Step | Y | N | Action |
|---|---|---|---|
| 14.1 | ☐ | ☐ | Advise crew smoke and flames coming from a space. |
| 14.2 | ☐ | ☐ | Did crewmember sound alarm? |
| 14.3 | ☐ | ☐ | Did crewmember attempt an initial action? |
| 14.4 | ☐ | ☐ | Did the Master turn the vessel into the wind, slow down, etc, and make announcements to crew/passengers and make the call to local CG or vessels in the surrounding area? |
| 14.5 | ☐ | ☐ | Did Master control situation from helm, make announcements, and communicate effectively with crew? |
| 14.6 | ☐ | ☐ | Did crewmembers take control of situation and direct passengers as appropriate? |
| 14.7 | ☐ | ☐ | Did crewmembers communicate effectively with Master, other crewmembers, and passengers? |
| 14.8 | ☐ | ☐ | Was a charged firemain or fire buckets provided? |
| 14.9 | ☐ | ☐ | Did crewmember effectively fight the fire with portable fire extinguishers, close off ventilation closures, secure power and fuel? |
| 14.10 | ☐ | ☐ | If available, did the crew know how to operate and deploy the Fixed Fire Extinguishing System and/or fire pump? |
| 14.11 | ☐ | ☐ | Did the crew understand what agent they were using? |
| 14.12 | ☐ | ☐ | Did the drill follow the training and operations manual, the emergency instructions, or other placards posted? |
| 14.13 | ☐ | ☐ | Was the drill satisfactory? |

Notes:

## *Task 15: Abandon Ship Drill*

| Step | Y | N | Action |
|---|---|---|---|
| 15.1 | ☐ | ☐ | Advise crew the vessel is sinking and cannot be saved. |
| 15.2 | ☐ | ☐ | Did the Master simulate broadcasting a mayday on the VHF radio and provide the vessels position, number of persons on board, and type of distress? |
| 15.3 | ☐ | ☐ | Were life preservers properly donned by crew and passengers? |
| 15.4 | ☐ | ☐ | Did the crew have a plan (demonstrate as necessary) on how to deploy and marshal the vessel's primary lifesaving devices? |
| 15.5 | ☐ | ☐ | Did the Master simulate activating the vessel's 406 EPIRB? |
| 15.6 | ☐ | ☐ | Did the drill following the training and operations manual or SOLAS training materials note or emergency instructions or other placards posted? |
| 15.7 | ☐ | ☐ | Was the drill satisfactory? |

Notes:

## *Task 16: Man Overboard Drill*

| Step | Y | N | Action |
|---|---|---|---|
| 16.1 | ☐ | ☐ | Did the crew throw Oscar or fender overboard? |
| 16.2 | ☐ | ☐ | Did the crewmember call out “man overboard” and which side of the vessel the victim fell over, throw ring life buoy or PFD, fender, or other flotsam overboard and begin pointing to victim? |
| 16.3 | ☐ | ☐ | Did crewmember throw ring life buoy, PFD, fender, or other flotsam over? |
| 16.4 | ☐ | ☐ | If at night, was the waterlight attached to the life ring buoy and, was it deployed immediately? |
| 16.5 | ☐ | ☐ | Did the Master mark vessel’s position, and conduct a Williamson turn to get on reciprocal course (if man overboard is not in sight) or a destroyer turn (if man overboard is still in sight)? |
| 16.6 | ☐ | ☐ | Did the Master sound danger signal, mark position, course and speed, announce situation to crew/passengers and make the call to local CG or vessels in surrounding area? |
| 16.7 | ☐ | ☐ | Did the Master control situation from helm, make announcements, and communicate effectively with crew? |
| 16.8 | ☐ | ☐ | Did the Master approach the victim with a plan and was he successful? |
| 16.9 | ☐ | ☐ | Did the crewmembers properly don PFDs, take control of the situation, and direct passengers as appropriate? |

Notes:

