

allowable alternative to existing Coast Guard-approved PFDs. Coast Guard approval of inflatable PFDs represents a business opportunity for manufacturers, distributors, and retailers. For these reasons, the Coast Guard for good cause finds, under 5 U.S.C. 553(b)(B), that notice, and public procedure on the notice, before the effective date of this rule are unnecessary.

Background and Purpose

The November 9, 1993, ANPRM discussed the Coast Guard's intention to adopt structural and performance standards for inflatable personal flotation devices (PFD) used on recreational boats, as well as the procedures for approval, and carriage requirements. The ANPRM discussed the Coast Guard's intention to participate in the development of an Underwriters Laboratories (UL) standard for inflatable PFDs, which would be the basis for Coast Guard approval of these devices. The UL standard (UL 1180) is complete. A Notice of Proposed Rulemaking (NPRM) which proposes complementary rules governing the carriage, use, registration, and recall of inflatable PFDs for recreational boats, is published elsewhere in today's edition of the **Federal Register**. More comprehensive procedures for approval of inflatable devices, and other PFDs as well, are included in the NPRM.

These regulations are intended to allow approval of PFDs which may be more appealing to recreational boaters than currently approved PFDs, thereby increasing use of PFDs by the boating public and saving lives. However, the Coast Guard notes that the currently approved inherently buoyant PFDs have an excellent lifesaving record. The Coast Guard boating statistics show that the fatality rate has dropped from about 20 to 4 (per 100,000 boats) over the past 25 years, and this decrease is in part due to use of these inherently buoyant PFDs. The Coast Guard also notes that inherently buoyant PFDs are more appropriate for non-swimmers than inflatable PFDs. Moreover, there are a number of boating applications where inflatable PFDs are not suitable, as listed in the PFD information pamphlet. Therefore, inherently buoyant PFDs will continue to play a vital role in boating safety programs for the public.

Advisory Committee and Other Consultations

In developing these regulations the Coast Guard consulted with the National Boating Safety Advisory Council (NBSAC) and the National Association of State Boating Law Administrators (NASBLA). In May 1994,

NBSAC passed a resolution recommending approval for Type I, II, III, IV, and V inflatable PFDs. In 1988, 1993 and 1994, NASBLA also passed resolutions urging that such approvals be granted as soon as possible. Additionally, the National Transportation Safety Board has recommended that the Coast Guard approve inflatable PFDs.

NBSAC formed a subcommittee to study the implementation of the various types of approvals that might be granted by the Coast Guard and developed an "inflatable PFD objectives statement" and "performance goals". Copies of these documents are included in the docket file for this rulemaking. The documents identified a number of goals that NBSAC determined to be appropriate in the effort to set standards for the manufacture and approval of inflatable PFDs. In November 1994, the full council passed a resolution supporting the objectives statement and goals. The regulations adopted by this IFR are fully consistent with the final resolution adopted by NBSAC.

Inflatable PFD Studies

The Coast Guard has sponsored two studies on the suitability of inflatable PFDs in the recreational boating environment—a 1981 Inflatable PFD Field Test, Report No. CG-M-84-1 and a 1993 study conducted by the BOAT/U.S. Foundation for Boating Safety. Each study involved the use of about 500 inflatable PFDs in a recreational boating environment. Copies of these studies are included in the docket file for this rulemaking. Initial review of these studies indicated that inflatable PFDs could not be approved without extensive servicing requirements or conditions on approval. However, as discussed below, developments in inflatable PFDs have allowed the Coast Guard to establish the approval standards for inflatable PFDs adopted in this IFR.

1981 Inflatable PFD Field Test

The 1981 Inflatable PFD Field Test revealed that the PFDs used by the participants lacked an armed inflation mechanism nearly 20 percent of the time. Based on this information, the Coast Guard determined that it was not appropriate to approve inflatable PFDs without a mandatory structured servicing program. In 1981, no satisfactory servicing program was available, nor could one be developed at a reasonable cost for recreational boaters. Therefore, totally inflatable recreational PFD's were not approved.

BOAT/U.S. Study

The 1993 BOAT/U.S. Foundation for Boating Safety, Inflatable PFD Study showed approximately the same result as the 1981 study discussed above. Boat/U.S. distributed inflatable PFDs to recreational boaters and asked them to use the PFDs during their boating activities. BOAT/U.S. then recalled the PFDs in "as is" condition. After an initial visual examination, about 45 percent of the PFDs were judged to be improperly armed. Upon further evaluation, it was concluded that one-third of the improperly armed PFDs may have appeared to the average boater as having been armed correctly, a potentially serious condition (p.8 of study). In addition, 11 percent of the PFDs which technicians judged to be properly armed, actually had spent inflation cartridges, a potentially very serious situation.

Of the 458 inflatable PFDs tested by the BOAT/U.S. Foundation, technicians determined that:

(a) 383 (84%) could be made operational when they were returned.

(b) 40 (8.7%) were found to have operational deficiencies which could result in diminished performance of the PFD. Of these 40 inflatable PFDs, 17 required a greater than average force to actuate the inflation assembly. Some of the PFDs were found to have air retention losses of over 20 percent after 24 hours and others had slow inflation times. The slow inflation and air loss were caused by secondary closures which failed to open or possible leaks in the inflation assembly. In particular, one manufacturer used snap closures that did not always open when the device was inflated.

(c) 35 (7.6%) had various operational deficiencies which actually diminished their performance. Of these 35 inflatable PFDs, 19 were inoperable when returned for testing after use by the participants.

New Developments in Inflatable PFDs and UL Standards

New developments in the manufacture of inflatable PFDs, along with work done in the area by UL since the testing was conducted in the above studies, have greatly improved the chances that inflatable PFDs will work when used and maintained by the average boater. The problems revealed by the two studies discussed above have been addressed in the UL standard. It is the Coast Guard's position that PFDs meeting the requirements of the new UL standard, along with certain additional requirements included in this IFR, do not have the problems that prevented