

A culture of safety has gathered across the electrical community, and the ongoing refinement of the National Electrical Safety Code (NESC) — outlining the basic provisions necessary for the safety of employees and the public under specified conditions — has proven to be an indisputable driver in the trend.

An Edison Electric Institute (EEI) survey of investor-owned utilities, for example, showed over 765 million hours worked among respondents in 2007; those respondents reported 19 deaths related to work that is covered by the NESC.

Injuries must never be conceded in our industry. But, given the terrific number of hours worked, the survey does reveal the success of the NESC in working within its scope to create work rules that contribute to protecting the electrical industry and users.

Defining and redefining that scope has been an ongoing effort since the NESC was first published in 1914.

KEEPING THE CODE VIABLE AND REALISTIC

In most cases, utilities and their employees, contractors and manufacturers can fall back on a simple rule as to whether the NESC applies to the work they are doing: The NESC covers everything up to the service point — the point of demarcation between where power is handed off from utility to end user. On the other hand, the NESC does not cover premises wiring or utilization equipment, which are addressed in the National Electrical Code (NEC).

But there do exist numerous and varied instances where no meter exists to provide a well-defined service point. For example, area lighting might be installed in the parking lot of a retail business or in the backyard of a residence. In some cases, the connection is made directly off the

distribution line, and, in others, on the load side of a meter. Or, the entry point for power might be a locked vault or closet inside a building or a weatherhead on the roof of a home.

The service point in instances such as these might be a point of debate. Utilities follow local jurisdictions' regulations, contracts or authorized agreements with regard to such installations, in order to understand how the

NESC applies in relation to the NEC or other specifications.

Shapers of the NESC consider these gray areas in working to keep the 94-year-old Code realistic and useful. They also must address innovations in the transformers, breakers, conductors, fiber optics and the other tools used to provide power.

