Symbol Standardization: There’s No Need to Reinvent the Wheel

BY GEOFFREY PECKHAM

As a professional in the engineering field, a primary concern you’re faced with is effectively communicating safety. Often that involves the customization of safety labels and markings for the products you design or manufacture. To communicate your specific safety or hazard information, graphical symbols are critical. Why? Well drawn symbols have the ability to command attention and engage viewers in a way that words alone simply cannot match – and they do so in a way that globally communicates your message across language barriers.

When you see a symbol, whether it’s a notice in a public setting or a warning on a product, at first glance it looks simple. That’s because, when a symbol is well-designed, its end result should look simple; it should be easy to understand either due to its clear representational elements, or because you “learned” to recognize it through its consistent use and through repeated exposure.

But, when it comes to how a standardized symbol is created, how it came to have its precise appearance and design elements, it’s anything but a simple process. It is not a process characterized by expert designers each doing their own thing to invent new symbols. Standardized elements and components must be used in order to yield symbols that are consistent in their construction and readily understood. And, that’s what this column is about. There’s a science behind symbol design. It involves the careful application and consideration of three important factors: 1) an understanding of the latest global safety standards, 2) a high regard for best practice symbol design principles, and 3) as complete a knowledge as possible of the symbols that have been standardized to date.

Graphical symbols are standardized worldwide by two global groups, ISO and IEC. When it comes to safety symbols, ISO is the one to watch, in particular, ISO Technical Committee 145 committee. In my work in chairing the U.S. Technical Advisory Group to ISO/TC 145 – Graphical Symbols, I’ve been involved in an effort to define best practices for shipboard safety sign systems. This is part of a nearly 3-year-
Figure 1 shows an old and new version of an assembly point symbol, the icon used to guide a ship’s passengers to the location of assembly stations. The older version is too visually complex for quick understanding by a first-time viewer, and it fails to use the latest ISO design principles for the human figure and arrow elements.

Figure 2 shows a selection of ISO symbols that share common design features with the new assembly point symbol.
consistent with this element as its been visually represented in other recent ISO symbols.

Now, how can this help to guide your product safety labels? When it comes to properly creating new symbols, you don’t need to – and shouldn’t – reinvent the wheel. No matter what type of hazard message or safety information you need to convey, you should use what’s been done before in symbol standardization to guide your efforts if and when a new symbol needs to be created. Figure 5 shows a wide range of symbols that Clarion has created as part of its work in helping companies to better communicate safety so risk is reduced and people are better protected from harm.

For more information about safety signs and symbols, visit www.clarionsafety.com.

Figure 3: Old (at left) and new (at right) images of the radiotelephone symbol.

Figure 4: The ISO symbol for non-ionizing radiation.

Figure 5: Clarion-created safety symbols, crafted with ISO design principles to aid in noticeability and comprehension.

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