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CONSENSUS

Canada's Standardization Magazine



**Contributing
to Society**

Dear CONSENSUS Readers,



As global citizens, as business owners, as parents and grandparents, we hope for a future that is brighter than the one we ourselves can envision. Standardization plays a huge role in securing that future.

From the air we breathe to the dwellings we build, standards affect our quality of life at every turn. So entrenched are standards in society that we don't give much thought to a world without them.

As Canadians, we all benefit from having a national standards system that works. It offers us a robust network of checks and balances.

Over the years, the Standards Council of Canada has written many articles that illustrate the value and benefits of standards and conformity assessment, and how these contribute to our every day lives. Included in this latest edition of the Magazine are a few more examples of the powerful impact of standardization on society.

An investment in standards is an investment in the health, safety and prosperity of our planet. The difference is measurable.



Peter Clark
Executive Director
Standards Council of Canada

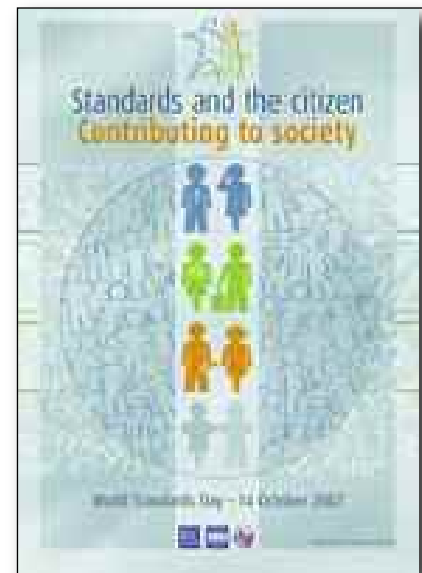
World Standards Day* 2007

In 2007, the international standardization community asks us to consider, a world without standards: “consider how difficult—or even dangerous—it would be to carry out ordinary, daily tasks”.

With this year's theme, “Standards and the Citizen: Contributing to Society”, we pay tribute to the role that standards and conformity assessment play in the economic development and social progress of the citizens of this planet.

Stories in CONSENSUS v.34 examine various emerging issues and concerns, including social responsibility, privacy, counterfeiting and other fraudulent behaviors, and they highlight just some of the many ways that our Canadian quality of life is protected and enhanced by standardization.

**October 14 is the day designated by the global community to recognize and celebrate the importance of standards and conformity assessment to our daily lives.*



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Standards Council of Canada
Conseil canadien des normes



The Standards Council is the federal Crown corporation with the mandate to promote efficient and effective voluntary standardization. It is the Canadian member of the International Organization for Standardization (ISO) and sponsor of the Canadian National Committee of the International Electrotechnical Commission (IEC).



We thank the members of the National Standards System for their support in the publication of CONSENSUS.

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The bottom line:

Social responsibility

a good investment

*Corrupt business practices.
Unethical sourcing.
Mass pollution. Lead in toys.*

Headlines trumpeting both the real and imagined bad behaviour of the global economy leap off the front pages of our newspapers and have acted as a clarion call for corporations, investors and consumers alike to change how business is conducted.

A few years ago, social responsibility and sustainable development were trendy ideas practiced by a select handful of companies. Today, they're forces that can affect a corporation's bottom line. Savvy investors, business partners and consumers demand products and services that have been ethically developed and produced.

Responding to this shift, the International Organization for Standardization (ISO) is developing a voluntary standard for social responsibility. The standard (ISO 26000), is slated to be published in November 2009. The objective is to produce a document, written in plain language, that is understandable and usable by non-specialists, and that provides guidance on concepts, definitions and evaluation methods for organizations interested in practicing social responsibility. The working group tasked to develop this standard is comprised of industry, government, labour, consumers, and non-governmental organizations from a wide range of countries.

From a risk point-of-view, a corporation that practices social responsibility is a better investment than one that doesn't, says Dr. Kernaghan Webb, a professor at Ryerson University, and a special advisor to the UN Global Compact on the ISO standard.

"The investment community is increasingly recognizing that companies that are reputable corporate citizens are good investments," he says. "If a company is

socially responsible, that typically means they have a good relationship with their workers, their business partners and their communities and are less likely to run into significant liabilities or problems. Implementing socially responsible behaviour is a good, proactive risk management practice that is appreciated by investors."

Social responsibility is not just the right thing to do—a check mark on the side of good corporate citizenship—it also makes solid business sense, according to Blair Feltmate, Director of Sustainable Development for Ontario Power Generation.

"It can provide a company with access to new markets," he says. "For instance, if you're a mining company and want to open a new operation, you'd better be able to walk into that community with a substantial sustainable development and environmental stewardship track record under your arm. If you don't have that kind of reputation, the probability of gaining a license for that facility is very limited."

Feltmate believes companies in trouble over a real or perceived issue will have a much easier time if they're known to be good corporate citizens. "If you've consistently been a responsible environmental and economic best-practices organization, the community, the regulators and the government are far more understanding than if you're a company that has always pushed the limits and done the bare minimum," he says.

"It's the cover-up that kills you," adds Feltmate, an advocate of full public disclosure. "You have to put it all out there, warts and all. The public is reasonably forgiving when you tell the truth about whether things are working out or not. It's much better than pretending something didn't happen."

Bob White, of BRI International Inc. and one of the members of the Canadian advisory committee providing input to the international standard, explains that because the new standard is intended as guidance rather than for certification purposes, it could revolutionize the way

relationships are built between an organization and its stakeholders including customers. “Many believe a certification program just encourages companies to do the bare minimum to satisfy the auditor rather than thinking about best practice,” he says. “With ISO 26000, the process for social responsibility will be so open and transparent that third-party certification will not be necessary.”

Developing nations are keen to meet a social responsibility standard that will help them grow in a

sustainable way, adds White. “It’s not a case of the West has had its turn and now they want theirs because they know they’ll pay a phenomenal price if they don’t embrace social responsibility.”

According to White, developing countries want a benchmark that provides a clear path to follow so that when it comes time to export their goods, they can meet global standards and expectations. He says, “a voluntary social responsibility standard is a win-win situation for everybody.” ■



Eco-printing *good for business*

For Warren’s Waterless Printing Inc., going green was a logical step for growing a business in a highly competitive market.

Warren’s became one of the first printers in Canada to achieve ISO 14001 certification, indicating compliance of their environmental management systems, in 1998. That same year, the company received the Environmental Choice Program’s Eco Logo, which helps consumers identify products and services that are friendly to the environment.

“We wanted to differentiate ourselves from everybody else,” says Glen Warren, the company’s manager. “At first it was purely a business decision but as time progressed, we realized what a difference waterless printing was making from an environmental standpoint. The more you learn about the environment, the more you want to make sure you’re doing the right thing.”

Warren estimates his company conserves 200,000 litres of water a year because of its waterless printing process. It has also virtually eliminated the company’s release into the atmosphere of certain volatile organic compounds that can contribute to smog and damage the ozone layer.

These actions have paid off. Warren believes they have made his company the first choice for clients that want an environmentally-friendly printing solution.

“Sixty per cent of our contracts are related to environmental awareness projects,” he says. “Ten years ago that figure was less than five per cent.”

