



Boating Safety Circular 71

COAST GUARD APPROVAL IS NOT A PRODUCT ENDORSEMENT

Along with all the boat shows in major cities this time of year we get the usual number of enterprising marine product inventors who mistakenly believe that getting an item of equipment "Coast Guard Approved" will help boost sales. Many people mistakenly believe Coast Guard approval is a product endorsement, which may be obtained for any device, as long as there is a potential for improving boating safety. Actually, the Coast Guard approval process involves very different criteria.

First of all, products which may receive Coast Guard approval are limited to various items of lifesaving, firefighting, pollution abatement and miscellaneous equipment required to be used aboard U.S. registered vessels.

The Federal equipment carriage requirements are set forth in the Code of Federal Regulations. Subchapter S of Title 33 - Boating Safety, for example, contains the Coast Guard regulations covering the minimum Federal equipment carriage requirements for recreational boats. Those regulations require recreational boaters to carry Personal Flotation Devices and Visual Distress Signals. By definition, a "Personal Flotation Device" means a device that is approved by the Commandant, and Visual Distress Signals, according to the regulations, must be "of an approved type."

Subchapter C of Title 46 - Uninspected Vessels - contains the operator regulations covering fire extinguishing equipment, backfire flame control and ventilation. Fire extinguishers must also "be of an approved type" and most backfire flame arrester installations must be specifically approved by the Commandant of the Coast Guard.

The purpose of Coast Guard approval is not to provide marketing assistance to manufacturers, but to provide information to owners about safety equipment which has been found to meet the regulatory requirements, i.e., approved equipment has been determined to be in compliance with Coast Guard standards relating

to performance, construction or materials. Standards for Coast Guard approved equipment are developed in the same way as they are for recreational boats — through the notice and public comment procedure in the Federal Register.

According to the summary in a Federal Register notice published January 9, 1991, for example, *The Coast Guard seeks to establish standards and procedures for approving gaseous-type fixed fire-extinguishing systems for pleasure craft and other uninspected vessels. Its current rules do allow certain fixed systems, but the ones they allow are too complex and expensive for most uninspected vessels.*"

The Coast Guard establishes technical specifications and testing requirements for approved equipment. Equipment manufacturers are responsible for having the testing done, often by an independent laboratory. Coast Guard engineers from the Office of Marine Safety, Security and Environmental Protection evaluate the design features of the device and the laboratory's test report.

If the device passes the tests and meets all of the other requirements, the Coast Guard issues a formal approval certificate with a number that the manufacturer will affix to each approved device of the same design. Coast Guard Approved fire extinguishers, for example, are identified by the following marking on the label: "Marine Type USCG Approved, Size . . ., Type . . ., M162.028/ ... /," etc.

A manufacturer's inability to obtain . . . approval for a "pocket-size folding boathook" . . . does not indicate that such devices do not improve boating safety; only that there are no Coast Guard regulations requiring them on any vessel

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After a design is formally approved, the manufacturer conducts certain inspections and tests to make sure that production runs of approved items continue to meet the requirements for the device that was originally approved. If the manufacturer changes any part of an approved item, the Coast Guard evaluates the changes before they are included in any device which is claimed to be Coast Guard approved. Sometimes this means that additional testing is required.

In order to keep approvals and certifications current, most are limited to a definite period of time -- usually five years. If there have been no changes in Coast Guard requirements and a manufacturer still produces an item of equipment without modification, the Coast Guard normally grants a five year extension on request.

Periodically, the Coast Guard publishes a book, "Equipment Lists" (COMDTINST M16714.3C is the latest issue) which identifies all of the equipment approved or certified by the Commandant of the Coast Guard for use on commercial vessels and recreational boats. Copies are available from the Superintendent of Documents, U.S. Government Printing Office.

The object of the Coast Guard approval process is to develop safety equipment regulations based on an expected benefit which is justified by the cost. A manufacturer's inability to obtain Coast Guard approval for a "pocket-size folding boathook" or some other such product does not indicate that such devices do not improve boating safety; only that there are no Coast Guard regulations requiring them on any vessel.

