Coast Guard, DHS

(c) Each vessel must have an illuminated repeater for the gyrocompass required under paragraph (b) of this section that is at the main steering stand unless the gyrocompass is illuminated and is at the main steering stand.

[CFD 75–074, 42 FR 5964, Jan. 31, 1977]

Subpart 167.43—Work Vests

SOURCE: CGFR 59–22, 24 FR 4962, June 18, 1959, unless otherwise noted.

§ 167.43–1 Application.

(a) Provisions of this subpart shall apply to all vessels inspected and certified in accordance with this subchapter.

§ 167.43–5 Approved types of work vests.

(a) Each buoyant work vest carried under the permissive authority of this section must be approved under—

(1) Subpart 160.053 of this chapter; or

(2) Subpart 160.077 of this chapter as a commercial hybrid PFD.


§ 167.43–10 Use.

(a) Approved buoyant work vests are considered to be items of safety apparel and may be carried aboard vessels to be worn by crew members when working near or over the water under favorable working conditions. They shall be used under the supervision and control of designated ship’s officers. When carried, such vests shall not be accepted in lieu of any portion of the required number of approved life preservers and shall not be substituted for the approved life preservers required to be worn during drills and emergencies.

§ 167.43–15 Shipboard stowage.

(a) The approved buoyant work vests shall be stowed separately from the regular stowage of approved life preservers.

(b) The locations for the stowage of work vests shall be such as not to be easily confused with that for approved life preservers.

§ 167.43–20 Shipboard inspections.

(a) Each work vest shall be subject to examination by a marine inspector to determine its serviceability. If found to be satisfactory, it may be continued in service, but shall not be stamped by a marine inspector with a Coast Guard stamp. If a work vest is found not to be in a serviceable condition, then such work vest shall be removed from the vessel. If a work vest is beyond repair, it shall be destroyed or mutilated in the presence of a marine inspector so as to prevent its continued use as a work vest.

§ 167.43–25 Additional requirements for hybrid work vests.

(a) In addition to the other requirements in this subpart, commercial hybrid PFD’s must be—

(1) Used, stowed, and maintained in accordance with the procedures set out in the manual required for these devices by §160.077–29 of this chapter and any limitations(s) marked on them; and

(2) Of the same or similar design and have the same method of operation as each other hybrid PFD carried on board.


Subpart 167.45—Special Fire-fighting and Fire Prevention Requirements

§ 167.45–1 Steam, carbon dioxide, and halon fire extinguishing systems.

(a) General requirements. (1) Nautical school ships shall be provided with an inert-gas fire-extinguishing system when required.

(2) All nautical school ships carrying combustible cargo in the holds, between decks, or other closed cargo compartments shall be equipped with means for extinguishing fire in such compartments by the use of any inert-gas fire-extinguishing system approved by the Coast Guard or Navy. However, in specific cases where by reason of the design, such compartments are normally accessible and considered to be part of the working or living quarters, a water sprinkling system may be installed in lieu of an inert-gas fire-extinguishing system. On such vessels contracted for prior to January 1, 1962, a steam smothering system may be accepted in lieu of the inert gas system.
for the protection of cargo holds, paint
lockers, and similar spaces. However,
although existing steam smothering
systems may be repaired, replaced, or
extended, no new systems contracted
for on or after January 1, 1962, will be
permitted.
(1) Cabinets, boxes, or casings
inclosing manifolds or valves shall be
distinctly marked in painted letters
about 3 inches in height, “Steam Fire
Apparatus,” or “CO₂ Fire Apparatus,”
as the case may be.
(2) Steam or gas piping fitted for ex-
tinguishing fire shall not be used for
any other purpose except that it may
be used for fire-detecting purposes.
(3) Pipes for conveying steam from
the boilers for the purpose of extin-
guishing fire shall not be led into the
cabins, other living spaces, or working
spaces. Pipes for conveying carbon di-
oxide or other extinguishing vapors for
the purpose of extinguishing fire shall
not be led into the cabins or other liv-
ing spaces.
(4) Steam smothering lines shall be
tested with at least 50 pounds air pres-
sure with ends of the smothering lines
capped, or by blowing steam through
the lines, and a survey made for detect-
ing corrosion and defects, using the
hammer test or such other means as
may be necessary.
(5) At annual inspections, all carbon
dioxide (CO₂) cylinders, whether fixed
or portable, shall be examined exter-
nally and replaced if excessive corro-
sion is found; and all cylinders shall
also be checked by weighing to deter-
mine contents and if found to be more
than 10 percent under required con-
tents of carbon dioxide, the same shall
be recharged.
(6) Carbon dioxide and halon cyl-
inders carried on board nautical school
ships must be tested and marked in ac-
cordance with the requirements of
§§ 147.60 and 147.65 of this chapter.
(7) Regarding the limitations on the
use of steam smothering in subpara-
graph (2) of this paragraph, this does
not preclude the introduction of steam
into such confined spaces as boiler cas-
ings or into tanks for steaming out
purposes. Such installations are not to
be considered as part of any required
fire extinguishing system.
(b) Steam systems. (1) As noted in sub-
paragraph (a)(2) of this section, steam
smothering systems are not permitted
on nautical school ships contracted for
on or after January 1, 1962, nor for new
installations on vessels contracted for
prior to that date. Where steam smoth-
ering systems are installed, the provi-
sions of this paragraph shall be met.
(2) Steam for fire-extinguishing sys-
tems shall be available at a suitable
pressure from the main boilers or a
donkey or auxiliary boiler.
(3) The pipe lines shall be led from
not more than three stations in easily
accessible locations on the weather
deck to each cargo hold, cargo ‘tween-
decks, or other closed cargo compart-
ments, and to each cargo-oil deep tank,
lamp locker, oil room, and like com-
partments, which lamp locker, oil
room, and like compartments, shall be
wholly and tightly lined with metal.
The steam connections to the lamp
lockers, oil rooms, and like compart-
ments may be taken from the nearest
steam supply line, independent of the
extinguishing manifolds. In lamp lock-
ers, oil rooms, and like compartments,
adequate means may be provided for
ventilation if suitable dampers capable
of being operated from outside the
spaces are fitted in each vent duct.
(4) Each pipe in the extinguishing
manifolds shall be fitted with a shut-
off valve plainly and permanently
marked to indicate into which com-
partment it discharges. This require-
ment also applies to independent extin-
guishing lines.
(5) Manifold steam supply pipes shall
be fitted with master valves at the
manifolds, and provision shall be made
for draining the manifold and indi-
vidual lines to protect them against
freezing. If the manifolds are located
on an open deck, they shall be enclosed
in a metal box.
(6) The minimum diameter of any
steam fire-extinguishing pipe to a
cargo hold, cargo ‘tween-decks, other
closed cargo compartments, or cargo-
oil deep tank shall be one inch, the size
and number of pipes to be governed by
the size of the compartment. The min-
imum diameter of any steam fire-ex-
tinguishing pipe to a lamp locker, oil
room, or like compartments, shall be
three-fourths of an inch.
Coast Guard, DHS