The company’s commitment to social responsibility goes beyond its printing methods. Its factory is powered using clean, emission-free sources such as wind and low-impact water power instead of carbon-intensive sources. Warren’s also supports Doctors Without Borders, the World Wildlife Fund and the Nature Conservancy of Canada, as well as local grassroots organizations.

“Going green has definitely made a difference for us,” says Warren. “Consciously deciding to work in an environmentally sustaining way makes you look at how you can do so in your personal life too. It has been a very positive journey.” ■





REGULATION TO GROW CONFIDENCE IN ORGANICS

Buying up 50 per cent of Canadian organic grain exports, Europe is considered Canada's chief exporting customer in the industry. When the European Union revised its standards on organic products, and indicated that they would refuse all imported goods that didn't conform, a potentially devastating crisis threatened Canada's organic grain producers.

According to a 2004 Agriculture and Agri-Foods Canada report, if Europe stopped buying organic grains from Canada, it would mean a loss of about \$22.4 million per year for the Canadian organic exporting industry—\$20.1 million of that specific to organic grain exporters.

To help preserve this valuable arrangement, members of Canada's organic farming and processing industry turned to the federal government.

The results will soon be felt by all Canadian organic

food producers when the Organic Products Regulations, which harmonize Canada's organic food standards with international standards, take effect.

The regulations are an annex to the Canada Agricultural Products Act. Ratified in late 2006, after three years of consultative talks led by the Canadian Food Inspection Agency (CFIA), the regulations require that organic producers adhere to criteria specified in the Canadian General Standards Board's (CGSB) national standards for organic products: Organic Production Systems, general principles and management standards (CAN/CGSB-32.310-2006); and with the corresponding list of organic substances permitted during production (CAN/CGSB-33.311-2006). The two-year phase-in period for the regulations ends on December 14, 2008.

Michel Saumur, the acting national manager of the Canadian Organics Office at CFIA, says some in the industry were concerned that producers were calling their products "certified organic" without adhering to the proper criteria. He believes this concern also played a part in developing regulations for organically-grown and processed products.

"The industry itself approached government to set up a regulatory system," Saumur says. "Consumers were saying they felt they weren't protected enough against

fraudulent and misleading organic claims and they didn't understand what organic was. The industry felt the market was not a level playing field."

The regulations are expected to aid in consumer identification of organic products through labelling and common language. The related aim of the organic production systems standards is to protect consumers against deception and fraud in the marketplace and unsubstantiated product claims.

Additional aims of the standards are to protect producers of organic products against unsubstantiated claims or misrepresentation of other organic agricultural products as being organic, and to ensure all stages of production, preparation, storage, transportation and marketing are subject to inspection and comply with the national requirements.

Because the CGSB standards are harmonized with international standards, the market for organic farmers, including those exporting organic grain, can be protected.

Saumur says Canada is working with trading partners to ensure compliance with Canadian requirements. He expects that those discussions will be complete by the time the regulations take effect.

Laura Telford, executive director of the Canadian Organics Growers, says industry hopes exports of Canadian organic food will increase once the new regulations are fully in place. Telford believes European Union countries won't be able to keep pace with the demand for organic ingredients in processed foods, thus creating an opportunity for Canadian producers.

However, she goes on to explain that imports may be affected when countries realize they need to meet Canada's requirements in order to label products 'Canada Organic.'

Telford says farmers outside of Canada will have to meet the Canadian standard if they want their product to carry this label. Farmers who ship product around the globe may have specific fields with different crop practices to meet different international organic standards.

She says the regulation is worth the effort, as she expects it will mean consumers will know what they are purchasing when they choose to buy organic products.

"It will instill more confidence among consumers," she says. That was one of the main reasons why this regulation was put in place: to ensure increased consumer confidence in organic products." ■



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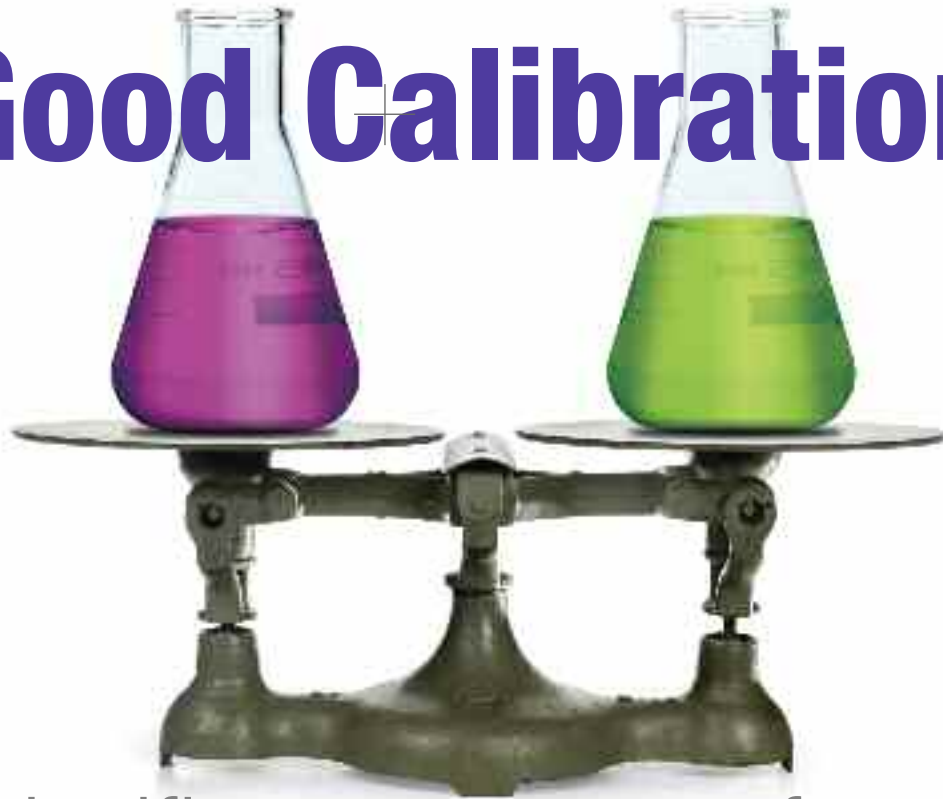
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Canada



Good Calibrations



a significant measure of quality

In conversation with Kelly Huckabone (MLT, ASQ CQIA) of the Fisher Scientific Instrument Service Group

When most Canadians reach for a glass of tap water, or get the results of their latest blood test, they don't usually give much thought to the laboratory equipment that was used to test those substances. When all goes well, we don't need to spend much time thinking about the instrumentation, or whether it was calibrated according to appropriate standards so as to provide consistent results. Individuals like Kelly Huckabone, and the Quality Team of Fisher Scientific's Instrument Service Group (Fisher Service), make it possible for us to take these small but significant measurements for granted.

"Making a small difference in the world, whether through volunteering, donating to a charity, or working in a career where you are able to help people, can provide tremendous satisfaction," says Huckabone. As Quality Manager of the Fisher Service calibration program, Huckabone provides quality support to a national network of service technicians who perform very specialized calibrations of laboratory equipment.

Accredited under SCC/CLAS, a partnership between the Standards Council of Canada (SCC)'s Program for Accreditation of Laboratories Canada (or PALCAN) and the Calibration Laboratory Assessment Service (CLAS) of

the National Research Council, Fisher Scientific offers calibration services to laboratories whose critical test results contribute to the health and safety of our society on a daily basis.

