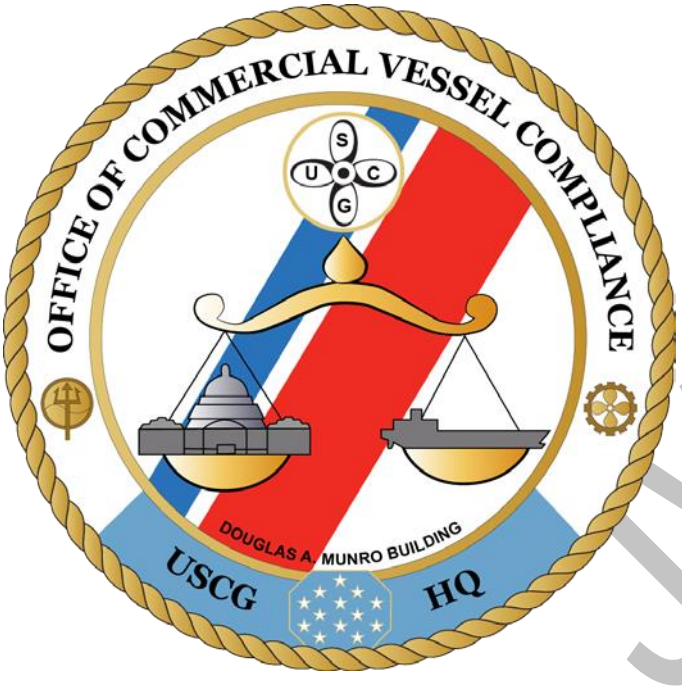

Commercial Fishing Industry Vessels Best Safety Practices Guide

April 2024

DRAFT Version 1.1

CHANGE NUMBER	DATE OF CHANGE	DATE ENTERED	ENTERED BY
1.1	8/15/2024	DRAFT(e)	USCG CVC-3…JW

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Note: *All previous versions are superseded by this version 1.1. The Voluntary Safety Initiatives and Good Marine Practices for Commercial Fishing Industry Vessels, dated January 2017, is updated and renamed to the Commercial Fishing Industry Vessels Best Safety Practice Guide as shown on the cover.*

This document and future approved revisions should be referenced and used as applicable by the public commercial fishing industry for best practice considerations when practices are not otherwise addressed by statute or regulation.

Application and Background

Application: The safety measures and practices contained in this document are to be focused primarily on industry commercial fishing vessels 50 feet or greater in length, operating beyond three nautical miles from shore, and that are more than 25 years of age. However, these safety initiatives and good marine practices should be considered for ALL industry commercial fishing vessels where reasonable and practicable.

Coast Guard personnel will discuss these measures with owners/ operators during dockside safety examinations and at-sea boardings.

Background: The Coast Guard engaged with their Commercial Fishing Safety Advisory Committee (CFSAC) to develop many of these voluntary safety initiatives and good marine practices. Several vessel owners and operators and industry associations provided feedback and comment towards Version (*The Voluntary Safety Initiatives and Good Marine Practices for Commercial Fishing Industry Vessels*) published in January 2017.

Additionally, version 1 was compiled after identifying common hazards that all fishing vessels could face. The hazards were identified through an analysis of commercial fishing vessel fatalities and vessel disasters. An analysis of fishing vessel disasters and crewmember fatalities conducted by the National Institute for Occupational Safety and Health (NIOSH) clearly identified common hazards across all fleets in the U.S. fishing industry. Major hazards were identified, including fatal falls overboard and vessel disasters caused by flooding, instability, and fires. Further research was needed and continues to better understand drug involvement with all casualties. Vessel and operational hazards were also discussed with various facets of the fishing industry to identify and confirm risks to the safety of the vessels and crews. *The Commercial Fishing Industry Vessels Best Safety Practice Guide* initiatives in these analyses were used by the Coast Guard to identify those hazards that may be mitigated through certain safety interventions and initiatives, and by following good marine practices listed in this guide.

The Coast Guard continues to engage with their National Commercial Fishing Safety Advisory Committee (NCFSAC) and other parties. The Coast Guard appreciates and values the engagement and participation of industry in this process and looks forward to continued collaboration as these safety initiatives and good marine practices may be further refined.

