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Three Sides of the Story on Hazards Identification

There are three different sides to the story about identifying hazards for workers in industry. Identifying electrical hazards is one of the first things electrical workers are taught during safety training, and this topic covers shock and arc flash hazards for the tasks that they will perform. This subject is usually given a good focus, but fatalities and injuries from electrical contact still occur, even among experienced electricians. Often the incidents are found to be due to unusual conditions, such as distractions, interruptions, or changes in scope. Many of them can be covered by a safety leader or supervisor with diligent training and communications. Anticipating that interruptions and distractions will happen during a shutdown or task can be a part of the job training and may help reduce the consequences of an unusual condition.

Second, the electrical worker in industry has many hazards besides electrical ones to be concerned about and should have a thorough training in the hazards of the workplace that will be encountered dur-

ing the job. Examples are explosion hazards due to flammable vapors or dusts, falling, confined spaces, and chemical exposure, to name just a few. It is important to give electrical workers thorough training to identify these non-electrical hazards, and this can mean detailed training on many topics. One good place to start when learning about these hazards to guide our workers is the many technical papers available. A recent article “Potential Ignition Sources and Protections in Electric Rotating Machines Operating in Explosive Gas Atmospheres” by Mistry et al. [1], presented at the 2021 Petroleum and Chemical Industry Committee Conference and published in *IEEE Transactions on Industry Applications*, is one example. This article is an excellent review of motors as ignition sources and mitigation requirements, and it would be a good read for any engineer guiding workers in these areas. Other IEEE

articles are available on many workplace hazard topics, such as “Hazards and Safety When Working in Confined or Enclosed Workspaces” by Neitzel and Jo [2], presented at the 2018 IEEE Industry Applications Society (IAS) Electrical Safety Workshop (ESW).

The third side of the story is that non-electrical workers are often exposed to electrical hazards that they may not recognize. The presence of overhead lines is the most obvious and dangerous of these hazards and is the reason for a large share of worker fatalities. This was shown by Brenner and Majano in their presenta-

tion “Expanding Workplace Electrical Safety to Non-Electrical Occupations” at the 2020 IAS ESW [3]; this article was later updated and published in this magazine [4]. They call for more detailed training of nonelectrical workers in electrical hazards.

The authors point out that electrical workers and their supervisors are uniquely trained to understand electrical hazards and should help their nonelectrical coworkers understand and recognize them.

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your time wisely. He stated that there is so much that YPs can learn to grow both professionally and personally. These learning experiences will shape the future of YPs and will set their career path. Finally, Ding emphasized the importance of learning from colleagues, both seniors and YPs. "Learning from senior colleagues is a given," he explained, "However, learning from other YPs is just as important because they are going through similar experiences and can provide a different perspective."

Conclusion

Ding stated that attending IAS-sponsored conferences has been an extremely rewarding experience. At these conferences, he has had opportunities to network with worldwide professionals from both industry and academia. Through these interactions, he has been able to share ideas and obtain feedback from other professionals. For this reason, Ding always encourages his students and colleagues to attend IAS-sponsored conferences whenever possible.

IAS sponsors many different technical conferences to facilitate knowledge sharing and networking among its attendees. These technical conferences are open to both IAS and non-IAS members. Additionally, many of the IAS-sponsored conferences are starting to allow virtual attendance due to current COVID-19-related travel restrictions. Why not consider attending an IAS-sponsored conference, either in person or virtually?



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The authors point out that electrical workers and their supervisors are uniquely trained to understand electrical hazards and should help their nonelectrical coworkers understand and recognize them. An electrical workforce that is truly engaged to help its nonelectrical coworkers can make a difference in the workplace.

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HISTORY *(continued from page 13)*

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