Fisher Service's typical customer base includes pharmaceutical companies, health care laboratories, and various other testing facilities. Most of their customers perform a range of tests, including such things as analysis of water for safe drinking, and checking soil for contamination. Some of their health care customers use calibrated equipment in testing for disease markers. Fisher Scientific offers service in 10 fields of calibration, including balances, voltage (pH), timer, temperature, centrifuge (RPM), volume, spectrophotometers, density, weights (mass metrology), and pipettes.

"Customers seek the services of an accredited organization for a variety of reasons, including compliance requirements, results that are traceable to specific standards, and the desire to have high-quality calibrations," explains Huckabone. Under the SCC/CLAS program, qualified laboratories are granted accreditation to the international standard (ISO/IEC 17025), which outlines general requirements for the competence of testing and calibration laboratories.

Within government, Huckabone has noted a change in the application of standards and regulations. "With more and more industries becoming regulated, and



subject to the shifting conditions of trade within a global economy, we anticipate that the number of requests for ISO/IEC calibrations will increase,” says Huckabone.

“Health Canada, the FDA and other levels of the provincial/federal government heavily regulate these customers and require calibration reports that show the equipment is operating under optimum conditions and thus yielding valid test results.”

The equipment being calibrated is often used to conduct water and food testing, in drug manufacturing, or for medical screenings. By adhering to ISO/IEC 17025 and using equipment calibration reports that can be reviewed during external audits, Fisher Scientific is able to provide assurance that laboratories are issuing accurate and reliable results. “Given the critical nature of the required results,” explains Huckabone, “users of these services, want assurance that the recorded results are correct and free of any errors.”

In January 2007, Fisher’s metrology laboratory became the first in Canada to be accredited by SCC/CLAS to perform ISO/IEC 17025 calibrations of pipettes, instruments that are used to measure or transfer

precise volumes of liquid. Fisher Service then went on to apply for group accreditation for three separate calibration groups and to successfully amalgamate these into a centralized calibration service. Theirs is the first group accreditation to be granted in Canada under the SCC/CLAS partnership. “This achievement has allowed us more flexibility to better serve our customers while offering us time and cost savings. We were able to consolidate our audits as part of the group accreditation.”

In addition to the benefits that Fisher Scientific has experienced, Huckabone can’t say enough about the value to their customers of ISO/IEC 17025. “We look forward to maintaining our relationship with SCC and CLAS because it allows us to continue to serve science in a manner that will make a difference to society.”

Next time you take a drink of tap water, or visit your local medical laboratory for a routine blood test, consider what would happen if those same tests were performed using equipment that wasn’t calibrated properly. The measurements may be small, but the difference they make is of significant consequence. ■

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Awareness and Action in the Fight against Fakes

“Counterfeiting has an enormous negative impact on the economy, the health and welfare of citizens and many aspects of our society,” says Doug Geralde, CSA Group’s director of corporate audits and investigations, and Chair of the Canadian Anti-counterfeiting Network (CACN).

“Evidence from international law-enforcement indicates the sale of counterfeits is funding organized crime,” Geralde adds. Counterfeiting costs honest citizens their jobs; steals hundreds of millions of dollars in unpaid taxes and robs Canadians of funding for education, healthcare and employment. Perhaps most importantly, counterfeit items present a real danger to people’s lives which is why the CACN and RCMP are among the growing number of organizations actively encouraging

Canadians to take action by “buying the real thing”.

According to Geralde, recognizing that knock-offs are no longer limited to flea markets and bargain retailers but are now entering the mainstream marketplace, is necessary to solving the problem. He says counterfeiters know very well how to get fakes into supply chains.

“They know what’s being short-shipped,” he says. “The counterfeiters find out what’s a hot seller at Christmas -- out of 40 new toys, there’s always one or two that catch the public’s eye. Counterfeiters start to do knockoffs.”

Warren MacInnis, a former RCMP officer who is now the criminal enforcement manager for Underwriters Laboratories (UL)’s anti-counterfeiting operations, has seen first-hand how the creation and sale of counterfeit products has gone from petty crime to big business. He says investigators are now discovering a much wider range of counterfeit products across Canada in larger retail chains, everything from power bars and extension cords,

to brake pads, prescription drugs and airplane parts.

“Particularly alarming are items bearing forged safety certification marks and counterfeit products that present serious health and safety risks such as pharmaceuticals, consumables, and personal-care products,” MacInnis says. “These potentially hazardous goods are increasingly finding their way into the national distribution system, onto the shelves of large retailers, and into the homes of Canadians.”

Curbing the sale of counterfeit products, especially those that bear fake certification marks, is of particular importance to Canada’s national standards system; the reputation of all of its members depends upon it. On behalf of the national system, the Standards Council of Canada (SCC)’s Consumer and Public Interest Committee (CPIC) has established a consumer-product safety task force with the mandate to examine and make recommendations on various issues relating to counterfeit products.

“Our concern is to protect the public when something goes wrong,” says Dr. Betty Crown, a member of the task force. “If the products are certified, the problem is ‘what can the certifying body do about it?’ We are considering recommendations to improve the reactions and effectiveness of participants in the national standards system.”

According to Crown, the committee has looked at case studies provided by certification bodies in Canada. It has developed a list of issues dealing with communication between regulatory and certification bodies, and is taking into account the extent to which consumers are included.

The task force expects to have a draft report and recommendations to CPIC by early 2008.

Rae Dulmage, Director of Underwriters Laboratories Canada (ULC)’s standards department and government relations office, emphasizes the importance of understanding the product-safety issues associated with counterfeiting, and on communicating those issues within the national system. “When members of the task force go to other committee meetings, they talk about it,” he says.

In March 2007, the SCC-sponsored Canadian national committee of the International Electrotechnical Commission (CNC-IEC), along with the Canadian Standards Association (CSA) and ULC, presented a white paper “Report on Counterfeiting and Piracy in Canada: A Roadmap for Change” to the Parliamentary standing committee on industry, science and technology. The report includes several recommendations for legislative changes that will enable detection along the supply chain, and enforcement of penalties.

Anti-counterfeiting projects, such as CPIC’s and the

CNC-IEC’s, are cropping up as more cases of substandard products and counterfeit merchandise are being discovered and recalled.

Andris Zarins, the national intellectual property rights crime coordinator for the RCMP, also believes fraudulent certification marks are one of the main threats to consumer safety. While Zarins acknowledges that counterfeit products cause numerous problems for legitimate manufacturers, including increased production costs, loss of customer confidence and supplier business, he considers the most acute problem to be the health and safety risk to consumers. “Consumers seek products that are safe because they have the CSA or UL certification mark,” he says.

There remains some debate among stakeholders as to whether the music industry hype over tainted products from China is raising attention or obscuring the important issues, however all parties are working hard to raise awareness, cooperate with police and border officials, and put their own people on the ground at home and abroad to investigate and prosecute criminals.

For its part, CSA hired an anti-counterfeiting specialist to join its international China operations some time ago, and nationally has announced the addition of a former police officer on staff as Manager of Counterfeit Intelligence.