Editor's Note: The material for the previous article came from: Coast Guard Approval -- What Does It Mean? by R.L. Markle which appeared in the Nov/Dec 1988 issue of *Proceedings of the Marine Safety Council*

VHF RADIO LICENSES REQUIRED

Because of hoaxes, interference, and other radio communications problems, the Federal Communications Commission (FCC) and the Coast Guard have agreed to cooperate in a joint effort to improve maritime safety involving the use of radio communications by enforcing existing regulations and increasing public awareness of the rules involving radio.

Problems often occur because mariners are unaware that maritime radio licensing and usage rules even exist. The FCC has agreed to prosecute radio violations based upon evidence supplied by the Coast Guard.

Under 47 CFR 80.405, operators of VHF maritime radios, VHF handheld radios, EPIRBs, radar units or radiotelephones, must have a clearly legible copy of a ship's station license "posted at the principal control point of each station" or, if it cannot be posted, "kept where it will be readily available for inspection." "If a copy is posted, it must indicate the location of the

original." CB radios, cellular telephones and receive-only equipment are exempted.

Beginning in October 1991, Coast Guard boarding officers will include a check for the presence of an FCC ship's station license on all boarded vessels equipped with maritime radio and, in the case of no license, will look for evidence that radio equipment was operated, e.g., the boater was heard over VHF radio or observed transmitting. Violations will be reported to the FCC.

Ship's station license applications (FCC Form 506) and information about the operation of maritime radio may be obtained from any FCC field office (listed in the phone books of most major cities). The location of the nearest FCC field office is also available through the Boating Safety Hotline (800-368-5647).

Failure to obtain the proper FCC licensing can result in a criminal misdemeanor with penalties up to \$10,000, one year in prison or both.

STANDARDIZATION OF HOLDING TANK PUMPOUT FITTINGS

All vessels which are equipped with an installed toilet system must have a Type I, II or III Marine Sanitation Device (MSD) certified to meet Coast Guard standards attached to the toilet. When the MSD regulations were published in 1975, the intention was to eventually require all vessels to be equipped with a Type II or Type III MSD; however, because of their size, weight and added power requirements, few Type II MSDs are available for small boats (65 feet or less in length).

On January 3, 1977 the Coast Guard published amendments to the MSD regulations:

"§159.12 Certification of certain Type III devices.

(a) The purpose of this section is to provide regulations for certification for certain Type III devices.

(b) Any Type III device is considered certified under this section if:

(1) It is used solely for the storage of sewage and flushwater at ambient air pressure and temperature; and

(2) It is in compliance with §159.53(c).

(c) Any device certified under this section need not comply with the other regulations in this part except as required in paragraphs (b)(2) and (d) of this section and may not be labeled under §159.16.

(d) Each device certified under this section which is installed aboard an inspected vessel must comply with §159.97."

An accidental effect of the amendments was to remove other requirements concerning holding tanks, particularly the need for standardized fittings intended for the removal of wastes at marine pumpout stations. As a result, pumpout facility operators have had to carry a number of different sized fittings and change

fittings to fit the particular vessel, or use a universal fitting which increases the potential for accidental over-board spillage of wastes and odor seepage.

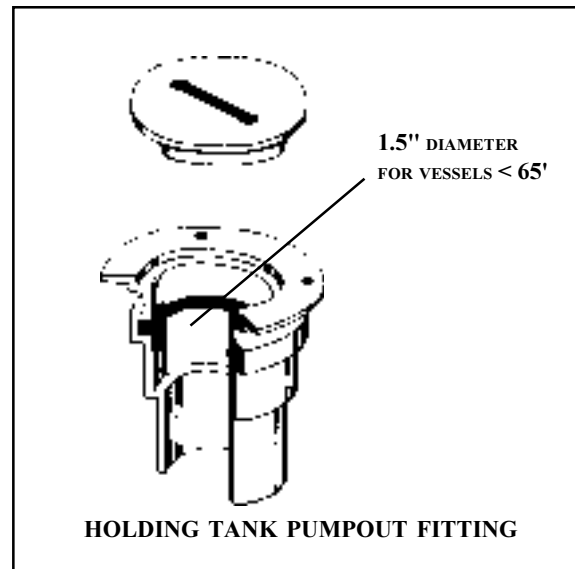
When the MSD regulations were published, the Coast Guard's original intent was to require the use of standardized sewage discharge fittings on all vessels:

"§159.87 Removal fittings.

If sewage removal fittings are provided with the device, they must be of either 1.5 inch or four inch nominal pipe size."

The 1.5 inch fittings were intended for use aboard small boats (65 feet or less in length) and the four inch fittings aboard larger vessels. The expected types of acceptable fittings included threaded, flanged or quick-disconnect fittings

Improved water quality in our lakes, rivers, bays and other estuaries is in everyone's best interests. Efforts are underway to increase the available numbers of marine pumpout facilities and to improve the ease in which wastes are removed from holding tanks. When an opportunity arises, the Coast Guard plans to propose additional amendments to the MSD regulations which will reinstate the requirement for Type III devices to comply with 33 CFR 159.87. In the interim, all boat



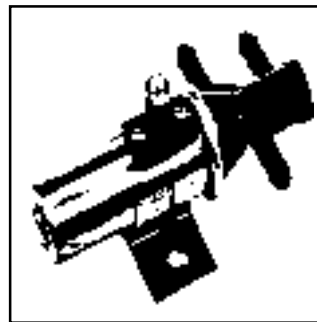
manufacturers and owners are urged to begin installing holding tank pumpout fittings with inside diameters which are consistent with the intent of the existing regulations. This in turn will enable the industry manufacturing holding tank pumpout fittings to standardize accordingly.

FUEL TANK SELECTOR VALVES

Reports from standards personnel from the Coast Guard Marine Safety Office, Los Angeles/Long Beach indicate that some builders of boats with inboard gasoline engines are installing electric solenoid fuel tank selector valves which do not meet the ignition-protection requirements in 33 CFR 183.410(a) or the fire test in 33 CFR 183.590.

Some inboard boats with dual fuel tank installations have a "T" in their fuel distribution lines designed to enable even withdrawal of fuel from both tanks. Many others utilize manual or electric switching fuel valves that designate which tank supplies the fuel inlet on the engine(s).

Some builders in the Los Angeles/Long Beach area who utilize an *electric* fuel selector valve for this purpose are installing valves intended for the automotive and recreational vehicle market.



The particular fuel tank selector valves installed by these manufacturers were not designed for use in marine applications.

Coast Guard regulations require the boat manufacturer to certify that a boat complies with applicable Coast Guard safety standards when sold to the public. In so doing, the boat manufacturer certifies that all of the components on the boat meet the requirements of the regulations.

All boat manufacturers are encouraged to obtain a similar certification or documentation from suppliers of electrical and fuel system components (such as manual and electric fuel tank selector valves), that representative samples of such components have been tested, and will comply with applicable portions of the Coast Guard Electrical and Fuel System Standards.

COMPARING A CME TO THE MINIMUM EQUIPMENT CARRIAGE REQUIREMENTS


From time to time we receive inquiries from boat owners and operators who were surprised to discover that although they carried the minimum number of PFDs, fire extinguishers and Visual Distress Signals required by the Federal regulations, their boats did not pass a Coast Guard Auxiliary Courtesy Marine Examination (CME). Perhaps they were influenced by the fact that some insurance companies reportedly offer reduced rates to owners of boats which have passed the Auxiliary CME.


