A MARINE INDUSTRY STANDARDS AND TECHNICAL EDUCATION JOURNAL

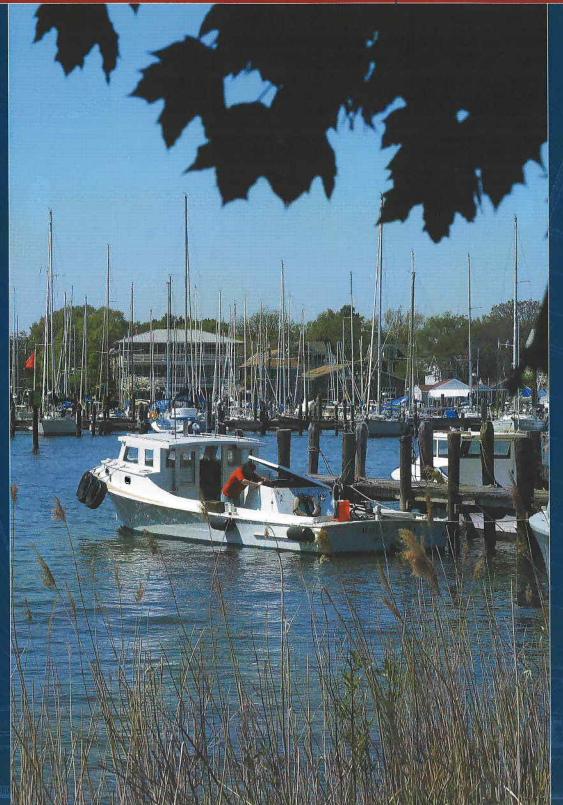
# Reference Pint

Summer 2007

## inside:

- A Warning About Warnings: What Manufacturers Should Know
- ABYC Certification Update
- Standards Harmonization Initiative Continues Forward Momentum
- Chainplate
  Fastening Design
  Considerations





the Reference Point is published by the ABYC Foundation for ABYC Members

# A Warning About Warnings: What Manufacturers Should Know

By Randy T. Moore, Snell & Wilmer L.L.P.

Editor's note: Randy Moore's first article of this four-part series appeared in the Spring 2007 issue. Members may visit the ABYC Web site to view previous editions of the journal. If you do not have access to the Web site but would like to read Randy's previous article, please contact jramsey@ abycinc.org.

hile no one is quite sure when warning labels were first used on consumer products, there is little doubt that they are now commonplace. Indeed, it is difficult to think of a consumer product sold today that does not have multiple warning labels and an extensive set of instructions. They appear with increasing regularity on a wide variety of products, including recreational boats and boat accessories such as stoves, generators and inverters.

A WARNING

(See "Stuck on You: Awash With Warning Labels," Boat/U.S. Magazine, Jan., 2005.) While warnings and instructions proliferate, experts, including human factors engineers and psychologists, debate whether they are necessary or even useful. Many consumers feel they are inundated with warnings that simply state the obvious (e.g., coffee is hot and ladders can tip over). And some feel that warning labels spoil the appearance of a product, especially one that is intended to have certain stylistic qualities. Meanwhile, manufacturers are often confused as to when a warning is needed and what constitutes an adequate warning. While some manufacturers have felt it appropriate or necessary to include numerous warnings and extensive instructions on consumer products, other manufacturers - selling similar products - have decided, for whatever

reason, to use fewer warnings and instructions. One need only spend a day at a boat show to realize that

**ROTATING PROPELLER MAY CAUSE** SERIOUS INJURY OR DEATH. DO NOT APPROACH OR USE LADDER WHEN ENGINE IS RUNNING NMMA A WARNING Carbon monoxide (CO) can cause brain damage or death. Carbon monoxide can be present in the cabin. Signs of carbon monoxide poisoning include nausea, headache, dizziness, drowsiness, and lack of consciousness. Get fresh air if anyone shows signs of carbon monoxide poisoning Get fresh air if carbon monoxide detector alarm sounds. Carbon monoxide detector must be functioning at all times DANGER Carbon monoxide (CO) can cause brain damage or death. Engine and generator exhaust contains odorless and colorless carbon monoxide gas. Carbon monoxide will be around the back of the boat when engines or generators are running.