§ 167.45–5

(c) Inert-gas systems. (1) When a carbon dioxide (CO\(_2\)) smothering system is fitted in the cargo hold, cargo ’tween-decks, or other closed cargo compartments, or cargo-oil deep tanks, the quantity of carbon dioxide shall be sufficient to give a gas saturation of 30 percent of the gross volume of the largest cargo hold. The quantity in pounds of carbon dioxide required may be determined approximately by the following formula:

\[
W = \frac{L \times B \times D}{30}
\]

where:
- \(W\) = the weight of CO\(_2\) required, in pounds.
- \(L\) = the length of the hold, in feet.
- \(B\) = the mean breadth of the hold, in feet.
- \(D\) = the depth from tank top or flat forming lower boundary to top of uppermost space in which freight may be carried, in feet.

(2) When a carbon dioxide (CO\(_2\)) smothering system is fitted in the lamp locker, oil room, or like compartments, the quantity in pounds of carbon dioxide required may be determined by dividing the gross volume of the space by a factor of 22. Lamp lockers, oil rooms, and like compartments, in all classes of vessels, shall be wholly and tightly lined with metal. The whole charge of gas shall be capable of being released simultaneously by operating one valve and control, and all cylinders shall be completely discharged in not more than two minutes.

(3) Pipes used for supplying carbon dioxide to the cargo holds, cargo ’tween-decks, other closed cargo compartments, and cargo-oil deep tanks shall be not less than three-fourths inch inside diameter. Pipes used for supplying carbon dioxide to lamp lockers, oil rooms, and like compartments shall not be less than one-half inch inside diameter.

(4) The control(s) releasing the inert gas shall be located in a position(s) outside the space(s) protected and shall be readily accessible when the vessel is being navigated. All valves shall be permanently marked to indicate into which compartment they discharge. A space which is protected by a carbon dioxide extinguishing system, and is normally accessible to crew while the nautical school ship is being navigated shall be fitted with an approved audible alarm in such space, which will be automatically sounded when the carbon dioxide is admitted to the space.

(5) Provisions shall be made to prevent the admission of air into the lower parts of cargo holds, cargo ’tween-decks, and other closed cargo compartments while the inert-gas system is in operation.

(6) Cylinders, piping, and controls for the inert-gas system shall be protected from damage and shall be securely fastened and supported.


§ 167.45–5 Steam fire pumps or their equivalent.

(a) All nautical school ships shall be equipped with fire pumps.

(b) Nautical school ships of 100 gross tons and under shall be equipped with one hand fire pump with a pump-cylinder capacity not less than 100 cubic inches, or a power-driven pump of equivalent discharge capacity.

(c) Nautical school ships over 100 gross tons shall be equipped with fire pumps and piping as follows:

(1) All nautical school ships shall be provided with powerful pumps available for use as fire pumps. When of less than 1,000 gross tons it shall have 1, and when larger it shall have at least 2 independently driven pumps connected to the fire main. Each pump shall be capable of delivering two powerful jets of water simultaneously from the highest outlets on the fire main at a Pitot tube pressure of approximately 50 pounds per square inch.

(2) On oil-burning nautical school ships, where two pumps are required, they may be located in the same compartment, if the compartment is equipped with an approved fixed carbon dioxide extinguishing system.

(d) Outlets from the fire mains shall be of a sufficient number and so arranged that any part of the living quarters, weather decks and any part of cargo decks, accessible to crew, while the nautical school ship is being navigated, may be reached with a single 50-