

## FOCUS ON: CONFORMITY ASSESSMENT

As the vital link between standards that define safety, performance, and interoperability and the products, processes, and systems they describe, conformity assessment not only fosters consumer confidence but also reduces trade barriers and facilitates market access and product development. Always growing, the IEC now operates four conformity assessment systems for diverse areas of third-party conformity assessment certification for electrotechnologies.

## Counterfeit Avoidance: Development and Impact of Standards and Conformance

By Todd Kramer, Chief Executive Officer and Co-founder, Secure Components, LLC; Chairman, USNC/IECQ

Consumers are accustomed to finding China Compulsory Certification (CCC) or CE (European Conformity) markings on products. These markings provide a level of confidence that products displaying them meet certain industry standards, and that inspection and tests were performed to ensure that. But when it comes to counterfeit components, or “knock-offs,” consumers need to know about a gaping hole in that confidence: Regardless of the markings displayed on counterfeit components, they’re not covered.

### Roots of a Trillion-Dollar Problem

The International Chamber of Commerce estimates the total global value of counterfeit and pirated products could reach a \$1.7 trillion by the year 2015. To help put this figure in perspective, the proposed Department of Defense (DOD) budget for 2015 is \$495.6 billion. Beyond the damage done to legitimate manufacturers and consumers worldwide, money from counterfeit sales funds criminal activities and terrorist



organizations, and destroys U.S. jobs. As USNC/ICEQ Chairman and as Secure Components CEO, I’ve worked with groups of individuals and organizations to safeguard not only U.S. consumers but consumers worldwide. These efforts are growing every day, and at their core are people who’ve been in this scuffle from the

beginning and continue to work diligently toward its eradication.

Like so many now-common commercial applications, anti-counterfeiting efforts can be traced back to the military complex. Recognizing the growing presence of counterfeit components in U.S. systems, the government examined *(continued)*

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IEC symbols for **electrical current**:



ALTERNATING CURRENT (AC)



DIRECT CURRENT (DC)



AC/DC

## Counterfeit Avoidance: Development and Impact of Standards and Conformance *(continued)*

this silent menace to gauge its depth in the supply chain. The results were staggering, and highlighted increasing failures tracked to substandard parts and the opportunities older systems presented.

One of the items that came to light was the inadvertent impact that the Federal Acquisition Streamlining Act of 1994 (FASA) had on the growth of fraudulent components in avionics defense high-reliability products (ADHP) by permitting the use of commercially available items for designated tasks performed. The admirable intent of FASA was to lower procurement barriers, in part by reducing program costs inherently imposed as a result of U.S. Military Standard (Mil-Std) requirements. Under the Mil-Std protocol, additional parts and processes were needed to satisfy inspection, testing, and other sampling by

third-party organizations, creating an additional layer within the supply chain and increasing the cost of required parts. Mil-Stds tended to lag behind continuously evolving technology, preventing their use on government contracts.

By changing this, FASA allowed comparable commercial parts to be acquired for military systems – and opened the door to anyone with access to the consumer market or an abundance of discarded parts. Counterfeiters quickly seized upon new market segments. Where before knock-off handbags were a lucrative revenue stream, now the counterfeit field grew to include component sales to manufacturers, hard-to-find part support, recycled parts and assemblies or end-user items – all with significantly bigger returns.

Couple this with aging systems and original manufacturers no longer interested in making products for such a limited market, and the opportunities for counterfeiting were ripe for exploitation.

In reaction to this niche market, many in the semi-conductor industry sold obsolescent or discontinued component product rights, manufacturing technology, and know-how, flooding the market with surplus hardware. Export manufacturing centers such as India, China, and Africa – where mountains of trashed components and surplus builds sat in refuse piles – began to

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Todd Kramer, CEO of Secure Components, serves as Chairman of the USNC/IECQ. He sits on committees including the SAE G-19D & IECQ Working Group 06 working on related counterfeit industry solutions. In July 2013 Secure Components became the first company in the world certified to SAE's AS6081 under the IECQ Counterfeit Avoidance Program.

recycle components back into the supply chain. Commercial and critical systems, medical equipment, military hardware, and aerospace equipment were (and are) all supported by this same supply stream. Targeted discussions with industry leaders were initiated to exchange ideas on how best to improve supply chain security.