In June of 2007, UL in partnership with the RCMP and Interpol, co-hosted an international conference on the topic. It has trained approximately 2,000 U.S., Canadian Customs, and RCMP officials on how to identify counterfeit marks.

In addition, the Canadian federal government awaits results of two standing-committee inquiries: one on the threat posed to public safety by counterfeit products, and the other on the impact of counterfeiting and piracy to industry. These committees recommend increased financial resources, and more power for governments, border officials, and prosecutors to bring counterfeiters to justice.

There has also been an increase in educating consumers about the dangers of counterfeit products and fake certification marks. One example of this is the poster campaign put out by the CACN and the RCMP, which promotes the reasons for vigilance when it come to buying knockoffs or too-cheap products of dubious origin, and offers consumers practical advice on how to spot fakes.

While these measures are helping in the battle against counterfeits, more needs to be done if the war is to be won.

“If we don’t act and move on it now, it could jeopardize the entire safety network,” says Geralde. ■





Everyday accessibility made easier

Going to the corner store, making a business call, and surfing the Internet are all relatively ordinary, everyday tasks. But when the door is too narrow for your wheelchair, the business doesn't have a teletypewriter or your screen reader can't convert the text from their website, your ability to access the same services as your neighbour is severely limited.

Anyone who has ever pushed a stroller up a ramp has benefited from enhanced accessibility without even knowing it. For a person with a mobility challenge, the stairs can be a crippling barrier to their everyday quality of life.

The severity of the obstacle aside, the Government of Ontario believes enhanced accessibility is key to making life easier for all Ontarians. By developing, implementing and enforcing accessibility standards, the Ontario Ministry of Community Services intends to make the province fully accessible by 2025.

"It has been a real catalyst for change," says Scot Weeres, the director of standards development and compliance for the Accessibility Directorate of Ontario, when asked about the 2005 Accessibility for Ontarians

with Disabilities Act (AODA). To remove barriers, the regulations consider the needs of persons with physical, mental health, sensory, learning and developmental disabilities.

The use of a standards-based approach to developing regulations is unique to this ministry. "It's the first time I'm aware of where a jurisdiction has married the approach of standards development with the regulatory tools available to government," explains Weeres.

Persons living with disabilities, as well as representatives from government, affected industries and organizations, have been invited to share their knowledge and expertise. Weeres believes that enabling a range of informed citizens to provide input is not only valuable, "it yields a more democratic, efficient and effective result."

“The standards process always forces you to ask, ‘How do we improve?’” says Issie Lyon, the manager of special projects for the Province of Ontario’s Ministry of Economic Development and Trade.

“I see this exercise, as hopefully, a very good example of how the standards process can help government come up with better regulation,” Lyon says. “Governments are always looking at streamlining regulations, making them more relevant, easy to understand and easy to deal with.”

Customer service is among the areas being addressed as part of the AODA. The committee that worked on the customer service standards offers some insight into how the process generally works. Initially, group dynamics posed a challenge for the 28 people representing the different sectors that needed to be heard. Many were unfamiliar with the standards development process. Achieving consensus was not easy but because everyone shared a common goal, the proposed standard was one they were able to support.

“There was an incredible level of commitment from everyone,” says Dr. Judith Sandys, chair of the customer service committee. “There was a realization that what we were doing was very important.”

The general public also had an opportunity to review

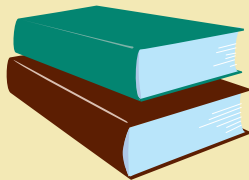
and comment on the proposed customer service standard. Using this feedback, the customer service committee prepared a final version and submitted it to the Minister of Community and Social Services.

“Most of the committee’s perspectives and recommendations withstood scrutiny by the government,” adds Weeres. “The process provided a range of stakeholders with an opportunity to have a real impact on the eventual nature and scope of the regulation.”

As part of the Ministry’s plan, separate committees will address topics including, built-environment, employment, transportation, and information and communications by following a similar standards-based process to developing regulations.

To ensure that it continues to meet society’s needs, this legislation has a continuous improvement loop built into it: each regulation will be reviewed every five years between now and 2025.

Of the impact of the AODA and the standards development process, Lyon says, “If you make things easier for persons with disabilities or the elderly, it makes things better for everybody. We’re talking about people’s quality of life. That’s what we’re trying to improve.” ■



Some definitions of commonly-used terms, in the world of standardization

Consensus: general agreement, characterized by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments. (Consensus need not imply unanimity.)

Standard: a document, established by consensus and approved by a recognized body that provides for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at achievement of the optimum degree of order in a given context.

Regulation: a document providing binding legislative rules that is adopted by an authority.

Regulator: any federal, provincial, municipal or other government body, or body/authority designated by a government responsible for regulating the acceptability, manufacture, sale or use of the subject products, materials or services and those enforcing these rules and regulations.

Standards Development Committee: a committee responsible for developing, approving, and maintaining the technical content of a draft or published standard in accordance with the policies and procedures of the standards development organization. ■

A complete list of standardization terms, “Acronyms and Glossary”, is available at www.scc.ca.



A standard for compostable plastic: It's in the bag



You may find one littered along the highway, caught in the branches of a majestic Oak or stuffed into the back of a kitchen cupboard. The lowly plastic bag is often the subject of public scrutiny.

According to Don Jardine, director of pollution prevention with Prince Edward Island's, Department of Environment, Energy and Forestry, even those plastic bags that manufacturers claim are biodegradable can take years to decompose at composting sites or landfills. When you consider the more than 13.5 million households in Canada*, with possible cupboards full of plastic bags, the challenge for provincial and municipal governments is an obvious one.

"Companies are using their own standards," Jardine explains. "It may say biodegrade, even if it takes 15 years." In order to ensure conformity within the industry, there needs to be agreement on the definition, acceptable timeframe and other requirements for compostable plastic. The existence of a commonly accepted standard is the first step to being able to verify conformity to that standard. "We're trying to resolve that, so when a consumer buys a biodegradable or compostable bag, it has passed the testing requirement," adds Jardine.

The work started a year-and-a half ago. Recyc-Québec wanted a process to certify the compostability of plastic bags and to make it easier to distinguish those bags from others on the market.

"Some producers were declaring that their plastics were compostable or biodegradable," says Sylvain Allard, Standard Developer, Bureau de normalisation du Québec (BNQ). "Recyc-Québec asked (us) for a program to identify only those bags that are really compostable."

The Composting Council of Canada was also invited to take part. With the intent of developing a national program for compostable bags, a comprehensive group of stakeholders, including people in the plastics, grocery distributing and environmental industries, was brought together.

A certification program was developed based on the international draft standard (ISO/FDIS 17088). Existing research and information was used, in combination with the international document, to create a workable certification program for Canada.

"A lot of the discussion was around the fact that if a bag is going to be compostable, it has to fit within the principles of composting and the end product: compost. One of the key considerations was the national Canadian standard on compost and the reality of a composting process," says Susan Antler, Executive Director of The Composting Council of Canada. While composting may eventually happen, the timeframe becomes the critical factor. "A bag might be able to compost within three years but that doesn't cut it for the parameters we discussed," she adds.

Even after the program launches, the Composting Council of Canada and BNQ recognize the need to continue to collaborate in marketing and education about certification.

