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Answers to Some of My Favorite Warnings FAQs â€œ Part 2

by Kenneth Ross



In the November 2012 issue of *For The Defense*, I published an article answering some of my favorite FAQs in the area of warnings. Since I was not able to answer all of the questions in one publication and new ones always seem to keep popping up, I thought I would continue my answers in this column.

Warnings continue to be an area of great concern. With some companies, virtually all of their litigation is based on failure to warn. These cases are fairly easy to bring, cheap to prosecute because an expert is not always needed, and sometimes hard to defend.

Words are cheap, so the argument that a few extra words would have made a difference has some appeal to a jury. In addition, many manufacturers would prefer not to have a jury rule that their warnings are inadequate in some way. So, many of these cases are settled.

The goal, then, is to create warnings that are easy to see and understand before an accident occurs and easier to defend if an accident does occur. This is difficult since many people don't read warnings before they use the product. And, with instructions, it is even harder to get people to read them even if they are near the product.




Below are more of my favorite questions that I have dealt with over the years and my responses.

How do you evaluate risks and decide what to warn about?

This is the key initial question to answer. It can be a very complex process and should be performed as the product is designed. Below are some thoughts on different aspects of this analysis.

How do you identify and quantify hazards? All hazards or potential hazards associated with the use of a product must be identified before appropriate safety labels and instruction manuals can be prepared. It is important to look objectively at the product. Look at it as though you are seeing it for the first time. Put yourself in the shoes of the installer, user, service person, or others who may come in contact with the product.

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Potential hazards are sometimes hard to see. One technique to help identify hazards is to imagine that you do not know what the product does or how it works. Does it look like mechanical or electrical equipment? What would you guess would be on the inside of the product? What would happen if you touched different parts of the product? It might help to do this analysis with a person who is not familiar with the product.

Consider where the product will be used. Where people use a product affects their perceptions of it. The environment may also influence operating and maintenance procedures. Sun may warm metal parts or cause glare. Cold may make routine tasks harder to perform. Different light sources may cause colors to change. Noise, dust, rain, snow, ice, salt spray, etc., may all affect the way people interact with the product.

Review the installation, operation and maintenance procedures. Think about what people will do as they use and service the product. Walk through actual procedures step by step, using the real product. Do not leave out steps or take short cuts because you are familiar with the product.

It is very important to consider how people might misuse the product. This includes *voluntary* misuse and *involuntary* misuse. Is it hard to operate the machinery with the safety guards in place? Can you efficiently operate the product safely or do you have to remove guards or disconnect interlocks? Is the product hard to clean as designed or do you need to modify the equipment so that it is less safe?

If accident data is available, review it for what it might tell you about the safety of the product and also review customer complaints. Consider data on your products, competitor's products and any other similar products. Once all the hazards or potential hazards have been identified, they should be rated or quantified. Criteria for quantifying the level of hazard should include injury seriousness and probability of it occurring, latency of the hazard (i.e. the foreseeability of the hazard and its injury consequence by intended and unintended product users), known expected behavior including misuse and abuse, and other factors relating to the specific use or design of the product under evaluation.

There are several techniques available for creating a hazard evaluation, from sophisticated analysis to a more straightforward numerical scaling of each variable. Once the hazards are identified and quantified, determine whether design changes, guarding or warnings might be appropriate while considering the safety hierarchy described below.

Safety hierarchy – designing out the hazard or warning?

To achieve the greatest degree of safety, a product should first be designed to minimize hazards. If hazards cannot be eliminated by design, the manufacturer should create appropriate guards and other safety devices. If hazards still exist, appropriate warnings should be utilized. This hierarchy requires that warnings not be used if it is reasonably feasible to design a safer

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product or provide guards, interlocks or barriers.

One objective of safe design is to design products that fail safely. For example, a screwdriver could be designed to bend harmlessly rather than shatter when improperly used as a pry bar. Redundancies can also be used to reduce risk. For critical parts, the manufacturer might include a back-up or second part, particularly where the critical part may fail at any time.

Additional safety devices may be appropriate when design changes cannot minimize the risk. Guards, shields and barriers separate the user from the hazard. Interlocks can be designed to shut power off before a person is allowed access. Lights, bells and buzzers can be added to the product that audibly or visually warns the user of a hazard before it is encountered.

(1) Consider environment of use. The manufacturer must design a product that will perform safely in foreseeable environments. This includes weather and environmental conditions. In the case of a windmill designed to produce electricity, the manufacturer must design for foreseeable wind conditions. If a product is to be used in a factory, the manufacturer must consider chemicals, paints and other materials that may interfere with the safe use of the product. For example, rope grab devices designed to protect a worker from injury in the event of a fall may not work effectively if the device is coated with paint.

(2) Warnings for foreseeable users and bystanders. A manufacturer has a duty to warn reasonably foreseeable users of its product. This may include purchasers, users, consumers, handlers, and maybe even bystanders. A manufacturer must use care not only in anticipating who might likely be exposed to the dangers of its product, but also in providing a warning that will be effective as to those specific users. In most instances, the manufacturer's duty to warn is owed directly to the ultimate product user. Thus, a warning to a worker's employer will often not protect the manufacturer from liability.

