



Setting the Standard for Automation™

WHITE PAPER

The Role of Automation in Process Safety

“Houston, we have a problem.”

Paul Gruhn,

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Standards
Certification
Education & Training
Publishing
Conferences & Exhibits

“Houston, we have a problem.”

Industry is facing a number of trends that are having an impact on safety:

- Plants are aging. Many older facilities may not meet today's more stringent requirements for safety.
- Experienced, knowledgeable employees (i.e., the baby boomers) are retiring faster than ever, and their knowledge is leaving with them.
- Newer, younger employees do not have the experience or knowledge of those they are replacing.
- With a smaller workforce, a lot of work is being outsourced to contractors, who may also not have in-depth, specific knowledge of your facility.
- Budgets are tight. Some companies no longer wish to pay for the training of their employees, yet this can be the real differentiator as to the success of your enterprise.

How did this happen?

Would you rather learn from the mistakes of others, or make them all yourself? Do you want to see your company in the news with disasters similar to those that occurred at Bhopal, Pasadena, Texas City, and others? Do you possibly feel that those events could never happen at your facility? Do you say to yourself, “We’ve been operating for 20 years without an accident; we are a safe facility.” Please keep in mind they said that one day before all the above mentioned accidents. Just because it hasn’t happened yet, doesn’t mean that it can’t, or won’t.

Several serious process accidents in the US led to the development of CFR 1910.119 (Process Safety Management of Highly Hazardous Chemicals) over 20 years ago. There are similar process safety management regulations around the world that were developed for the same reasons. The US regulation specifically refers to emergency shutdown systems, alarms, testing, procedures, training, management of change, and much more. OSHA expects industry to follow standards and they have specifically acknowledged ISA standards as RAGAGEP (Recognized And Generally Accepted Good Engineering Practices). Several companies have been fined for not following the ISA 84 (IEC 61511) standard on safety instrumented systems.

Following industry standards and best practices should not be viewed as a burden or with a simple ‘tick the box’ mentality. Standards are based on the combined knowledge of many different organizations—and their internal subject matter experts—that all learned the material the hard way. You should take advantage of all this material and view it as a gift that can make your enterprise safer, more productive, and more efficient!

Safety must come from the top down. Companies need to walk the walk, not just talk the talk. As an example, would you be willing to follow the old DuPont requirement of having the owner or plant manager live on the facility, with his family? (For the first 100 years of DuPont, all they made was gun powder for the US government. Make gun powder for a living and you learn about process safety, often the hard way!)



A solution

Ignorance is not bliss. People without experience and training are prone to make mistakes, whether it is an engineer doing a design, or a technician working on an instrument. Oversights and mistakes can lead to costly accidents. While experience takes time to develop, training can be done relatively quickly and can help increase peoples competence. Their newly acquired knowledge can then be used to make your facility safer and more productive.

ISA offers various standards, books and training—along with certification and certificate programs—to improve the knowledge and competency of your employees. There are courses for managers, engineers, and technicians. Safety related topics include safety instrumented systems, alarm management, human machine interface design, control system security, and more.

ISA can help

Who better to learn from than an industry group that writes industry standards?!

Competing and succeeding in the high-skill, high-tech world economy requires a well-trained workforce. How well your organization retains core knowledge and capabilities—through ongoing investment in human capital—may very well determine your success and growth in the months, years, and decades ahead.

By relying on ISA to deliver leading-edge technical training, you'll provide your employees with the skills and expertise needed to optimize their performance and productivity, and improve your organization's competitive edge and operational results.

Plus, ISA can help you achieve all this at your location! Through ISA's Onsite Training services, we can bring our industry-leading instructors, proven training materials, and indispensable hands-on training devices to you. You gain a customized solution that is highly convenient, cost effective, and flexible—and one specially designed to help you improve your productivity and efficiency and avoid unscheduled downtime.

Contact one of our ISA Learning Consultants to learn more about our training, certification and certificate programs:

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