The certification program applies to plastic bags made from different types of plastics that may be, for example, from fossil or non-fossil resources. It is expected that some companies will need to make only subtle, if any, changes. For others, significant changes will be required.

Christian Tardif, Responsable d'Activité for BNQ expects this program to be well accepted by the public. "This is a third-party certification that will be recognized within the National Standards System by the Standards Council of Canada," says Tardif.

A certification mark will help clearly identify plastic bags as meeting the requirements of the program, making things easier for both consumers and those working in composting sites. Proof of conformity to the compostable plastic standards will be right on the bag. ■

*Statistics Canada, Population and Dwelling Counts, for Canada, Provinces and Territories, 2001 and 1996 Censuses

BUILDING *'green'* MOMENTUM IN CANADA



Rising over Winnipeg's cityscape is an ambitious project: a building that is reshaping not only the city's skyline, but also our perception of the structure's role relative to its environment. In building its new headquarters, Manitoba Hydro has undertaken to erect one of the most energy-efficient structures in Canada.

Set for completion in the spring of 2008, the office building is designed to use sunlight, wind and ground-source water for heating, cooling and ventilation. The design includes a double facade to buffer against Winnipeg's frigid winter winds and scorching summer sun. Manitoba Hydro expects their new offices to employ 60 per cent less energy as compared to the Model National Energy Code for Buildings, by utilizing natural light, solar and wind energy, insulating materials, as well as energy-efficient light systems, pumps and drives.

According to Jeff Morrison, director of environment at the Canadian Construction Association, the project is an example of a construction movement that is growing rapidly across the country. He says the move towards green buildings has exploded in the past five years as people become more concerned about the effect their everyday

lives have on the environment. "I've heard one contractor describe the movement to green building as bigger than the safety movement the industry went through about 40 years ago," Morrison says.

Given the figures put out by the Canadian Green Building Council, it is not surprising that many people are starting to see buildings as an ideal place to focus their conservation concerns. The Council reports that buildings, both residential and industrial, make up about 38 per cent of Canada's secondary energy use, and produce about 30 per cent of Canada's total greenhouse gas emissions.

Green buildings are those that incorporate construction principles that reduce the negative impact of buildings on the environment and on the people who use them. For a building to be considered green, it must be designed so as to: expend less energy and water; apply alternative sources of energy, and materials that can be reused or recycled, and feature better indoor air quality. Building in an area that isn't particularly ecologically sensitive, and protecting water sources are also considered green principles.

The International Organization for Standardization (ISO) has long been involved in the movement towards building green. Among the international technical committees working on related topics is one (ISO/TC59) dedicated exclusively to building construction. Standards developed by that committee include one that outlines



building sustainability indicators (ISO/TS 21929-1:2006), and another that outlines what aspects should be used when determining the level of a building's environmental sustainability (ISO/TS 21931:2006).

The latter was developed to be used alongside ISO's environmental management systems standards (the ISO 14000 series). These standards are geared towards helping organizations reduce their negative effect on the environment.

Canadian Michel Bourassa is the convener of an ad-hoc group under ISO's Technical Management Board, which is developing terms of reference for a potential strategic advisory group on the topic of sustainability. He says there are also various committees working on individual building-related standards that include environmental provisions.

One such committee (ISO/TC205) is developing a standard to address the design of new buildings, and the retrofit of existing buildings for energy conservation, efficiency and acceptable indoor environment.

Another (ISO/TC163), of which Canada is a participating member, is looking at thermal performance, and energy use in buildings. It is developing tools that can be used to design and construct or retrofit buildings to

reduce their energy consumption.

Energy conservation is part of the scope of yet another technical committee's work on doors and windows (ISO/TC162).

The committee that is working to develop international standards on refrigeration and air-conditioning (ISO/TC86) also supports the green building movement. Its mandate includes limiting energy consumption and refrigerant release.

"All of these are contributing their significant bit to sustainability," says Bourassa. "And every little bit helps."

The fact that most standards are geared towards energy efficiency doesn't come as a surprise to those who work in the building industry.

"The biggest shift we've seen in sustainable building practices come from the desire to make buildings more energy-efficient," Morrison says. "There are more energy-efficient technologies being used in the designs."

For example, he says, instead of 60-watt lightbulbs, builders are using more compact fluorescent lights to save energy, and using energy-efficient heating, ventilation and air-conditioning systems.

Morrison says as new technology becomes available, he's seeing the introduction of more ways to reduce

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reliance on fossil-fuel energy sources built into structures, such as building-specific wind- and solar-energy converters.

“There’s just been an explosion of interest in technologies that will help buildings use less power,” Morrison says.

Peter Love, the Chief Energy Conservation Officer of the Ontario Power Authority, says standards play a valuable part in the green building movement. He explains that as concerns over climate change and energy supplies grow, governments are paying more attention to lowering their energy use and greenhouse-gas emissions. Many governments—such as those in Ontario, New Brunswick, Quebec and Manitoba—have already included mandates for sustainable building practices for public structures in their energy policies.

Love says governments are able to do this because existing standards have shown it is possible to reduce energy-use in buildings.

“Regulatory programs are possible because of the standards,” Love says. “It’s possible for governments to say they are going to have buildings that meet certain energy-efficiency levels because they know that thousands of buildings have already been built to those standards.”

There are still some challenges facing builders when it comes to constructing structures with a green theme. One key challenge, says Love, is the cost of building a green structure.

“It’s more expensive, there’s no doubt about it,” says Love. “But with reduced operating costs, the lifetime costs of the house are much lower.”

He says developers typically want to build as cost-efficiently as possible, and to create as much physical space as they can with whatever funding is available. The developer then passes the operating expenses, including what it costs to heat the structure and keep it lit, on to the building’s occupant.

However, he expects this to change as the momentum of the green building movement grows. “Nobody wants to be at the back of the pack,” he says. “And as more companies start building energy-efficiency into their designs, more people will start jumping on board.”

For Manitoba Hydro, a proponent of reduced power consumption, its green headquarters is a matter of practicing what it preaches.

“Our new building will be a world-class model of energy-efficiency and sustainability,” says Bill Henderson, the company’s senior communications advisor. “It’s a practical demonstration of our commitment to those principles. ■

Deconstruction without destruction

Contributing to sustainability

As efforts to reduce the environmental impact of building construction gain momentum, attention is often largely focused on energy efficiency. Related considerations such as building site planning, water efficiency, material recycling and indoor-air quality can also make a significant contribution to its sustainability.

A Canadian technical committee is in the process of developing two standards that will help meet another important sustainable building goal: conserving materials and resources.

“We hear a lot about sustainability in terms of the building’s performance,” says Michael Clapham, a Natural Resources Canada employee, and member of that technical committee. Clapham delivered a presentation based on the committee’s work on disassembly and adaptability in building design, in Washington, D.C., at the first Symposium on Common Ground, Consensus Building and Continual Improvement.

“The goal is to increase the sustainability of the materials used in the building. It’s all part of the three Rs (reduce, reuse, recycle) hierarchy of sustainability: how can we make it easier to reuse materials, and how do we make it easier to recycle or replace materials after they’ve reached the end of their life,” Clapham explains.

One of the proposed standards (CSA-Z782-06) will offer guidance on how to build structures that can be taken apart without destroying their individual parts.

