

U. S. COAST GUARD
MARINE SAFETY OFFICE
TOLEDO, OHIO

SMALL PASSENGER VESSEL
PRE-INSPECTION
CHECK-OFF GUIDE

Rev Date: 01/01/03

I. DOCUMENTATION/LOGS/PUBLICATIONS

A. Documents and items that must be onboard the vessel.

- _____ Is vessel's **Certificate of Inspection (COI)** posted.
- _____ Is vessel's **Certificate of Documentation** or **State Registration** onboard and current.
- _____ Check the vessel's **Stability Letter** - Is it posted under glass with all pages visible?
- _____ Vessel's operators have a valid and original **USCG Master's License** on board.
- _____ If the vessel has a VHF-FM radio, does the master have a **FCC Marine Radio Operator Permit**.
- _____ Does the vessel have a current **FCC Station License** (valid for 5 years)?
- _____ Ensure **FCC Safety Radio Certificate or Great Lakes Radio Agreement** is available on board.
- _____ **Oil Discharge Pollution Placard** posted near overboard discharges and/or bilge pump controls.
- _____ Are **MARPOL V Pollution Placards** posted and visible to crew and passengers?
- _____ Is an **Emergency Broadcast Placard** posted next to all radiotelephones. (46 CFR 184.506)
- _____ Are **Life Jacket Donning Placards** posted in conspicuous places?
- _____ Are **Emergency Check Off Lists** posted where visible to passengers and crew?
- _____ Is a **Station Bill** posted? Required for vessels > 65 feet with a COI requiring 4 crewmembers.
- _____ **Charts/Nautical Publications:** As appropriate, **adequate and up-to-date:**
 - _____ **Navigation Rules**
 - _____ **Charts**
 - _____ **Coast Pilots**
 - _____ **Light Lists**
 - _____ **Local Notices to Mariners**

B. Plans, Lists, Chemical Testing and other Documentation that must be available.

- _____ Ensure all elements of a random drug testing program including **Random, Pre-employment,** and **Reasonable Cause** testing documentation, **Employee Assistance Program (EAP),** and **Supervisor Training.** Two-year drug use background check for new employees. (46 CFR Part 16)
- _____ Is **NOAA EPIRB Registration Certificate** available and current?
- _____ Inspect **Inflatable liferafts** for proper installation and current **annual inspection.**
- _____ Is a **Passenger Count** being conducted and logged onboard the vessel and at the office?
- _____ Are **Passenger Safety Orientations** being conducted prior to getting underway?

- _____ Are **Maintenance Instructions for Survival Craft (life floats, buoyant apparatus, inflatable life rafts, inflatable buoyant apparatus)** on board the vessel? Required for survival craft manufactured on or after March 11, 1996 for vessel's > 65'. (46 CFR 185.702; 122.702 K vessels for details)
- _____ Are **Weekly Maintenance and Inspections for Survival Craft** conducted and logged? (see 46 CFR 185.720; 122.720 K vessels for details)
- _____ Are **Monthly Inspections for Survival Craft** being conducted and logged? (see 46 CFR 185.722; 122.722 K vessels for details)
- _____ Are **Annual Inspections** being conducted and logged? Each item of lifesaving equipment with an expiration date (such as a battery) that has expired must be replaced. (46 CFR 185.726; 122.726)
- _____ Are **EPIRB Monthly Tests and Servicing** being performed in accordance with the manufacturer's instructions and logged? EPIRB battery current. (46 CFR 185.728; 122.728 K vessels)
- _____ Is **Abandon Ship, Fire Fighting, and Man Overboard Drills** conducted quarterly and logged? (see 46 CFR 185.420; 122.420 K vessels for details)

II. NAVIGATION EQUIPMENT/LIGHTS, NAVIGATION RULES, AND COMMUNICATIONS:

- _____ Check the **magnetic compass** for light, proper compensation and operation.
- _____ Check the vessel's **VMF-FM radio, radar, electronic positioning fixing device (GPS, etc.), fathometer, etc.** for proper operation and ensure crew is familiar with their operation.
- _____ Check the condition and proper operation of all **navigation lights**.
- _____ Check for proper operation of **general alarm** systems. (46 CFR 183.550;120.550 for K vessels)
- _____ Check for proper operation the vessel's **public address system**. (46 CFR 184.610; 121.610 K vessels)
- _____ Does the vessel's **whistle** produce an "efficient sound signal" as required by COLREGS 72?
- _____ Check for proper sized **bell** as required by COLREGS 72.