Move to fresh air, if you feel nausea, headache, dizziness, or drowsiness. boat manufacturers have approached the warnings and instructions dilemma in myriad ways.

But regardless of one's view on the subject, one thing is certain: Warning or marketing defects are an integral part of product liability law in all states, and are here to stay. Consequently, prudent boat builders and equipment suppliers should make sure they understand the laws as they relate to warnings and implement a product safety program that addresses the need for adequate warnings and instructions.

This article, which is second in a four-part series, is intended to provide recreational boat and equipment manufacturers with a general understanding of product liability law as it relates to warning and informational defects and practical advice on how to minimize their potential liability for such claims. This article should not be viewed as a substitute for the type of legal and engineering analysis that may be needed in order to effectively address these subjects. Indeed, it may prompt a need to seek such advice in developing appropriate warnings for the manufacturer's products.

#### An overview of warning defects

Unlike a design defect (discussed in part one), a warning defect is not a tangible flaw in the physical makeup of a product. Rather, it represents a failure to communicate properly or adequately. While the definition of a warning defect varies among jurisdictions, the Restatement (Third) of Torts: Product Liability ("Restatement") defines it as follows: "A product is defective because of inadequate instructions or warnings when the foreseeable risk of harm posed by the product could have been reduced or avoided by the provision of reasonable instructions or warnings by the seller or other distributor, or a predecessor in the commercial chain of distribution, and the omission of the instructions or warnings renders the product not reasonably safe."1 The focus, in most jurisdictions, is on the foreseeability of harm and the manufacturer's reasonableness in providing instructions and warnings. The determination of a manufacturer's liability for a warning defect is usually a two-step process. In the first step, the court determines whether dangers associated with the use of the product create a duty to warn the user. If the manufacturer does not have a duty to warn, then it cannot be held responsible for failing to warn. If there is a duty to warn, then the question is whether the manufacturer has breached its duty by failing to provide an adequate warning or instruction.

Like design and manufacturing defects, the existence of a defect by itself does not impose liability on the manufacturer. The omission or inadequacy of a warning must have also caused the harm suffered by the injured party or plaintiff before the manufacturer can be held responsible. Since the manufacturer's control is over the decision to warn and the adequacy of the warning, the focus of this discussion is on those issues.

#### How do warning defects relate to design defects?

The law recognizes a close relationship between design defects and warning defects. Both are predicated on uses of the product that are reasonably foreseeable to the manufacturer and present foreseeable hazards. The point of departure is whether the risks of harm can be reduced or avoided by a reasonable alternative design, as opposed to the use of an instruction or warning. Therefore, as a general principle, "when the safer design can reasonably be implemented and risks can be designed out of a product, adoption of the safer design is required over a warning that leaves a significant residuum of such risks."2 Conversely, "when an alternative design to avoid risks cannot reasonably be implemented, adequate instructions and warnings will normally be sufficient to render the product reasonably safe." <sup>3</sup> In short, warnings are generally not a substitute for a reasonably safe design and instead should be viewed as a supplement to one.

### When does a manufacturer have a duty to warn?

A manufacturer's duty to warn generally arises when its product poses a danger to foreseeable users during intended or foreseeable use, including foreseeable misuse. The scope of this duty, in turn, generally depends on several factors, such as: (1) the manufacturer's knowledge of the hazard; (2) the foreseeability of the risk; (3) the obviousness or openness of the nature of the danger; and (4) common knowledge of the risk.<sup>4</sup>

While warnings and instructions proliferate, experts, including human factors engineers and psychologists, debate whether they are necessary or even useful.

As a general rule, the manufacturer's knowledge of hazards associated with the use of its products goes beyond its actual knowledge. For public policy reasons, the manufacturer is often held to the level of knowledge of an expert in its field. Thus, hazards that are known to the industry to which the product belongs generally determine the scope of the manufacturer's duty to warn. Some courts have expressed this concept as the manufacturer's knowledge of risks that are known or knowable by the use of scientific knowledge available at the time of the manufacture of the product.<sup>5</sup> Others have expressed it as the manufacturer's duty to keep abreast of information relating to product safety.6

Although a plaintiff does not have to show that the manufacturer had actual knowledge of a particular risk, the plaintiff must establish that the product was being used or misused in a manner that was reasonably foreseeable to the manufacturer. Product sellers are not required to foresee and take precautions against every conceivable mode of use and abuse to which their products might be put. As the Restatement explains, "Increasing the costs of designing and marketing products in order to avoid consequences of unreasonable modes of use is not required."7 In practice, it is difficult to determine whether a particular product misuse is reasonably foreseeable, especially because this concept is not well defined by the law.<sup>8</sup> Consequently, the question is typically left for the jury to decide with little or no guidance from the court.