“We want to get companies thinking about these concepts,” he says. Members of the technical committee are now recruiting engineering and architecture companies to test the guidelines for practicality.

The second standard deals with taking apart existing structures in such a way as to preserve the materials for reuse, and when that isn’t possible, preserving the energy embedded in the materials through recycling.

“We’re still in the early days of this,” says Clapham. “Currently we’re doing a literature search to find out what’s already been done so we do not reinvent the wheel.” As the demand increases for greener building practices, Clapham says he expects the technical committee to consider creating more standards in order to meet sustainability goals.

“The performance of the building is just one aspect of sustainability,” he adds. “We’re looking at how to reduce the environmental impact of the building and economically reuse or recycle the materials at end-of-life.” ■





Patient safety

SECURED BY MANAGEMENT STANDARDS

It's a health crisis every medical professional fears: due to an improper sterilizing procedure, within a one-month period, seven patients in a Vegreville, Alberta hospital caught an antibiotic-resistant bacterial infection. Health officials decided to temporarily close the 25-bed facility. Former patients from as far back as April 2003 were notified that they should be tested for hepatitis B and C, as well as HIV.

A subsequent report by the Alberta Health Quality Council found management deficiencies not only at the sterilization unit, but also at the hospital and the regional health authority. The council recommended, among other things, that sterilization procedures be standardized.

The incident underlines the many challenges faced by Canada's healthcare system as it grapples with chronic under-funding, high operating costs, long waiting lists, and the very real threat of pandemics and superbugs.

To meet those challenges, health networks are looking for better ways to manage their businesses – with the ultimate goal of providing better service to their patients.

One such network is the Fraser Health Authority, in British Columbia's Lower Mainland. In October 2006, Fraser Health's sterile processing department (SPD) received ISO 9001:2000 certification.

The international standard for quality management, ISO 9001:2000, is used worldwide by industries ranging from oil and gas to electronics. It provides a framework to improve management systems by setting goals and targets, evaluating processes and measuring performance.

According to Sheila Konishi, director of Fraser

Health's SPD, the journey to ISO certification took time. In 2002, Konishi had to co-ordinate operations among the 10 SPD units in the authority's 12 acute-care hospitals. The department later hired a consultant, in 2004, to assess its operations. Although the SPD was meeting certain technical standards, the consultant saw room for improvement on the management side.

"Our documentation was our weakest link," says Konishi. The SPD's policies and procedures, work instructions (for sterilizing instruments and setting up instrument cases), and record-keeping all required updating and standardization.

Konishi admits the process was not easy. "The expectations for document control and the process of documentation required to meet the ISO standard are very stringent. The SPD team of managers worked together to get this done, while carrying their regular workload."

The department hired QMI, a management systems certification body accredited by the Standards Council of Canada, to conduct the certification audit. In a pre-audit assessment, the certification body found another deficiency in SPD management.

“We didn’t have an internal partnership agreement with other departments – plant services, or purchasing or logistics,” Konishi says. ISO 9001:2000 requires that a department have quality-control management over any work supplied by other departments. That meant the SPD needed documentation about any work provided by plant services (from maintenance reports to equipment manuals) and by the purchasing and logistics departments.

Looking back at the 18-month process of becoming certified, Konishi says, “It was a lot of work, but it is absolutely worthwhile. The present SPD management system is far better than it was. Not only are we providing a better level of service, but we track our service in a way that we had never done before. We manage our system in a proactive way. We can anticipate, plan and identify not just service failures, but potential service failures. And we can prevent those service failures because of the way we track trends.”

There are material benefits to the process, Konishi says. “It’s very difficult at times to turn the instruments around through reprocessing and get them back into service quickly, efficiently and effectively. We invested quite a lot of money in increasing inventory so that we can be efficient in turning over instruments and not delay surgeries.”

After the SPD received ISO certification, Konishi got queries from other sterile processing departments in British Columbia and Alberta. “They were admiring, supportive, but also daunted by the prospect of obtaining certification to ISO 9001. They wanted to know what was involved, how much work it was.”

In response to the interest, Konishi and Jill Sporidis, product manager for healthcare at QMI, produced a “webinar” to explain the ISO 9001 certification process.

Sporidis is emphatic that the greatest benefit of ISO 9001:2000 certification is the cost savings. “The healthcare industry is screaming for something to help it become more efficient. Top decision-makers are concerned about the bottom line. Implementation of these standards is not a cost, but an investment.”

Sporidis says the management system standard does more than improve the bottom line. It also improves patient safety and satisfaction. “Really forward-thinking and visionary boards and CEOs understand that by process mapping and concentrating on improving processes, they will end up with top-notch patient satisfaction. They will significantly reduce errors in diagnosis and treatment, they’ll reduce waste and, overall, they’ll make their process more efficient.” ■



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The awards will be presented at a ceremony to be held on June 3, 2008 in St. John's, Newfoundland & Labrador, as part of the 3rd National Standards System (NSS) Conference.

For more information, including award details, the nomination process and eligibility criteria, visit the Participate section of the SCC website at www.scc.ca.

Canada



'Smart' cards chipping away at fraud



Withdrawing money from your local bank's ATM machine should take a matter of minutes. The last thing you want when you push the withdrawal button is for the screen to flash back 'insufficient funds'. Your bank balance is at zero or overdrawn and your account frozen. Years of hard-earned savings are gone and reality sinks in: you have just become the latest victim of fraud.

The RCMP reports that debit and credit card fraud is becoming more common. In 2005, banks and Canadians lost more than \$126 million from counterfeit cards alone. The risk of fraud, however, has not curbed Canadians from embracing debit card technology.

The Bank of International Settlements reports that the number of debit card payments for products and services in Canada grew to 3.3 billion transactions in 2006, from about 2.4 billion in 2002.

The RCMP points to organized crime as being the primary force behind the creation and use of fake debit cards. Criminals use machinery that copies or "skims" information from the magnetic strip on the back of debit and credit cards and records the personal identification number (PIN) of the individual making the transaction. The criminals can then create counterfeit cards that allow them to drain their victims' bank accounts or rack up a mountain of debt.

"Bank cards are very safe," says Tina Romano, the communications manager for the Interac Association, Canada's largest debit card service. "Of the close to four billion transactions we saw last year, 99.9 per cent of them

were problem-free. But the possibility of copying them is there, even though it's very small."

While banks and card companies will ultimately cover the losses, it can be months of legal wrangling for the victims as they work to prove they were the victims of fraud. In some cases, victims' financial credit is damaged long-term.

Starting in the fall of 2007, Interac and the major credit card companies will have another weapon in their arsenal to help curb identity theft and counterfeit card use.

After completing a market-trial period in Kitchener-Waterloo, Ontario—Interac, MasterCard Canada Inc. and Visa Canada Association will launch the use of debit and credit "smart" cards that feature an embedded EMV chip.

The EMV stands for Europay, Mastercard and Visa, the chip's industrial developers whose intent is to enhance the security of bank and credit cards. Because the chip is more difficult to duplicate than the existing magnetic stripe technology, it helps protect consumers against fraud stemming from debit-card skimming and credit-card theft.

Since their introduction in France, in 1984, over 45 countries have adopted and are using the technology, including the United Kingdom, Brazil, Australia, Japan, and Russia.