### Early Standards and Regulations

As counterfeiting grew and diversified, government and business took very different approaches to quality management issues. The Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC in Europe fought against a rising tide of hazardous materials showing up in many electric products. Leadership in Energy and Environmental Design (LEED), a U.S. effort launched in the mid '90's, initiated the tremendous job of convincing the construction industry to be environmentally responsible and use resources more efficiently. *(continued)*

## Counterfeit Avoidance: Development and Impact of Standards and Conformance *(continued)*

And International Organization of Standardization (ISO) and AS 9000 standards coalesced various corporate quality management programs into cohesive standards. These efforts helped to shape the world's focus on limited resources, sensitive environmental conditions, and quality management issues.

While the implementation of counterfeit avoidance regulations improves efforts made against this rapidly growing epidemic, mitigation of this issue still remains in its infancy. Most recently in the United States, a series of measures were adopted by the DOD to specifically address how to identify counterfeits, mitigate their impact, monitor their presence, and design standards to prevent their infiltration. The AS6081 and AS55553 standards complement the quality management programs that are already an essential part of the manufacturing, assembly, and distribution processes.

### Conformance Measures

With counterfeit avoidance standards in place, efforts began to shift to refining the definition of what is considered "counterfeit," and sharpening its application, monitoring, and enforcement. Leading much of this refinement phase are many of the same pioneers now working through regulatory organizations such as [USNC/IECQ](#). The [ECC Corporation](#) is the USNC/IECQ administrator and works to insure that electronic components, related materials, and assembly suppliers are compliant. [Counterfeit Avoidance Mark Alliance](#), organized by ECC Corp., is a USNC participant and non-profit chartered with addressing component quality and reliability assessment requirements of the electrical, electronic, and electromagnetic



component industry. It is the application of resources like these – specifically focused on the identification, mitigation, monitoring, and design of standards – that enables substandard, obsolescent, and questionable third-party suppliers to be filtered from the supply chain.

A growing list of companies have sprung up to supplement both sides of this dilemma, including companies equipped to validate components and obsolescent parts to original design specifications in accordance with current counterfeit avoidance standards. Secure Components, a leader in counterfeit avoidance, develops unique programs to satisfy AS6081 requirements. Acutely positioned to insure companies meet their counterfeit avoidance plans, the company develops programs targeting a customer's need for hard-to-find or obsolescent parts.

There are myriad suppliers ready to peddle whatever hardware the market demands. Unfortunately, this mix includes companies merchandising discarded components. So much of the failed, out-of-spec, broken, and substandard parts that manufacturers no longer support are shipped as trash to countries where a lucrative industry thrives on recycling this rubbish into what look like new parts. Surplus inventory and discontinued product lines find their way into supplier

warehouses bought at a discount with the intent of taking advantage of desperate customers trying to keep legacy systems operational.

In both situations the customer loses, while the supplier purchasing inventory on the cheap reaps big returns at their expense. The customer is then left with both highly expensive and unsafe, faulty systems, placing all at risk. Project costs escalate as excessive rework, unscheduled maintenance, or upgrades

are required to address inconsistent performance specs or failure.

### A Universal Threat

Although counterfeit components and substandard products get plenty of attention in military, aerospace, and medical fields due to their costly impact in human life, it's important to point out the severe impact substandard parts and assemblies play in everyone's life. While CCC or CE markings give comfort to skeptical consumers, there remains a layer of insurance at the manufacturing level to use only components that meet design specification. This can only be accomplished by using trusted suppliers. Counterfeit avoidance seeks to resolve the foggy mystery of untrustworthy suppliers by providing a set of requirements parts and suppliers must meet. It falls to the buyers of such parts and components to invoke requirements on such purchase orders and to report suspect parts to increase the effectiveness of this system. Safeguards are in place to filter counterfeit products, but there remains a great deal of work to fully mitigate this threat.

