How’s Your Safety Culture?

My first position out of college was at a startup company with little concept of safety. I can’t recall any guidance on lifting or tripping hazards or electrical dangers. That company did not have a culture for safety. The leaders were focused on the business aspects of developing and marketing new products; if they did have an injury, they would have been required to begin an effort on safety. It’s sad that some companies seem to need a wake-up call in the form of an injury or fatality before starting to build a safety culture. Although I loved the challenge of designing circuit boards and programming in a startup environment, perhaps it was for the best that I left after a few years.

My next employment lasted much longer, and the company had a well-developed safety culture. In my first year, I received training on many safety topics, and my perception was that the managers cared about my well-being. I recall one incident that is a good example of the firm’s culture. I was leading the installation of a new drive system on a large film line, which included a laminator. The drive company provided a technician who was excellent technically but wanted to do things his own way. I often had to slow him down to make sure the areas were ready for our startup tests and the proper job plans were in place.

One day, I arrived a little early and found him lying across the laminator cabinet, reaching down with a hand tachometer to measure the running rolls at the nip point. No one else was around. He could have been injured if he slipped or fell. He said he just wanted to get it done without all the delays. I had no choice but to walk him off the site, knowing that we would have a serious delay to get a new technician. The site management supported me completely, and that’s the point I’m making about the culture: I knew that the managers would back me up on my decision to put safety first. They may not have been happy for the delay, but they agreed with me and helped work out a plan to get the project back on track.

Some years ago, I was making a presentation on arc-flash hazards at a seminar, and an attendee asked, “Does your company follow NFPA 70E?” [1]. Now, at that time, some companies were not applying 70E because it was not a legal requirement, and some parts of the standard were, understandably, a lot of work. Perhaps this person was hoping for some reason to justify limiting the effort on the application of the standard. My response was a little different than what this individual might have expected: “No, we don’t follow it; we help to lead it. We have members on the standard committees, and we send in recommendations to improve the standard during each cycle.” This is also an example of a strong safety culture—making an effort outside an organization by helping to develop industry standards.

Recently, I was speaking with a neighbor who works at a factory with a different culture. The perception by some employees at that site is that safety comes second to cost.

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In 1994, when the International Electrotechnical Commission (IEC) began to define the programming languages associated with PLCs, he became a major contributor in developing the IEC 1131-3 PLC programming language standards. Rockwell Automation honored his legacy by establishing the Odo J. Struger Automation Award to honor future engineers’ exceptional advancements in the control and automation fields. He died on 8 December 1998, after a long illness, and will be remembered as a pioneer of modern-day automation (Figure 2) [9].

Morley was honored in 1995 by the Society of Manufacturing Engineers as a fellow and served there as director-at-large. On 11 March 2016, the Control System Integrators Association presented Morley with its new Lifetime Achievement Award for “contributions to the automation industry.” This award was created to recognize individuals outside its membership for contributions to the automation and control system integration industry. Morley died on 17 October 2017 after five decades of continuous contributions to computer design, artificial intelligence, automation, and control integration. On 8 November 2017, the International Society of Automation (ISA), created and funded the Richard E. Morley Innovation Scholarship in his memory (Figure 3) [10].

You can guess many of the issues I heard: not enough people for the tasks, too much heavy lifting, not enough breaks, no backup person around to help, and long hours. Were these just the complaints of a person who does not feel appreciated, or was there a germ of truth there? It seems that employee perceptions are an important part of a company’s safety culture.

Most of this discussion has been on general workplace safety, but the thoughts are applicable to electrical safety. For a more thorough understanding of this topic, see [2].

Technical papers from the 2018 IEEE Industry Applications Society (IAS) Electrical Safety Workshop, held in Fort Worth, Texas, and organized by the IAS Electrical Safety Committee, should now be available on IEEE Xplore (ieeexplore.ieee.org). The papers presented at the workshop cover a wide variety of topics of interest to the electrical safety community.

References

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