III. LIFESAVING/LIFESAVING RELATED PLACARDS/MARKINGS:

- _____ Ensure approved **First Aid Kit** is on board and contents are not expired (46 CFR 184.710).
- _____ Ensure that each **life preserver (PFD)** is clean and is **Type I; CG approved**. All snaps, straps, hooks and fittings must be serviceable. Cloth coverings must not be torn or rotten. **No Homemade Repairs**.
- _____ Ensure the number of PFDs onboard corresponds to or exceeds the number of passengers and crew on COI and is properly marked with the vessel's name.
- _____ Is the proper **Retro-reflective Tape** attached to the life jackets, life floats and rescue boats? Each life jacket must have Type I retro-reflective material (31 square inches front and back). Each life float, buoyant apparatus and rescue boat must have retro-reflective material. (see 46 CFR 185.604 for details)

Life Floats and Inflatable Life-rafts

Note: Buoyant Apparatus (BA) are no longer approved for use. However, existing BA may continue to be used as long as they are in a good and serviceable condition.

- _____ Check each **lifefloat** for good overall condition and in a float free arrangement. Check for rotted lines or beackets, proper nameplate, markings, **100' long painter**, (One painter may be used to attach up to 3 life floats to the vessel with one **float-free link**), **paddles** (two 4-foot paddles for lifefloats only, properly marked with vessel name and attached to the lifefloat), **grab lines** are secured by **lashings of light thread** or masking tape. Be certain that any **line dispensing appliance** used to store the painter is properly positioned and will operate under emergency conditions. Lifesaving apparatuses may be covered for protection against the elements, but the cover must not be lashed to prevent the apparatus from floating free.
- _____ Check lifefloats for properly rigged **float-free links** with valid **approval tags** in place.
- _____ Is an operational waterlight attached to **each** lifefloat with an 18 feet in length lanyard?
- _____ Check all **hydrostatic releases** for proper installation and **annual** inspection tags. Disposable hydrostatic releases may be used and do not require annual servicing; they have a two-year expiration.

Ring Life Buoys and Water Lights

- _____ One **life ring** must have 60 feet of line attached to it and properly marked with the vessel's name. Floating lines should be a dark color and U/V resistant.
- _____ Vessels over 65 feet in length must have 3 **ring buoys**.
- _____ Is an operational **waterlight** attached (**clipped**) to **one** of the life rings with a 3-6 feet in length lanyard?

Distress Signals/Flares/EPIRBS

- _____ For ocean/coastwise/Great Lakes routes be sure there are **6 red flares and 6 orange smoke** (3 and 3 for Rivers Routes). Check all flares to be sure they are not outdated.
- _____ Are **Portable Watertight Containers** used for distress flares? Containers shall be of a bright color and clearly marked in letters at least .5 inches high: "DISTRESS SIGNALS". (46 CFR 185.614)
- _____ A **Cat 1, 406 MHz EPIRB** must be installed in a float free position and stenciled with the vessel's name.

Lifesaving Placards/Markings

- _____ Are proper **Lifesaving Equipment Markings** in place? The name of the vessel must be marked or painted on each side of the bow of each rescue boat and on each life float and buoyant apparatus. Rescue boats, life floats, and buoyant apparatus must also have the personnel capacity stenciled in clearly legible letters and numbers.
- _____ Are **Life Jacket Stowage Areas** properly labeled? The number and identification (adult or child) of the jackets stowed must be labeled in 2 inch letters. (See 46 CFR 185.604; 122.604 K vessels for details)
- _____ Are **Escape Hatches and Emergency Exits** properly marked? Must be marked on both sides in clearly legible letters at least 2 inches high: "EMERGENCY EXIT, KEEP CLEAR". (46 CFR 185.606; 122.606 K)
- _____ Are **Watertight Doors and Watertight Hatches** properly marked? Doors and hatches must be marked on both sides in clearly legible letters at least 1 inch high: "WATERTIGHT DOOR - KEEP CLOSED" or "WATERTIGHT HATCH - KEEP CLOSED". (46 CFR 185.610; 122.610 K vessels)

