ULC Standards
Normes ULC

Use of Conformity Assessment in Regulation in Canada

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Outline

- Canadian Regulatory System
- Canadian Conformity Assessment System
- Canadian Standards System
- Case Studies
- Best Practices
- Innovations
- Gaps and Issues
- Key Takeaways

Canadian Regulatory System

Under Canada's constitution, provinces and territories regulate design and construction of new house and buildings; the maintenance and operation of fire safety systems in existing buildings and the electrical safety of buildings and equipment. Adoption and enforcement of the codes are the responsibility of the provincial and territorial authorities having jurisdiction.

Canadian Conformity Assessment System

Certification bodies must participate and engage with the Standards Council of Canada (SCC) recognized Regulatory Councils in the product areas they are recognized in

SCC accreditation is required by the regulators

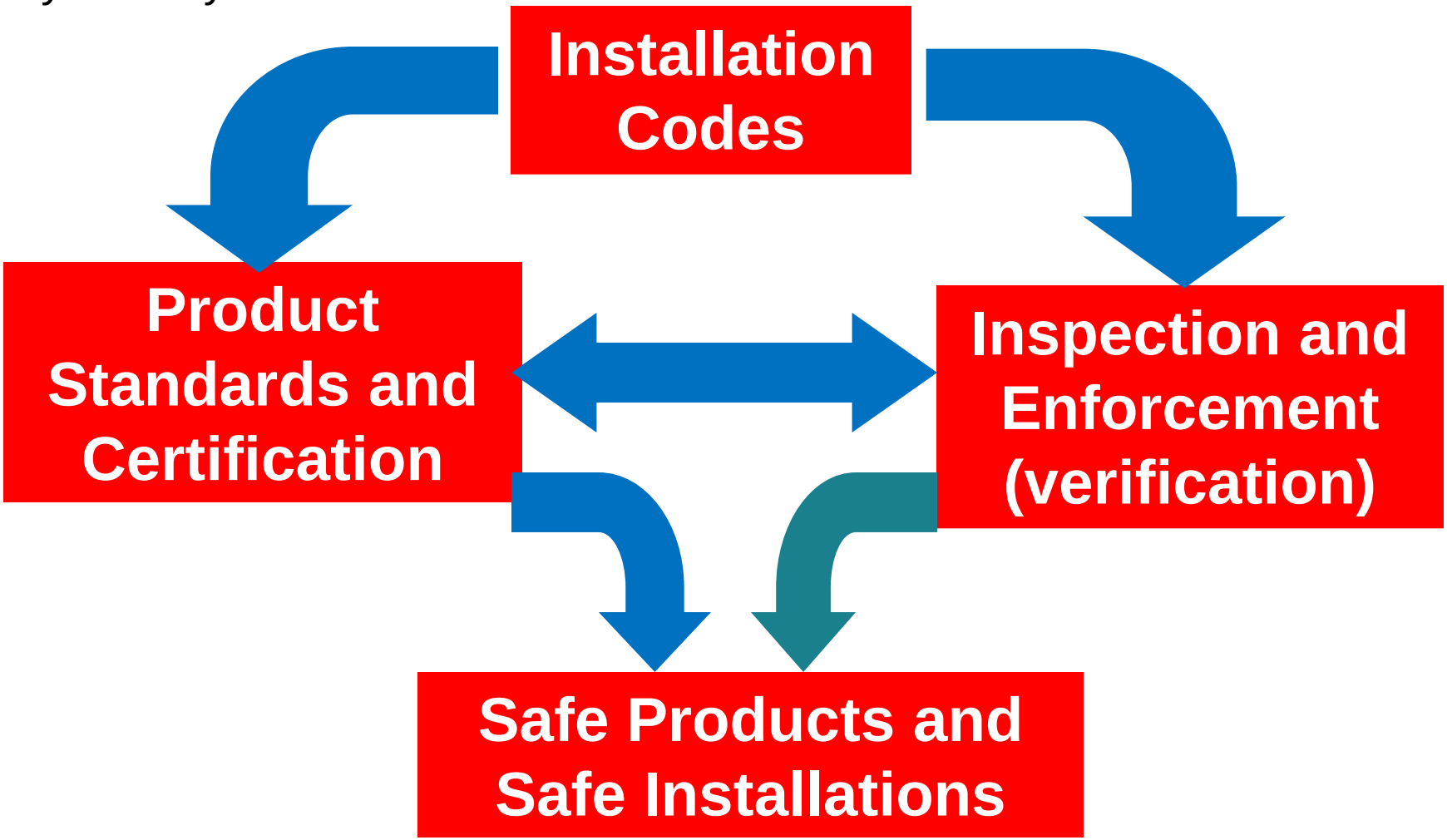
The SCC Canada accredits Standards Development Organizations and various types of conformity assessment organizations:

