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NAVIGATION AND VESSEL INSPECTION CIRCULAR NO. 1-92
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Subj: Implementation of Lifesaving Equipment Requirements for Commercial Fishing Vessels

Ref: (a) Commercial Fishing Industry Vessel Regulations, 56 FR 40364 and 46 CFR Part 28
(b) NVIC 5-86, Voluntary Standards for U.S. Uninspected Commercial Fishing Vessels
(c) NVIC 1-87, Installation of Retroreflective Material on Lifesaving Equipment
(d) NVIC 4-86, Hydraulic Release Units for Liferafts, Life Floats, and Buoyant Apparatus, and Alternate Float-Free Arrangements
(e) NVIC 1-83, Painters for Life Floats and Buoyant Apparatus

1. PURPOSE. This Circular provides information and policy on implementation of regulations for lifesaving equipment on commercial fishing industry vessels (reference (a)). These regulations were published in the Federal Register on August 14, 1991 (page 40364), as Part 28 of Title 46 of the Code of Federal Regulations.

2. DIRECTIVES AFFECTED. This Circular replaces those portions of NVIC 5-86 (reference (b)) dealing with wearable personal flotation devices, ring life buoys, exposure suits, emergency position indicating radio beacons (EPIRBs), visual distress signals, inflatable liferafts, and retroreflective material;

3. DISCUSSION. The regulations for commercial fishing industry vessels established new requirements for lifesaving equipment. Some fishing vessels have carried little of this type of equipment in the past. Others have voluntarily carried lifesaving equipment which may or may not have been Coast Guard approved. This Circular provides policy and information on the transition to the new requirements. It also contains information on maintenance, inspection, stowage[1] and use of this equipment.

4. IMPLEMENTATION Coast Guard units will use the policies and guidance in this Circular in enforcing the commercial fishing industry vessel safety regulations. Owners and operators are encouraged to use the information in this Circular in complying with the regulations.

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End: (1) Inflatable Liferafts and Inflatable Buoyant Apparatus
(2) Hydrostatic Releases
(3) Immersion Suits
(4) Wearable Personal Flotation Devices
(5) Lights for Personal Flotation Devices and Immersion Suits
(6) Throwable Flotation Devices/Ring Life Buoys
(7) Stowage of Life Floats and Buoyant Apparatus

INFLATABLE LIFERAFTS AND INFLATABLE BUOYANT APPARATUS

Except for a liferaft installed on board a commercial fishing vessel before September 15, 1991, each liferaft used to meet the regulations must be a Coast Guard approved liferaft. An unapproved liferaft on board the vessel before September 15, 1991, may be used to meet a liferaft requirement as long as it is in good and serviceable condition, subject to the conditions listed below.

1. Unapproved liferafta. In order to be acceptable as being "of the same type" as an approved liferaft (see 46 CFR 28.120(d)(l)), an unapproved liferaft must:

   a. Have an operable compressed gas inflation system;

   b. Have a canopy with supports which are either automatically inflated, or inflated or set in place by the occupants of the liferaft;

   c. Have a carrying capacity which is the lesser of -

      (1) the number of persons claimed by the manufacturer; or

      (2) the area of the floor in square feet divided by 3.6. This area shall be the clear area of the floor inside the inflated buoyancy tubes.

   d. Have a position indicating light which automatically lights when the liferaft inflates on the water, and which is located on the uppermost part of the liferaft when inflated by its gas inflation system;

   e. Be marked with retroreflective material under the guidelines in NVIC 1-87 (reference (c));

   f. Be equipped with the appropriate survival equipment as explained in paragraph 5.

2. Servicing. Each liferaft and inflatable buoyant apparatus must be serviced annually, except for a new liferaft or inflatable buoyant apparatus which is not required to be serviced until it is two years old.

   a. Servicing is due in the month and year shown on the expiration sticker on the liferaft or inflatable buoyant apparatus container. If there is no expiration sticker, servicing is due either 24 months after the date of manufacture, or 12 months after the date of previous servicing, marked on the inspection plate on the container.

   b. Some unapproved liferafts may not have an inspection plate. Servicing facilities may stencil the servicing information on the containers of such liferafts.

   c. Approved servicing facilities issue servicing certificates for each liferaft they service. This certificate can be used to verify servicing information marked on the container or inspection plate.

   d. If the vessel is in operation or in a port not served by an approved servicing facility, servicing may be delayed until the first opportunity for servicing, but not longer than five months.