When a product is obviously dangerous, there is generally no duty to warn about the danger.9 Similarly, no warning is generally required on products whose dangers are commonly known and appreciated by the population of users of the product. 10 As the Restatement explains, "Warning of an obvious or generally known risk in most instances will not provide an effective additional measure of safety." 11 Furthermore, the Restatement recognizes that, "Warnings that deal with obvious or generally known risks may be ignored by users and consumers and may diminish the significance of warnings about nonobvious, not generally known risks."12 Thus, requiring warnings of obvious or generally known risks could reduce the efficacy of warnings generally.

#### What are adequate warnings?

Once a decision has been to warn, the manufacturer needs to determine whether its warning is adequate. The warning should alert users and consumers to the existence and nature of product risks so that they can prevent harm either by appropriate conduct during use or by choosing not to use. Instructions should inform consumers how to use the product safely.

The Restatement adopts a reasonableness test for judging the adequacy of product instructions and warnings.<sup>13</sup> Although the Restatement notes that the liability standards for judging the LAMMABLE LIQUID ings parallels those for judging the safety of product design it also notes that the defect concept is more difficult to apply in the warning context. "In evaluating the adequacy of product warnings and instructions, courts must be sensitive to many factors. It is impossible to identify anything approaching a perfect level of detail that should be communicated in product disclosures."14 Further, the Restatement recognizes that "product warnings and instructions can rarely communicate all potentially relevant information, and the ability of a plaintiff to imagine a hypothetical better warning in the aftermath of an accident does not establish that the warning actually accompanying the product was inadequate."15 Ultimately, the Restatement admonishes courts to focus on various factors, such as content and comprehensibility, intensity of expression, and the characteristics of expected user groups.16

safety of warn-

#### Does the manufacturer's duty to warn continue beyond the sale of the product?

One of the most controversial aspects of product liability law is the concept of a continuing duty of the manufacturer to evaluate the adequacy of its warnings and provide updated warnings about new dangers. Despite uniform criticism of post-sale duties by product manufacturers, most states have now adopted a postsale warning duty in one form or another. Many states now follow the Restatement, which recognizes a limited duty to provide post-sale warnings of newly discovered defects. Under the Restatement, "one engaged in the business of selling or otherwise distributing products is subject to liability for harm to persons or property caused by the seller's failure to provide a warning after the time of sale or distribution of a product if a reasonable person in the seller's position would provide such a warning."17 According to the Restatement, a reasonable seller would provide a post-sale warning if: (1) The seller knows or reasonably should know that the product poses a substantial risk of harm to persons or property; (2) Those to whom a warning might be provided can be identified and can be reasonably assumed to be unaware of the risk of harm; (3) A warning can be effectively communicated to and acted on by those to whom a warning might be provided; and (4) The risk of harm is sufficiently great to justify the burden of providing a warning.<sup>18</sup>

#### What can a manufacturer do?

As mentioned in part one of this fourpart series, a product safety and litigation program is a prudent business practice that all manufacturers should develop and implement. The following recommendations relating to warnings and instructions should be considered in any such program.

#### Adopt a systematic approach.

As discussed above, there is a close relationship between design and warning defects under product liability law. Indeed, the two claims are almost always asserted in the same lawsuit and relate to the same injury-producing hazard. The careful manufacturer will, therefore, recognize the need to develop a systematic approach to identify and analyze product hazards so that it can determine whether they need to be addressed and, if so, the most appropriate way to address them. A systematic approach will help the manufacturer determine whether a change in the design of a product, the use of a warning, or a combination of both is the appropriate course of action.