On the front of the latest cards, cardholders will see a metallic chip. This chip will act as an added measure of security. The cards will function much like existing cards, except that instead of swiping, cardholders will leave their card in the reader during the transaction.

The Interac Association plans to discontinue the use of magnetic-strip cards at Canadian bank machines by the end of 2012, and at direct-payment or debit services by the end of 2015.

Though EMV is an industry standard, its developers created it based on specifications set out in the international standard (ISO 7816), which the International Organization for Standardization developed in 1998.

ISO 7816 sets out the physical characteristics of integrated chips in identification cards, such as power requirements and how information is stored and accessed.

Catherine Johnston is the chair of the Canadian advisory committee to JTC1/SC17, the technical committee that deals with cards and personal identification. She says the information stored on EMV chip-enhanced cards will be vastly more secure than what is stored on the cards' magnetic strips.

"In terms of security, the chip is like a mainframe computer, rather than like a desktop computer," she says. "Usually, if someone has physical access to a desktop computer, that person can access the information stored on it quite easily. But with these chips, like mainframes, even though a person has physical access to them, that isn't enough to access the information; the person has to do everything the security measures require to gain access to the information."

Johnston says the chip-enhanced cards are "much more counterfeit- and tamper-resistant," which should cut down on the amount of identity fraud that stems from stealing information stored on bank and credit cards.

The use of smart cards has already led to a reduction in identity fraud-related crime in other parts of the world, says Judi Levita, the manager of media relations for Royal Bank of Canada, which has been issuing chip-embedded cards to its Avion credit card customers since 2003.

She says the company made the chip-enabled cards available before the chip readers were used in Canada because the bank wanted to provide its customers with the extra security of the technology while they traveled to other countries.

"It's a technology that allows for highly secure transactions because the chip verifies both the card and the cardholder. It's a way we can offer our clients better protection in terms of their financial information," Levita says, noting that Europe has already seen a significant decline in card-related fraud since it started using the chip technology.

If Canada sees the same reduction in bank card-related theft, its effects will be felt by all of society, says Johnston.


"If the cards in our wallets are safer, that means we're cutting down on the funds that are reaching organized crime," she says. "If we make it more difficult to take part in this sort of crime, then it's less attractive for criminals." ■

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Safety and Accessibility:

More than Child's Play

When the mother of a five-year-old girl confined to a wheelchair took her daughter to a playground in Edmonton, Alberta, her daughter's first reaction was, "I can't do this."

Her daughter did not realize that the playground in front of her was actually an accessible playground, one of several that are now a part of Edmonton city policy. In answer to her daughter's reluctance, her mother replied, "Yes you can, it was designed for you."

Kim Sanderson, an employee with the City of Edmonton in Research and Innovation, Community Services, recounts this story proudly. He and his department were key in persuading the city to make all playgrounds accessible to children with disabilities.

"[Edmonton] has made it policy so that every space must adhere to an accessibility code," says Sanderson.

Sanderson won't soon forget the gratitude of the mother whose daughter now regularly uses Edmonton's accessible playgrounds. She told him, "You have no idea what this means to me as a parent." Sanderson is now working with the mother, in her hometown of Beaverlodge, Alberta, a small town with a population of less than 2,500 people, to make accessible playgrounds a

reality there too.

Getting the community on board to make all public play areas accessible was not a walk in the park. Initially, Sanderson and his department experienced some resistance when they proposed extending accessibility to public playground equipment.

"It wasn't seen as a priority," says Sanderson. "There were a lot of misconceptions. People assume accessibility has too many extra costs associated with it and some thought the play value would be diminished."

Since then, accessibility in Edmonton has come a long way. January 2008 will mark two years since the city made it policy to include the special needs of disabled children into the design of every new and upgraded playground.

Initially, Edmonton's accessible playspace policy was largely derived from a similar one in the United States. Edmonton then harmonized its code with a standard developed by a Canadian Standards Association (CSA)

technical committee. Sanderson also participated on the committee that developed the standard called *Children's Playspaces and Equipment* (CAN/CSA-Z614).

The standard, which was first published in 1990, was recognized as the national standard on playground safety by the Standards Council of Canada in 1998.

In 2007, CSA released the fourth edition of the playspace safety standard, which includes an informative annex on making playgrounds more accessible to children and even to caregivers who themselves have a disability but have able-bodied children. The standard is intended for children aged 18 months to 12 years, and provides guidelines for public playgrounds such as the ones found in daycares, schools and parks.

Rebecca Nesdale-Tucker, Manager of Public Policy and Advocacy of Safe Kids Canada, says the disability guidelines are important, not because there is evidence suggesting that children with disabilities are necessarily at more risk for playground injuries, but because playgrounds should appeal to all children. "We want to make sure that everyone not only has a place to play, but a safe one, to prevent new disabilities from happening," she says.

A report funded by Human Resources and Social Development and conducted by Statistics Canada, called *Disability in Canada: a 2001 Profile*, reports that among children who have a disability, the majority are of school age, between the ages of five and 14. This means that 154,720 Canadian school-aged children (or four per cent of that age group) have a disability.

A disabled child faces several obstacles if he or she wishes to play on a playground that is not accessible. If play equipment is placed in a "sea of sand," as Sanderson calls it, a child who needs a wheelchair has great difficulty just reaching the play equipment. Even if ramps are connected to the play equipment, says Sanderson, the child still has limited use of the equipment. He or she might only be able to reach the first platform, which is usually only intended to be a transfer point to other levels of the play equipment and contains no actual play features. Since main play features are usually located higher up, disabled children are often left watching other kids play, rather than playing.

"Kids know the difference between actually playing with everyone or not," says Sanderson. "The biggest problem is that they can't get to the centre of the action. They can't interact with their friends and have to sit on the sidelines."

The technical committee intends for accessibility to mean more than just traditional ramps. The guidelines in the annex not only suggest adding in specific accessible

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features, but especially encourage designing the components to foster interaction and socialization among all children. For example, having ramps and other accessible components grouped separately or set apart from the other play features are not considered as meeting accessibility criteria.

The annex also spells out the minimum percentage of each accessible feature that must be implemented to be considered accessible.

“You can’t just put in a few items and say it’s accessible,” says Sanderson. “You need to meet certain requirements. That is the power in the document.”

Smooth ground surfaces such as rubber are also important for impact absorption and easing mobility. An accessible ground surface also means considering slope heights, making sure that there are accessible entrance and exit points in the park and ensuring ample maneuvering space for wheelchair users.

Another important guideline is the minimization of the height of transfer systems within the play equipment. Transfer systems usually consist of a platform and a series of steps and are a means of accessing other areas of the equipment. Children in wheelchairs would have to lift *(Safety and accessibility article continued on page 26)*

Standard tied to decline in playground injuries



Photo credit: Kim Sanderson

A 2005 study by the Canadian Medical Association Journal (CMAJ) directly links a decrease in the number of injuries to the installation of playground equipment that adheres to the national standard for children’s playspaces and equipment (CAN/CSA-Z614).

Researchers examined 136 elementary schools in the Toronto area, where equipment was assessed as hazardous by an independent consultant. Of these schools, 86 schools either fully replaced or upgraded their unsafe play equipment in compliance with the standard. When the injury rates of schools now adhering to the playground safety standard were compared to the rates of those schools that did not replace the hazardous equipment, the results were revealing.

