

these devices. Boaters should test their hybrid PFDs in the water, under safe, controlled conditions to know how well the devices float them with limited buoyancy. Approximately 90 percent of boaters will float while wearing a Type II or III hybrid inflatable PFD when it is not inflated. However, hybrid inflatable PFDs are not recommended for non-swimmers unless worn with enough additional inflation to float the wearer. Almost all boaters will float while wearing a Type I hybrid inflatable PFD that is not inflated. The PFD's 'performance type' indicates whether it should be used only where help is nearby, or if it also may be used where help may be slow coming. Type I hybrids are suitable where rescue may be slow coming, while Types II and III are good only when there is a chance of fast rescue. Type I hybrids are approved in three weight ranges, adult, for persons weighing over 40 kg (90 lb); youth, for persons weighing 23-40 kg (50-90 lb); and small child, for persons weighing 14-23 kg (30-50 lb). Type II hybrid PFDs are approved in the same size ranges as Type I hybrids but may be available in a number of chest sizes and in universal adult sizes. Type III hybrids are only approved in adult and youth sizes but may also be available in a number of chest sizes and in universal adult sizes.

[For a pamphlet provided with a Type I, II or III hybrid PFD, insert illustration of the Type Hybrid PFD being sold]

*Type IV*—A Type IV PFD is normally thrown or tossed to a person who has fallen overboard so that the person can grasp and hold the device until rescued. Until May 15, 1995 (or May 1, 1996 at commercial liveries), the Type IV is acceptable in place of a wearable device in certain instances. However, this type is suitable only where there is a good chance of quick rescue, such as areas where it is common for other persons to be nearby engaged in boating, fishing, and other water activities. It is not recommended for use by non-swimmers and children.

[Insert illustration of Type IV PFD]

*Type V (General)*—A Type V PFD is a PFD approved for restricted uses or activities such as boardsailing, or commercial white water rafting. These PFDs are not suitable for other boating activities. The label on the PFD indicates the kinds of activities for which the PFD may be used and whether there are limitations on how it may be used.

*Type V Hybrid*—A Type V Hybrid PFD is an inflatable device which can be the most comfortable and has very little buoyancy when it is not inflated, and considerably more buoyancy when it is inflated. In order for the device to count toward carriage requirements on recreational boats, it must be worn except when the boat is not underway or when the user is below deck. When inflated it

turns the wearer similar to the action provided by a Type I, II, or III PFD (the type of performance is indicated on the label). This type of PFD is more comfortable because it is less bulky when it is not inflated. Boaters taking advantage of the extra comfort of hybrid inflatable PFDs must take additional care in the use of these devices. Boaters should test their hybrid PFDs in the water, under safe, controlled conditions to know how well the devices float them with limited buoyancy. Approximately 70 percent of boaters will float while wearing a Type V hybrid PFD when the device is not inflated. Therefore, it is not recommended for non-swimmers unless worn with enough additional inflation to float the wearer. The PFD's "performance type" indicates whether it should be used only where help is nearby, or if it may also be used where help may be slow coming. This type of PFD is approved in two sizes, adult, for persons weighing over 40 kg (90 lb); and youth, for persons weighing 23-40 kg (50-90 lb), and may be available in a number of chest sizes and in universal adult sizes.

[For a pamphlet provided with a Type V hybrid PFD, insert illustration of TYPE V Hybrid PFD]

(3) A table with the applicable PFD Type, size, and buoyancy values from Table 160.077-15(b)(13) or 160.077-17(b)(11), as applicable; and

(4) The text in UL 1517, Section 39, items D, E, and F.

[CGD 78-174, 50 FR 33928, Aug. 22, 1985, as amended by CGD 78-174, 60 FR 2489, Jan. 9, 1995]

#### § 160.077-29 PFD Manuals.

(a) *Approval*. The text of each manual required by this section is reviewed with the application for approval. Changes may be required if needed to comply with this section.