Further updates will be considered to this document as approved by CG-CVC.

I. Certificates, Documents and Records

A. Each vessel should have a valid Commercial Fishing Vessel Safety (CFVS) Decal issued within the past 2 years. Required by NOAA if carrying or subject to carriage of a NOAA Fisheries Observer.

B. A record of safety and survival equipment maintenance and inspections should be completed and retained on board the vessel for 3 years. (To be added in 46 CFR 28.200 per NPRM. See, also, Section IX of this document.)

C. A record of instruction, emergency drills, and safety orientation should be kept on board the vessel and retained for 3 years. (See NPRM - 46 CFR 28.200)
The record should include:

1. Name of qualified Drill Conductor (should be a member of the crew).
2. Type and date of training/orientation/drill; and
3. Names of participants.

II. Lifesaving Equipment

A. A mayday placard or written communication procedures should be posted in a visible location in the vicinity of the primary radio in the pilot house or at the primary operating station

B. A survival craft required by 46 CFR Part 28 is to be of a type that ensures no part of an individual is immersed in water. (Proposed new change to 46 CFR 28.120.)

C. Each vessel with more than one individual on board should have an effective means of recovering a person from the water. Examples may include Commercial Life sling, Jason's Cradle, or other devices that provide a mechanical advantage to recovering a person from the water.

D. In the case of a single-operator vessel, additional or alternative lifesaving devices should be in place. These could include an engine kill device, a re-boarding ladder, and/or a personal locator beacon (PLB).

E. Personnel on fishing vessels up to 32 feet in length, of open construction, arranged with little or no accommodation or interior spaces, and excluding auxiliary craft, when operating in cold water, should wear a garment or device designed to provide safe flotation.

III. Communications Equipment

A. Each individual should wear a Personal Location Device (Personal Locator Beacon (PLB), Man Overboard (MOB) Device, or Satellite Emergency Notification Device (SEND) while on open or exposed decks.

B. Upon expiration of its battery or when servicing is required, a vessel with an existing EPIRB should replace it with a GPS-enabled EPIRB.

C. Each vessel equipped with a DSC radio should have it programmed for MMSI.

D. Each vessel equipped with a DSC radio and GPS should have the GPS feed connected to

the radio, unless the radio has an internal GPS that is functional.

E. A Mayday placard or written emergency communication procedures should be posted in a visible location in the vicinity of the primary radio in the pilot house or at the primary operating station.

IV. Deck Safety Equipment

A. If not already required by regulation, the weather deck on a vessel should be equipped with or have a device or material that will help prevent personnel slips. The device/material should be maintained in good condition.

B. Each individual on board the vessel, when on an open deck (especially at night, when alone, when gear is being set/hauled, in bad weather, crossing hazardous bars, or when other hazards exist), should wear a flotation device of sufficient buoyancy to keep the wearer afloat. The device may be in addition to, but not replacing the PFDs required by 46 CFR Part 28 (Use of a non-USCG- approved PFD is not a violation as long as the required PFDs are also onboard).

C. In the case of a single-operator vessel, the PLB listed in section II. should be affixed to the individual's selected working flotation device.

D. If not already required under 46 CFR Part 28.215, vessels should consider installing guards for exposed hazards, or have another equivalent means to prevent personnel entanglement. An evaluation of such hazards with any powered equipment should be conducted to see if guarding, an emergency stop device, or other local control device could be installed to prevent or minimize injury, but not restrict necessary access.

E. Each individual onboard the vessel, when working in the vicinity of operating overhead equipment, gear, or machinery, should wear a hardhat or other appropriate cranial protection.

V. Fire Safety Equipment and Practices

A. The following potential fire prevention or source hazards should be inspected prior to the operation of the vessel and at least once a week thereafter:

1. Hot surface lagging/insulation is not saturated with oil or fuel.
2. Potential ignition sources such as loose electrical connections, or exposed hot surfaces or conductors are corrected; Plastic wire ties should not be used, if exposed to hot surfaces that could ignite or melt the plastic tie.
3. Flammables and combustibles are safely segregated from possible ignition sources and placed in appropriate storage containers.
4. Any fuel, oil, or hydraulic leaks observed are repaired.
5. Bilge is free of excessive fuel, oil and volatile fumes.
6. Stoves and electrical heaters are guarded, and their vicinity is clear and free of combustibles and flammables.
7. Hazardous and flammable material storage areas/containers have separate ventilation and an appropriate fire extinguisher in the immediate area; and

8. Fuel vent flame screens of at least 30 x 30 mesh are installed, if possible, and are in good condition.
9. Where installed, engine room vent closures are functional.