## *Task 16: Man Overboard Drill (Continued)*

| Step | Y | N | Action |
|---|---|---|---|
| 16.10 | ☐ | ☐ | Did crewmembers communicate effectively with Master, other crewmembers, and passengers? |
| 16.11 | ☐ | ☐ | When alongside, did the crew members have a plan for retrieving the victim?<br>☐ Y ☐ N Did they use a boat hook or fish gaff to retrieve the victim?<br>☐ Y ☐ N Did they use a ring life buoy or other safe lifesaving device to reign in the victim? |
| 16.12 | ☐ | ☐ | When the victim was recovered, did the crew complete basic first aid that included the ABCs? |
| 16.13 | ☐ | ☐ | Did the drill follow the training and operations manual, or emergency instructions? |
| 16.14 | ☐ | ☐ | Was the drill satisfactory? |

Notes:

## *Task 17: Plan Review for Modifications*

| Step | Action | Ref |
|---|---|---|
| 17.1 | ☐ Verify that vessel's construction/equipment remains unchanged.<br>• Wind profile<br>• Stability characteristics<br>• Engines<br>• Ballast has not been added/deleted/moved<br>• Tankage capacity has not increased/ decreased/ moved | 46 CFR 178.320 (d) |
| 17.2 | ☐ Verify that vessel meets subdivision requirements (if applicable).<br>• Watertight bulkheads have not been moved or removed<br>• No unauthorized openings have been placed in watertight bulkheads | 46 CFR 179.210 |
| 17.3 | ☐ Verify that the OCMI has approved all repairs and/or alterations that affect the safety of the vessel.<br>• Replacement, repair, or refastening of deck or hull planking, plating, and structural members<br>• Repair of plate or frame cracks<br>• Damage repair or replacement, other than replacement in kind, of electrical wiring, fuel lines, tanks, boilers and other pressure vessels, and steering, propulsion, and power supply systems<br>• Alterations affecting stability<br>• Repair or alteration of lifesaving, fire detecting, or fire extinguishing equipment | 46 CFR 176.700 (a) |

Notes:

## *Task 17: Plan Review for Modifications (Continued)*

| Step | Action | Ref |
|---|---|---|
| 17.4 | ☐ Determine if any of the following have been installed or replaced onboard a vessel.<br>If item is... Then conduct...<br>launching appliance;<br>survival craft;<br>rescue boat;<br>fixed gas fire extinguishing system;<br>machinery;<br>fuel tank; or<br>pressure vessel. inspections and tests required by 46 CFR 176.402 (d) | 46 CFR 176.702 |
| 17.5 | ☐ Ensure vessel's current condition is properly documented in MISLE and vessel's file. | |

Notes:

## *Task 18: Drydock and Ground Tackle*

| Step | | Action | Ref |
|---|---|---|---|
| 18.1 | ☐ | Verify Marine Chemist Certificate (If required). | 46 CFR 176.710 |
| 18.2 | ☐ | Inspect external structural members.<br>☐ Shell<br>☐ Keel and bilge keel<br>☐ High stress locations<br>☐ Caulking<br>☐ Welds | 46 CFR 176.610<br>Aluminum NVIC 11-80<br>FRP NVIC 8-87<br>Steel NVIC 7-68<br>Wood NVIC 7-95 |
| 18.3 | ☐ | Inspect running gear.<br>☐ Rudders<br>☐ Propellers<br>☐ Tailshaft(s) | 46 CFR 176.610 |
| 18.4 | ☐ | Inspect fastenings.<br>☐ Hull fastenings<br>☐ Keel bolts<br>☐ Attachments/appendages | 46 CFR 176.610<br>Wood NVIC 7-95 |
| 18.5 | ☐ | Examine Hull Markings.<br>☐ Draft marks (>65 feet or SOLAS)<br>☐ Load marks (>65 feet or SOLAS)<br>☐ Load line (vsl>79 feet)<br>☐ Name/ hailing port/ state number | 46 CFR 185.602 |

Notes:

## *Task 18: Drydock and Ground Tackle (Continued)*

| Step | | Action | Ref |
|---|---|---|---|
| 18.6 | ☐ | Airports below weatherdecks<br>☐ Dogs or other securing appliance<br>☐ Rims or seats<br>☐ Glass<br>☐ Dead covers<br>☐ Hinges and lugs | MSM Vol. IV Ch 6.I.4 |
| 18.7 | ☐ | Self-bailers and cockpit freeing ports<br>☐ Check valves<br>☐ Required area | 46 CFR 178.420 |
| 18.8 | ☐ | Compartment or inner bottom drains (drydocking drains)<br>☐ Secure plugs | |
| 18.9 | ☐ | Inspect thru-hull fittings.<br>☐ Sea chests<br>☐ Sea valves (must be fitted on all fittings within 6 inches of deepest load waterlight)<br>☐ Keel/grid coolers<br>☐ Bow/stern thrusters<br>☐ Transducers<br>☐ Shaft packings<br>☐ Rudder packings | 46 CFR 171.119<br>46 CFR 176.610<br>46 CFR 176.630<br>MSM Vol II CH B.3.D.2 |