(b) *Required Manuals*. An owner's manual must be provided with each recreational and commercial hybrid PFD sold or offered for sale as follows:

(1) The manual text for a recreational hybrid PFD must be printed verbatim and in the sequence set out in paragraph (c) or (d) of this section, as applicable.

(2) The manual for a commercial hybrid PFD must meet the requirements of paragraph (f) of this section except that the manual for a commercial Type I PFD which is also labeled for recreational use must meet the requirements of paragraph (c) of this section.

(3) Additional information, instructions, or illustrations may be included within the specified text of the manuals required by this section if there is no contradiction to the required information.

(c) *Type I, II or III Hybrid PFD.* For a Type I, II and III hybrid PFD the manual contents must be as follows:

(1) The following text:

#### HYBRID LIMITATIONS

This PFD has limited inherent buoyancy which means YOU MAY HAVE TO INFLATE THIS PFD TO FLOAT, and its inflatable portion requires maintenance. While these PFDs are not required to be worn, if you have an accident or fall overboard, you are much more likely to survive if you are already wearing a PFD.

There is only one way to find out if you will float while wearing the PFD when it is not inflated. That is to try this PFD in the water as explained in [*insert reference to the section of the manual that discusses how to test the PFD*]. If you have not tested this device in accordance with these guidelines, the Coast Guard does not recommend its use.

(2) Instructions on use including instructions on donning, inflation, replenishing inflation mechanisms, and recommended practice operation;

(3) Instructions on how to properly inspect and maintain the PFD, and recommendations concerning frequency of inspection;

(4) Instructions on how to get the PFD repaired;

(5) The text in UL 1517, Section 40, items B and D;

(6) The following text:

#### WHY DO YOU NEED A PFD?

A PFD provides buoyancy to help keep your head above water and to help you stay face up. The average in-water-weight of an adult is only about 5 to 10 pounds. The buoyancy provided by most PFDs will support that weight in water. However, the hybrid Type I, II, or III PFD may be an exception. The uninflated buoyancy provided by this PFD may only float 90 percent of the boating public. This is because the inherent buoyancy has been reduced to make it more comfortable to wear. So, you may not float adequately without inflating the device. Once the device is inflated you will have a minimum of 22 lb of buoyancy for adult sizes, which should be more than enough to float everyone. (See table above [below] for the actual minimum buoyancy for different Types of hybrids.) Your body weight alone does not determine your in-water-weight. Since there

is no simple method of determining your weight in water, you should try the device in the water in both its deflated and inflated condition.

(7) The text in UL 1517, Section 40, item G;

(8) The following text:

#### WEAR YOUR PFD

Your PFD won't help you if you don't have it on. It is well-known that most boating accidents occur on calm water during a clear sunny day. It is also true that in approximately 80 percent of all boating accident fatalities, the victim did not use a PFD. Don't wait until it's too late. Non-swimmers and children especially should wear their PFD at all times when on or near the water. Hybrid Type I, II, III or V PFDs are not recommended for non-swimmers unless inflated enough to float the wearer.

(9) The text in UL 1517, Section 40, items I, J, K, and L; and

(10) A table with the applicable PFD Type, size, and buoyancy values from Table 160.077-15(b)(13) or 160.077-17(b)(11), as applicable, or provide a reference to appropriate pamphlet table, if the pamphlet is combined with the manual.

(d) *Type V Recreational Hybrid PFD.* For a Type V recreational hybrid PFD the manual contents must be as follows:

(1) The text in UL 1517, Section 40, item A;

(2) Instructions on use including instructions on donning, inflation, replenishing inflation mechanisms, and recommended practice operation;

(3) Instructions on how to properly inspect and maintain the PFD, and recommendations concerning frequency of inspection;

(4) Instructions on how to get the PFD repaired; and

(5) The text in UL 1517, section 40, that is not included under paragraph (d)(1) of this section.