The process will often start with a hazard analysis of the product. First, the manufacturer will attempt to identify and understand the foreseeable uses and misuses of a product and the environments in which the product will be used. Then the manufacturer should seek to identify the hazards associated with those foreseeable uses and misuses, and assess the risk of each hazard. This will enable the manufacturer to make informed decisions about which hazards should be addressed and how to address them during the product design process. During this stage, the manufacturer will need to consider and compare alternative designs that may reduce or eliminate hazards. This should include a consideration of other hazards that may be presented by the alternative designs, and the effect that the alternative designs might have on the usefulness and ultimate cost of the product. During this process, the manufacturer must consider and evaluate the necessity of warnings, either as an alternative or supplement to design changes. Once the manufacturer determines that a warning should be provided, it should then evaluate the appropriate means for communicating the warning to the consumer, including the manner in which the warning is to be provided, its content, size, color and other features.

This process should be seen as a continuing one that extends to each model year or new product introduced. Information obtained from various sources should be constantly evaluated to determine whether design and/or warning changes are needed on future products.

Manufacturers should also recognize the potential complexity of the process for a given type of product and make an honest assessment of the level of expertise of its own personnel and internal resources. Where it lacks the requisite degree of expertise and knowledge, it should seek to obtain or supplement them through outside sources such as marine consultants, safety experts, and product liability professionals.

#### Comply with regulations and voluntary standards.

The U.S. Coast Guard mandates the use of various warnings, such as warning labels at the helm relating to fuel hazards. There are a few, if any, boat manufacturers who do not fully understand or comply with these regulations. Nevertheless, a manufacturer should keep abreast of changes in these regulations and ensure that they are complied with in a timely manner.

The manufacturer must also stay abreast of state and local laws that may be applicable to their products. For example, effective May 1, 2005, California now requires all boats sold in the state to include approved carbon monoxide warning labels at the helm and transom.<sup>19</sup> Failure to comply with this law exposes the seller to potential civil penalties. Moreover, if a non-complying boat is involved in an incident involving a carbon monoxide injury, the manufacturer is potentially liable for negligence *per se* for not providing the required labels.

Beyond compliance with federal regulations and state laws, the manufacturer should give careful consideration to industry consensus standards, such as the voluntary standards and recommended practices adopted by the ABYC, as part of its product safety program. Many of these standards provide specific recommendations for the use of warning labels, such as ABYC H-24.16 (leak-

ing fuel systems in the engine compartment), ABYC H-2.6 (blower operation and gasoline powered craft), and ABYC H-26 (maneuverability). These recommendations provide information about appropriate safety labels, including signal words to identify the hazard intensity (e.g., Danger, Warning or Caution). They also provide examples of labels, and

information about where they should be placed. Whether to follow the standard as proposed, or in some modified form, should be the result of an informed and reasoned decision by the manufacturer. Those manufacturers who do not engage in this process can be questioned – if not criticized – for not doing so if a lawsuit should arise that relates to a component or system covered by a standard.

Independent certification by the National Marine Manufacturers Association (NMMA) is a reliable and cost effective way to verify compliance with industry standards and federal regulations. With respect to warning labels, the NMMA has developed labels for use on certified boats and yachts where certain standards are applicable. While use of these warning labels will not insulate a manufacturer from a warning defect claim, it can provide the manufacturer with a certain level of comfort that the warning is appropriate.

Whether a particular warning label is being considered to comply with an ABYC standard or not, the manufacturer should give careful consideration to the ABYC's technical information reports relating to safety signs and labels (T-5) and owner's manuals (T-24). T-5, in particular, is modeled after the more general requirements established by the American National Standards Institute (ANSI) Z535.4. Like Z535.4, T-5 provides guidance as to when warning labels should be considered. It recommends their consideration when all of the following four conditions exist: (a) The hazard is associated with the use of a product; (b) the manufacturer knows of the hazard;

A WARNING AVOID SERIOUS INJURY OR DEATH FROM FIRE OR EXPLOSION RESULTING FROM LEAKING FUEL. INSPECT SYSTEM FOR LEAKS AT LEAST ONCE A YEAR.

> (c) the hazard is not obvious or readily discoverable by the user; and (d) the hazard will exist during foreseeable use or misuse of the product. T-5 brings some level of uniformity to warning labels by establishing performance requirements for the design, application and placement of safety signs and labels.

The manufacturer should adopt a comprehensive approach to communicating warnings and product information. Owner/operator's manuals can be effective means of communicating this information. T-24 provides elements that manufacturers should consider in developing an owner/operator's manual for boats. The NMMA offers approved manuals that are based on applicable ABYC standards and recommended practices. Manufacturers should consider the use of these manuals for the type of boats they manufacture and sell.