Some courts have used a balancing test to determine whether a manufacturer may meet its duty by warning only the purchaser of the product rather than the ultimate product user. In *Shell Oil Co. v. Gutierrez*, 119 Ariz. 426, 581 P.2d 271 (Ct. App. 1978), the court suggested the following factors: (1) likelihood that harm will occur if a warning is not transmitted by the purchaser to the ultimate user; (2) the nature of the probable harm; and (3) the probability that the warning will or will not be passed on. In some circumstances, an adequate warning to a distributor, an employer, or some other third party that is likely to be passed on may discharge the manufacturer's duty to warn.

(3) Warning about foreseeable uses and misuses. In designing a product, a manufacturer must consider the intended and foreseeable uses as well as the unintended but reasonably foreseeable misuses of the product. "Intended use" has been defined as the "probable ancillary consequences of normal use" and the consequences "incident to the normal and expected use" of a particular product. *Venezia v. Miller Brewing Co.*, 626 F.2d 188 (1st Cir. 1980) (Massachusetts law).

Manufacturers, however, are not held liable for injury caused by abnormal uses or misuses of the product that are not reasonably foreseeable. Whether misuse was reasonably foreseeable is generally a question for the jury. There are times, however, when the misuse is so severe that the case will be decided by a judge in the manufacturer's favor. In such cases, the jury is not allowed to consider the case. For example, in *Lindsey v. Schick, Inc.*, 125 Ill. App. 3d 81, 465 N.E.2d 635, 638 (1984), the court stated: "We hold as a matter of law that it cannot be said that a reasonably prudent manufacturer should know that a user (while in a bathtub filled with water) would attempt to use its facial sauna by holding the female end of an extension cord in her mouth while attempting to insert the male end of the sauna's cord into the extension cord."

Identifying unintended, but reasonably foreseeable, misuses will require some creative thinking. An experienced U.S. product liability attorney or safety expert can help by reviewing reported cases and accident data to assist the manufacturer in deciding whether or not a use or misuse might be considered foreseeable.

Where should the label be attached to the product?

ANSI Z535.4 requires that safety signs be placed so that they will be readily visible to the intended viewer and will alert the viewer to the potential hazard in time to take appropriate action.

ANSI provides that where feasible, the sign should be placed so that it is protected from foreseeable damage, fading or visual obstruction from things such as mud, dirt, ultraviolet light and abrasion. The standard says nothing else about placement. However, there are some practical guidelines to consider.

While safety signs should be placed near the hazard they are describing, it should not be so close so that the label will not be seen until the hazard is encountered. This requires the manufacturer to calculate the safe viewing distance described in Annex B to ANSI Z535.4. Also, the label should not be placed so far away that it will be forgotten by the time the user is near the hazard.

In some cases, it may be necessary to attach two labels – one in the immediate vicinity of the hazard and another one further away. For example, a safety label system created for hazardous electrical equipment has a label using the signal word WARNING identifying the existence of hazardous voltage inside an electrical enclosure. On the inside of the enclosure, near the live electrical parts, is another label using the signal word DANGER.

Another consideration in placement of the label is whether to place a label on a part of a product that can be removed. For example, placing a label on a removable door to a piece of machinery is wrong because when the door is removed, the label is also gone. If the label warns about operating the machine with the door removed, obviously if someone else removes the door, the current operator will not see this warning. In that situation, the label should be placed next to the door on the frame of the machine.

Other things to consider in placement are the viewing angle, light conditions under foreseeable use and the relationship of label location to other labels or parts of the product. Also, if the product needs to be assembled, the manufacturer should state in the instruction manual, assembly instructions or elsewhere that the assembler must put the labels in the correct location and make sure they are clearly visible to the user.

Is there such a thing as "over-warning"?

One argument periodically made by plaintiffs and their experts is that there were too many warnings and that resulted in them not reading any of them. The concept has been called "sensory overload."

There are general statements in the law that "over-warning" is to be discouraged because it will detract from the more important warnings. But there is very little guidance about when that might occur and I have looked for and can't find any court opinions ruling that the warnings were inadequate because there were too many of them.