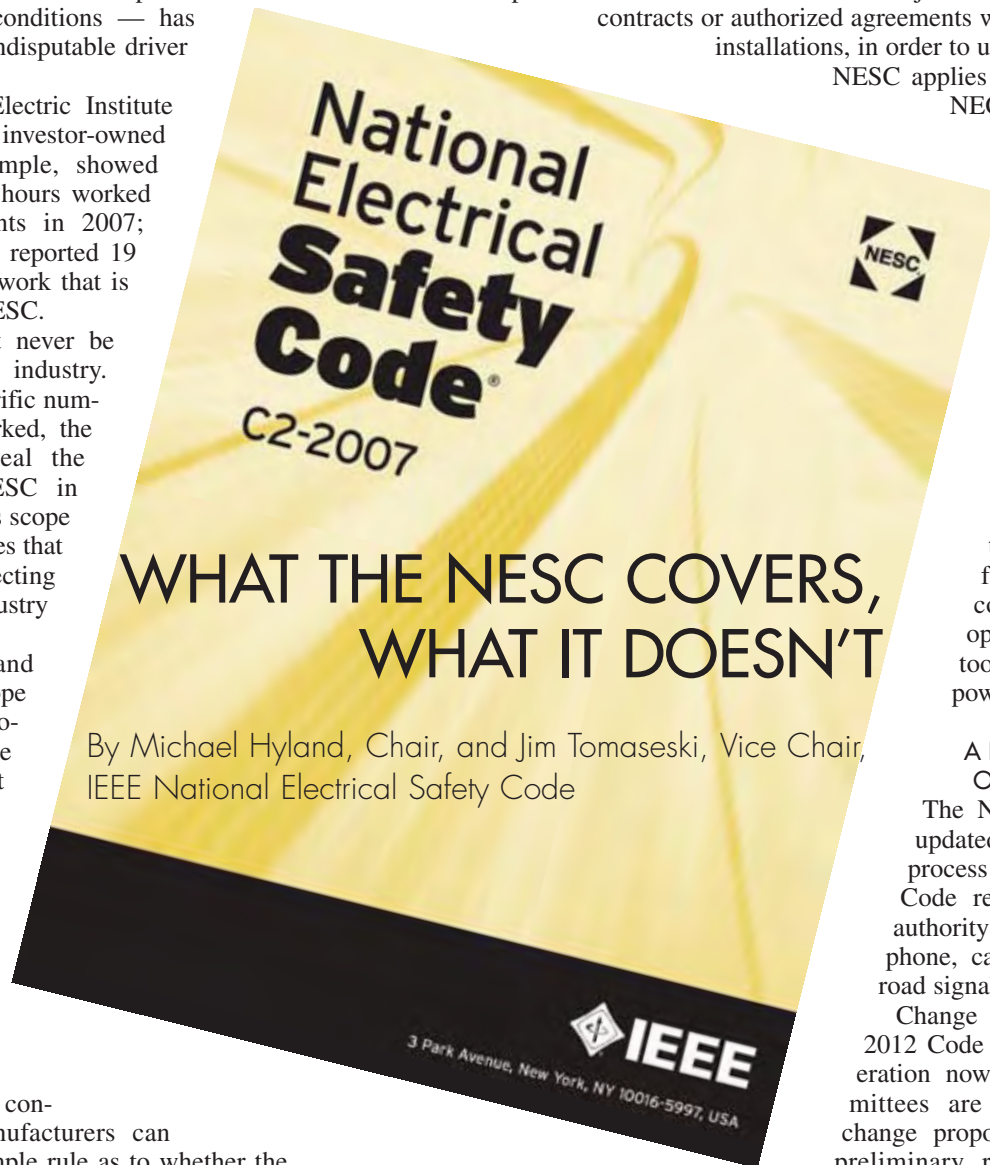
A PROVEN PROCESS OF ENHANCEMENT

The NESC is regularly updated via a five-year process that ensures the Code remains the safety authority for power, telephone, cable TV and railroad signal systems.

Change proposals for the 2012 Code are under consideration now. NESC subcommittees are reviewing these change proposals and making preliminary recommendations. This effort will yield the NESC Preprint, scheduled to be available on September 1, 2009. A period of comment will then continue through May 2010, with a proposed revised Code to be made available for public review in January 2011. The next, completed NESC will be published August 1, 2011.

The U.S. Department of Labor Occupational Safety & Health Administration (OSHA) considers the NESC in writing its regulations. Also,

public service/utility commissions or other bodies that oversee



View the survey online at:
<http://standards.ieee.org/nesc/>

utility operation in 48 states and more than 100 countries other than the United States mandate adherence to the Code in part or whole.

In these ways, the NESC provides the foundation for the holistic safety programs of utilities around the world — informing the manuals, “tailboard discussions,” weekly and monthly meetings, etc., that all combine to help keep electrical workers and users safe. By design, the NESC leverages the ongoing lessons learned across the electrical community and works hand-in-hand with utilities’ mandated best practices.

CONCLUSION

The electrical community has been doing work on facilities and equipment in an energized state since Thomas Edison invented the light bulb in 1879. The U.S. Congress in 1913 asked the Bureau of Standards to investigate the hazards of electrical practice, resulting in the first publication of the NESC one year later.

Although working de-energized may pose less of a risk to the worker, it may not be possible or practical. Today, we are in an age when shutting off the power in order to do electrical work is sometimes not even an option. Public safety and global commerce require electricity 24 hours a day, seven days a week. In turn, energized work must be performed around the clock every day.

The NESC has successfully contributed to the trend toward safety in the electrical industry, and the commitment to craft and refine a strong Code has never been stronger.

Michael Hyland, PE, is chair of IEEE NESC and vice president of engineering services with the American Public Power Association (APPA), the service organization for the nation’s more than 2,000 community-owned electric utilities that serve more than 45 million Americans.

Jim Tomaseski is vice chair of IEEE NESC and director, safety and health department, with the International Brotherhood of Electrical Workers (IBEW), which represents approximately 750,000 members who work in a wide variety of fields including utilities, construction, telecommunications, broadcasting, manufacturing, railroads and government.

2012 National Electrical Safety Code (NESC) Schedule

2008

July 17, 2008

Final date for receipt of proposals from the public for Revision of the 2007 Edition of the NESC, preparatory to the publication of a 2012 Edition

September - October 2008

NESC Subcommittees consider proposals for changes to the NESC and prepare their recommendations

2009

September 1, 2009

Preprint of Proposed Amendments for incorporation into the 2007 Edition of the NESC published for distribution to the NESC Committee and other interested parties

2010

May 1, 2010

Period for study of proposed amendments and submittal by interested parties of recommendations concerning the proposed amendments. Submit recommendations to the Secretary, NESC Committee, at the above address

September - October 2010

Period for NESC Subcommittee Working Groups and NESC Subcommittees to reconsider all recommendations concerning the proposed amendments and prepare final report

2011

January 15, 2011

Proposed revision of the NESC, Accredited Standards Committee C2, submitted to NESC Committee for letter ballot and to the American National Standards Institute for concurrent public review

May 15, 2011

NESC Committee approved revisions of the NESC submitted to the American National Standards Institute for recognition as an ANSI standard

August 1, 2011

Publication of the 2012 Edition of the National Electrical Safety Code

FLUKE®

Precision Power Quality

(when perfect power is your thing)

Power analyzing, logging, recording and troubleshooting tools that help you reduce downtime, avoid product damage and save energy while keeping your world up and running.

800-36-FLUKE
www.flukecanada.ca/pq