#### Stay informed and proactive.

Since a manufacturer's duty to warn is predicated on hazards that are known or knowable as a result of the foreseeable uses of its product, a manufacturer must stay informed about how its products are being used, and the hazards that arise from those uses. Hazards that were once unknown, but which become known or knowable, may require the manufacturer to include additional warnings or revise existing warnings on future products. Depending on the circumstances, new hazards may obligate the manufacturer to provide post-sale warnings to prior customers or current product owners. Accordingly, the manufacturer should develop and maintain a system that

enables it to obtain information about the field performance of its products as well as information about similar products and general boating safety.

Useful information is available from many sources, including the manufacturer's own internal records, such as warranty claims and consumer correspondence. Certainly, any accidents or near accidents involv-

ing the manufacturer's product provide information that warrants consideration. Indeed, the law in most states will charge the manufacturer with knowledge that was available to be learned from accidents involving its products. The manufacturer should carefully review this information for developments or trends that may portend a hazard or product misuse that had not been previously considered.

Potentially useful information can also be found through outside sources, such as annual boat accident statistics published by the U.S. Coast Guard and state boating law administrators. Based, in part, on boating accident statistics, these agencies often publish safety alerts



Shockproof. Advanced technology. Best price. All in all, that's kind of like catching the big one on the first cast. For more information visit www.promariner.com.



Professional Mariner, LLC / www.promariner.com Tel: 603.433.4440 Fax: 603.433.4442 and brochures. The ABYC, NMMA and other boating organizations are often involved in these efforts. The manufacturer should be vigilant in monitoring safety information that is published by these agencies and organizations. Additionally, the manufacturer should keep abreast on how competitors are addressing particular hazards. While no manufacturer should blindly follow the practices of a competitor, the fact that others have addressed a particular hazard through an alternative design feature or warning warrants consideration in the context of the manufacturer's own product.

The information gathered is of little value unless it is properly considered and acted upon in the context of a systematic approach as discussed above. Is it reliable? Does it truly reflect a realistic hazard or a foreseeable misuse of the product? Or, is the incident or event that gives rise to the information a unique or rare occurrence that has a low probability of occurring in the future, or has associated risks that are not harmful. After a careful hazard analysis and risk assessment based on the new information, the manufacturer should re-evaluate the design or warnings of its product. This, in turn, may raise a host of engineering issues, human factors, and legal questions that need to be addressed by the appropriate persons within or outside the manufacturer's company.

Finally, separate and apart from any legal duty, the manufacturer should consider the opportunity to pro-actively inform its customers of new safety information. Indeed, many very successful boat manufacturers have recognized the wisdom of providing this information through its Web site or customer mailings. While the content of information should be carefully reviewed to make sure that the message is clear and does not create new hazards, this approach has positive public relations appeal to existing and prospective customers and demonstrates the manufacturer's commitment to safety.

About the Author: Randy Moore is a partner in the Orange County, California office of Snell & Wilmer L.L.P. and a member of its Product Liability Litigation Group. For more information or questions on product liability or maritime law, contact Randy Moore at (714) 427-7007 or rmoore@swlaw.com.

#### Footnotes

2

- 1 Restatement (Third) of Torts: Products Liability, \$2 (1998).
  - Id. at Comment (l).
- 3 Id.
- 4 James T. O'Reilly, Product Warnings, Defects and Hazards, p. 6-20 (2000 Supplement).
- 5 Anderson v. Owens-Corning Fiberglass Corp. (1991) 53 Cal.3d 987. 1002-1003.
- 6 Carlin v. Superior Court (1996) 13 Cal.4th 1104, 1113.
- 7 Restatement (Third) of Torts, supra, §2 Comment (i).
- 8 O'Reilly, supra, at pp. 6-26.
- 9 Restatement (Third) of Torts, supra, §2, Comment (j) 10 Id.
- 10
- 11 Id. 12 Id.
  - 13 Id. at Comment (i).
- 14 Id.
- 15 Id. 16 Id.
- 17 Id. at §10.
- 18 Id.
- 19 Cal. Harb. & Nav. Code § 683 (2007).

the Reference Point TECHNICAL