On this point, the Restatement Third says: "[i]n some cases, excessive detail may detract from the ability of typical users and consumers to focus on the important aspects of the warnings, whereas in others reasonably full disclosure will be necessary to enable informed, efficient choices by product users." *Restatement 3d of Product Liability, Section 2, comment i.*

The Restatement also deals with this issue in the context of the duty to warn of obvious dangers. It says: "[w]hen a risk is obvious or generally known, the prospective addressee of a warning will or should already know of its existence. Warning of an obvious or generally known risk in most instances will not provide an effective additional measure of safety. Furthermore, warnings that deal with obvious or generally known risks may be ignored by users and consumers and may diminish the significance of warnings about non-obvious, not-generally-known risks. Thus, requiring warnings of obvious or generally known risks could reduce the efficacy of warnings generally." *Restatement 3d of Product Liability, Section 2, comment j.*

Courts do talk about the concept of not over-warning, but it is up to the jury to say when that has occurred. For example, the Louisiana Court of Appeals said in response to a plaintiff's proposed new warning label with ten messages: "[a]s a practical matter, the effect of putting at least ten warnings on the drill would decrease the effectiveness of all of the warnings. A consumer would have a tendency to read none of the warnings if the surface of the drill became cluttered with the warnings. Unless we should elevate the one hazard of sparking to premier importance above all others, we fear that an effort to tell all about each hazard is not practical either from the point of view of availability of space or of effectiveness. We decline to say that one risk is more worthy of warning than another." *Broussard v. Continental Oil Co.*, 433 So. 2d 354 (La. App), *cert. denied*, 440 So. 2d 726 (La. 1983).

Considering the above language, I like to tell manufacturers that, to my knowledge, no company has been held liable for having too many warnings. While we do want to write warnings as succinctly as possible and not include clearly obvious hazards or remote risks, I tend to include all residual risks on the label or at least in the manual where we have unlimited space.

How durable does the label have to be and what kind of label maintenance is necessary?

In order to be effective, the warning label must be present and visible when the user encounters the hazard. Therefore, a label which is faded, obstructed or destroyed will not be effective and may be held legally inadequate. ANSI Z535.4 states that safety signs shall have a reasonable expected life with good color stability, pictorial legibility, and word message legibility when viewed at a safe viewing distance. The reasonable expected life of a safety sign includes the expected life of the product in the foreseeable environment of use. It also states the safety sign is to be permanently affixed to the product so that it cannot be easily removed.

The selection of materials, adhesives, printing techniques and over-laminates for safety labels is very complex. Given the complexity of this subject, it is recommended that the manufacturer consult an experienced label manufacturer who has the ability to analyze and recommend materials, adhesives and printing techniques so that ANSI Z535.4 can be complied with or exceeded and the label is appropriate for the particular product and its expected environment of use.

ANSI Z535.4 also requires that manufacturers make available to the user information on the replacement of safety signs when they no longer meet the legibility requirements for viewing at a safe distance. In addition, this standard requires the product user to periodically inspect and clean the safety signs to maintain good legibility at a safe viewing distance.

These kinds of statements can either be included in a general safety sign to be attached to the product and/or be included in the instruction manual which accompanies the product.

How should labels be written? What guidance is provided by the standards?

ANSI Z535.4 states that a message panel contains word messages which identify the hazard, advises of the probable consequence of not avoiding the hazard, and describes how to avoid the hazard. In addition, it states that the word message should be concise and readily understood.

ANSI Z535.4 goes on to provide that multiple messages dealing with different hazards are acceptable, however, they should be separated with sufficient space to prevent them from blending together visually. In addition, Z535.4 allows a label to refer the user to the instruction manual when the safety information is too

lengthy to include in a safety sign. Case law supports that position (see *Broussard v. Continental Co.*, supra).

In addition, courts in the United States have held that an adequate safety label contains an identification of the hazard, a description of the consequence of not avoiding the hazard, and information on how the user can avoid the hazard. There are very few legal cases giving any clear guidelines on what specifically constitutes an adequate word message. Each jury, in each case, gets to decide whether a safety sign is legally adequate.

However, there is a general consensus among writing experts about important rules for writing clear and concise messages. These are contained in various standards. Below are some from Annex B to ANSI Z535.4 and elsewhere: (1) use active voice; (2) use headline style; (3) eliminate non-essential words (avoid prepositional phrases); (4) use descriptive words and specific nouns to communicate clearly; (5) break lines logically; (6) justify text on the left margin; (7) use upper and lower case letters; (8) separate word messages - consider bullets and subtitles; (9) use parallel sentence construction; and (10) organize message by function (installation, operation, maintenance).

The final label should look like the labels shown in ANSI Z535.4. While there is no evidence that such labels are more likely to be read, doing so will minimize any criticism by the plaintiff's expert that your label didn't comply with the "state of the art" in label design.

It is certainly possible to do what is described above and have a completely deficient warning label either on the product or in the manual. However, compliance should go a long way to confirming that the manufacturer tried to meet its duty to warn. Sometimes that is the best that you can do.

Kenneth Ross is a former partner and now Of Counsel in the Minneapolis, Minnesota office of Bowman and Brooke LLP where he provides legal advice to manufacturers and other product sellers in the area of warnings, instructions, safety communications and all areas of product safety and product liability prevention. Mr. Ross can be reached at 952-933-1195 or kenrossesq@comcast.net. Other articles can be accessed on www.productliabilityprevention.com. This article includes portions of an article written by Mr. Ross entitled "The Duty to Warn Illiterate or Non-English-Reading Product Users" that appeared in the Winter 2008 edition of DRI's In-House Defense Quarterly.

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