IV. FIRE PROTECTION

- _____ Ensure all equipment is operable or has been properly serviced within the last 12 months and hydrostatically tested within the required time interval.
- _____ Test the power driven **fire pump** if installed for proper operation. Check the pump and foundation, associated piping for leaks, corrosion, properly secured, properly mounted, loose bolts, etc. For vessels 65 feet or less with more than 49 passengers (vessels built or certificated before 12MAR96), this pump may also be connected to the bilge system so that it may serve as either a fire pump or a bilge pump. For vessels over 65 feet in length a pressure gauge must be installed at the power fire pump to measure outlet pressure, and the fire pump must be able to pump 50 gallons per minute at a pressure of 60 psi.
- _____ Vessels with no power driven fire pump (< 65' and < 49 pax's) must have three 2 1/2-gallon **fire buckets** with attached lanyards. Fire buckets must be labeled and stored where easily accessible.
- _____ Check all **fire hoses** to ensure they hold the pumps maximum pressure. A suitable rack to hold the fire hose must be installed at each fire station. Vessels < 65' and carrying < 49 pax's requiring a fire pump may have either an approved 1 1/2" commercial fire hose or a minimum 5/8" good commercial grade garden hose.
- _____ Check the fire hose **nozzle**. For a 1 1/2" commercial fire hose the nozzle must be USCG approved. If a good commercial grade garden hose is used the nozzle must be metallic and not plastic.
- _____ The nozzles must be attached to the fire hoses. The fire hoses must be attached to the hydrants at all times.
- _____ **Fixed fire-extinguishing system** - A qualified individual must inspect and test the fixed fire extinguishing system.
- _____ Ensure there is a method of **effectively** closing off all forced and natural ventilation to the engine room in case of fire. This includes shutting off blowers and closing all openings. Note: CO2 fixed fire-fighting do not require engine shut-downs
- _____ If installed, test all automatic **engine shutdowns, ventilation blower shutdowns, time delays and alarms**. Note: CO2 fixed fire-fighting do not require engine shutdowns
- _____ Check all **fixed fire extinguishers** for rusty or pitted cylinders (especially on the bottom). Check to see that cylinders are mounted and not touching the deck. Check date stamped on cylinder shoulder to see if hydrostatic testing is required (i.e., at 5-year intervals).
- _____ **Hand portable and fixed fire extinguishers** -must be examined and tagged annually by a certified vendor:
 - _____ Inspections by the crew must be conducted monthly in accordance with the National Fire Protection Agency standard 10 "Portable Fire Extinguishers." Inspect for: Correct **number and size** of required portable extinguishers located in designated spaces free from obstruction; approved types: **B: C, Size I, or II** with USCG approval number; **seals and tamper indicators** not broken or missing; look for obvious **physical damage**, corrosion, leaks or clogged discharge nozzle; verify that the **pressure gauge** (except CO2 extinguishers) is in the operable range; and verify that operating instructions on nameplate are legible and facing outward.
 - _____ Fire extinguishers must have a suitable **mounting bracket** to ensure extinguisher is secured correctly. Ensure bracket is approved as a unit with extinguisher.
 - _____ If the vessel is over 65 feet, **fire axe** labeled with vessel's name and located close to the pilot house.

V. MACHINERY OPERATION:

- _____ Examine condition of the **fixed** (hand/power) **bilge system** (pumps, piping, valves and strainers). Check for proper operation by taking suction from each watertight space. Vessels with more than 49 passengers must have a power pump (25 GPM>Gallons Per Minute) with 1" metallic piping. Vessels more than 65' must have two power pumps (50 GPM) with 1" metallic piping.
- _____ Test operate all **installed bilge pumps and hand bilge pumps**. Ensure no piping leaks and water discharges overboard. Shut-off valve installed within 6" of the waterline.
- _____ If installed, test operate all **high level bilge alarms**.
- _____ Examine and operate the collision bulkhead **bilge suction cut off valve** (if installed).
- _____ Test propulsion **engine shutdown** at operating station. All vessels (46 CFR 184.620).
- _____ Test the **two independent means of propulsion engine control** for single screw vessels. Means of control required: speed, direction of shaft rotation, and shutdown. (46 CFR 184.620)
- _____ Examine the **main engine(s)** and **generator(s)** for proper operation while engines are operating at normal load. Check and correct any leaks (fuel, oil, water, exhaust), vibration, or unusual noise.
- _____ Check the **marine gear(s)** for proper operation ahead, neutral and astern. Examine propulsion shafting packing glands for excessive leakage, correct as needed.
- _____ Examine all **flex hoses** to ensure they are of the **approved** type, and are in good serviceable condition. Is all piping and flex hoses properly supported, protected against vibration and not chaffed? (46 CFR 184.720)
- _____ Examine **engine exhaust system** for leaks with engines operating. Check for proper installation and condition of piping, mufflers and supports. Ensure the piping is properly insulated (lagged) with no hot surfaces exposed. All exhaust flex hoses shall have double corrosion resistant clamps at each connection.
- _____ Examine the condition of **engine starting systems** and check for proper operation.
- _____ Examine condition of sea chests, **through hull fittings**, sea water strainers and sea valves. All sea valves shall be exercised. All seawater flex hoses shall have double corrosion resistant clamps. All through hull fitting within 6" or below the water line must be installed with shut off valves.
- _____ Inspect all **valve handles**. Replace broken handles and hand wheels. All valves properly identified.
- _____ Inspect all **gauges** (oil pressure, water temperature) and **tachometers** in the engine room and the pilothouse for proper operation.
- _____ Ensure **protective guards** and rails are installed around rotating shafts, pulleys and sprockets.
- _____ Examine condition of the **steering system**, main & auxiliary. Check for proper operation, hard-over port to hard-over starboard. All linkages shall be double nutted, cotter pinned or have nylock nuts. Examine the condition of the rudderstock, bearings, packing glands and rudder angle indicator.
- _____ Test **emergency steering system** for proper operation, full range of motion and adequate communications (single screw vessels only).
- _____ Examine supply and exhaust **ventilation ducts** and blowers of machinery spaces. Ducts shall be rigid (not flexible dryer exhaust hose), fire proof and gas tight from end to end. One supply/one exhaust for diesel machinery. Two supply/two power exhaust for gasoline machinery. Must have a blower interlock switch for gasoline machinery.

