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Last chance: Read the sign!

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> *"Safety communication and labeling have come a long way from the days of the old Keep* Out, Keep Off, and Think signage."

Are we thinking of summer vacation yet? Long-distance travel, road trips? In our preparation check list, we make sure the car has had its routine maintenance; we map out the trip, pack carefully, and fill up the tank. And when we're on the road, we're mindful of the road signs, especially the ones that say "Last Chance Gas" right? Years ago I was traveling in the Southwest and opted to take a shorter route through the desert. I should have paid more attention to the "last chance" sign.

As owners or operators in the manufacturing industry, we see numerous "last chance" messages relating to the safe operation of shears, presses, formers, welders, and all types of machinery in our Shops. These messages are attached to the equipment and machinery we operate. They continuously remind us what to do and what not to do to keep us safe. Not heeding these warnings could have a significantly greater impact than running out of gas.

Importance of the Message

Just like the urgency of the "last chance gas" sign, the strategic location of a warning sign has critical importance too. It is the last reminder we get regarding some aspect of safe operation. Additionally, despite all the preemptive efforts that we employ such as providing safety manuals, training, and supervision, human nature is what it is. Take a new automobile for instance. It's a good bet that the average person's first encounter with a warning label or safety alert is at the point of the hazard, for example: under the hood or the LED on the dash. Most often it is not the safety manual in the glove compartment.

In the hierarchy of risk reduction, warning signs and safety labeling on equipment are at the midpoint of the priority list. In short, the recommendations are that both the OEM (equipment builder) and the user (equipment operator) take part in the process (*figure 1*). The OEM is working from the top of the chart, designing improvements to minimize hazards and installing guarding to eliminate contact with hazards. The user is working from the bottom of the chart, training employees in safe operation and providing them with additional protective measures or equipment

figure 1

While opportunities exist for the OEM and the user to help each other,,control and capability issues often cause responsibilities to divide at the midpoint, usually the location of the hazard. Hopefully it will have a warning sign, the last chance message that says "You're going to run out of gas!"

What Should the Message Look Like?

Safety communication and labeling have come a long way from the days of the old Keep Out, Keep Off, and Think signage. Though these older versions, which were originally Occupational Safety and Health

Administration (OSHA) signage, still exist, the preferred formats are those suggested by the American National Standards Institute (ANSI) and the International Standards Organization (ISO). These new formats, set up primarily for product identification, are working their way into environmental signage as well because of their preferred communication abilities.
In particular, the ANSI-Z535 Committee on Safety Signs and Colors has produced standards for all manufacturers to use that are highly effective in the design of safety messaging. Elements of design in these standards are format or layout, use of "signal" words, colors, graphic safety symbols, and written-word messages. Examples of more common versions are shown in (Figure 2) along with similar ISO versions.

figure 2

To determine the final design of the warning label, an OEM will conduct a survey of its products and then follow a prescribed procedure for the development process. This can be accomplished through an in-house engineering staff or, more frequently through a consultant/producer of safety identification.

Application to FMA Members

The large variety of products, machines, and equipment in the manufacturing environment usually requires individual interpretation and design of hazard notifications. Each machine has a different type of hazard, operational standard, opportunity and audience. One successful approach is to use the available national standards and apply them in the design of industry-specific safety identification. In this way, similar manufacturers or trade associations can benefit from continuity of presentation and other advantages including the following:

1-Relativity. Members are able to draw from standard messages to meet the industry-specific needs of their equipment, instead of searching through multiple sources or developing their own.

2-Comprehensibility. Particular attention is given to developing messages that are understood and meaningful to a specific audience.

3-Safety. Standardized presentation of safety messages promotes familiarity, safer operation, and better individual protection through participation in industrywide guidelines.

4-Economy. Standardization produces economies of scale.

Good News
In general, OEMs and users alike are employing all of their resources to improve and safeguard their equipment. Safe design and guarding against potential hazards are normally part of the thought process. And when necessary, better safety warning and labeling can prevent more injuries at the hazard point, the "last chance."

Your Safety Council, a group of volunteer FMA members, is in the process of assisting in this area. In the meantime, here are some resources for applicable standards:
ANSI-Z535.1,2,3,4,5 www.nema.org or www.webstore.ansi.org
ANSI B11.TR3-2000 www.webstore.ansi.org
ISO 1184 www.iso.org
FMA Safety Council www.fmanet.org/Membership/FMA-Safety-Committee.cfm
Nutron Nameplate Inc. ph. 440-777-6660, fax 440-777-6664 www.nutronusa.com