e. Servicing must be done by a facility approved by the Coast Guard to service that particular brand of liferaft or inflatable buoyant apparatus. The Coast Guard approves facilities to service both approved and unapproved liferafts. Each Coast Guard Marine Safety Office, Marine Inspection Office, and District Fishing Vessel Safety Coordinator can provide information on approved servicing facilities in their area.

f. If no approved servicing facilities are available for an unapproved liferaft, the liferaft must be replaced with an approved liferaft

g. Owners and crew are encouraged to visit servicing facilities while their liferaft or inflatable buoyant apparatus is being serviced. Servicing facilities normally welcome these visits so the inflated device and its equipment can be seen by the people who may one day have to use it.

3. Servicing tests and inspections. The tests and inspections performed by the servicing facility will be those specified in the manufacturer's servicing manual. If a liferaft or inflatable buoyant apparatus is more than two years overdue for servicing, or if the previous servicing was not conducted by a facility either approved by the Coast Guard or the manufacturer to service the manufacturer's equipment, the "fifth-year" inflation test, and a necessary additional pressure (NAP) test shall be conducted. The servicing facility shall also evaluate unapproved liferafts under the criteria in paragraph 1.

a. A liferaft which does not have an inflation system as in paragraph 1.a is not acceptable to meet any of the survival craft requirements in the regulations.

b. A liferaft which does not have a canopy as in paragraph 1.b is acceptable only in place of an inflatable buoyant apparatus. The servicing facility shall provide appropriate marking on the container to indicate such liferafts.

c. If the capacity of the liferaft must be revised to meet paragraph 1.c, the servicing facility shall indicate the revised capacity clearly and permanently on the liferaft container. Incorrect capacity markings shall be removed or obliterated.

d. The servicing facility shall upgrade the liferaft, if necessary, to meet paragraphs 1.d, 1.e, and 1.f. Survival equipment for such liferafts is discussed in more detail in paragraph 5, below.

4. Approved liferaft equipment Approved liferafts are designated as "SOLAS A," "SOLAS B," and "Coastal." Older approved liferafts are designated as "Ocean" service which is equivalent to SOLAS A, and "Limited" service which is equivalent to SOLAS B. Ocean service and Limited service liferafts may be used interchangeably with SOLAS A and SOLAS B liferafts, respectively. "SOLAS" stands for the "Safety of Life at Sea" Convention, an international treaty which contains, among other things, performance and design standards for inflatable liferafts.

a. SOLAS A and SOLAS B liferafts are generally identical, except for the equipment they carry, with SOLAS A liferafts being equipped for longer term survival. A SOLAS A liferaft may be used to meet the requirements for any survival craft required in the Commercial Fishing Industry Vessel regulations.

b. SOLAS B liferafts carry no food, water, or fishing kits. They also carry only half the number of flares and smoke signals carried in SOLAS A liferafts. A SOLAS B liferaft may be used to meet the requirements for any survival craft required in the Commercial Fishing Industry Vessel regulations, except where a SOLAS A liferaft is required.

c. The smallest approved SOLAS A and SOLAS B liferafts are of the 6-person size, in order for the liferaft to be sufficiently large for open ocean use. Reductions in food and water are allowed in SOLAS A liferafts, in order to equip them for fewer persons. This will result in a lower capacity which must be clearly indicated on the container. Such reductions only eliminate some of the food and water carried in the liferaft and are not recommended, since they result only in minimal cost and weight savings.

d. "Coastal" service liferafts have less equipment than SOLAS A or SOLAS B liferafts, and are not required to have all of the intrinsic design features of SOLAS liferafts. Therefore, while a servicing facility can normally upgrade SOLAS B liferafts to SOLAS A, and Limited service liferafts to Ocean service, approved Coastal service liferafts can generally not be upgraded to a higher service level. An exception would be a liferaft built to SOLAS standards, but only equipped with a coastal survival equipment pack. A Coastal liferaft may be used to meet the requirements for any survival craft required in the Commercial Fishing Industry Vessel regulations, except where a SOLAS A or SOLAS B liferaft is required.

e. Any approved liferaft can be downgraded to coastal service by equipping it with a coastal service pack. Approved servicing facilities have the information necessary to make these service changes.

