

ANSI Z535 IN FOCUS

By Erin Earley

What the Latest Updates to the Standards Mean for Your Warnings and Instructions

You're likely familiar with this critical set of accident prevention-related standards from the American National Standards Institute (ANSI) – those that manufacturers and workplaces across the U.S. use as a guide for safety colors, safety signs, safety symbols, product safety labels, safety tags, and how safety information is presented in product manuals. This year, 2022, is a revision cycle year for ANSI Z535, and it marks the first time many of the standards have changed in over a decade. This month's column explores the latest updates and what they mean for product safety.

WHY ANSI Z535 MATTERS FOR MACHINERY SAFETY

While machine safety labeling and on-product warnings may seem straightforward, the processes behind the wording, design, and risk communication are often multi-layered and complex. It's a science, as well as an art. While standards exist to guide the decision-making process, there isn't one best format for every machine or company. Understanding the product, the audience, and the environment are key areas that need to be considered, interpreted, and documented to develop a clear, consistent safety label program.

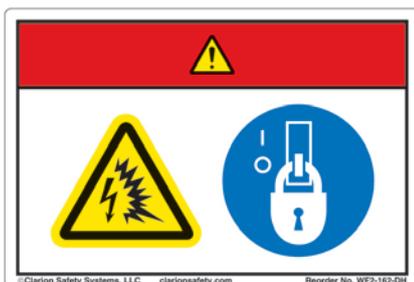
“Although there are many gray areas, what I can say with certainty is that by striving to follow industry

consensus standards that define today's best practices in visual safety communication – the (U.S.) ANSI Z535.4 and (international) ISO 3864-2 – equipment manufacturers can improve product safety and reduce their liability exposure,” says Angela Lambert, head of standards compliance at Clarion Safety Systems, with a focus on product safety and liability. “The ANSI Z535.4 standards describe the content options for product safety signs and labels in the U.S., making them a perfect starting point for safety professionals producing and shipping products domestically to use as a guide for their efforts.”

THE LATEST UPDATES TO THE STANDARDS

ANSI Z535 goes through a regular revision process where the standards are regularly updated for consistency and relevancy. 2022 is a revision cycle year for ANSI Z535 and, at the time of writing, the standards publication is expected for the second quarter of the year.

“This is a key year for ANSI Z535 as it marks the first time that many of the standards – including ANSI Z535.4 – have been reviewed and updated in more than 10 years. The committee as a whole, as well as each standard's subcommittee, has worked hard to come to a consensus on how to refine the best practices related to



An example of an ISO “wordless” format label (at left) and its ANSI-formatted counterpart (at right), including a combination of symbols and text.

communicating safety in order to help protect people from harm,” says Lambert, who is actively involved at the leadership level in the ANSI and ISO standards for product safety and visual safety communication, as chair of the ANSI Z535.1 subcommittee and delegate representative to ANSI for the ISO/TC 145 SC2 WG 1 committee – the group responsible for the library of ISO 7010 registered symbols and the ISO 3864 set of standards.

The 2022 publication will replace the latest version of the standards – from 2017 – when the prior 2011 version was reaffirmed or republished without changes.

Change proposals for each ANSI Z535 standard have been balloted and determined, including global (encompassing all six of the standards) and standard-specific proposals. A few of the highlights from this process include:

- ANSI Z535.1 (Safety Colors), ANSI Z535.2 (Environmental and Facility Safety Signs), and ANSI Z535.5 (Safety Tags and Barricade Tapes) will undergo new clarifications revisions in how they relate to and can be combined with other applicable standards and regulations. Revisions will include modifications to be more consistent with other ANSI Z535 standards.
- ANSI Z535.3 (Criteria for Safety Symbols) will see updates regarding symbol comprehension testing to eliminate outdated methods and updates to several symbols found in its annex.
- ANSI Z535.4 (Product Safety Signs and Labels) will be updated with further clarification on its usage with other relevant standards. It will also see new text, definitions, and minor modifications to wording.
- ANSI Z535.6 (Product Manuals, Instructions, and Other Collateral Materials) is being revised to include minor clarifications and updates to German translations of select signal words.

In addition to these changes to the existing family of standards, another significant update is underway for ANSI Z535. A new ANSI Z535 standard – ANSI Z535.7 – focusing on safety information in electronic media has been approved for development after the idea was developed in 2021. Its scope is expected to include video materials, webpages, smartphones/tablets, and virtual reality.

CONSIDERATIONS FOR HARMONIZATION WITH ISO

A major topic of discussion in ANSI’s revision has focused on whether or not to harmonize the standards in their differing opinions on ISO’s symbol only or wordless formats and ANSI’s text inclusive formats. “Even with the publication of the 2022 version of ANSI Z535, this will continue to be an area that those looking to follow both the ANSI and ISO standards may have questions around how best to navigate,” Lambert says.

ISO 3864-2’s latest (2016) standards update included significant changes to label format options, including symbol use. A new symbol-only or “wordless” format was introduced, using what ISO calls a “hazard severity panel” but no signal word. It communicates the level of risk through color-coding of the hazard severity panel. ANSI doesn’t specifically include this option in its standards, but it does allow manufacturers to use ISO formats.

“Depending on whether you deem it more appropriate to follow the U.S.-based ANSI standards, the international ISO standards, or a combination of these, you have the option to use a word-message-only format, a symbol-only/wordless format, or a combination of symbols and text,” Lambert says. “The standards aren’t prescriptive in that regard, but they do provide options and considerations to consider for the application at hand.”

Erin Earley, head of communications at Clarion Safety Systems, shares her company’s passion for safer products and workplaces. She’s written extensively about best practices for product safety labels and facility safety signs. Clarion is a member of the ANSI Z535 Committee for Safety Signs and Colors, the U.S. TAG to ISO/TC 145, and the U.S. TAG to ISO 45001. Erin can be reached at earley@clarionsafety.com.

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