B. The following potential fire prevention or source hazards should be inspected prior to the operation of the vessel and at least once a week thereafter:

1. Hot surface lagging/insulation is not saturated with oil or fuel.
2. Potential ignition sources such as loose electrical connections, or exposed hot surfaces or conductors are corrected; Plastic wire ties should not be used, if exposed to hot surfaces that could ignite or melt the plastic tie.
3. Flammables and combustibles are safely segregated from possible ignition sources and placed in appropriate storage containers.
4. Any fuel, oil, or hydraulic leaks observed are repaired.
5. Bilge is free of excessive fuel, oil and volatile fumes.
6. Stoves and electrical heaters are guarded, and their vicinity is clear and free of combustibles and flammables.
7. Hazardous and flammable material storage areas/containers have separate ventilation and an appropriate fire extinguisher in the immediate area; and
8. Fuel vent flame screens of at least 30 x 30 mesh are installed, if possible, and are in good condition.
9. Where installed, engine room vent closures are functional.

C. If not already required, each vessel should have the following detectors installed:

1. An independent modular smoke detector of UL-217 standard or equivalent in all accommodation and regularly manned spaces; (heat detectors could be substituted in the galley and engine room); and
2. Carbon monoxide detectors in accommodation spaces adjacent to spaces with internal combustion engines and exhaust stacks.

D. On each vessel with a deck water/fire pump, there should be sufficient hose(s) with an appropriate nozzle to reach any part of the vessel.

VI. Machinery and Electrical Safety

A. Exhaust systems should be free of leaks within any internal spaces.

B. Electrical systems and wiring should be maintained to ensure:

1. A conductor should not be exposed, unless so designed.
2. Electrical panels are covered, and connections not left exposed; Batteries are secured from movement and covered or guarded.
3. In compliance with ABYC standards 6AWG is the maximum AWG to connect to batteries via conductors or wires if wing nuts are used.
4. No more than four terminals shall be secured to a single terminal stud.
   - Multiple conductors connected to a battery shall be installed with the highest ampacity conductor terminal closest to the battery, followed by successively smaller ampacity conductor terminals.

Flat washers, if used, shall only be installed immediately under the split lock washer and nut of the attachment stud AND NOT between the conductor terminal and the battery stud.

5. All cable and wiring have stranded copper conductors with sufficient current carrying capacity for the circuit for which they are used.
6. New wiring installations or repairs are in accordance with 33 CFR 183 or another standard established for marine use.
7. Extension cords are limited to temporary applications; and
8. All permanently installed electrical equipment is hard-wired to the power source with over-current protection, where possible.

VII. Material Condition

A. Existing weathertight/watertight closures should be maintained, and function as designed:

1. All dogs/closing devices are operable.
2. Gaskets are in place and not painted or deteriorated; and
3. Knife edges of closures provide a proper seal and are periodically tested

B. Any penetration of a watertight bulkhead or deck should be installed in such a manner to maintain the watertight integrity of the bulkhead or deck.

C. A watertight bulkhead or deck or closure that has been altered since installed should be restored to a condition that ensures its watertight integrity.

D. Through-hull fittings should be installed with a shut-off valve located as close to the hull penetration as practicable and be constructed of a material compatible with the hull material and suitable for marine use.

E. An internal survey should be conducted twice in a five-year period (or as required by your insurance underwriter), not to exceed three years between surveys. (Vessels operating on the Great Lakes can conduct their internal survey on the same schedule as their out of water survey described in section G.

F. The survey should be conducted by a qualified marine surveyor, if reasonably available, from an organization accepted by the Coast Guard. Otherwise, an owner/operator may conduct and certify the survey was performed.