5. Unapproved liferaft equipment Unapproved liferafts must carry equipment packs equivalent to SOLAS A, SOLAS B, or Coastal, depending on the type of liferaft required in the area where the vessel operates. These equipment adjustments must be made at an approved servicing facility in accordance with the manufacturer's instructions, by the date on which the vessel is required to carry a liferaft.

a. The servicing facility will indicate the equipment pack carried by means of a marking on the container stating "A pack," "B pack," or "Coastal pack." (The term "SOLAS" must not be used on a liferaft not approved to SOLAS standards.)

b. It may be necessary for the servicing facility to provide a larger container to provide room for additional equipment. If the manufacturer's servicing manual does not provide for packing the liferaft in a larger container, or if the larger container is not reasonably available, some of the equipment may be carried in an auxiliary pack instead of inside the container. The liferaft must have a marking which indicates that the auxiliary pack is required in addition to the liferaft.

c. An auxiliary pack shall be made of substantial waterproof material, have handles suitable for carrying the pack, and be buoyant when fully packed.

d. The liferaft and auxiliary pack must be serviced together.

e. The auxiliary pack must be carried in a location on the vessel which is readily accessible to the liferaft.

6. Additional equipment. The owner may specify equipment in addition to the required equipment to be carried in the liferaft.

   a. The additional equipment must be packed in the liferaft in accordance with the instructions of the manufacturer to ensure that the additional equipment does not interfere with the proper inflation of the liferaft.

   b. When an EPIRB is carried in the liferaft, the liferaft container must be suitably marked to indicate that it contains an EPIRB. The marking must indicate the category or type of EPIRB, last date of test, and date of battery expiration.

7. Installation. The liferaft or inflatable buoyant apparatus should be installed on the vessel in a carefully selected location.

   a. The liferaft or inflatable buoyant apparatus should be accessible to the crew.

   b. Vessels required to carry SOLAS A or SOLAS B liferafts must locate the liferaft to permit the liferaft to float free if the vessel sinks. Float-free installation is recommended for Coastal liferafts and inflatable buoyant apparatus.

   c. Proper float-free operation requires that the liferaft painter be secured either to the deck or to the hydrostatic release, depending upon the type of float-free arrangement and hydrostatic release which is used. If no hydrostatic release is used, the weak link on the end of the painter is shackled or otherwise firmly secured to the deck. If a hydrostatic release is used, the instructions of the hydrostatic release manufacturer should be used.

   d. Insofar as is possible, a float-free installation should be clear of deckhouse overhangs or rigging that could foul a raft's upward flotation. A liferaft or inflatable buoyant apparatus should not be installed on a lower deck subject to boarding seas that could damage the container and its contents.

   e. Any liferaft carried in addition to the minimum required for float-free operation, does not have to be of a float-free type. Operators may wish to carry extra liferafts if they are concerned that rigging or other vessel arrangements may interfere with proper float-free operation of a liferaft.

   f. Liferafts or inflatable buoyant apparatus should not be installed near exhaust stacks. Heat and gasses may deteriorate the rubber gaskets of the container. This will allow corrosive salt spray to enter the container and most probably damage the liferaft or inflatable buoyant apparatus stored inside.

   g. Liferafts or inflatable buoyant apparatus should display operating instructions on their containers or nearby, printed in a language understood by the crew. All crew members should receive instructions in their use.

HYDROSTATIC RELEASES

If an inflatable liferaft, inflatable buoyant apparatus, or Emergency Position Indicating Radiobeacon (EPIRB) uses a hydrostatic release for float-free operation, the release must be Coast Guard approved. See NVIC 4-86 (reference (d)) for information on installation and use of hydrbstatic releases.

1. Conventional hydrostatic releases. Like inflatable liferafts and inflatable buoyant apparatus, conventional hydrostatic releases must be tested annually at an approved facility. This can normally be done by or through an approved liferaft servicing facility.

    a. New conventional hydrostatic releases are due for testing when they are one year old. This differs from inflatable liferafts and inflatable buoyant apparatus which do not become due for servicing until they are two years old.

    b. Each Coast Guard Marine Safety Office, Marine Inspection Office, and District Fishing Vessel Safety Coordinator can provide information on approved hydrostatic release testing facilities in their area.

2. Disposable hydrostatic releases. Disposable hydrostatic releases must be marked with their expiration date using the tabs on the label. This must be done when the release is installed. Disposable releases must be replaced when the expiration date passes, normally two years from installation. If multiple dates are indicated, the earliest date is the date of expiration.