### More Information

Send an email to Todd Kramer at [todd@securecomponents.com](mailto:todd@securecomponents.com). ☺



## U.S. National Committee for the IEC Renewable Energy Application Scheme

By Joel Solis, Conformity Assessment Manager, NEMA; USNC/IECRE Secretary

Reprinted from the December 2014 issue of ei Magazine, a publication of NEMA, the National Electrical Manufacturers Association

In June 2014 the IEC Conformity Assessment Board (CAB) gave its approval to the operation of an IEC System for Certification to Standards Relating to Equipment for use in Renewable Energy Application (IECRE System), a conformity assessment system for renewable energies. Its focus is on wind, marine, and solar photovoltaic energy, with other technologies to follow.

The IECRE System is intended to facilitate international trade in equipment and services for use in renewable energy sectors through the operation of a single, global certification system. The system would provide third-party assurance that renewable energy systems are compliant with IEC safety and performance standards, to include commissioning of installations, which is believed to be the key to enhancing market opportunities in North America and beyond for renewable energy systems. Such a global system would provide needed assurances of installations of renewable energy applications to investors while satisfying the needs of regulators.

The IECRE System will operate closely with IEC Technical Committee (TC) 88, *Wind turbines*, TC 114, *Marine energy*, and TC 82, *Solar photovoltaic energy systems*. In the future, the IECRE is likely to work with TC 117, *Solar thermal electric plants*, and TC 117, *Fuel cell technologies*.

A call for member body participation in the IECRE was issued, resulting in 14 countries submitting applications: Austria, Canada, China, Denmark, Egypt, France, Germany, Hungary, Japan, Korea, Netherlands, Portugal, Spain, and Sweden. In order for the U.S. to participate, a USNC/IECRE Committee had to be established under the auspices of the USNC/IEC and its Conformity Assessment Policy Coordinating Committee (CAPCC),

and a Secretariat must be appointed. In September 2014, USNC General Secretary Charlie Zegers reported on the voting results for the appointment of the initial Secretariat of the USNC/IECRE: NEMA received the overwhelming number of approvals and was appointed as Secretariat, with myself as Secretary.

The inaugural meeting of the IECRE was hosted by the U.S. in September 2014 in Boulder, Colorado, with NEMA and 16 other sponsors. Sandy Butterfield of Boulder Wind Power, Chairman of IEC TC 88, *Wind Turbines*, was nominated as IECRE Chairman. With unanimous consent of the 14 IECRE Member Bodies, the nomination was forwarded to IEC CAB for approval at the November IEC General Meeting. The basic rules governing the operation of the IECRE (*IECRE 01 Basic Rules*) were also formally endorsed.

Before NEMA can begin serving as Secretariat, the USNC/CAPCC-IECRE Task Force will need to complete its efforts in issuing a call for membership, approve the committee's rules of procedures, prepare a draft operating



Joel Solis of NEMA serves as the Secretary for USNC/IECEE, USNC/IECEx, and USNC/IECRE.

budget, and issue an election for officers. During this transition, Jonathan Colby of Verdant Power has agreed to serve as Chairman Pro Tem. NEMA is participating in task group meetings and currently assisting with the issuance of a call for membership.

### More Information

Email Joel Solis at [joel.solis@nema.org](mailto:joel.solis@nema.org).

### DOCUMENTS OF INTEREST

Stay up on the latest policies, documents, and other offerings from the USNC, IEC, and ANSI by clicking on the titles below.



- [White Paper - "Orchestrating infrastructure for Sustainable Smart Cities"](#)
- [White Paper - "Internet of Things: Wireless Sensor Networks"](#)
- [Flyer - WSC Roundtable on "The Role of Standardization in Innovation and Entrepreneurship"](#)
- [IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications \(IECRE System\) – Basic Rules](#)

## Modernization of the OSHA NRTL Program for Testing Laboratories

By Joel Solis, Conformity Assessment Manager, NEMA; USNC/IECRE Secretary

The Occupational Safety and Health Administration (OSHA) Nationally Recognized Testing Laboratories Program (NRTL Program), which touches on more than a half trillion electrical products, remains a critical and effective tool in reducing workplace injuries, deaths, and property damage caused by electrical hazards. It provides employers with free and open market access to safe electrical products with minimal cost by requiring products, in the majority of cases, to be third-party certified to the appropriate electrotechnical safety standards.

More importantly, the NRTL Program in place today works in concert with the requirements for the installation and application of electrical products and systems and enforcement requirements at the state and local levels. Together, the three aspects of the U.S. electrical safety system are credited with minimizing electrical accidents, which, according to the Electrical Safety Foundation International, ranks sixth among all causes of work-related deaths in the United States.