Notes:

## *Task 18: Drydock and Ground Tackle (Continued)*

| Step | | Action | Ref |
|---|---|---|---|
| 18.10 | ☐ | Inspect internal structural members.<br>☐ Frames<br>☐ Floors<br>☐ Shelves, brackets, clamps<br>☐ Bulkheads<br>☐ Tank tops | 46 CFR 176.610<br>FRP NVIC 8-87<br>Steel NVIC 7-68<br>Wood NVIC 7-95 |
| 18.11 | ☐ | Inspect for watertight integrity.<br>☐ Hull openings and closures<br>☐ Deck openings and closures<br>☐ Watertight doors<br>☐ Watertight subdivisions/bulkheads | 46 CFR 176.802<br>46 CFR 176.124<br>MSM Vol IV CH 6.I.5 |
| 18.12 | ☐ | Inspect for stability.<br>☐ Drainage<br>☐ Major changes/modifications<br>☐ Solid fixed ballast | 46 CFR 171 (H) |
| 18.13 | ☐ | Inspect ground tackle.<br>☐ Anchor<br>☐ Cable | 46 CFR 184.300<br>46 CFR 184.10 |

Notes:

## *Task 19 Post-Inspection Items*

| Step | | Action | Ref |
|---|---|---|---|
| 19.1 | ☐ | Issue letters. | |
| 19.2 | ☐ | Complete MISLE entries. | |
| 19.3 | ☐ | Initiate report of violation (if necessary). | |

Notes:

## Recommended US Vessel Deficiency Procedures:

| Step | Action |
|---|---|
| 1 | Identify deficiency. |
| 2 | Inform vessel representative. |
| 3 | Record on the *Deficiency Summary Worksheet* (next page). |
| 4 | If deficiency is corrected prior to end of inspection, go to Step 7. |
| 5 | If deficiency is unable to be corrected prior to end of inspection, issue CG-835 in accordance with table below. |
| 6 | Enter CG-835 data in MISLE. |

| IF deficiency: | THEN issue CG-835: |
|---|---|
| Does NOT immediately impact crew/passenger safety, security, hull seaworthiness, or the environment, e.g.,<br>• Missing placards<br>• Non-metallic expansion joints more than 10 years in service | That provides a specific time for correcting deficiency, e.g.,<br>• "X" number of days<br>• At next drydock |
| Allows vessel operations to be MODIFIED to meet less stringent requirements, e.g.,<br>• Expired international certificates<br>• Automation defect<br>• Insufficient lifesaving equipment | That restricts operation of vessel to meet current vessel conditions, e.g.,<br>• Reduced route<br>• Increased crew<br>• Fewer passengers |
| DOES immediately impact crew/passenger safety, security, hull seaworthiness, or the environment, and cannot be modified to meet less stringent requirements, e.g.,<br>• Missing or defective firefighting equipment<br>• Structural defect or damage | That requires the deficiency to be corrected prior to operating vessel ("NO SAIL" item), e.g.,<br>• Prior to carrying passengers<br>• Prior to carrying cargo |

## *Deficiency Summary Worksheet*

**Name of Vessel** _____ **VIN** _____

| *Deficiency* | *Req't. Issued / Date Completed* |
|---|---|
| | |
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Notes:

## *Conversions:*

| STEEL PLATE | | | |
|---|---|---|---|
| Fractions | Decimal | MM Standard Plate | Wastage Standard / MM @ 25 |
| 1/8 | .125 | 3.175mm | .0938 / 2.381 |
| ¼ | .250 | 6.35mm | .1875 / 4.7625 |
| 3/8 | .375 | 9.52mm | .2812 / 7.14 |
| ½ | .500 | 12.70mm | .3750 / 9.525 |
| 5/8 | .625 | 15.78mm | .4688 / 11.906 |
| ¾ | .750 | 19.05mm | .5625 / 14.287 |
| 7/8 | .875 | 22.22mm | .6566 / 16.66 |
| 1 | 1.00 | 25.40mm | .7500 / 19.05 |
| 1 1/8 | 1.125 | 28.57mm | 8430 / 21.431 |
| 1 ¼ | 1.250 | 31.75mm | |
| 1 3/8 | 1.375 | 34.92mm | |
| 1 ½ | 1.500 | 38.10mm | |
| 1 5/8 | 1.625 | 41.27mm | |
| 1 ¾ | 1.750 | 44.45mm | |
| 1 7/8 | 1.875 | 47.62mm | |
| 2 | 2.00 | 50.8mm | |

***Conversions:***

| ALUMINUM PLATE | | | |
|---|---|---|---|
| Decimal | MM Standard Plate | Wastage MM @ 25 | Aluminum Wastage Allowances, Conventional Vessels Under 90 M (295 Feet) built to ABS Class |
| .1969 | 5mm | 3.75mm | Main Deck Plating 15% |
| .2362 | 6mm | 4.50mm | Bottom Plating 15% |
| .2756 | 7mm | 5.25mm | Keel Plating 15% |
| .3150 | 8mm | 6.00mm | Sheer Strake 15% |
| .3543 | 9mm | 6.75mm | Bilge Strake 15% |
| .3937 | 10mm | 7.50mm | Side Shell Plating 20% |
| .4331 | 11mm | 8.25mm | Forecastle 20% |
| .4724 | 12mm | 9.00mm | Internals and Bulkheads 20% |
| .5118 | 13mm | 9.75mm | |
| .5519 | 14mm | 10.50mm | |

## *Conversions:*

| **Distance and Energy** | | | | |
|---|---|---|---|---|
| Kilowatts (kW) | X | 1,341 | = | Horsepower (hp) |
| Feet (ft) | X | 3.281 | = | Meters (m) |
| Long Ton (LT) | X | .98421 | = | Metric Ton (t) |

**Liquid (NOTE:** Values are approximate.)

| Liquid | bbl/LT | $m^3/t$ | $bbl/m^3$ | bbl/t |
|---|---|---|---|---|
| Freshwater | 6.40 | 1.00 | 6.29 | 6.29 |
| Saltwater | 6.24 | .975 | 6.13 | 5.98 |
| Heave Oil | 6.77 | 1.06 | 6.66 | 7.06 |
| DFM | 6.60 | 1.19 | 7.48 | 8.91 |
| Lube Oil | 7.66 | 1.20 | 7.54 | 9.05 |

**Weight**

| | | | |
|---|---|---|---|
| 1 Long Ton | = 2240 lb | 1 Metric Ton | = 2204 lb |
| 1 Short Ton | = 2000 lb | 1 Cubic Foot | = 7.48 gal |
| 1 Barrel (oil) | = 5.61 ft = 42 gal = 6.29 | 1 psi | =.06895 Bar = 2.3106 ft of water |

**Temperature:** Fahrenheit = Celsius ( F= 9/5 C+32 and C=5/9 ( F-32))

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 0 | = | -17.8 | 80 | = | 26.7 | 200 | = | 93.3 |
| 32 | = | 0 | 90 | = | 32.2 | 250 | = | 121.1 |
| 40 | = | 4.4 | 100 | = | 37.8 | 300 | = | 148.9 |
| 50 | = | 10.0 | 110 | = | 43.3 | 400 | = | 204.4 |
| 60 | = | 15.6 | 120 | = | 48.9 | 500 | = | 260 |
| 70 | = | 21.1 | 150 | = | 65.6 | 1000 | = | 537.8 |

**Pressure:**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1 Bar | = | 14.5 psi | 5 Bars | = | 72.5 psi | 9 Bars | = | 130.5 psi |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2 Bars | = | 29.0 psi | 6 Bars | = | 87.0 psi | 10 Bars | = | 145.0 psi |
| 3 Bars | = | 43.5 psi | 7 Bars | = | 101.5 psi | | | |
| 4 Bars | = | 58.0 psi | 8 Bars | = | 116.0 psi | | | |