3. Hidden installations. Some hydrostatic releases, especially those used on certain EPIRBs, can not be readily seen when the equipment is properly installed. If the servicing date or expiration date on an installed hydrostatic release can not be readily seen, a label should be applied in a location where it can easily be seen. The label should indicate that the device uses a hydrostatic release, along with its servicing or expiration date.

4. Weak links. An important part of a float-free survival craft installation is the weak link which secures the survival craft painter to the vessel. Different weak link arrangements are used with different hydrostatic releases. The weak link arrangement must agree with the instructions of the hydrostatic release or survival craft manufacturer. References (d) and (e) discuss weak link arrangements in more detail.

5. Raytheon/JRC EPIRBs. The Raytheon/JRC model JQE-2A 406 MHz satellite EPIRB includes a "hydrostatic release sensor" which was accepted as part of the EPIRB. It carries no Coast Guard approval information, and must be replaced periodically as indicated in the owners manual and the release sensor replacement label on the float-free bracket.

IMMERSION SUITS

Immersion suits generally must be Coast Guard approved, either as "immersion suits" (approval series 160.171/...), or "exposure suits" (approval series 160.071/...). Note that immersion suits are not approved as Type V or any other type of personal flotation device (PFD).

1. Unapproved immersion suits The Coast Guard will accept certain unapproved suits as equivalent to approved suits. Acceptable unapproved suits must be constructed similar to approved suits, and be in serviceable condition. To be counted as an immersion suit, an unapproved suit must be in one of the following groups:

    a. Either on the vessel or owned by the individual before August 6, 1984. As of that date, suits carried to meet a requirement for a flotation device were required to be Coast Guard approved. At that time, only "Adult," "Adult/Oversize," and "Child/Small Adult" size approved suits were available.

    b. Of a size other than "Adult," "Adult/Oversize," or "Child/Small Adult," and either on the vessel or owned by the individual before September 15, 1991. This is intended to allow the use of suits made by approved manufacturers which are essentially the same as approved suits, but of a size which did not conform with requirements for approved suits at the time the suits were made.

2. Maintenance and inspection. All suits must be maintained in good and serviceable condition. This means operable waterproof zippers, valves and seams which do not leak, and no unrepaired holes. Maintenance instructions are provided with each approved suit. The date of the last inspection should be indicated on the outside of the storage bag.

    a. The Coast Guard does not approve inspection and repair facilities for immersion suits. However, manufacturers recommend that inspections be performed by one of their representatives in a facility equipped to perform a complete inspection, including leak testing.

    b. Repairs can be made, as long as they restore the suit to a condition equivalent to the originally approved state. This requires the use of materials and methods recommended by the manufacturer. Repairs should be made by persons with the experience or training to work with those materials and methods.

    c. Most problems with immersion suits involve the following:
        (1) Zippers. Zippers can corrode if not properly maintained. The manufacturer's recommended zipper lubricant should be used. Paraffin should be avoided, especially in cold climates. The teeth that actually secure the waterproof zipper are the small teeth on the "inside" of the zipper. A little corrosion on these teeth can block the slider, or damage the teeth so the zipper does not operate. If a closed zipper can be separated when probed with a (dull) table knife, the zipper needs to be replaced.
        (2) Seams. Immersion suit seams are stress points and are often the source of leaks. Suits should be leak checked periodically, and leaking seams repaired.
        (3) Inflatable collar. If a suit has an inflatable collar, it should periodically be inflated and allowed to stand overnight. If the collar does not stay firmly inflated overnight, it should be repaired or replaced. Inflation tubes should be complete, securely attached, and not have kinks which would prevent the wearer from inflating the collar.

(4) Drying. When suits are used in the water or become wet for any reason, they should not be stowed until completely dry. This usually requires hanging the suit in a dry well-ventilated area, first turned inside-out and then right-side-out. Complete drying may take 2 days.

3. Stowage. Immersion suits are intended for "abandon ship" use. The regulations require that they be stowed so they are readily accessible to the individuals for whom they are intended, from both the individual's normal work station and berthing area. This is to prevent searching throughout the vessel to find them in an emergency.

a. Immersion suits are often stowed in or near berthing areas. Duplicate immersion suits may be required for persons whose normal work station is not near their berthing area.

b. Suits should not be stacked more than a few high, or be kept on the bottom of a stack of any other equipment. Excessive stacking can compress suits at the bottom of the pile, eventually damaging the buoyant insulating foam.