(e) *Commercial Hybrid PFD.* (1) For a commercial hybrid PFD that is "REQUIRED TO BE WORN" the manual must meet the requirements of paragraph (d) of this section.

(2) For a commercial hybrid PFD approved as a "Work Vest Only" or Type I PFD the manual must meet the requirements of either paragraphs (e) (3) and (4) or of paragraph (c) of this section. The manual for a commercial

Type I hybrid PFD which is also labeled for use on recreational boats must meet the requirements of paragraph (c) of this section.

(3) Each commercial hybrid PFD approved with special purpose limitation must have a user's manual that—

(i) Explains in detail the proper care, maintenance, stowage, and use of the PFD; and

(ii) Includes any other safety information as prescribed by the approval certificate.

(4) If the manual required in paragraph (e)(3) of this section calls for inspection or service by vessel personnel, the manual must—

(i) Specify personnel training or qualifications needed;

(ii) Explain how to identify the PFDs that need to be inspected; and

(iii) Provide a log in which inspections and servicing may be recorded.

(5) If a PFD light approved under subpart 161.012 is not provided at time of sale, the manual must specify the recommended type of light to be used.

(6) Notwithstanding the requirements of paragraph (b) of this section, manufacturers that make shipments to purchasers that do not redistribute the PFDs, must provide at least one manual in each carton of PFDs shipped.

[CGD 78-174, 50 FR 33928, Aug. 22, 1985, as amended by CGD 78-174, 60 FR 2490, Jan. 9, 1995]

**§ 160.077-30 Spare operating components and temporary marking.**

(a) *Spare operating components.* Each recreational and commercial hybrid PFD must—

(1) If it has a manual or automatic inflation mechanism and is packaged and sold with one inflation medium cartridge loaded into the inflation mechanism, have at least two additional spare inflation cartridges packaged with it. If it is sold without an inflation medium cartridge loaded into the inflation mechanism, it must be packaged and sold with at least three cartridges; and

(2) If it has an automatic inflation mechanism and is packaged and sold with one water sensitive element loaded into the inflation mechanism, have at least two additional spare water sensitive elements packaged with it. If it

is sold without a water sensitive element loaded into the inflation mechanism, it must be packaged and sold with at least three water sensitive elements.

(b) *Temporary marking.* Each recreational and commercial hybrid PFD which is sold—

(1) In a ready-to-use condition but which has covers or restraints to inhibit tampering with the inflation mechanism prior to sale, must have any such covers or restraints conspicuously marked "REMOVE IMMEDIATELY AFTER PURCHASE."; or

(2) Without an inflation medium cartridge, a water sensitive element, or both pre-loaded into the inflation mechanism, must include the markings required in §160.077-15(c)(3)(ii).

[CGD 78-174, 60 FR 2491, Jan. 9, 1995]

**§ 160.077-31 PFD Marking.**

(a) *General.* Each hybrid PFD must be marked with the applicable information required by this section. Each marking must be waterproof, clear, permanent, and readable from a distance of three feet.

(b) *Prominence.* Each marking, other than the text in paragraphs (c) and (d) of this section, must be significantly less prominent and in smaller print than paragraph (c) and (d) text.

(c) *Recreational Hybrid PFD.* Each recreational hybrid PFD must be marked with the following text using capital letters where shown and be presented in the exact order shown:

TYPE [II, III, or V, as applicable] PFD

[See paragraph (k) of this section for exact text to be used here]

Recreational hybrid inflatable—Approved for use only on recreational boats. [For Type V only] REQUIRED TO BE WORN to meet Coast Guard carriage requirements (except for persons in enclosed spaces as explained in owner's manual).

[For Type V only] When inflated this PFD provides performance equivalent to a [see paragraph (h) of this section for exact test to be used here].

A Pamphlet and Owner's Manual must be provided with this PFD.

WARNING—TO REDUCE THE RISK OF  
DEATH BY DROWNING

—YOU MAY HAVE TO INFLATE THIS PFD  
TO FLOAT.