G. The survey should include verifying the structural integrity/condition of the:

1. Frames and stiffeners.
2. Floors and decks.
3. Shelves, brackets, clamps.
4. Bulkheads.
5. Ventilation.
6. Hull openings and closures.
7. Deadlight covers in place below weather deck.
8. Deck openings and closures.
9. Sills, combings.
10. Piping; and

11. Scuppers/freeing ports.

H. Deficiencies found during the internal survey should be corrected to the satisfaction of the attending marine surveyor or vessel owner within a stipulated time frame.

I. An out of water survey should be conducted by a qualified marine surveyor from an organization accepted by the Coast Guard or by the vessel owner.

1. Wood boats should be surveyed twice in any five-year period not to exceed three years between surveys.
2. All other vessel types should be surveyed at least once every five years.
3. The following items should be examined to verify their structural integrity and service condition:
   a. Propeller.
   b. Shafts/seals.
   c. Sea valves.
   d. Rudders.
   e. Side shell/planking; and
   f. Tanks, voids, cofferdams, and chain locker.
   g. External appendages (Keel coolers, sea chest coverings etc.)
   h. Deficiencies found during the out of water survey should be corrected to the satisfaction of the attending marine surveyor or vessel owner within a stipulated time frame.

VIII. Flooding Prevention

A. Each vessel should maintain a damage control kit onboard, as appropriate for the vessel, to include, but not limited to, the following:

1. Conical soft plugs sized as per the vessel's seacocks.
2. Soft wood lumber and wedges.
3. Grease tape (fashioned from burlap or landscaping membrane and covered in industrial grade grease);
4. Manila twine.
5. Sheet rubber or neoprene gasket material.
6. Hand tools (hatchet, hammer, screwdriver, c clamps, hand saw, hack saw, disposable flashlights, battery-powered head-mounted light);
7. Hose clamps and wire ties; Water impervious patching material and/or underwater epoxy.
8. Oakum and rags; and
9. Duct tape.

B. In addition to any required dewatering pump, each vessel should also maintain onboard a portable dewatering pump which meets the requirements of 46 CFR 28.255, if space allows and fuel for the pump can be safely stored on the vessel. The pump should have an independent power source.

C. Each vessel should have written instructions and policy regarding watertight/ weathertight closures to include:

1. At-sea policy for maintaining and verifying weathertight/watertight integrity

and the status of such closures; and

2. Preventive maintenance schedule for each watertight/weathertight closure.

D. Prior to operating the vessel on a voyage, the individual in charge of each vessel should complete a pre-departure check to include, but not limited to the following:

1. Evaluation of weather and bar conditions.
2. Gear, catch, and hatches are secured; Any loose items on deck are properly secured.
3. Vessel is not overloaded.
4. Scuppers and freeing ports are clear.
5. Visible portions of shafts and rudder posts show no or little leakage; and
6. Vessel tanks and holds are filled in such a manner to limit free surface effect.

E. Any discrepancy found during the check should be corrected prior to the vessel getting underway.

F. The individual in charge must ensure the seaworthiness of the vessel. Results of the pre-departure check should be recorded

IX. Periodic Testing of Equipment and Systems

A. The following equipment and systems, where required or installed, should be tested prior to operation of the vessel and at least once each week thereafter.

1. Emergency generator(s) and lighting.
2. High water alarms.
3. Bilge pump(s).
4. Dewatering system(s).
5. Deck water/fire pump(s).
6. Smoke/heat/gas detectors

B. A record of equipment and systems testing is to be kept on board the vessel and retained for 3 years. (See Section I.B.) (NPRM - 46 CFR 28.200.)

X. Refrigerant Safety

A. Refrigerant detectors should be installed in spaces containing the main receiver and compressors (e.g. Freon, Ammonia, or other as needed) or a portable detector can be substituted.

B. Pressure relief valves should be vented to the outside. The refrigeration system should be exhausted to the outside, but not such that it would breach watertight or weather tight integrity.

C. The refrigeration system should be isolated from normally manned spaces where practicable. The space housing the refrigeration system should be adequately ventilated.