4. Marking. Each suit must have a waterproof marking identifying the vessel, or the individual to whom the suit is assigned or belongs. The manufacturer's recommended methods and materials should be used for this marking, since not all inks and paints are compatible with immersion suit materials.

5. Retroreflective material Approved suits are equipped with retroreflective material when they are manufactured. The material is positioned on the suit to make a person wearing the suit in the water as visible as possible under nighttime search conditions. The pattern is not necessarily the same as that used on a lifejacket or other personal flotation device.

a. If the retroreflective material deteriorates or must be replaced for some other reason, new material should be positioned in the same place as the old material.

b. Unapproved suits should also be equipped with retroreflective material. An approved suit of a similar type should be used as an example for the placement of material.

c. Only Coast Guard approved retroreflective material (approval series 164.018/. . .) should be used. This material is tested for flexibility, adhesion, and optical performance under cold, wet, and oily conditions. The application directions supplied with the retroreflective material should be carefully followed.

6. Recommendations.

a. The regulations for commercial fishing industry vessels define the waters where immersion suits are required. However, carriage of immersion suits should also be considered for warmer waters, especially if the vessel will operate far offshore in winter where prompt rescue may not be available.

b. Immersion suits are often designed to carry small items of equipment. Whistles, dye markers, aerial flares, and small Class B Emergency Position Indicating Radio Beacons (EPIRBs) can all help attract attention, and are recommended.

WEARABLE PERSONAL FLOTATION DEVICES

Depending upon where the vessel operates, either approved Personal Flotation Devices (PFD) or immersion suits are required for everyone on board. In addition to these required devices for "abandon ship" situations, approved or unapproved devices may be carried, especially for persons working on open decks. The Coast Guard strongly recommends some type of flotation be worn by crew members working on open decks.

1. Type V and other approved Personal Flotation Devices. Type V PFD's are those which are Coast Guard approved for special purposes. They may be substituted for Type I, II, or III PFD's, if the intended use statement on the label says that the Type V is an approved substitute for that device and the particular service in which the vessel is employed.

    a. At present, only certain Type V work suits have been approved to be substitutes for Type II or Type III PFD's. However, some anti-exposure flotation jackets are approved as Type III devices. These could be carried to meet a requirement for Type III's, or as additional equipment on a vessel required to have Type I PFD's or immersion suits for all on board.

    b. Type V work vests are designed to provide freedom of motion, yet provide flotation in case of a fall overboard. They are widely used by personnel working on the decks of tugboats, towboats, barges, and other merchant ships. They could also be used on deck on fishing vessels.

    c. Each approved PFD sold at retail comes with an information pamphlet. This pamphlet should be kept on board so that it can be read and understood by the crew.

2. Unapproved flotation devices Unapproved devices, including inflatables, may also be used. The master or individual in charge is responsible for making sure that unapproved devices are safe, appropriate, and properly maintained.

3. Inflatable devices Inflatable devices, whether approved or unapproved, need special attention. This also includes approved Type V "hybrid" devices which contain an inflatable flotation cell in addition to inherent buoyancy.

    a. They should be opened and dried out whenever they become wet. They should be repacked only when dry.

    b. They should be thoroughly inspected periodically according to the manufacturer's instructions in the manual which should be provided with the device.

    c. If there are no manufacturer instructions, the Coast Guard recommends a monthly inspection, or for an infrequently used device, an inspection before the device is to be used. An inspection should include the following:
        (1) The device should be inflated and should stay firmly inflated overnight.
        (2) Flotation cells should be visually inspected for damage and deterioration from mold or mildew. The means of attachment of the flotation cell to the body of the device should also be checked for condition and proper attachment.
        (3) Oral inflation tubes should be in good condition and firmly secured to the flotation cell and valve. The oral inflation valve should be checked for condition and proper operation.

(4) CO_2 inflation mechanisms should be checked for proper and free operation, and should be loaded with an unused CO_2 cartridge of the proper size.

(5) If the inflation mechanism is automatic, it should be loaded with the proper water-sensitive element. If the vessel operates in near-freezing waters, the element should be a type which will activate quickly in cold water.

