



Consejo de Armonización de Normas Electrotécnicas de las Naciones de las Americas
Council for Harmonization of Electrotechnical Standards of the Nations of the Americas

Annual Report 2006

Revisiting the Scope of “Harmonization”

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Surveys conducted among CANENA members have always confirmed the priority that The Council’s administration stay focused on activities that directly support the work programs of its Technical Harmonization Committees (THC) and Sub-Committees (THSC). And in the past several years CANENA has made great strides, with the cooperation of the Standards Development Organizations, to overcome obstacles to efficient harmonization as attested to by publication of fifty-three (53) legacy electro-technical product standards.

The CANENA model is increasingly recognized as a potential forum for broader interests under the banner of “electrotechnical harmonization”. Among the broader categories being suggested are regulatory standards for Energy Efficiency and formalized coordination among National IEC “mirror” committees. A “mirror committee” is a designated national group of interested parties having the same or similar

scope as an IEC Technical Committee (TC) or Subcommittee (SC).

The implementation of our Cooperation and Communication strategy seems to be opening dialogue on many complementary roles that CANENA might fill.

Is CANENA ready to revisit its traditional scope of “harmonization”?

Some will remember the 2004 presentation by government representatives of the *North American Energy Working Group* at our Council meeting in Toronto. The Working Group is a cooperative of the departments of energy in Canada, Mexico, and the U.S., that has been exploring harmonization of energy efficiency regulations since 2001. Perhaps their call for CANENA THCs that are affected by energy saving regulations was premature at that time?

Today these energy efficiency regulations affect more electro-industry sectors

more profoundly. And more countries in the regions of the Americas are interested in exploring harmonized standards for regulatory purposes.

CANENA was recognized by the North American Energy Working Group in 2004 as a potential forum for affected product sectors and the time may now be right for those sectors to collectively explore a role in this dialogue.

CANENA THCs are already engaged in IEC-based work programs and our Cooperation and Communication Strategy calls for a complementary relationship with our IEC National Committees. Participating with IEC national committees in IEC work programs is quite different from harmonizing an IEC-based standard in preparation for national adoption. CANENA harmonization procedures are conducive to the latter activity but do not address development of harmonized technical

Continued on Page 4

From the President



Over the past year I’ve had the privilege of representing CANENA both individually and as part of a contingent of members in a variety of forums. Each event was a

valuable opportunity to relate how far CANENA has come and how our Council has evolved in its fourteen year existence. Along the way, I was reminded that our entire standardization environment is evolving and that any process that does not support the needs of its constituents will quickly become obsolete.

The leading producers of industrial control and low voltage distribution equipment are well represented and longstanding members of CANENA. Their early harmonization work programs were regional in nature.

Today the markets for many of these products are global and demand demonstrated compliance with IEC standards. CANENA would be irrelevant to this huge electro-industry sector without our increasing emphasis on IEC standard based work programs. At their meeting this summer, these industries encouraged CANENA to continue to explore a more direct, complementary role in cooperation with IEC National Committees.

As a participant at a National Forum for Standards Developers hosted by ANSI, The American National Standards Institute, I witnessed first hand a true standards “revolution” in progress. Participants from a wide array of industries shared problems, frustrations, creative solutions, and case studies surrounding changing needs in standardization. Traditional standards development models were largely seen as insufficient to meet today’s global challenges. I’m pleased to say that CANENA was



Inside this issue

- What’s in a Name?
- THC 99– Connectors
- Dates to Remember
- CANENA Technical Programs
- SDOs Offer Seminars on Harmonization Tools
- An Electrical Safety System that is Right for Costa Rica
- Integrating Structures for Standardization

portrayed as one of the creative solutions devised by the electro-industry to help meet its challenges.

In August, the CANENA Executive Committee had the unique opportunity to meet with the Costa Rican National Electrical Standards Committee. They explained their challenge, to develop a national system for electrical safety that represents their infrastructure but corresponds with international standards. Regionally harmonized standards are considered practical in the near term, but their

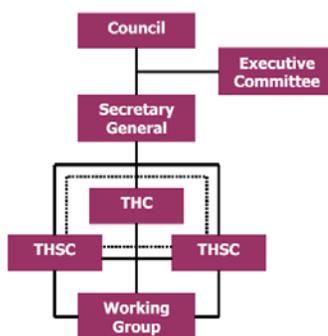
Continued on Page 4

What's in a Name ?

CANENA's bylaws and harmonization procedures purposely provide wide latitude to Technical Harmonization Committees in establishing organizational structure and operating framework.