A Courtesy Marine Examination is a check of a boat's safety related equipment by specially trained members



of the Coast Guard Auxiliary with the consent of a boat owner or operator. The CME covers both the requirements of Federal and State law and certain additional criteria for safety which have been adopted by the Auxiliary. Boats meeting the Courtesy Marine Examination criteria are awarded an Auxiliary CME "Seal of Safety" decal for the current year.

For the benefit of readers who think their boat's are up to snuff, here's a look at just what the differences are between the minimum Federal equipment carriage requirements and those the Auxiliary uses during a Courtesy Marine Examination.

MINIMUM FEDERAL REQUIREMENT	PFDs	CME REQUIREMENT
<p>Under the Federal regulations, boats <u>less than 16 feet in length</u> must have one Type I, II, III or IV PFD of a suitable size for each person on board. <u>Boats 16 feet or longer in length</u> must have one Type I, II, or III (wearable) PFD* of a suitable size for each person on board and one Type IV (throwable).</p>		<p>For a CME decal boats <u>less than 16 feet in length</u> must be equipped with at least two PFDs, regardless of the number of persons on board. <u>Boats 16 feet or longer in length</u> must have a minimum of three PFDs, two wearable and one throwable, regardless of the number of persons on board. Wearable PFDs must be readily accessible* and throwable PFDs must be immediately available for use.</p>
<p>*Because they come in sizes designed to fit the user, a Type V Personal Flotation Device (hybrid PFD) must be worn by the intended user</p>		

MINIMUM FEDERAL REQUIREMENT	Fire Extinguishers	CME REQUIREMENT												
<p>Under the Federal regulations, all motorboats must carry the minimum number of approved hand portable fire extinguishers shown below. Motorboats powered by outboards which are less than 26 feet in length and not carrying passengers for hire need not carry them if their construction will not permit the entrapment of explosive flammable gases or vapors.</p>		<p>CME requirements exceed the Federal regulations by requiring that all vessels carry a minimum of one B-1 fire extinguisher. Only sailboats less than 16 feet without mechanical propulsion are exempt. To be counted, all HALON extinguishers must have an inspection tag showing that they were inspected within six months of the CME.</p>												
<table border="1"> <thead> <tr> <th>VESSEL LENGTH</th> <th>NO FIXED SYSTEM</th> <th>WITH FIXED SYSTEM</th> </tr> </thead> <tbody> <tr> <td>Less than 26 ft.</td> <td>1 - B-I</td> <td>0* (*1 - B-I for CME)</td> </tr> <tr> <td>26 ft. to less than 40 ft.</td> <td>2 - B-I or 1 - B-II</td> <td>1 - B-I</td> </tr> <tr> <td>40 ft. to 65 ft.</td> <td>3 - B-I or 1 - B-I and 1 - B-II</td> <td>2 - B-I or 1 - B-II</td> </tr> </tbody> </table>			VESSEL LENGTH	NO FIXED SYSTEM	WITH FIXED SYSTEM	Less than 26 ft.	1 - B-I	0* (*1 - B-I for CME)	26 ft. to less than 40 ft.	2 - B-I or 1 - B-II	1 - B-I	40 ft. to 65 ft.	3 - B-I or 1 - B-I and 1 - B-II	2 - B-I or 1 - B-II
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MINIMUM FEDERAL REQUIREMENT

A boat's number must be permanently attached to each side of the forward half of the vessel. Characters read left to right, are plain block letters which contrast with the background color, are distinctly visible and legible and no less than 3 inches in height. A space or dash must separate letters from numbers.

Numbering

CT 1234 AB

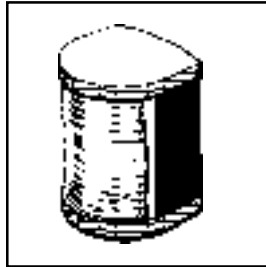
CME REQUIREMENT

CME requirements are the same as the Federal requirements.

MINIMUM FEDERAL REQUIREMENT

The Federal regulations do not require a boat that is operated only in the daytime to have navigation lights. See the "Navigation Rules, International - Inland" for a complete explanation of the navigation light requirements.

