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Top Stories on Electrical Testing from *NETA World Journal's* Summer 2016 Issue Now Available Online for Members and via Subscription

The summer 2016 edition of *NETA World Journal*, published by NETA, the InterNational Electrical Testing Association, features content on recent changes in protective relays as well as new ways to address old problems.

PORTAGE, MICHIGAN, June 28, 2016 – Professionals in the electrical power systems industry look to the *NETA World Journal* for the latest technical information, research, and instruction designed to help electrical power industry professionals with commissioning, maintenance, and best practices on how to stay safe on the job.

Featured topics in this issue include: Protection Testing Specifications, the IEC 61850 Standard, System Protection Reliability, and much more.

NETA World Journal's summer 2016 issue was released May 30th to NETA members, Alliance Partners, and current subscribers. Non-subscribers can sample the summer 2016 issue by following the article links provided below:

Article highlights from the summer 2016 *NETA World Journal* include:

- **[“Using Test Plans as a Tool for Protection Testing Specifications,”](#) by Benton Vandiver, **OMICRON electronics Corp. USA.** The ability to create a properly constrained test specification that has value has always been a challenge, but IEC 61850 is poised to deliver on a long-awaited capability — creating a test specification from the top down that includes the functional test plan, too. The characteristics of the best specification are discussed at length in this article.**
- **[“Lessons Learned from a 400kV Busbar Misoperation Using the IEC 61850 Standard,”](#) by Dhanabal Mani, Vijay Shanmugasundaram, and Jason Buneo, Megger.** The implementation of the IEC 61850 standard for substation design and commissioning is rapidly becoming the dominant method of defining grid protection schemes throughout the world. The protection logic that involves dc control circuits is executed internally in the intelligent electronic devices (IEDs) and effectively communicated between the IEDs via Generic Object Oriented Substation Events (GOOSE) messages. Any error in the mapping of GOOSE signals will result in undesired operation of the protection

schemes. This article discusses the investigation of the tripping of a 400 kV substation due to improper operation of a bus-bar protection scheme.

- **“[Tech Quiz: Protective Relaying for Electrical Power Systems](#),”** by Jim White, Shermco Industries. Testing protective relays is a huge part of the protection scheme, and if not done accurately, can cause false tripping — or worse, a no-trip condition. This issue’s Tech Quiz looks at protection relaying for electrical power systems.
- **“[Improving System Protection Reliability and Security](#),”** by Steve Turner, Beckwith Electric. A North American Electric Reliability Corporation report released in 2013 claimed a dramatic rise in the annual number of misoperations, due in large part to the complexity of programming and testing numerical protection relays. This paper illustrates results discussed in the NERC report and provides several interesting examples of actual misoperations with solutions on how to mitigate them.

Additional content found in the summer issue includes updates on the ANSI/NETA Standards, announcement of the NETA Outstanding Achievement and NETA Alliance Recognition Award honorees, and Tech Tips on Grounding in the Solar Industry.

NETA World Journal publishes four times a year, delivering the most relevant information created specifically for electrical power industry professionals. To subscribe to the *Journal*, visit www.netaworld.org or call 269- 488-6382 (NETA).

ABOUT NETA

NETA is an ANSI Accredited standards developing organization that creates and maintains standards on electrical testing for electrical power equipment and systems. NETA is an association of leading electrical testing companies comprised of visionaries committed to advancing the industry standards for power system installation and maintenance to ensure the highest level of reliability and safety. To find out more about NETA, visit www.netaworld.org.