Written by Phil Allen, President, Grace Engineered Products
Thursday, 17 February 2011 09:38

Risk, which is defined as exposure to a hazard, is a concept with two distinct characteristics.

One is the probability of exposure (i.e., walking on a busy freeway with cars whizzing by you). The second is injury from that exposure (i.e., being hit by one of those cars). Thus, if risk is the susceptibility to hazards, then safety must be the reduction and management of risk.

In the automation world, we work on that "busy freeway" day after day—*and one of those whizzing cars is electricity*
. The Risk Control Hierarchy (RCH) in the ANSI-Z10 standard provides electrical-safety professionals with an excellent roadmap for setting the right safety objectives that result in the reduction of electrical risks. Combining our understanding of electricity with our principles of safety is the key to improving electrical safety. As shown below, the RCH aids in prioritizing safety initiatives by helping us rank risk-reduction measures from most effective to least effective:

The first three items—*Personal Protection, Administrative Controls and Awareness*—concentrat

e on protecting the worker from the threat. With these current methods, there is still a risk for injury and equipment damage, yet it is far better than nothing. The next three items—*Engineering Controls, Substitution and Elimination*—focus on preventing the worker from being exposed to the threat altogether. These are the most effective risk-reduction measures because they are ultimately about transitioning from the status quo of protecting oneself and equipment from a potential explosion to operating in the near absence of that risk.

There's no example in our industry that more fully encapsulates the essence of the RCH than the concept of Thru-Door Electrical Safety. Eliminating the risks associated with PLC programming and voltage detection by simply making it thru-door is a shining illustration of turning a least-effective method (which involves opening the panel door) into a most-effective method (keeping the panel door closed). That conversion brings with it an array of benefits—*not just to the worker, but to the company as well.*

A 40-year-old industrial electrician once volunteered that he liked anything that kept him from getting shocked. Reducing and managing risk by utilizing the RCH affords us the opportunity to eliminate that type of risk, promote productivity and increase revenues. **MT**

(Download a white paper on this topic at info.graceport.com/2/MT , or e-mail the author directly.)

For more info, enter 02 at www.MT-freeinfo.com
Joomla SEO powered by JoomSEF