- _____ Check for **protective screens** on all exposed fans and blowers.
- _____ Ensure the **machinery space boundaries** are vapor tight from the accommodations areas.
- _____ Examine **air receivers** and hand lift **relief valves**. Air receivers (>5 cubic feet) are internally visually inspected every 5 years. Relief valves should be bench tested every 2/5 years.
- _____ The **potable water system** (including storage tank) must be completely independent and must not be connected to any other system.

VI. FUEL and POLLUTION:

- _____ **Fuel system:** examine condition of tanks, piping, flex hoses, heat deflectors, fuel filters (flame shields) and strainers. Check all bulkhead and deck penetrations, properly supported. (46 CFR 182.435-458)
- _____ Ensure fuel lines and hoses meet the requirements of 46 CFR 182.455. If flexible hose is used it must meet the requirements of 46 CFR 182.720(e).
- _____ Inspect and test all **emergency fuel shutoffs**. Ensure the handle or hand wheel, reach rod, linkage and valve work. Valve must be located at tank connection and be operable from outside the tank space. A shutoff valve must also be in place at the engine for servicing. (46 CFR 182.455(b)(4))
- _____ Are emergency fuel shutoff valves properly marked? Must be marked in clearly legible letters at least 1 inch high indicating purpose of the valve and direction of operation. (46 CFR 185.608)
- _____ Check to see that the fuel tank vent **flame safety screens** (30x30 metallic, corrosion resistant mesh - not insect screen) are correctly installed on **all fuel and sewage vents**. (46 CFR 182.450(e))
- _____ Check ventilation of fuel tank spaces. Fuel tank spaces of less than 500 cu. ft. require a 1" goose neck; larger spaces require a 2" gooseneck. (46 CFR 182.470)
- _____ If a flexible hose fill pipe section is used, it must overlap metallic pipe ends at least 1 times the pipe diameter and must be secured at each end by double clamps and bonded. Inspect the grounding wire connecting the fuel fill pipe and the fuel tank. Be sure that grounding wires or equivalents are available for ship-shore connections during fueling. (46 CFR 182.445(g))
- _____ Ensure boundaries between fuel tank space and accommodations spaces are vapor tight. (46 CFR 177.405(c)).
- _____ Inspect **fuel lines** for leaks and for proper flexible connections to prevent fuel line damage by vibration. Ensure double hose clamps are installed. (46 CFR 455)
- _____ Clean all traces of oil and fuel from the **bilge**. Do not pump it overboard. No intentional discharge of oil into the bilge is allowed. (33 CFR 155.770)
- _____ Ensure proper installation and operation of **Marine Sanitation Device (MSD)**. System is locked out if capable of overboard discharge. (33 CFR 159)

VII. ELECTRICAL SYSTEM, ELECTRIC APPLIANCES, AND ELECTRONICS:

- _____ Check all **generators** and their parallel operation, or interlock between ship's service generators and/or shore power, reverse power relay, wiring, junction boxes, meters (voltage, amperage, and hertz), foundations, ground detection, pulleys, drive belts, and guards.