D. Refrigerants should not be exposed to sparks, flames, or hot surfaces.

E. Always read the product Label and Material Safety Data Sheet (MSDS) before usage.

XI. Stability Standards

A. On a vessel that has a stability document (to include loading conditions and stability instructions), the owner/operator should ensure that it is reviewed by a naval architect, marine engineer, or other qualified individual at least every 5 years, or after the vessel has been modified or altered in any way that changed its stability or handling characteristics. The stability document should be updated if determined to be necessary by the naval architect, marine engineer, or other qualified individual. A written copy of the document must be available onboard the vessel.

B. On a vessel that does not have any stability documentation, the owner/operator should be able to show at least one of the following:

   The vessel's operation and history of service does not cause the stability of the vessel to be questioned by the Coast Guard or a third party who performs a condition survey of the vessel, or if this history of service is not available, then:

   1. The vessel performs satisfactorily on an operational test that demonstrates it has acceptable stability and handling characteristics; or,
   2. The vessel has a satisfactory stability assessment considering its form, arrangement, construction, number of decks, route, and any operating restrictions of the vessel.

C. The operator of the vessel should be provided basic training on stability, and on the current loading conditions and stability instructions for the vessel.

D. Develop a vessel safety plan incorporating stability that consider full crew access to non secure locations of a vessel, factoring the safety of the vessel and its crew during normal operations. It is incumbent of the owner/operator to consider the unique configurations of their vessel in the vessel safety plan for stacking of gear for loading conditions that take into account weather conditions including but not limited to icing.

XII. Combating Fatigue

A. The individual in charge of the vessel should ensure watch-standers are afforded rest periods and are adequately rested before standing their watch, particularly if the vessel is operating more than 12 hours per day.

B. A watch alarm should be installed in the pilot house and be used at times when underway and fatigue appropriate. It should be set on no more than 15-minute intervals, depending on operating area. The alarm should not be a distraction that takes away from a safe navigation watch. It should be suitably audible to alert individuals responsible for the current operations of the vessel.

XIII. Watch Standing

A. The individual in charge of the vessel should have a watch standing policy for their vessel and any crew member standing a navigational watch should be informed and understand the responsibilities stated in the policy.

B. The policy may contain items such as:

1. Be familiar with the use and operation of the vessel's engine and gear controls.
2. Be familiar with the use and operation of the vessel's Electronic Navigation Systems (ENS).
3. Be familiar with the use and operation of the vessel's Radar, Depth Sounder, Autopilot, and AIS (Automatic Identification System). Further the CM will understand the use and operation of ARPA (Automatic Radar Plotting Aid) and the use and operation of AIS both with Radar and ENS and know how to determine CPA (Closest Point of Approach).
4. Be familiar with the Navigational Rules of the Road handbook and understand how they apply to watch standing on the vessel.
5. Be familiar with the use and operation of the vessel's VHF radios and will understand the need to monitor Channels 16, a common traffic and distress frequency, and Channel 13, a common vessel-to-vessel frequency.
6. Be familiar with the use and operation of the vessel's Watch Alarm, and ensure it is set for an appropriate period, generally 10 minutes after dusk, and 15 minutes during daylight hours.
7. Be familiar with the use and operation of the vessel's Navigation Lighting and will ensure the proper outlook is had.
8. Be familiar with the use and operation of the vessel's Fishing Lights and know their appropriate usage.
9. If the crew member is unsure of their observations, they should immediately notify the Individual in Charge.

XIV Additional Inputs to Good Seamanship

A. Plan ahead.
B. Monitor weather reports.
C. Test steering, communication equipment, prior to getting underway.
D. Predict and compensate for the effects of current and tide.
E. Ensure the Bridge is adequately manned and with trained personnel.
F. Give other vessels adequate sea room enabling enough time to correct for equipment failure or lapsed judgment.
G. Know the maneuvering characteristics of the vessel.
H. Switch to manual steering when appropriate.
I. Anchor in a safe area outside of channels and fairways.
J. Pay out enough anchor chain to avoid dragging (understand scope).
K. Wearing of activity appropriate personal flotation devices while on open decks or working decks.
L. Have a vessel written policy that identifies known hazards that may result in a fall overboard
M. list best practices to prevent falls overboard; coupled with a plan, and recovery method of

persons from the water.

N. Establish and maintain a subsequent suitable means on board the vessel for the safe recovery of persons from the water and their subsequent embarkation onto the vessel.

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