- **Testing and Calibration Laboratories**
- **Management Systems (QMS and EMS) Certification Bodies**
- **Personnel Certification Bodies**
- **Product/Service/System Certification Bodies**
- **Inspection Bodies**

Canadian Conformity Assessment System

3rd Party System

System Cycle



Canadian Standards System

Case Study - Electrical Equipment

Electrical (Canadian Electrical Code)

- Provinces and Territories are responsible for Public Safety
- Legislation and Code adoption mandate 3rd Party certification
- Only exception to certification is Special Inspection (Field Evaluation)
- Standards (CSA and ULC) are listed in Canadian Electrical Code.
- Example: Ground Fault Circuit Breakers

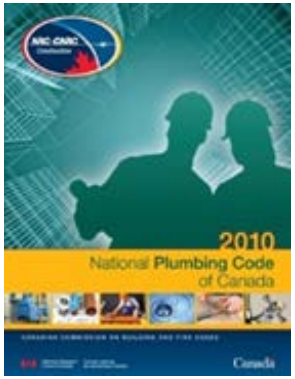
o Required to meet CAN/CSA-C22.2 No. 144-M91 (R2011) as per Provincial and Territorial Legislation

o Testing and conformity assessment by 3rd party (UL)

o Compliance to standards = Certification Mark

o With Certification comes acceptance in the Canadian Marketplace

Boiler and Pressure Vessels and Plumbing Case Studies



Plumbing / Gas (National Plumbing Code of Canada and CSA B149.1)

- Provinces and Territories are responsible for Public Safety
- Legislation and Code adoption mandate 3rd Party certification
- Special Inspection allowed for equipment not available as certified
- Example: Plastic Plumbing Fixtures

o Required to meet CSA B45.0 and CSA B45.5 Standards

- Example: Gas Fired Low Pressure Boilers

o Required to meet ANSI Z21.3/CSA 4.9 Standard

(Both the plumbing and gas certification process is identical to Electrical)

Case Study - Medical Device

Medical Devices (Various Standards)

- Regulated by Health Canada

o 3 elements – Device License; ISO 13485:2003 CMDCAS and a Medical Device Establishment License

o Classes I to IV

- Health Canada, Medical Devices Regulation list appropriate standards.
- Electrical products require 3rd Party Certification
- Example: Medical Equipment

o Required to meet C22.2 No. 601.1 and others.

o Testing and conformity assessment by 3rd party (UL)

o Compliance to standards = Certification Mark

Case Study - Building Materials

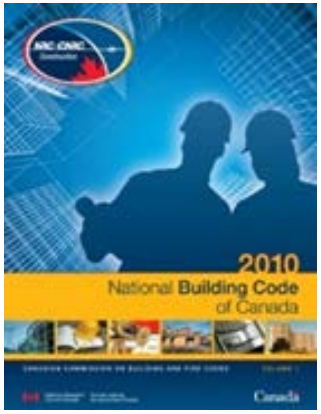
Building (National Building Code of Canada)

Adopted by all Provinces and Territories which allows for Certification and Evaluation to standards

Building Code for Construction

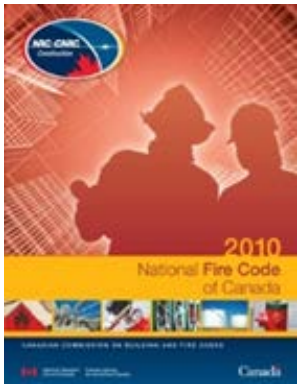
Standards listed in National Building Code therefore mandatory requirement