- _____ Check all **motors**, wiring, plug connections, junction boxes, foundations, pulleys, drive belts, and guards.
- _____ Check all **electrical wiring**. Ensure no "dead end" wires or splices outside of junction boxes. Splices and taps must be made in junction boxes. Check for proper support with metallic bands no less than 24" apart, bulkhead/deck penetrations are watertight; no chafing. Check all electrical wiring for proper grounding; no "jury rigs". Exposed wire nuts are not authorized. No extension cords.
- _____ Check the **emergency lighting system** for proper operation, including the below deck automatic lighting that is activated in case of power failure.
- _____ Inspect all **telephones, general alarms, and public address systems** (if installed) for proper operation. Check all **engine alarm, fire alarm, vapor detection** (gas only) and **high water level bilge alarm systems** for complete and correct operation.
- _____ Check all **distribution panels**. No openings authorized (dead front). All electrical panel boxes (switchboards, distribution panels) must be shielded to prevent touching live circuits. Panel boxes must be provided with a directory or listing of all circuits, they control.
- _____ A rubber mat and a wooden railing to prevent **electrical shock** must be located in front and rear of the electrical switchboard.
- _____ Ensure **engine room and bridge** have suitable means of two way **communications**. Radios or walkie-talkies are acceptable if communications are clear and understandable.
- _____ Storage **batteries** must be installed in lead lined or fiberglass trays to prevent damage by battery acid. Batteries must be secured in place to prevent shifting and fitted with tops.
- _____ Storage batteries must be properly ventilated and have a minimum of 10" headroom.
- _____ Check **battery emergency disconnect switches** are installed and operable.
- _____ **Battery terminals** must be of the soldered lug type. No spring clips or temporary clamps.
- _____ Check shore power connection, power disconnect, receptacle or box.
- _____ Check for required **portable flashlights**; (1) at helm and (1) at engine room access.

VIII. VESSEL CONTROL AND MISCELLANEOUS SYSTEMS AND EQUIPMENT:

- _____ All cooking equipment must have a remote shutoff valve installed between fuel tank and point where fuel supply line enters enclosed portion of vessel.

Check cooking appliances:

- _____ Heavy duty hinges and locking devices on doors
- _____ Installed to prevent movement in heavy seas
- _____ Means to collect grease or fat and prevent spillage on wiring or deck
- _____ Grab rails installed where necessary

Check heating equipment:

- _____ Heater constructed and installed to prevent contact with combustible material.
- _____ Electric space heater provided with thermal cutout to prevent overheating.

_____ Each heater element of enclosed type and element case or jacket made of corrosion resistant material.

Check ground tackle and mooring lines:

_____ Suitable anchor and attached anchor line in good condition, properly secured, and shackles moused.
_____ Inspect anchor winch and windlass for proper operation.

Check Accommodations (Part 177):

_____ Inspect all handrails, lifelines, and bulwark safety chains for breaks, cracks, or looseness.
_____ Check ladders and stairs for broken, cracked, or loose rungs or stairs.
_____ Means of escape (two for each space) clear of obstructions; doors/hatches operable from either side, emergency exits marked "EMERGENCY EXIT, KEEP CLEAR" in 2" letters.
_____ Perform sanitary inspection of accommodations, quarters, galleys, serving pantries, and toilet and washing spaces.

Check watertight integrity (Part 179):

_____ Port lights have inside, hinged dead covers.
_____ Inspect watertight doors and hatches for operable securing devices and adequate hinges and captive chains. Inspect gaskets for deteriorating rubber and paint (not allowed) and replace as necessary.
_____ Freeing ports or scuppers clear of obstructions.
_____ Cracked or broken window glass replaced in accordance with Part 177.

Check running and standing rigging:

_____ Check mast for corrosion, wood rot, stability and connection to mast step.
_____ Check mast step for corrosion, wood rot or delamination around mount.
_____ Check boom for corrosion or cracks.
_____ Check stays and shroud for fraying and kinks.
_____ Check chain plates for cracks, corrosion, wood rot or delamination.
_____ Check all shackles to ensure they are moused.
_____ Check rigging screws for rust, wear and tightness.
_____ Check condition and operation of all sails underway.

_____ Get vessel underway to witness proper operation of steering and propulsion systems.
_____ Conduct u/w drills.
_____ Ensure watertight integrity (especially wooden vessels).