

Compliance Matters

Hazardous Situations — Keeping an Eye on Awareness

By Bob Yeoman, B&R Compliance



Bob Yeoman

In Compliance Matters, Bob Yeoman, President and CEO of B&R Compliance Associates LLC, examines the broad range of compliance management issues affecting companies in the industrial and medical gas industry. Here you'll find insight and information on FDA issues, for which B&R Compliance is well-known, as well as other regulatory management issues affecting readers of *CryoGas International*, including those relating to safety, the environment, transportation and security.

Employees working with and around flammable gases are potentially exposed to a hazardous work environment. Maintaining workplace safety around these types of hazards depends on employees maintaining an awareness of the hazards present in their jobs.

Adults have a natural tendency to adapt to dangerous situations, and this innate ability potentially works against maintaining a safe work environment. Our ability to adapt allows employees to become comfortable with dangerous situations, and working in and around potential hazards can make them seem commonplace. Consider the first time you ever got behind the wheel of a car. I can clearly recall my vivid awareness of what I was doing and the environment around me. I also remember my first time in heavy inner city traffic and the heightened awareness of the potential danger that situation presented. That heightened awareness, however, was short-lived. As we all know, most drivers quickly adapt to the driving environment and their perception of the potential dangers drops significantly. As time passes, people do things behind the wheel that no newly minted driver would ever consider, like reading the newspaper, applying cosmetics, or talking on the phone in heavy traffic.

The same phenomenon applies to individuals working around flammable and toxic gases. As Figure 1 demonstrates, when an individual is first introduced to a hazardous work environment their awareness of the potential hazards goes up quickly. As they begin to operate regularly in that environment, they begin adapting, and their awareness of

the hazards begins to drop. This awareness starts to decline slowly at first, but eventually the hazards in the workplace are regarded by employees as commonplace. The point at which employees' hazard awareness drops most significantly is also the point where the potential for workplace accidents increases most sharply. When hazard awareness reaches the low side of the graph, employees may begin developing bad work habits, or taking shortcuts that lead to accidents.

An effective accident prevention program is one that effectively maintains employee hazard awareness on the higher side of the graph. One of the most effective tools available to companies to combat this drop in hazard awareness is periodic refresher training and/or safety review meetings. These don't have to be long training sessions. Studies have found that short and frequent safety talks can be very effective at maintaining employee hazard awareness. However, it is important that these short safety talks effectively address maintaining hazard awareness. Simply bringing employees together and telling them to "work safe" is not effective. An effective technique is discussing with your employees accidents that have occurred in the past. These don't have to be accidents or incidents that have occurred at your site, but should be generally related to the tasks your employees are performing. For example, reviewing past flammable gas incidents with your propane or hydrogen gas fill staff, and highlighting the personal factors that contributed to these accidents, can effectively raise an individual's hazard awareness with

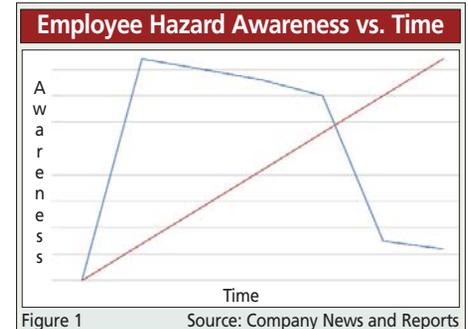


Figure 1 Source: Company News and Reports

their own job tasks. We all remember the driver education classes that showed gory traffic accident movies before every major holiday, as a way to raise our awareness of the associated hazards. Seeing or hearing about actual events tends to stay with us, and helps boost awareness of the dangers in hazardous situations that may have become commonplace to us as part of our jobs.

The point on the graph where the time line intersects the awareness line is the optimal point to conduct refresher training with employees. Unfortunately there is no scientific method to calculate when this point occurs, especially since it can vary greatly between individuals. The complexity of the task, the degree of personal risks associated with a particular hazard, and the length of an individual's daily exposure to the hazard all affect how long it takes someone to regard a hazardous task as commonplace.

One method many firms use to focus in on the time/awareness line intersection, and determine the right interval between conducting refresher training, is the reporting of near-miss accidents and incidents. All effective safety programs incorporate some processes to capture and understand the causes of these types of issues.

In my next column I will discuss near miss-accidents/incident reporting, and the benefits of implementing that type of reporting in your business' safety plan.

Bob Yeoman, President and CEO of B&R Compliance Associates LLC (Lehigh Valley, PA), can be reached at (610) 868-7183; Email bob.yeoman@brcompliance.com. ■