I was telling one of my colleagues that I was writing an article on standards for IEEE Industry Applications Magazine, and the theme of the issue would be safety. He had a very puzzled look on his face. Finally, he said, “I have one question: How can you even discuss standards and safety separately?” That was an excellent question, and it made me stop and think.

How can you have safety without standards and standards without the consideration of safety?

Safety and standards are inseparable. The foundations of safety begin to corrode when standards are not followed, eventually resulting in an injury, fatality, or damage to the environment. The need for standards is proven by a quote I once saw on the wall of a retailer: “There is hardly anything in the world that someone cannot make a little worse and sell a little cheaper, and the people who consider price alone are that person’s lawful prey.”

A basic question is: Why do we need standards, and how do they benefit safety? It is true that the direct or indirect focus of all standards is a simple objective of the safety of personnel, equipment, installation, or the environment. A product standard may be for the conformity of a product for interchangeability. Other product standards are to evaluate and quantify the performance of a product. A standard can also be used for training purposes to achieve the uniformity of a process or work practices. A standard, for the purpose of this article, is what is commonly known in the electrical community as a technical standard.

Wikipedia defines a technical standard as “an established norm or requirement in regard to technical systems. It is usually a formal document that establishes uniform engineering or technical criteria, methods, processes, and practices.”

BusinessDictionary (www.businessdictionary.com) defines standards as “a written definition, limit, or rule, approved and monitored for compliance by an authoritative agency or professional or recognized body as a minimum acceptable benchmark. Standards classified as governmental or laws enforce statutory agency standards and specifications.”

The IEEE Industry Applications Society (IAS) is the leader in producing IEEE standards. More than 65 working groups in various IAS technical committees are currently working on IEEE standards. The majority of these working groups are with the IEEE Petroleum and Chemical Industry Committee (PCIC) and the committees in the IEEE Industrial and Commercial Power Systems (I&CPS) Department.

For more than 50 years, I&CPS has led efforts in establishing and improving the IEEE Color Book standards, a 13-book collection of standards and recommended practices on industrial and commercial power system design, operation, maintenance, and safety. These standards include the following:


The IEEE Color Books are now being updated and reincarnated in the form of Dot Standards. The IEEE Green Book is being updated as 3003 (continued on page 81)
patiently to get my or­der from you, as long as I know you haven’t forgotten me or taken me for granted. But if you ignore me, then I won’t come back.”

This experience taught Sayler the importance of keeping the customer informed, regardless of the news being good or bad. He realized that it is a principle that applies not only to the restaurant business but to all kinds of business relationships in general. As an engineering consultant at P2S, Inc., Sayler said it’s important for him to be responsive and available for his clients so that they know they are not being taken for granted. “Communication and being responsive to our customers are important key factors to obtaining future work for our company,” he affirmed.

Leisure Time
From 2011 to 2012, Sayler began running as a way to exercise and release stress. This hobby started as part of a friendly interoffice “fitness challenge.” By running regularly in the early morning hours, he was eventually able to run more than 50 mi per week, and he loved it. Today, with a four-year-old son and two-year-old daughter in their family, leisure time (and sleep) for Sayler and his wife is sparse, so running is on hold for now. Sayler muses that perhaps one day he will be able to resume running regularly again.

Advice for Young Professionals
From his own experience, Sayler wholeheartedly believes in this advice: “It’s not so much about what you know, but more about who you know that helps you get ahead in life. And it’s also about who knows you!”

Conclusion
Sayler has found that he has a passion for rolling up his sleeves and pitching in to help the working groups responsible for establishing and updating the various standards, codes, and recommended practices of our electrical industry. Not only will he benefit, but other electrical practitioners and humanity as a whole will advance by having this body of written guidelines that promote safer and more effective electrical designs and applications. As a young professional, Sayler has discovered a rewarding and satisfying way of making a difference and giving back to the electrical industry. How about you?

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series standards. Concepts contained in the IEEE Violet Book are being issued as 3002 series standards. The IEEE Yellow Book has already been issued as a three-part 3007 standard: 3007.1, 3007.2, and 3007.3.

The standards produced by working groups in the PCIC include the following:
- IEEE Standard 841, IEEE Standard for Petroleum and Chemical Industry—Premium-Efficiency, Severe-Duty, Totally Enclosed Fan-Cooled (TEFC) Squirrel Cage Induction Motors—Up to and Including 370 kW (500 hp), is now accepted by all process industries as the premier motor standard to improve process reliability.
- IEEE Standard 1683, IEEE Guide for Motor Control Centers Rated Up to and Including 600 V ac or 1000 V dc with Recommendations Intended to Help Reduce Electrical Hazards, is an example of how standards and safety are linked.
- IEEE Standard 1716, IEEE Recommended Practice for Managing Natural Disaster Impact on Key Electrical Systems and Installations in Petroleum and Chemical Facilities, is an important document for the recovery of electrical installation after natural disasters, such as hurricanes.

The IEEE IAS standards working groups meet at several IAS conferences, including the Petroleum and Chemical Industry Conference, the Electrical Safety Workshop, and the I&CPS Technical Conference, with some also meeting at the IAS Annual Meeting. As IAS Standards Department chair, I invite you to join these working groups and attend both the I&CPS Technical Conference in May in Niagara Falls, New York, and the PCIC Conference in September in Cincinnati, Ohio.