In order to establish a degree of meaningful transparency as to the scope of CANENA technical activities, guidelines have been established that intend to identify each committee by a number that corresponds in scope to the comparable IEC Technical Committee (TC) or technical Subcommittee (SC). For example, CANENA THC 20, *Electric Cables*, corresponds with IEC TC 20, *Electric Cables*.

While CANENA's Executive Committee is committed to ensuring that the Council's technical activities are open and transparent, some significant factors complicate strict adherence to the IEC TC and SC nomenclature. First, the industry driven nature of CANENA's harmonization priorities often result in formation of committees of members having focused interest and very narrow product scope. It is not uncommon for the Technical Harmonization Committee to be named according to the IEC SC most closely aligned in scope, even though a corresponding IEC TC number committee may not exist in CANENA. For example, CANENA THC 23E, *Ground Fault Circuit Interrupters*, corresponds to a degree with the scope of IEC SC 23E, *Circuit-breakers and similar equipment for household use*. But, a THC 23 does not exist in CANENA. In fact, due to the division of member interest in CANENA and the broad product scopes of some IEC Subcommittees, several CANENA THCs may carry the same number, such as THC 23A, followed



by a text description differentiating the scope of each, for example THC 23A, *Metal Cable Trays*, or THC 23A, *Nonmetallic Raceway Products and Accessories*. It is fair to say that in these instances, the CANENA THC more closely resembles an IEC SC Working Group (WG), Project Team (PT) or Maintenance Team (MT).

Generally, CANENA committee structures evolve as the result of common member interest. THC 23A, *Metal Electrical Conduit and Fittings for Conduit and Cable* for instance, more closely resembles IEC SC 23A in that there are several Technical Harmonization Subcommittees (THSC) in its structure that divide the member interests into project specific harmonization activities. This structure does not necessarily imply any degree of governance by the THC. It has been found useful however in facilitating

liaison between members with common interests where desired.

A "working group" of a CANENA THC or THSC is intended only to address a specific requirement or issue within a standard. It is not a designation for a harmonization committee. The scope of the WG is expected to be narrowly defined, and its period of existence is expected to be of a short duration.

As CANENA explores closer cooperation with IEC National Committees, closer adherence to IEC Committee nomenclature may become a more practical consideration. Until then, "harmonization" by any name, is progress, and business as usual at CANENA.

THC 99—Connectors

CANENA THC 99 is one of the most active committees in CANENA and has an admirable track record for efficiently harmonizing some very complex standards. And they will soon hold the distinction of becoming the first CANENA committee to facilitate an original harmonized standard, *Multi-Pole Splicing Wire Connectors (Luminaire Disconnects)*. The source document for this work program was a UL outline of investigation, Subject 2459.

Products within the original scope of this THC included electrical power connectors used for terminating and splicing copper and aluminum conductors, grounding and bonding equipment, and underground cable splicing connectors.

Encouraged by the successful harmonization of several long-standing legacy product standards, THC 99 has now grown to include more than thirty members. As the membership has grown, so has their scope.

This THC is about to embark on projects to harmonize the ANSI C119 connector standards used by electrical utilities in Canada and the United States with those used in Mexico by CFE, Comisión Federal de Electricidad.

The success of THC 99 can be attributed to strong leadership from Chairman Ron Lai and Secretary Vince Baclawski, and the continuous, active participation from the committee's diverse membership.

Scope	Completed	Application	Countries		
			Can	Mex	US
Wire connectors	2003	CEC, MEC, NEC	✓	✓	✓
Splicing wire connectors	2004	CEC, MEC, NEC	✓	✓	✓
Sealed wire connector systems	2005	CEC, MEC, NEC	✓	✓	✓
Luminaire disconnect	2006	CEC, NEC	✓		✓
Quick connect terminals	2008 est.	CEC, NEC	✓		✓
Sealed insulated systems	TBD	Utility	✓	✓	✓

Dates to Remember

- ◆ CANENA Council 15th Annual Meeting – February 28– March 1, 2007 Tucson, AZ, USA
- ◆ COPANT General Assembly Meeting – April 23-27, 2007 Cartagena, Colombia
- ◆ NFPA World Safety Conference and Exposition – June 3-7, 2007 Boston, MA, USA
- ◆ CSA Annual Conference – June 10-15, 2007 Halifax, Nova Scotia, Canada
- ◆ 71st IEC General Meeting – October 23-26, 2007 Paris, France

CANENA Technical Programs

As a result of the efforts in CANENA Technical Harmonization Committees and Sub-Committees, four (4) new harmonized standards were published in 2006. With these, the total number of harmonized standards delivered through the CANENA process is fifty-three (53). The following are the most recently published harmonized standards:

Binational— Canada, U.S.: THC23A, *Electrical Nonmetallic Tubing (UL1653/CSA C22.2 No.227.1-06)*, published May 19, 2006.