Navigation Lights



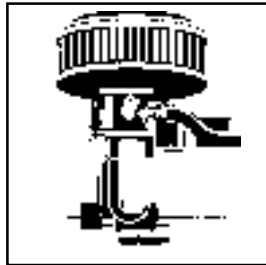
CME REQUIREMENT

If a boat less than 16 feet in length is equipped with navigation lights, they must be properly located. All other vessels must have operable navigation lights of proper configuration to receive a CME decal.

MINIMUM FEDERAL REQUIREMENT

According to Federal regulations, gasoline engines installed in a vessel after April 25, 1940, except outboard motors, must be equipped with an acceptable means of backfire flame control. The device must be suitably attached to the air intake with a flame-tight connection and is required to be Coast Guard approved.

Backfire Flame Arrester



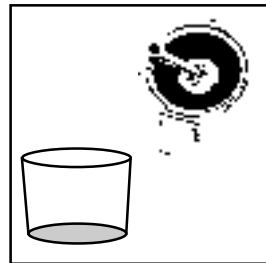
CME REQUIREMENT

Under the CME requirements, all gasoline motorboats, regardless of date of construction or engine installation, must be equipped with a suitable means of backfire flame control.

MINIMUM FEDERAL REQUIREMENT

The Federal regulations do not require a bucket or other bailer on unpowered boats or electric bilge pumps on boats with engines; however, they are items of recommended equipment.

Dewatering Device



CME REQUIREMENT

All boats must carry at least one effective manual dewatering device (bucket, bailer, scoop, etc.). *This requirement is in addition to any installed electrical bilge pump that the vessel may have on board.* An installed electrical or mechanical bilge pump is not a requirement for award of the CME decal; however, if such a pump is installed it must be in satisfactory operating condition.

MINIMUM FEDERAL REQUIREMENT

All recreational boats used on coastal waters, the Great Lakes, territorial seas and those waters connected directly to them, up to a point where a body of water is less than two miles wide, must be equipped with Coast Guard approved Visual Distress Signals. Vessels owned in the U.S. operating on the high seas, are also required to carry approved Visual Distress Signals.

Visual Distress Signals



CME REQUIREMENT

Same as Federal requirements except for vessels operating on inland waters, the Auxiliary CME requires some means of making a suitable day and night visual distress signal. Recommended equipment could include one or more of the following:

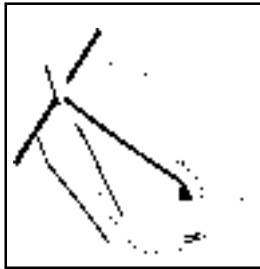
NIGHT
Strobe Light
Flashlight
Lantern

DAYLIGHT
Signal Mirror
Red or Orange Flags

MINIMUM FEDERAL REQUIREMENT

The Federal regulations do not require carriage of an anchor or anchor line; however, they are recommended equipment.

Anchor and Anchor Line



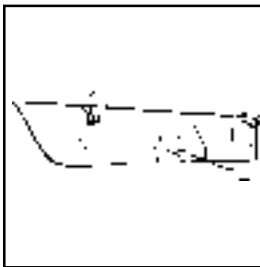
CME REQUIREMENT

To qualify under a CME, the boat must be equipped with an adequate anchor and line of suitable size and length for the particular locality.

MINIMUM FEDERAL REQUIREMENT

The Federal requirements for both natural ventilation and powered ventilation systems are dependent upon when the boat was built, and whether or not a compartment contains an engine, a fuel tank, or an electrical component which is not ignition-protected. See Boating Safety Circular 69 for a complete explanation of the ventilation requirements.

Ventilation



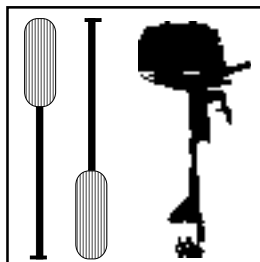
CME REQUIREMENT

CME requirements are the same as the Federal requirements.

