

Regulator's UPDATE

New Tri-national Standard for Cold Rolled Structural Steel

Manufacturers of cold rolled structural steel members can now engineer their products for sale across North America without compromising well accepted and rigorous Canadian requirements thanks to the 2002 Tri-national Standard for Cold Formed Steel Structural Members. This standard, and the accompanying *Commentary* will be published before Fall 2002. The Tri-national Standard, which applies to Canada, the U.S. and Mexico, will provide economic benefits and product uniformity that will help promote the use of cold formed steel across North America.

“The new, harmonized Standard will make a tremendous difference to users, producers and specifiers of cold rolled structural steel across the continent,” says Muktha Tumkur, CSA Project Manager.

This Standard, last revised in 1994 and reaffirmed in 2001, has many uses. It provides the basic design provisions for the cold formed steel structural members used in buildings. Manufacturers use the Standard to calculate the structural capacities of their sections and structural engineers use it to design buildings or structures incorporating these members.

The Standard is important to regulators across North America since it defines the design methods to be used by the manufacturers to determine the strength of cold formed steel members. The new Tri-national Standard will help regulators ensure uniformity among products being supplied into Canada from the U.S.

A North American Specification Committee with three members each from Canada, the U.S. and Mexico, has worked diligently to review the existing CSA-S136 Standard and the AISI (American Iron and Steel Institute) Specification in an effort to harmonize these two cold formed steel design documents into one North American design Standard.



The Tri-national Standard will have a main section that contains the basic design requirements, which are common to the three countries. There will also be three country-specific appendices (US, Canada and Mexico) that will contain provisions specific to the particular country, such as load factors, resistance factors, material references, etc. Some limited technical items are also contained in the country-specific appendices. A *Commentary*, describing the background of the design requirements, will also be included with the Standard.

The three North American Specification Committee members representing Canada and CSA are: Steve Fox, Manager of the Canadian Sheet Steel Building Institute; Reinhold Schuster, Chair of the committee, University of Waterloo; and Tom Trestain, T.W.J. Trestain Structural Engineering.

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Doug Geralde takes on new roles in NACLA, IAEI

Doug Geralde, CSA Group's Director, Corporate Audits and Investigations, has been re-elected as Secretary, Executive Committee, of the National Cooperation for Laboratory Association (NACLA) on January 1, 2002. NACLA is a not-for-profit organization that was incorporated in 1998 to evaluate U.S. laboratory accreditation bodies (ABs) and grant recognition to those ABs that are found to be in compliance with NACLA procedures and the international standard for AB competence (ISO-IEC Guide 58).

Mr. Geralde has also been named to the newly-created position of V.P. International Affairs for the International Association of Electrical Inspectors (IAEI). He recently completed his term as 2001 IAEI International President.



Doug Geralde (seated) with other Canadian Section representatives to the International Board of IAEI, l to r, Steve Douglas, Electrical Safety Authority (Ontario), Rick Gilmour, CSA and David Clements, Nova Scotia Power Corp.



CSA a world leader in Oil and Gas Pipeline Standards

If you laid all the oil and gas pipelines in Canada end to end, they would wrap around the equator 17 times. And one of these pipelines, which begins in Edmonton and has delivery points in Toronto, forms part of the world's longest crude oil and liquids pipeline. With statistics like these, is it any wonder that the Canadian Standards Association is a world leader in standards development for Oil and Gas Pipelines?

CSA's standard, *Z662-Oil & Gas Pipeline Systems*, is the only standard in the world that we're aware of that deals with transportation of both oil and gas. In the '90s, CSA merged its four existing oil and gas pipeline standards into one document, creating this new standard which also includes oil and gas transportation systems, distribution systems, and offshore and aluminum pipelines. Approximately 300 committee members work on nine subcommittees, each of which is responsible for developing and maintaining at least one or two sections in the standard.

One of the goals in setting standards for pipelines is to enhance public safety and environmental protection. Statistics from the Transportation Safety Board of Canada consistently demonstrate that pipelines are, by far, the safest mode for transporting oil and gas products across Canada. The ongoing work of CSA's Oil & Gas Industry Program plays an integral role in maintaining that safety record.