Trinational— Canada, Mexico, U.S.: THC20, *Flexible Cords and Cables (UL62/CSA C22.2 No.49-06/NMXJ-436-ANCE-2006)*, published May 31, 2006.; THC23E, *Ground Fault Circuit Interrupters (UL943/CSA C22.2 No.144.1-06/NMXJ-520-ANCE-2006)*, published February 1, 2006, THC61C, *Household and similar electrical appliances - Safety - Part 2-24: Particular requirements for refrigerating appliances, ice-cream appliances and ice-makers (UL60335-2-24/CSA C22.2 No.60335-2-24-06/NMXJ-521/2-24-ANCE-2006)*, published August 21, 2006.

Although the number of harmonized standards published in 2006 is less than that in recent years, this does not reflect the degree of harmonization effort taking place in CANENA. With the publication of 20 harmonized standards between 2003 and 2005, many of the standards for the highest volume electrical system components have achieved some degree of harmonization.

Three (3) new CANENA harmonization projects were initiated in 2006, the scopes of which cover a range of product types. Several THCs are working on new editions of harmonized standards or amendments to previously published standards. SDOs have promoted scheduling of revision cycles.

SDOs Offer Seminars on Harmonization Tools

Managing harmonization effectively requires a plan. THC leaders have to know the right moves and plan ahead. The right skill sets and tools are also essential ingredients.

ANCE, CSA, and UL introduced two new harmonization tools to CANENA members who attended the Council's meeting in February 2006. In CANENA's early years especially, members developed somewhat unreasonable expectations that their draft harmonized standards could be adopted and published very shortly after the Technical Harmonization Committee (THC) delivered them to the participating Standards Development Organizations (SDO). In more recent times, with the publication of many harmonized standards, CANENA THCs are encouraged to take a lead role in maintaining harmonization of those standards and participate in the establishment of revision cycles as a method of ensuring continuity of active THC leadership and membership.

As a direct response to recommendations by Council members attending our February 2006 meeting, the SDO representatives have developed a training program to expand on the overview of these two new tools. Specifically designed for THC Chairs and Secretaries, but open to other CANENA members, the seminars will focus on the two tools and how they apply to THC work programs and the ongoing role of the THC after initial harmonization of their standard is complete and the standard is published.

The "Comparison of UL, CSA and ANCE Standards Development Processes Guide", describes in detail, the similarities and differences of separate and often unique national processes

With input from the THCs, schedules are now being set which will facilitate planning by the THC and all participants in national processes. Each cycle will begin with a call for proposals and collation of proposals submitted into the processes of each participating SDO.

Technical Activities Summary	
CANENA THCs:	24
Active Projects—Including Maintenance (2006):	58
Published Standards (2006):	4
New Projects (2006):	3

A number of Canada-U.S. binationally harmonized standards are now being presented for consideration in Mexico during 2007. The combination of new projects, scheduled revisions to previously harmonized standards, expanded harmonization of binational standards, and work programs already in progress, promises another busy year in 2007.

Two key harmonization tools were published in 2006 through the cooperation among our participating SDOs. They are discussed in the article below. The publication of these valuable tools reflects the SDO's continuing commitment to the CANENA harmonization efforts.

SDOs each maintain public accessible lists of harmonized standards on their websites. Addresses are included below.

http://ulstandardsinfonet.ul.com/harm/ulancecsa_publog.pdf

<http://www.ance.org.mx/ie/vtanormaproduc.asp>

<http://www.csa-intl.org/onlinestore/GetCatalogDrillDown.asp?Parent=3654>

through which draft standards, harmonized within CANENA, must navigate prior to adoption and simultaneous publication.

The document "Revision Cycles for Binational and Trinational Standards Published by UL, CSA and ANCE" contains the principal roadmap for harmonized standards maintenance. Its purpose is to identify a sample revision cycle that can serve as a model for an actual cycle for the ongoing maintenance of the published harmonized standard.

The first seminar is planned in conjunction with a meeting of THC/THSC Secretaries, January 4, 2007 at the NEMA office in Rosslyn, VA. Another session is planned in conjunction with the 2007 CANENA Council meeting on the afternoon of Wednesday, February 28, in Tucson, AZ. There is no registration charge for attending these seminars. Additional dates will be decided based on member response.