While installation and application requirements are maintained on a three-year code adoption cycle, the NRTL Program has for the most part not been able to keep up to date with the changing national and international requirements for bodies certifying products. Now, OSHA intends to undergo a multi-year plan to update and modernize the NRTL Program.

### Early Milestones

The OSHA NRTL Program was created by regulation in 1971, requiring electrical equipment intended for use in the workplace to be "approved," "listed," or "labeled" by a Nationally Recognized Testing Laboratory (NRTL). It would take



L. TO R.: OSHA'S DAVID MICHAELS, KEVIN ROBINSON, TOM HANNIGAN, LEE GRABEL, AND MANDY EDENS AT OSHA'S 2014 MEETING OF NRTL STAKEHOLDERS

another 17 years for OSHA to establish by regulation a process by which certification bodies would be recognized as NRTLs (see *Code of Federal Regulations* – 29 CFR 1910.7 and Appendix A).

Then on March 9, 1995, OSHA provided clarification concerning the types of testing and certification procedures NRTLs are permitted to use under the OSHA NRTL program, including acceptance of product evaluations from the IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components CB (IECEE-CB) Scheme. The 1999 edition of the *National Electrical Code* (NEC) brought the IEC's three-zone classification scheme to the U.S. as an alternate to the NEC Article 500's two-division scheme.

On August 13, 2007, OSHA updated the general industry electrical installation standard found in Subpart S of 29 CFR Part 1910 to incorporate the 2000 edition of NFPA 70E, *Standard for Electrical Safety in the Workplace*, which allows for

the classification of hazardous locations using either the "Division" or "Zone" Classification System based on the NEC. But employers were unable to find NRTL-approved zone equipment, since the U.S. zone-based electrotechnical safety standards were not recognize by OSHA.

### Recent Activities

Today there are seventeen organizations recognized by OSHA as NRTLs (see "*OSHA NRTL Program Basics*," next page) and a backlog of organizations seeking recognition, several of which have been pending for numerous years. The application backlog caught the attention of Congress, which tasked the United States Government Accountability Office (GAO) to examine OSHA's NRTL accreditation process. In 2012 the GAO reported on its findings and recommendations to Congressional Requesters. The GAO found OSHA's process for accrediting NRTLs lengthy due to a broad scope of OSHA staff responsibilities and unclear (continued)

## Modernization of the OSHA NRTL Program for Testing Laboratories *(continued)*

application procedures for accreditation. It identified three key strategies for improving timeliness:

1. Aligning program design with program mission and resources
2. Providing clear guidance and timely communication to stakeholders
3. Developing performance measures and using data to identify inefficiencies

In accepting the GAO report's conclusions, OSHA embarked on a multi-year plan to update and modernize the NRTL Program. On November 25, 2013, OSHA published a *Federal Register* notice proposing to amend its policy for incorporating new test standards into the list of appropriate NRTL Program Test Standards. The notice included a determination that U.S. "zone-based" safety standards are appropriate test standards, to be included in the NRTL Program's List of Appropriate Test Standards. These are internationally based standards developed by IEC

Technical Committee (TC) 31, *Equipment for Explosive Atmospheres*, which were adopted as American National Standards (ANS) and made consistent with the NEC and OSHA regulations by two accredited standards developers: the International Society of Automation (ISA) and UL.

### Prospective Changes

On October 22, 2014, OSHA held its second informal meeting, aimed at exploring potential updates to its NRTL Program policies and regulations. The first part of the meeting focused on a draft update to OSHA Directive CPL 01-00-003, a set of instructions detailing the NRTL program policies, procedures, and guidelines. The draft directive looks to better align with the international standards and address policy gaps, such as the acceptance of non-independent testing data of electrical products intended for use in hazardous locations and inspections and test data from organizations that function as part

of the IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEX System). The U.S. has been participating in the IECEX Scheme since 2000 in order to maintain global competitiveness in a specialized field for electrical equipment.