Most of the federal and provincial regulatory agencies responsible for oil and gas pipelines are represented

in CSA's pipeline committees, and they have adopted CSA Z662 as the technical basis for their regulations. Therefore, CSA Z662 and its predecessor standards have been used in the design, construction and operation of all the major pipeline projects in Canada since the standard was first issued in the mid-1960s.

In addition to its status as a national standard in Canada, CSA Z662 and its companion standards have gained international recognition.

"Some of our standards in CSA's Oil & Gas Industry Program, especially pipe coating standards, are universally accepted," says Project Manager, Sudi Kalra. "We receive calls from the U.S., Europe, the Far East, India, South America, etc. The standards take into account our unique environmental conditions including temperatures that dip to -50°C in winter."

The *Z662 Commentary*, published in 2001, has been well received by the industry. It provides background information concerning some clauses and requirements, helping readers implement the standard, and to research materials used in its formulation.

The next edition of Z662 is scheduled for publication in June, 2003. It will be a CSA Smart Standard™, providing links to other CSA standards and the *Z662 Commentary*, and tools that will assist users to solve formulae on-line.

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What's new from the



CSA LEARNING CENTRE

The CSA Learning Centre offers convenient access to the combined training resources of the entire CSA Group including the Canadian Standards Association, QMI and CSA International.

CE Code Handbook and Smart Standard

Everyone who installs or maintains electrical equipment in Canada refers to the Canadian Electrical (CE) Code Part I. Soon there will be two new products to help them navigate the 2002 version of the Code and explain the information contained in this essential document.

- The CE Code Handbook is an easy-to-read guide to the Code, with new and revised diagrams to further explain various rules, plus information on the history, rationale and intent behind the rules.
- The CE Code Smart Standard is an interactive CD-ROM that contains the Code, the Handbook, a calculator and additional tables.



Contact CSA Standard Sales at sales@csa.ca or by calling toll free 1 800 463-6727.

What's New for Regulators

Watch for DWPEP approval marks on water filters

CSA International has announced an expansion of its water filter testing program to include in-line water filter certification and testing to ANSI/NSF 42 and 53 standards. During its certification process, CSA conducts independent verification of manufacturers' claims of water filter performance to remove specific contaminants. Qualifying products will bear a CSA Mark that indicates a Drinking Water Products Evaluation Program (DWPEP) approval. This mark includes ANSI/NSF qualifiers below the CSA Monogram. The in-line water filter expansion extends CSA International's existing pour-through water filter testing program, providing manufacturers with certification and testing services for the entire ANSI/NSF 42 and 53 standards including material contamination, pressure and performance testing. This new service complements CSA's existing full-service plumbing and drinking water evaluation program.



For more information, contact **John Glowacki**, (416) 747-2688, john.glowacki@csa-international.org.



"There isn't an hour in a day that Enbridge doesn't rely on CSA standards," says Art Meyer, VP Technology, with Enbridge Pipelines Inc., a company that operates the world's longest crude oil and liquids pipeline and sister to Canada's largest natural gas distribution company. "National standards are critical to Enbridge to effectively, efficiently, and safely operate across the breadth of Canada - from the Arctic to the Maritimes, through major urban centers and across the prairies. Standards have helped make Enbridge a leader in long distance pipelines and the remote operations of our system."

— ART MEYER, VP Technology, Enbridge Pipelines

CSA to assist in fuel cell installations

CSA has long been known as the major certifier of fuel cell products. But as of last year, the U.S. National Evaluation Service (NES) has accredited CSA as a compliance assurance agency for fuel cell installations.

Fuel cell power plant technology will be available for several years before all installation codes are in place. During this time, code officials will be able to accept installations based on a National Evaluation Report (NER) issued by NES. This report will stipulate that the manufacturer be under CSA's surveillance program for their fuel cell power plant production.

In addition to the manufacturers, major beneficiaries of the accreditation will be electrical inspectors, mechanical inspectors, and building code officials. "CSA International is the leader in this market sector for certification. They can now call on an organization such as ours to assist in the product installation evaluation," says CSA International Regional Manager Todd Strothers, based in Charlotte, North Carolina.

"We really know the products because we certify them. Customers can benefit from coming to us directly for the quality assurance required by NES for a product installation evaluation," adds CSA Certification Business Development Manager Tony Lui.