All CANENA members will benefit from this seminar: Secretaries, who serve as the primary liaison between the THC and multiple SDOs; Chairs, who need to understand the differences in the processes in order to develop realistic expectations for completing a program, for time and resource planning, and for deciding the point of engagement for the THC in the established maintenance cycles; and others who want to better understand the processes and plan their time and resources more effectively.

Each of these new tools is available for viewing and downloading at www.CANENA.org. Any member interested in attending one of the scheduled seminars can contact Sonya Bird at Sonya.m.bird@us.ul.com.



An Electrical Safety System that is right for Costa Rica

Acting as they have throughout their rich history, Costa Ricans have taken their first bold steps towards standardizing their system for reliable delivery and safe utilization of electricity. A group of more than thirty members constitutes the Costa Rican National Electrical Standards Committee. Their goal is to establish electrotechnical standards that are relevant to their present infrastructure and correspond to international standards.

A prominent occupant of the land bridge between North and South America, Costa Rica has often modeled social and economic progress for other nations of their region. Their goal, to have an electrical safety system that is right for Costa Rica, demonstrates their independence without in anyway ignoring the realities or compromising economic advantages presented through globalization.

Similar to many nations in the region of the Americas, the installed electrical infrastructure and installation methods in Costa Rica reflect North American standard



products and practices. And while no one denies the quality and integrity of existing systems, the future demands a global approach to standardization of Costa Rica's electrical distribution systems. The challenge for the national committee, then, is to, "standardize" on the broadest choice of safe and reliable system components.

The decision taken by the Costa Rican National Electrical Standards Committee is to first consider adopting harmonized regional standards representative of their installed system. These standards represent longstanding system components, and proven compatibility. In keeping with their long-term objectives, the committee will begin to prioritize existing IEC standards and promote their harmonization with regionally harmonized standards having the same scope. The committee sees the increasing number of IEC standards based harmonization work programs underway in CANENA as supportive of their long-term objective, and through their CANENA members they intend to participate in parallel where practical.

Integrating Structures for Standardization

Structures for conducting and managing electrotechnical standardization vary from country to country. One thing that seems evident however is that there is considerable effort being made in most countries to align resources employed in national, regional and international standardization and to integrate administration and procedure.

The authority for oversight of national standards commonly resides with a government appointed entity. But the organizations through which the processes are carried out are often sector specific and vary from simple, vertically aligned systems, to committees having many sub-sector groups with a significant degree of self-determination. Countries most directly affected by the activities of CANENA, those countries where its members reside, represent this broad spectrum of national standards structures.

All systems for standardization seek to include a group of technically astute individuals representative of the breadth of interested parties that will be affected by a given standard. But, for many reasons, even in countries with mature electrical industries, the numbers of such resources are no longer available to populate all of the sector committees and still ensure all viewpoints are represented. This is particularly true at the development levels of standards. At the same time that overall participants in the process are decreasing, globalization calls for broader than just national perspectives.

Larger countries that joined the International Electrotechnical Commission (IEC) created systems for participation that were parallel to their national systems. But today, it is difficult to operate parallel systems. And, those systems never envisioned the demand for regional harmonization of standards that has been a major focus in our region for the past ten years. So countries, such as Canada, have begun the process of integrating their national and international electrotechnical standards committees and at the same time they have recognized and included regional efforts. On the other end of the spectrum, countries such as Costa Rica, who have recently formed an electrical standards committee, quite naturally, are completely integrated in their approach.



Participants at the 2007 CANENA Annual Meetings, February 28 - March 1, in Tucson, Arizona, will have the opportunity to hear, discuss and understand the similarities and differences between national standards systems within the framework of common national standards strategies. The focus will be on electrotechnical sector systems for conducting regional and international standards activities.

Revisiting... from page 1

positions to be presented to IEC in sector specific work programs. CANENA is envisioned by some as an appropriate forum in cooperation with National "mirror" committees.

These two extended harmonization roles can have broad appeal to current CANENA members and prospective new members. Going forward, a broader view of the scope of "harmonization" may serve to add value to CANENA membership as well as to stimulate creative uses for the unique voluntary cooperation that defines our Council.

...President... from page 1

harmonization with IEC standards is the long-term goal.

Clearly, CANENA has met the challenge to keep pace with the evolution in our larger standardization community. If the Council continues to focus on the priorities of its members and diligently executes its Cooperation and Communication Strategy, I'm confident we will remain a relevant contributor to electro-technical standardization for years to come.

The CANENA Cooperation and Communication Strategy can be viewed or downloaded from www.CANENA.org.