The IECEX Member Body representing the United States (USNC/IECEX) has been meeting with OSHA NRTL Program staff since 2000 requesting acceptance of the IECEX Scheme under the NRTL program, similar to what it has done for the IECEE-CB Scheme. OSHA intends to complete its update to OSHA Directive CPL 01-00-003 by February/March 2015, with implementation by the end of 2015.

The second part of the meeting focused on the use of the private sector to increase the efficiency of the NRTL Program; certification marks; factory inspections; field inspections; and fees.

### More Information

Visit the [OSHA NRTL webpage](#). 

## OSHA NRTL Program Basics

Nationally Recognized Testing Laboratory (NRTLs) are private-sector organizations that are recognized by the U.S. Occupational Safety and Health Administration (OSHA) to perform product safety testing and certification services to manufacturers. Each NRTL has a scope of test standards that it is recognized for; these consensus-based standards are not developed by OSHA, but are issued by U.S. standards organizations.



After certifying a product, the NRTL authorizes the manufacturer to display a registered certification mark. This mark signifies that the NRTL tested the product and that it complies with the requirements of one or more appropriate product safety test standards. Users of the product can generally rely on the mark as evidence that the product complies with the applicable OSHA approval requirement(s) and is safe for use in the workplace.

The organizations currently recognized by OSHA as NRTLs are:

- |                              |                              |
|------------------------------|------------------------------|
| CSA International            | QPS Evaluation Services      |
| Curtis-Straus                | SGS North America            |
| FM Approvals                 | Southwest Research Institute |
| IAPMO                        | TUV Rheinland North America  |
| Intertek Testing Services NA | TUV Rheinland PTL            |
| MET Laboratories             | TÜV SÜD America              |
| Nemko-CCL                    | TÜV SÜD Product Services     |
| NSF International            | GmbH                         |
| QAI Laboratories             | UL                           |



## Conformity Assessment and Cybersecurity

By Timothy Duffy, Senior Manager, Conformity Assessment, Rockwell Automation; USNC Vice-President, Conformity Assessment

One of the latest areas of concern for companies, municipalities, and the general public is in the area of security. Cybersecurity impacts nearly every segment of our lives. Serious concerns exist related to infrastructure and production elements, including power generation and distribution, water and wastewater treatment and distribution, petrochemical refining, distribution, and use, as well as traditional data security and protection of intellectual property.

### A Foundation of Standards

In an effort to address concerns and to highlight the work that has progressed related to cybersecurity standardization, members of industry have worked to promote the ongoing standards efforts at the IEC. The work on these standards was and is ongoing in ISA99, an ISA committee that addresses industrial automation and control systems security (IACS), and is used as the basis for many of the IEC standards for IACS security. Specifically cited to regulators, utilities, and industry is the activity currently underway in IEC Technical Committee (TC) 65, Working Group

(WG) 10, *Security for industrial process measurement and control - Network and system security*, in the development of the IEC 62443 series of standards.

The standards that have been completed and those still in development address cybersecurity in the following four main areas:

- **General:** terminology and concepts, system security compliance metrics, and IACS security lifecycle and use cases
- **Policies and procedures/asset owners:** IACS security management systems, implementation guidance for IACS, patch management and installation in IACS environment, and maintenance for IACS suppliers
- **System/integrators:** security technologies for IACS, security levels for zones conduits, and system security requirements and security levels
- **Component:** product development requirements and technical security requirements for IACS components

### Taking Inventory

Recognizing the concerns of industry and regulatory agencies, in 2013 the IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE) undertook an effort to look at conformity assessment related to cybersecurity for the industrial automation sector. The IECEE established a working group to review the progress in standardization, to assess the market need for conformity assessment activities, and to propose potential conformity assessment solutions for the industrial automation space.

To date, two meetings of the IECEE working group have taken place with volunteers from industry and conformity assessment service providers. The group is evaluating existing conformity



Timothy Duffy, Senior Manager, Conformity Assessment, Rockwell Automation; USNC Vice-President, Conformity Assessment

assessment market offerings for security to leverage best practices and to develop a market relevant solution.

### Responding to Needs

The IEC also recognizes that there are cybersecurity concerns beyond the industrial automation environment, and in 2014 the IEC Conformity Assessment Board (CAB) established a task force to determine which standards activities (outside of the 62443 series) that are established or currently being pursued within the IEC may lend themselves to some type of conformity assessment. IEC CAB WG 17 was formed to review current and planned standardization work and to liaise with a newly formed IEC Standards Management Board (SMB) Advisory Committee on Security (ACSEC) and SMB ad hoc Group 52 (ahG 52) in an effort to proactively design market-relevant conformity assessment solutions as quickly as possible.