"As fuel cell power plants become more and more popular, changes to local codes will include provisions for them, and the NES special inspection provisions will no longer be needed. But in the transitional gap, CSA provides a valuable inspection and evaluation service," says Mr. Strothers.

Fuel cells that use hydrogen to produce electricity have long been recognized as a reliable and clean source of energy, but it's only recently that lower costs have made them viable.

Since 1966, U.S. manned space flights have operated with fuel cell power plants that provide efficient reliable electrical power as well as drinking water for the astronauts. Installations as varied as a New York City police station, a major postal facility in Alaska, a credit card company in Nebraska and a science centre in Japan are now turning to fuel cells for reliable power to protect against blackouts.

It's easy to see the need for a reliable, off-grid power source. To the First National Bank of Omaha just a few milliseconds without electricity can mean hours of headaches and millions of dollars of lost revenues. As a result, it purchased four PC 25 fuel cells from UTC Fuel Cells, a model certified by CSA.

For more information contact **Todd Strothers**, (704) 552-5125, todd.strothers@csa-international.org.



Todd Strothers, Regional Manager, CSA International, Charlotte, North Carolina



Four UTC Fuel Cells 200kW power plants now provide the primary power source for the First National Bank of Omaha.

Arctic inspections pose unique challenges and opportunities



Bill Burr

Bill Burr, CSA's Director, Electrical and Gas Standards Development and former Chair of the Canadian Advisory Council on Electrical Safety (CACES), went to the Arctic in 1980 intending to stay for two years. He actually stayed for 18, living in Rankin Inlet, Frobisher

Bay (now Iqaluit), Inuvik and Yellowknife – years that were rewarding for him both personally and professionally. His work in the Arctic culminated in positions as Chief Electrical and Elevator Inspector for the Northwest Territories, and later for British Columbia.

In Canada's far north, it's so cold in winter that inspectors have to remember their findings until they find a sheltered spot to write their reports. The ink in the pen freezes.

And the inspections themselves can have huge economic and scheduling consequences. Mr. Burr recounts a story of housing units up in Greece Fjord that required 16-foot laminated beams for their high peaked roofs. These beams were so large they had to be transported in by

barge during the summer months. Over the winter, a contractor – not working to spec – decided to cut the beams. When the inspector arrived on the scene and determined new beams had to be shipped in, that delayed the project by a year, since the Twin Otter aircraft used for transportation in the winter were too small to accommodate the beams.

When Mr. Burr worked in Frobisher Bay as an electrical inspector, his territory included all of what's now Nunavut – about one quarter of Canada's total area stretching up to the North Pole. His inspections ranged from housing units, to schools, churches, nursing stations, airports and elevators. At that time, the area was going through a huge building boom, as federal funds helped upgrade facilities for the Inuit people.

His biggest challenge was dealing with novice electrical workers from various jurisdictions in Canada and the U.S., many of whom had little knowledge of the Canadian Electrical Code.

"Much of the contractors' work was poorly done and hazardous. There were only two inspectors in all of the Northwest Territories, and communities were lucky if they saw an inspector once a year. One of my greatest rewards was to watch the progress made in the quality

of electrical work during my 18 years in the Northwest Territories. By the time I left we had eight inspectors – one for every region and two for Yellowknife. And because contractors could expect more regular inspections, the quality of work improved dramatically.

"Increased inspections made a real difference to safety – and I think the statistics on property loss and deaths from fires over the past 20 years in the Northwest Territories will support that statement."

From a personal viewpoint, Mr. Burr values the experiences he had being part of the development of the north. "I got a great perspective on electrical safety since I was exposed to such a large variety of installations and electrical issues. It has certainly helped me in my work with both CACES and CSA."

And what's his advice for anyone contemplating work as an inspector in the far north?

"Your best assets would be a good working knowledge of the Canadian Electrical Code, and an approach to your job that is both safety minded, and fair but firm."

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Upcoming EVENTS

SUMMER & FALL

CSA Learning Centre offers seminars on the following topics this spring and summer.

The CSA Learning Centre offers convenient access to the combined training resources of the entire CSA Group, including the Canadian Standards Association, QMI and CSA International.