4. Stowage. The wearable PFD's carried as required equipment are intended for "abandon ship" use. PFD's are often stowed in or near berthing areas. The regulations require that they be stowed so they are readily accessible to the individuals for whom they are intended, from both the individual's normal work station and berthing area. This is to prevent searching throughout the vessel to find them in an emergency. Duplicate PFD's may be required for persons whose normal work station is not near their berthing area.

5. Marking. Each PFD must have a waterproof marking identifying the vessel, or the individual to whom the PFD is assigned or belongs. If the manufacturer recommends methods and materials for this marking, those recommendations should be followed since not all inks and paints may be compatible with PFD materials.

6. Retroreflective material. PFD's must be marked with retroreflective material as described NVIC 1-87 (reference (c)).

a. If the retroreflective material deteriorates or must be replaced for some other reason, new material should be positioned in the same place as the old material.

b. Retroreflective material is recommended for unapproved PFD's, as well.

c. Only Coast Guard approved retroreflective material (approval series 164.018/. . .) should be used. This material is tested for flexibility, adhesion, and optical performance under cold, wet, and oily conditions. The application directions supplied with the retroreflective material should be carefully followed.

LIGHTS FOR PERSONAL FLOTATION DEVICES AND IMMERSION SUITS

Each wearable personal flotation device (PFD) and immersion suit on a vessel operating on ocean, coastwise[1], or Great Lakes voyages, must be equipped with an approved. PFD light. The light must be positioned near the shoulder so it will be above water when a person is wearing the PFD or immersion suit in the water.

1. The light or the power source must be marked with a date of expiration, unless it is a standard battery such as a 9-volt or D-cell. Unmarked batteries must be replaced annually and must be of the type designated by the light manufacturer. Other batteries or lights must be replaced by their expiration date.

2. Approved lights are available in a wide selection of quality and performance. Strobe lights are the most expensive approved lights available, but they are also the most effective.

3. Operators of vessels operating in near-freezing waters should be aware that battery and light operation degrades in cold temperatures. In particular, chemiluminescent type lights (chemical lights) should be avoided on vessels operating in near-freezing waters.

[1] "Ocean" and "coastwise" include the waters of any ocean or the Gulf of Mexico. This includes all offshore waters beyond the headlands of any body of water which may be designated as a sea “or bay.”

THROWABLE FLOTATION DEVICES/RING LIFE BUOYS

1. Each vessel must be equipped with a throwable flotation device or ring life buoys as in the following table:

Length of vessel in ft (m)		Approved devices required				
At least	Less than	Number	Description	Color	Minimum Diameter - in (mm)	Lifeline length on one ring life buoy in ft (m)[2]
	16 (4.9)	None				None
16 (4.9)	26 (7.9)	1	Any Type IV PFD	Any	Any	None
26 (7.9)	65 (19.8)	1	Ring Life Buoy-Approval series 160.050/...[3]	Orange[4]	24[5] (600)	60 (18.3)
65 (19.8)		3	Ring Life Buoy-Approval series 160.050/...[1]	Orange[2]	24 (600)	90 (27.4)

2. Whenever possible, ring life buoys should be stowed on open decks, readily accessible to those on board. They should be able to be readily cast loose, and not secured to the vessel in any way. The Coast Guard recommends that brackets be designed to allow life buoys to float free of a sinking vessel.

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[2] The lifeline required on one of the life buoys on a vessel 26 ft (7.9 m) or more in length, should be -

a. Buoyant;
b. Non-kinking;
c. At least 5/16 in (8mm) in diameter;
d. Have a breaking strength of not less than 1100 lb (5 kN); and
e. Be of a dark color if synthetic, or of a type which is resistant to deterioration from ultraviolet light.

[3] Cork or balsa ring life buoys approved under former approval series 160.009/. . . may continue to be used as long as they are in good and serviceable condition.

[4] White ring life buoys on board the vessel on or before September 15, 1991, may be used to meet these requirements as long as they are in good and serviceable condition.

[5] Ring life buoys at least 20 in (500 mm) in diameter and on a vessel less than 65 ft (19.8 m) in length on or before September 15, 1991, may be used to meet these requirements as long as they are in good and serviceable condition.

STOWAGE OF LIFE FLOATS AND BUOYANT APPARATUS

Though not required by the regulations, life floats and buoyant apparatus should be arranged to float-free, if possible. This requires the life float or buoyant apparatus to be secured to the vessel by a painter and a float-free link. More information on painters and float-free installation of life floats and buoyant apparatus is in NVIC 1-83 (reference (e)).