Example: Mineral Fibre Thermal Insulation



- Required to meet CAN/ULC-S702 and ULC-S129
- Testing and conformity assessment by 3rd party (UL)
- Certain product evaluated by 3rd Party (Not certification)
- Certification = Mark, Evaluation = Report for AHJ acceptance

Case Study - Fire Protection



Fire (National Fire Code of Canada)

Adopted by all Provinces and Territories which allows for Certification

Fire Code applies after construction for Occupancy

Standards listed in National Fire Code therefore Mandatory requirement

E.g.: Fire Alarm Control Panels

- Required to meet CAN/ULC-S527
- Testing and conformity assessment by 3rd party (UL)
- Compliance to standards = Certification Mark
- With Certification comes acceptance in the Canadian Marketplace

Case Study - Energy Efficiency

Energy Efficiency

Provincial and Territorial Legislation adopt National Energy Code of Canada for Buildings

Additional Federal legislation sits with Natural Resources Canada (NR Can.)

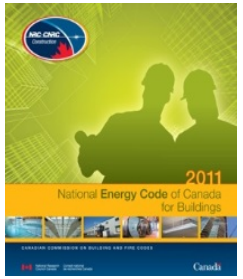
Energy Efficiency Regulation, Federally regulated

NRCan. Regulation harmonizing with Department of Energy (DoE) United States

Canada United States Regulatory Cooperation Council

Example: Clothes Dryers

- Required to meet CAN/CSA-C361-92
- EE testing and Conformity Assessment by 3rd Party (UL)
- Energuide Label mandatory for Consumer acceptance



Case Study - Special Inspection

Special Inspection (SPE-1000 for Electrical, SPE-3000 for Electromedical (Draft), CSA B149.3 for Gas)

Provincial and Territorial legislation allows for Special Inspection

Used where no Canadian standard exist, for limited production products and one of a kind.

Special Inspection Bodies Accredited by Standards Council of Canada

Example: Large Wind Turbine

- Required to meet SPE-1000 Evaluation
- Tested and Evaluated in the field
- Label for one of a kind piece of equipment
- Not a substitute for product certification

(Same process for Electromedical to the SPE-3000 and for Gas appliance to the B149.3)

Best Practices – Conformity Assessment

Initial Evaluation

Product Testing

Periodic Factory Inspection

Mark of Conformity

- CB Mark on Product
- Manufacturer and Product Listed in a Published List of Materials and Equipment
- Internal Audits and Controls

CB is audited regularly by the Standards Council of Canada

CB must maintain active and sustained communication with the Regulatory Groups and be aware of and engaged in standards development

Innovation

Regulatory Impact Analysis Process Improvement

- Building, Fire, Plumbing and Energy Code Project

Referencing Standards within Canada's National Model Code System

- Undergoing implementation

Greater and continuous National Coordination:

- National Public Safety Advisory Council, Provincial and Territorial Advisory Council, Standards Development Organization Advisory Council and Provincial and Territorial Policy Advisory Committee on Codes

Drive to be early implementers of innovation

Gaps and Issues

Gaps – Provincial and Federal Conformity Assessment requirements and Regulatory Systems do not always interconnect

- Timing of Code and standards adoption not consistent

Issues – One Code system maintains 3rd Party Marks while the other mandates 3rd party but provides no guidance

- Standards references are not up to date in codes, regulation a the federal and provincial/territorial level
- Same jurisdiction but different regulations calling up different standards

Key Takeaways

Conformity Assessment System in Canada is well established

- Regulatory, Conformity Assessment and Standards are well connected

Public expectation is for consistent and open Conformity Assessment in all sectors

Regulation is divided and can cross over sectors

Accreditation is a requirement and an expectation

Standards are the point of assessing conformity

Regulators have provincial or territorial power

- Regulator implements and interprets
- Local authorities enforce

One code per sector with provinces and territories have full application

Health Canada and NRCan have federal power on Consumer Product, Medical Devices, Natural and Health Products and Drugs

THANK YOU.

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