MINIMUM FEDERAL REQUIREMENT

The Federal regulations do not require an alternate means of propulsion; however, an oar or paddle is recommended for vessels which can be propelled by such equipment.

Alternate Means of Propulsion



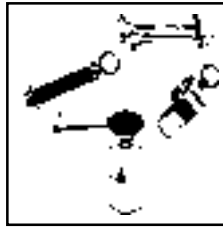
CME REQUIREMENT

All boats less than 16 feet in length must carry a second method of propulsion. A paddle, oar or other suitable device meets this requirement. If an alternate means of *mechanical* propulsion is carried (another outboard or trolling motor), it must use a different fuel tank and starting source from those which are used by the main propulsion motor.

MINIMUM FEDERAL REQUIREMENT

Vessels less than 12 meters (39.4 ft.) are required to carry some means of making an efficient sound signal. Vessels 12 meters (39.4 ft) or more in length are required to carry a power horn or power whistle capable of producing a four second blast, and a bell measuring at least 7.875" at the mouth.

Sound Signals



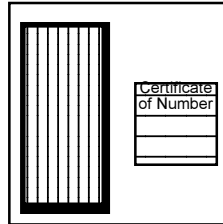
CME REQUIREMENT

CME requirements are the same as the Federal requirements.

MINIMUM FEDERAL REQUIREMENT

The owner/operator of a vessel must carry a valid certificate of number whenever the vessel is in use. The person in command of a documented vessel must have the Certificate of Documentation issued to that vessel on board unless the Certificate is being submitted to a documentation officer.

Registration/Documentation Papers



CME REQUIREMENT

CME requirements are the same as the Federal requirements.

Miscellaneous CME Requirements

Fuel Systems: Portable fuel tanks (7 gal. capacity or less) must be constructed of sturdy, non-breakable material and in safe condition. Tanks must be free of excessive corrosion and must not leak. Any vents must be capable of being closed and the tank must have a vapor-tight, leak-proof cap.

All tanks must be properly secured in the boat to prevent excessive movement. Permanent fuel tanks (over 7 gallons capacity) and fuel lines must be free of excessive corrosion and not leak. Permanent fuel tanks must be grounded. The fuel fill pipe must be securely fitted to the fuel fill plate and located outside of a closed compartment where any spilled fuel will be directed overboard. A vent terminating outboard of the hull and compartments must lead to each permanent fuel tank.

Note: According to CME requirements, there is no such thing as a portable fuel tank larger than 7 gallons. Therefore, any fuel tank larger than 7 gallons would have to meet all of the requirements for permanent tanks.

Seaworthiness: The boat must be free from fire hazards, in good overall condition with the bilges reasonably clean and the visible hull and structures generally sound. The maximum persons capacity and maximum horsepower capacity must not be exceeded.

Note: Some States consider carrying more people or more horsepower than is displayed on the capacity label prima facie evidence of negligent operation and some insurance companies will deny insurance to owners of outboard powered boats which are overpowered.

Galley appliances and their fuel tanks must be prop-

erly secured and the system must not leak (no odor of fuel when the system is turned on). There must be no flammable material in the vicinity of stoves or heaters. Adequate ventilation must be provided for appliances and their fuel supplies. Appliance shut-off valves must be readily accessible. Only common appliance fuels must be used. Due to their volatile nature, gasoline, naphtha or benzene are prohibited for use as appliance fuels if a boat is to pass a CME.

Wiring must be in good condition and properly installed. No exposed areas or deteriorated insulation is permitted. The electrical system must be protected by fuses or manually reset circuit breakers. Switches and fuse panels must be protected from rain or spray. Batteries must be secured to prevent movement and the terminals covered to prevent accidental arcing.

State requirements: The owner/operator may be required to comply with additional regulations specific to the State in which the vessel is registered or operated. Therefore, the boat will be checked against the requirements of the *State in which the CME is being conducted*.