### More Information

Visit [www.iecee.org](http://www.iecee.org). 



## An American's Regional View from the 2014 FINCA Meetings in Chile

By Steve Margis, Director, International Certification Programs, UL; USNC Conformity Assessment Board (CAB) Alternate



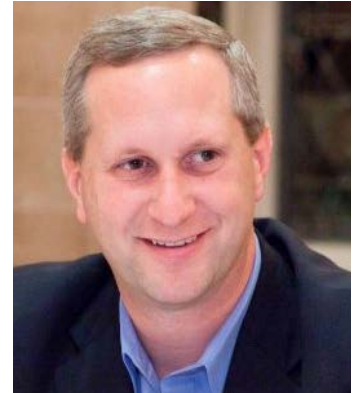
On October 16-17, 2014, delegates representing national mirror committees of the IEC from Argentina, Brazil, Canada, Chile, Colombia, Mexico, and the United States joined invited guests from the IEC Latin America Regional Centre (IEC/LARC) and Pan American Standards Commission (COPANT) for a meeting of the Forum

of the IEC National Committees of the Americas (FINCA) in Santiago, Chile.

FINCA's purpose includes the sharing of information among its members on the strategic collaboration of the National Committees in the region individually and collectively with the IEC. The USNC's participation in FINCA supports its strategic outreach objectives to better position USNC members and their interests in the region.

Opening the two days of meetings was a workshop entitled "Conformity Assessment in the Region: Leveraging IEC Conformity Assessment Systems to Facilitate Global Market Access." The keynote speaker and workshop facilitator was UL's Steven Margis, USNC Conformity Assessment Policy and Coordination Committee Vice Chairman. Mr. Margis was joined by panelists from each of the FINCA member countries to discuss the merits of IEC Conformity Assessment Schemes and their practical

implementation into national regulatory systems, as well as the global conformity assessment strategies of both conformity assessment providers and industry. The workshop utilized case studies from each of the four IEC Conformity Assessment Systems (see [www.iec.ch/conformity/](http://www.iec.ch/conformity/)), including the newly formed IECRE System related to Renewable Energy, to facilitate an



Steve Margis, Director, International Certification Programs, UL; USNC CAB Alternate

exchange of ideas. Discussions focused on the following key principles of IEC Conformity Assessment Systems:

- Facilitating trade by eliminating duplication of conformity assessment tasks and providing market access
- National adoption and use of IEC standards (with provision for national differences)
- Mutual/global acceptance of IEC Conformity Assessment System deliverables
- Peer assessment to ensure competence, consistency, and mutual confidence

These principles serve to establish and maintain the needed level of confidence in the marketplace among stakeholders.

The FINCA member meetings also focused on methods to increase dialogue, share and discuss national views, and ensure appropriate communications among members. The central theme for much of the dialogue related to the agenda of the IEC General Meeting in Tokyo in November 2014.

FINCA will next meet in 2015, hosted by Colombia. ☺

### LAUGH TRACK



Jim was amazed by the engagement and consensus he achieved at the standardization conference.



## ANSI Co-hosts Conformity Assessment Workshop for Latin American Standardization Representatives

As part of its work under the Standards Alliance program, the American National Standards Institute (ANSI) – in collaboration with the General Bureau of Standards of the Mexican Ministry of Economy (DGN) and the Pan-American Standards Commission (COPANT) – organized a November 3-7 workshop at the Mexican Entity of Accreditation (EMA) in Mexico City on best practices in conformity assessment. The five-day event provided training and guidance to representatives of standardization organizations from across Latin America looking to increase their knowledge of quality testing processes, accreditation, and related areas of standards and conformity assessment.