At schools that followed the standard, injuries decreased to 1.68 injuries per thousand students per month, from 2.61 injuries. This meant 550 injuries were prevented during the study’s timeframe.

At the schools that did not replace their equipment, the results indicated an increase in the number of injuries – 1.81 per thousand students per month from 1.44.

According to another report released by the Canadian Institute on Health Information (CIHI), among all age groups, children aged five to nine have the highest percentage of playground injuries, representing 54 per cent of children who sustained playground injuries.

The CIHI report indicates that Ontario hospital emergency departments received more visits due to playground injuries in 2004-2005, with 8,734 visits from 8,698 visits in 2002-2003. Although the overall number has risen slightly, severe head injuries have been significantly reduced. Head injuries that required admission to a hospital decreased to 37 in 2004-2005, from 131 in 2002-2003.

“We recognize that there are going to be injuries,” says Health Canada’s Christine Simpson. “But we’ve been doing a good job of reducing their severity and in some cases, frequency.” ■

Real evidence of *economic impact of standards*



As far back as the barter system and throughout the ages, for business and industry, the development and application of standards has been a key component of commerce and trade. Across manufacturing and supply chains, standardization has played an important role in the machinery of the marketplace: facilitating the import and export of goods; enabling the interoperability of components; contributing to the safety of products; and increasing the confidence and reliability of goods.

Articulating the benefits of standardization in a language that business can appreciate has not always been easy. In addition to testimonials, the ability to quantify the value of standards is necessary to effectively communicate their importance. At the end of the day, numbers tell the real story.

For Infasco, one of the largest producers of standard steel fasteners in the world, investing in standards was a key business decision.

“One of the primary reasons for implementing ISO standards was to ensure that Infasco was in complete compliance with all provisions of the US Fastener Quality Act,” says Michael Krohn, marketing communications manager for the Marieville, Quebec, company.

The Fastener Quality Act is an American piece of legislation passed in 1990 to protect consumers from poor-quality fasteners being imported into the United States. The Act requires companies in the fastener business to adhere to specific standards for manufacturing and inspection. It also requires businesses to use laboratories that are accredited to international standards for calibration and testing (ISO/IEC 17025) or face difficult and lengthy inspections at U.S. Customs. The application of standards

has provided Infasco customers with confidence that the company meets internationally-recognized quality requirements, and helped them to develop excellent customer service.

Krohn cites other benefits as well.

“A result of certification was the standardization of in-house training programs,” he says, adding that the creation of the documentation and procedures required for certification provided the unexpected benefit of lessening the impact of employee turnover. “Better performance in many areas of the organization was achieved due to benchmarking performance metrics.”

Infasco is one of two Canadian companies profiled by the Conference Board of Canada, in a report entitled *Economic Value of Standardization*.

To determine the impact of standardization on the Canadian economy, authors Joseph Haimowitz and Joanne Warren used standards-oriented economic literature and research, and interviews conducted with senior executives working in the public and private sectors, as well as examining specific practices applied by two Canadian businesses.

The research methodology used by the Conference Board is adapted from ones used to produce similar reports for Germany and the United Kingdom. Both of those nations have effectively demonstrated the important contribution to growth in productivity made by standardization in their respective countries.

In the report, Haimowitz and Warren explain that an empirical analysis of the impact of the collection of Canadian standards on labour productivity between 1981 and 2004 reveals that Canada’s GDP would have been



\$62 billion (or 5.5 per cent) less in 2004 had the number of standards not increased over the preceding 13 years. Haimowitz and Warren also report that 17 per cent of the growth rate in labour productivity, and nine per cent of the growth rate in economic output (real GDP), over that same time period, were as a result of standards-related activity.

The report's qualitative findings cite the importance of standardization as the basis for continuous improvement, innovation and new product development. Haimowitz and Warren indicate that standards can provide information to reduce uncertainty, encourage research and development, and as such, lower the risk of investing in future technologies.

"The study shows what we've been saying all along," says Peter Clark, executive director of the Standards Council of Canada. "People tend to take the benefit of

standards for granted, but now we have hard numbers that prove standardization has a real positive economic impact on this country."

With evidence of the positive and direct link between standards and the Canadian economy, the challenge becomes one of using the report to convince industry, government and the public to invest in standards development.

"We can now conclusively demonstrate the value that standardization has for Canadians," says Clark. "It's an investment with real and achievable returns." ■

Copies of the Report on the Economic Value of Standardization are available at www.scc.ca.

Safety and accessibility (from page 24)



themselves off of their wheelchair to move up or down the transfer system and onto other areas of the equipment. The annex suggests minimizing the height of transfer systems and having other aids such as rope loops, poles or rings to provide further support and help the child move to different levels of the equipment.

Nicki Islic, Product Manager, Health Care and Community Safety with CSA, says the differences between an accessible and a non-accessible playspace should be subtle. "We want all children to want to and be able to use the same playspaces without an obvious difference," says Islic.

According to Christine Simpson, Consumer Product Safety manager at Health Canada and chair of the technical committee, even with the widespread use of the playground safety standard, injuries are still inevitable. "We know that children being children will try and jump gaps," says

Simpson. "They will try things that their older brothers and sisters are doing, but physically can't do." She says the standard aims to eliminate entirely, or at least reduce, life-threatening and debilitating injuries to children.

Nesdale-Tucker points to recent evidence (see *Standard tied to decline in playground injuries*, pg. 24) that ties the playground standard to a decline in the severity of injuries. She expects the data to increase interest in adhering to CAN/CSA-Z614.

"It's a win-win situation for parents, community and the health care system," she adds.

Though cost can sometimes be seen as an obstacle in the long-term, designing and creating an accessible playground could actually be cost-effective.

"Accessibility features in playgrounds are usually less expensive to integrate at the design and development stage," says Islic. "It could be more expensive to retrofit or upgrade to an accessible playspace later on."

Sanderson says the costs of adhering to a guideline vary between an extra four and 10 per cent. However, he says, you can design a playful space that incorporates accessibility within a budget.

"The benefits outweigh the costs," says Sanderson. "It's not even necessarily a choice. For example, you would never choose to make only some washrooms accessible, you would make all of them accessible. We want to extend that right to our children." ■



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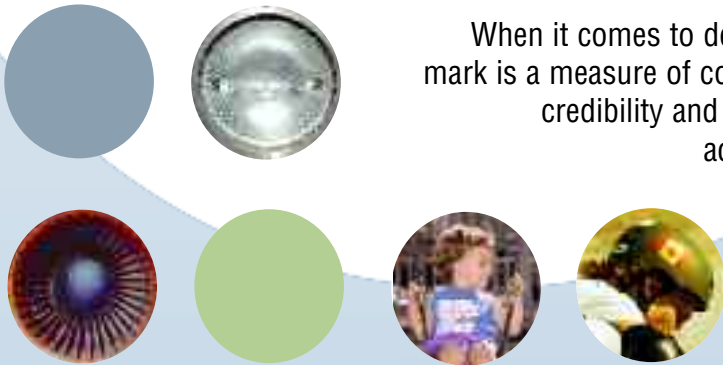
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