- 2002 CE Code Essentials
- Bonding and Grounding of Electrical Equipment
- Electrical Disturbances — A Study of Harmonics
- B44 Elevator Safety Code
- Design, Installation and Maintenance of Electrical Equipment in Hazardous Locations

To register or obtain information about discounts, content, in-house training or other details call (416) 747-4017 in the Toronto area or 1-800-463-6727, e-mail seminars@csa.ca or visit the Web site at www.csa.ca.

May

18-21
Visit CSA at Booth 5053 at the National Restaurant Association's NRA 2002 show, Chicago, Illinois.

June

4-6
Visit CSA at Booth 11819 at Supercomm, Atlanta, Georgia

16-20
Visit CSA at Booth 2057 at the American Water Works Association (AWWA), New Orleans, Louisiana



August

19-23
Visit CSA's booth at the 2002 IEEE International Symposium on Electromagnetic Compatibility, Minneapolis, Minnesota

September

8-12
IAEI Northwestern Section, Doubletree Hotel, Bellevue, Washington

15-18
IAEI Western Section, Holiday Inn, Kearney, Nevada

27-29
IAEI Canadian Section, Ambassador Hotel, Kingston, Ontario

29-30
Visit CSA's Booth at ICBO/BOCA, Fort Worth, Texas

October

1-3
Visit CSA at Booth 132 at the World of Elevators, Las Vegas, Nevada.

6-9
IAEI Eastern Section, Lancaster Host Resort, Lancaster, Pennsylvania

13-16
IAEI Southern Section, Opryland Hotel, Nashville, Tennessee

20-24
IAEI, Southwestern Section, Hawaii

Regulator's UPDATE

CSA Group publishes Regulator's Update for International Association of Electrical Inspectors (IAEI) members, gas regulators and inspectors, fire authorities and others involved in the use of electricity and gas, and building officials.

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APBs, product recalls and safety notices

CSA International's Corporate Audits & Investigations (A&I) team is an integral part of the CSA International Legal Department located in our Corporate Office. The A&I team investigates incidents involving CSA certified products, issues all points bulletins (apbs), product recalls and safety notices in co-operation with manufacturers and supports the standards development process.

3/13/2002
APB-04-02 CSA International and Longwell Electronics Announce Voluntary Recall of Power Cord Sets Sold with HP Inkjet Printers

2/27/2002
APB-02-02 CSA International and BSH Home Appliances Corp. Announce Recall of Thermador PRG484GLUS, PRG486GDUS and PRG486GLUS Gas Ranges

2/27/2002
APB-03-02 CSA International, Wolf Range Co. Inc. and Wolf Appliance

Co. LLC Announce a Corrective Action Program To Repair Residential Gas Ranges

2/7/2002
APB-01-02 CSA International and Honeywell Consumer Products Inc. Announce Voluntary Recall of Moveable Baseboard Heaters

11/20/2001
APB-15-01 CSA International and Proctor-Silex Canada, Inc. Announce Voluntary Recall of Juice Extractor

11/8/2001
APB-14-01 Cisco Systems Inc. and CSA International Announce Recall of Power Adapters

10/31/2001
APB-13-01 CSA International and Compaq Announce a Voluntary Recall and Replacement of Select Notebook AC Adapters

10/18/2001
APB-11-01 CSA International and Maytag Corporation Announce a Corrective Action Program To Repair Amana Gas Ranges

10/18/2001
APB-12-01 Ryobi Technologies Inc. and CSA International Announce Corrective Action Program To Repair Circular Saws

8/23/2001
APB-10-01 Milwaukee Electric Tool Canada and CSA International Announce Voluntary Recall of Certain Impact Wrenches

For more information visit the CSA Group Web Site at www.csagroup.org/product_recalls.

Reader Response FaxBack

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I am an _____ IAEI Member _____ electrical regulator _____ gas regulator
_____ mechanical regulator _____ plumbing regulator _____ building official

I would like to receive an electronic PDF version of the newsletter rather than a printed copy.

IMPORTANT!

Please attach the address label from your Regulator's Update envelope here so we can match it with your record and have changes made efficiently.

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2. In the future, I would like to receive news from CSA's Corporate Audits and Investigations by e-mail. ____ Yes ____ No
3. My comments about Regulator's Update _____

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