Opening the workshop, Alberto Ulises Esteban Marina, director general, DGN; Maribel Lopez Martinez, executive chief, EMA; Francisco Javier Reed Martin del Campo, president, Commission of Standardization and Conformity Assessment of the Industrial Chambers Mexican Confederation (CONCAMIN); and Carlos M. Perez Munguia, director general, Normalizacion y Certificacion Electronica, S.C. (NYCE) shared their experiences and insights with the 50 attendees from Argentina, Bolivia, Brazil, Colombia, Costa Rica, the Dominican Republic, Ecuador, Haiti, Honduras, Jamaica, Mexico, Panama, Paraguay, Peru, Saint Lucia, and Trinidad and Tobago.

Following the welcoming remarks, international conformity assessment experts from the public and private sectors provided in-depth information on accreditation programs, answered attendees' questions on a wide variety of related topics, and encouraged information exchange and dialogue among the group. The following experts led the workshop's training sessions:



WORKSHOP PARTICIPANTS VISIT A TESTING LABORATORY IN MEXICO

- Reinaldo Balbino Figueiredo, Senior Program Director, Product/Process/ Services Accreditation Programs, ANSI
- Mario O. Wittner, ANSI Program Assessor; former Chair of the International Organization for Standardization (ISO) Committee on Conformity Assessment (CASCO)
- Warren R. Merkel, Chief of the National Voluntary Laboratory Accreditation Program (NVLAP),

National Institute of Standards and Technology (NIST)

Attendees were also divided into groups for visits to four local testing laboratories – ANCE, NYCE, MITUTUYO Mexico, and INTERTEK – to take a hands-on look at the processes in place in the context of the knowledge they just acquired. It is expected that the attendees will put that knowledge to use in developing or strengthening the testing, accreditation, and other conformity assessment programs and activities in their own countries.

The Standards Alliance is a joint ANSI–U.S. Agency for International Development (USAID) initiative that supports global cooperation and capacity building in the areas of standards development, technical regulations, good regulatory practice, and conformity assessment.

### More Information

Visit [www.standardsalliance.org](http://www.standardsalliance.org).

## ANSI Site Licenses Support USNC Activities



When buying IEC standards, USNC members' organizations can obtain the greatest value and convenience by purchasing a site license from the American National Standards Institute (ANSI). ANSI site licenses enable standards to be shared within a network.

They provide real-time access to standards data and offer automatic notification of updates and revisions. And the revenue ANSI receives directly supports the activities and initiatives of the USNC.

The USNC/IEC is a totally integrated committee of ANSI. When you purchase a site license from ANSI, you are making a commitment to bolster U.S. leadership at the IEC table – and gaining the benefits of easy accessibility, total customization, and affordable pricing for all of your organization's standards needs.

### More Information

Visit [webstore.ansi.org/SiteLicense](http://webstore.ansi.org/SiteLicense) or email [sitelicenses@ansi.org](mailto:sitelicenses@ansi.org).

## IEC General Meeting Welcomes 2,200 Technology Experts to Tokyo



The 78th IEC General Meeting (GM) was held at the Tokyo International Forum November 10-14, 2014. The event was organized and hosted by JISC, the IEC National Committee of Japan, which is part of Japan's Ministry of Economy, Trade, and Industry (METI).

This year's GM theme, "Integration for a Smarter World," was chosen in recognition of the need to increase the "smartness" of everything from grids, to cities, to transportation and manufacturing, to improved energy efficiency and sustainability. And while "smart" is often associated with information and communication technology, the other key other part is the electrical and electronic devices and systems that enable this smartness – and IEC work impacts them all.

The opening ceremony began with informative addresses by Yoichi Miyazawa, the Japanese Minister of Economy, Trade, and Industry; Dr. Junji Nomura, IEC President; and Dr. Tamotsu Nomakuchi, President of the Japanese National Committee of the IEC. Two keynote speeches were given, by Hiroaki Nakanishi, president of Hitachi Ltd., and Kazuhiro Tsuga, president of Panasonic Corporation.

Experts representing IEC technical committees (TCs) and subcommittees (SCs) in 53 fields were invited by Japan to take part in more than 240 meetings. Topics of discussion included standardization activities and

achievements in such areas as electricity and smart grids, household appliances, semiconductors, communication, and many other areas of electrotechnology.

