Written by Howard W. Penrose, Ph.D., CMRP
Friday, 01 May 2009 11:30

Industry standards are produced by professional societies, trade associations and not-for-profit businesses and basically represent best practices developed by experts in their fields. We recognize these practices, or the symbols of the use of such standards, based upon the reputation of the organization. In fact, within the reliability and maintenance (R&M) industry we often quote these documents and say that we follow them. We do not.

Take, for instance, one of the most commonly quoted IEEE Standards used within R&M for electrical testing: IEEE Std 43-2000, “Recommended Practice for Testing Insulation Resistance of Rotating Machinery.” This standard is quoted by instrument companies, service organizations, even our own maintenance departments. Still, I could go into any facility, find someone performing an insulation ground test and get a negative answer to the following questions:

1Are you applying the correct voltage for one minute?

2Are you adjusting the resulting reading for temperature and noting the relative humidity?

3Are you discharging the winding for four times the applied time through a bleeder resistor limiting the discharge current?

and

4Are you following the other steps involved in 43-2000?

The point is that we *think* we are following specific industry standards—*which are best practices*—when we are not. Yet we go blazing forward, developing best practices that will not be followed, based upon our experience with industry best practices. We also can’t use the results to trend potential equipment faults, as present conditions result in non-uniform testing.

To set up a successful environment for pursuing new best practices and trendable results around your operations, you must first nurture the organizational culture by following existing relevant standards—*and understanding them to ensure that sales and marketing organizations do not mislead you* . **MT**

Coming Next Time: Misuse of standards by sales and marketing organizations

---

Among other things, Howard Penrose (AKA "Motor Doc") is the president of SUCCESS by DESIGN®, a reliability services and publishing company, and the editor-in-chief of the IEEE DEIS Web . A recognized expert, award-winning author and popular speaker, he is involved in standards development for IEEE and other organizations, and he successfully applies reliability and maintenance best practices. For more information, visit www.motordoc.com

For more info, enter 4 at www.MT-freeinfo.com