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OSHA Validates ANSI Product Safety Labeling Formats Through Update to Facility Safety Sign and Tag Regulations

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In this column, we'll discuss the Occupational Safety and Health Administration's (OSHA) newly proposed update to rules on safety signage in the workplace and how it validates the efforts of product design engineers to create safer products.

When it comes to safety in our workplaces, an important advancement was made this past spring: OSHA announced a proposed update to its rules on safety signs and tags – regulations which have not been updated since their inception in 1971. The new rule will incorporate the appropriate ANSI Z535-2011 standard reference into OSHA's standards wherever safety signs, colors and tags are specified.

Because OSHA must be sensitive to imposing additional costs on facility owners, the ANSI Z535-2011 reference will appear next to the 1967 USASI Z53 and 1968 USASI Z35 standards currently referenced in OSHA's regulations. This will allow employers to use either the old or new standards and be in compliance with OSHA. In the past, if the facility owner wanted to use the ANSI Z535 signs or tags, they would run the risk of being cited for violating OSHA standards because the OSHA standards only referenced the old 1967-68 standards. But now that problem has been eliminated. The benefits of using the latest ANSI Z535 signs and tags over signs and tags designed with the outdated 1960's-era standards include:

- The new signs and tags typically provide a more substantial level of information so people can make safer decisions (e.g. the nature of the hazard, the consequence of interaction with the hazard, and how to avoid the hazard).

- The concepts contained in the ANSI Z535 standards are supported by human factors research on effective warnings and by modern risk assessment methodologies.

- The newer formats better accommodate multiple language panels and graphical symbol panels so safety is better communicated to non-English readers.

- The ANSI Z535 standards contain design principles that exemplify current legal criteria for "adequate warnings" as defined by the past thirty years of U.S. case law.

Since the older-style signs and tags do not embody the above benefits, they risk confusion on the part of the viewer as to what is dangerous and/or how to avoid potential hazards. Signs and tags that are intelligently designed to meet the new standards, on the other hand, provide a much more substantial (and defendable) warning. As an example, compare the minimal content of the old OSHA-style sign and

tag shown in Figure 1 with the more complete information found on the new ANSI Z535-style sign and tag shown in Figure 2.

The ANSI-formatted examples should be familiar, in concept, to every product design engineer who is in charge of safety labels for their products for a simple reason: the *2011 ANSI Z535.2 Standard for Environmental and Facility Signs* is closely aligned with the *2011 ANSI Z535.4 Standard for Product Safety Signs and Labels*. (See Figure 3 for an example of an ANSI-formatted product safety label.) The two standards are nearly identical and there are two reasons why this development in OSHA's regulations is important to the product design engineer.

First, in very real terms, the new rule change represents the U.S. government's validation of the ANSI Z535 design concepts that have been defining best practices for product safety labeling for the past 20+ years. This should give the product design engineer's company an even better defense position should an accident occur and the company needs to defend its warning labels. Of course this only works if you have put in place a process of risk assessment that has, as one of its results, well-designed ANSI Z535.4 product safety labels.

Second, the OSHA update means that, over time, as employers adopt the newer ANSI Z535 best practice safety tag and sign formats, the U.S. will eventually have a single, national uniform system of hazard recognition – meaning the safety signs installed in facilities and public areas, the temporary safety tags placed on equipment, and the safety labels you place on your products will all be designed using the same formatting principles. The outcome of such consistency should be more effective communication and that should help achieve the objective of fewer accidents and lives saved from tragedy. And that's an incredibly fine goal.

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

Figure 1: Example of an old-style OSHA USASI-1967 Z35.1 sign and corresponding USASI-1968 Z35.2 tag.

Figure 2: Example of a new-style OSHA/ANSI 2011 Z535.2 sign and corresponding OSHA/ANSI 2011 Z535.5 temporary safety tag with best practice formatting and more complete content. (Designs ©Clarion Safety Systems.)

Figure 3: Example of an ANSI 2011 Z535.4 electrical hazard product safety label. (Design ©Clarion Safety Systems.)