While the various management meetings all took a look back at what the IEC has accomplished in the 12 months since the New Delhi GM, in essence the future of the IEC was at the center of all discussions and decisions. In one major area of interest, attendees concurred that the systems approach is inescapable, both in standardization and in conformity assessment. Under the umbrella of the Standardization Management Board (SMB), Systems Evaluation Groups (SEGs) and Systems Committees (SyCs) are operational in several areas, such as smart energy and active assisted living (AAL). In addition, it was reported that discussions on conformity assessment (CA) governance, initiated by the Conformity Assessment Board (CAB), are moving forward and are key to the future of IEC CA activities and how they are managed.

A highlight of the week was a presentation of the world's highest honor in electrotechnology, the Lord Kelvin Award, which was awarded to Dr. Shuji Hirakawa of Toshiba.

### TOKYO INTERNATIONAL FORUM



Demonstrating host country Japan's strong recognition of the importance of the work of the IEC, Japanese Prime Minister Shinzo Abe awarded the 2014 Prime Minister's Award for Industrial Standardization to Dr. Hiromishi Fujisawa, IEC Vice President and corporate chief scientist in Hitachi's R&D Group.

Dr. Junji Nomura, IEC President, said, "Participation in IEC work not only increases the flexibility and corporate efficiency of international companies, it also facilitates technology innovation and helps build bigger markets faster for many small companies. This in turn helps build national economies."

While most international companies already participate actively in the IEC, more SMEs need to join the ranks and influence International Standards to level the global playing field. Any company who does not participate leaves it up to their competition to write the technical rules for global trade that they will have to work under in the future.

The 21014 GM was the first hosted by Japan in 15 years. Along with the management and policy meetings, there were numerous technical visits, permanent exhibits, industrial displays, symposiums, and demonstrations. Through these side events, the Japanese National Committee provided international experts engaged in IEC standardization activities the opportunity to experience first-hand Japan's cutting-edge research in the fields of smart cities, smart grids, electric vehicles, energy conservation, and environmental sustainability. Attendees agreed that through the efforts of the host country, along with the hard work done by the IEC Central Office staff and hundreds of IEC Members and experts, 2014's General Meeting will be remembered as a great success. ☺



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SAVE THE DATE

## Mark Your Calendar for Upcoming Meetings & Events

### ABOUT THIS PUBLICATION

The USNC Current newsletter is distributed to the constituency of the U.S. National Committee (USNC) of the International Electrotechnical Commission (IEC). It provides updates on technical activities and other information of interest to members of the electrotechnical community. Some articles are reprinted with permission from the IEC News log.

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### HOW TO CONTRIBUTE

Contributions are gladly accepted for review and possible publication, subject to revision by the editors. Submit proposed news items to: Tony Zertuche, USNC/IEC Deputy General Secretary, ANSI 212.642.4892 [tzertuche@ansi.org](mailto:tzertuche@ansi.org)

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### 2015

**Thursday – Friday**  
**22 – 23 January 2015**  
**World Standards Cooperation Roundtable**  
University of Washington, Seattle

**Tuesday – Thursday**  
**27 – 29 January 2015**  
**CAPCC/TMC/Council**  
Dell, Inc., Round Rock, TX

**Tuesday, 10 February 2015**  
**SMB Meeting**  
Geneva

**Monday – Friday**  
**13 – 17 April 2015**  
**COPANT General Assembly**  
Mexico City

**Monday – Friday**  
**4 – 8 May 2015**  
**PASC 38**  
New Delhi, India

**Tuesday – Thursday**  
**19 – 21 May 2015**  
**CAPCC/TMC/Council**  
UL, Research Triangle Park, NC

For additional event info, visit [www.ansi.org/calendar](http://www.ansi.org/calendar) and search for "USNC" or "IEC."



**Monday, 15 June 2015**  
**CAB Meeting**  
Geneva

**Tuesday, 16 June 2015**  
**SMB Meeting**  
Geneva

**Tuesday – Thursday**  
**22 – 24 September 2015**  
**CAPCC/TMC/Council**  
AAMI, Arlington, VA

**Friday, 25 September 2015**  
**7th USNC Tag Leadership Workshop**  
AAMI, Arlington, VA

**12 – 16 October 2015**  
**79th IEC General Meeting**  
**Minsk, Belarus**  
Monday 12: SMB, CAB  
Wednesday 14: CB  
Friday 16: Council  
(Technical meetings will be held 5–16 October)

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