CANADIAN CODES & ULC STANDARDS: AN OVERVIEW

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ULC Standards and Underwriters Laboratories of Canada

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Agenda
1. About ULC
2. About the Standards Council of Canada
3. Canadian Codes
4. Canadian standards development overview
5. How a ULC standard is developed
6. ULC S100A Committee and Standards

About ULC Standards
We are a member of the UL family of companies...

• ULC Standards is an independent, not-for-profit standards development organization. ULC Standards has developed safety and performance standards and specifications for 90 years.
• ULC Standards develops and publishes standards and specifications for products & services having a bearing on fire, life safety and security, crime prevention, energy efficiency, environmental safety, security of assets and facilities, live working and workplace safety, solid state lighting, and other areas.
• New standardization areas: Electric vehicles, smart grid & cyber security, solar, sustainability, small batteries, environment, e-health, solid state lighting, and others.

ULC Family...Quick Facts

• UL is a global independent safety science company offering expertise across five key strategic businesses: Product Safety, Environment, Life & Health, Knowledge Services and Verification Services.
• 3.1 billion consumers were reached by UL with safety messages in Asia, Europe and North America
• 1,464 current standards for safety published by the UL family of companies: (1,158 for UL; 306 for ULC)
• 95 laboratory, testing and certification facilities in the UL family of companies
• Over 10,000 employees in the UL family of companies
• 46 countries with UL employees
2. ABOUT THE STANDARDS COUNCIL OF CANADA (SCC)

What is SCC?

• SCC is a federal Crown corporation
• Mandate: promote efficient and effective standardization as a means to enhance Canada’s competitiveness and social well-being
• SCC reports to Parliament through Minister of Industry and oversees Canada’s National Standards System (NSS)

National Standards System

• SCC coordinates the work of the National Standards System, the network of people and organizations involved in the development, promotion and implementation of standards in Canada.
• Government, business and industry, and consumer organizations are key stakeholders within this system.
• Approves Canadian standards as National Standards of Canada based on a specific set of requirements
• Accredits organizations that develop standards and those that verify conformity to standards
3. CANADIAN CODES

Canadian Codes

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

Provinces and territories that adopt or adapt the National Model Construction Codes

- New Brunswick, Nova Scotia, Manitoba, and Saskatchewan
  - Province-wide adoption of the National Building Code, National Fire Code, and National Plumbing Code with some modifications and additions.

- Newfoundland and Labrador
  - Province-wide adoption of the National Fire Code and the National Building Code, except aspects pertaining to means of egress and to one- and two-family dwellings within Group C in Part 9. No province-wide plumbing code.

- Northwest Territories, Nunavut, and Yukon
  - Territory-wide adoption of the National Building Code and National Fire Code with some modifications and additions. Yukon adopts the NPC.

- Prince Edward Island

- Alberta & British Columbia
  - Province-wide building, fire, and plumbing codes that are substantially the same as National Model Codes with variations that are primarily additions.

- Ontario
  - Province-wide building, fire, and plumbing codes based on the National Model Codes, but with significant variations in content and scope. Ontario Fire Code, in particular, is significantly different from the National Fire Code. Ontario also references the Model National Energy Code for Buildings in its building code.

- Quebec
  - Province-wide building and plumbing codes that are substantially the same as the National Building Code and National Plumbing Code, but with variations that are primarily additions. Major municipalities adopt the National Fire Code.

Council of Canadian Fire Marshals and Fire Commissioners (CCFMFC):

OBJECTIVES:

- Advising/promoting legislation, policies, & procedures pertinent to fire protection;
- Participating in development of codes & standards;
- Promoting fire safety awareness;
Canadian Codes

MODEL CODES
- National Building Code of Canada (NBC)
- National Fire Code of Canada (NFRC)
- Developed as complementary and coordinated documents to minimize the possibility of conflicting provisions

NBC specifies:
- Where a firestop is used it shall be tested to the fire tests in CAN/ULC-S115 (Fire Tests of Firestop Systems)
- Where a firestop is used it shall meet the F rating when tested to CAN/ULC-S115 (Fire Tests of Firestop Systems)

Differences: Codes/standards
- CODES (broad scope, covers wide range of issues)
- STANDARDS (narrow scope, limited range of issues)
- Some may be used by trade or industry as articulation

Local governments
- Delegated by province/territory
- Model Code
  - Varies between & within Provinces
- Separate agencies (BCSA, ESA)
- Utilities (e.g. SaskPower), Local government (Alberta Municipal Affairs)

Electrical Code
- Code Enforcement (force of law through adoption by province/territory/municipality)
- Given force of law by being referenced in Codes (force of good practice)

Local governments
- Conformity Assessment Bodies
- Testing Organizations

4. CANADIAN STANDARDS DEVELOPMENT OVERVIEW
Canadian Standards Development Overview

- As an SDO, ULC procedures must comply with SCC:
  - CAN-P-1, Accreditation of an SDO
  - CAN-P-2, Criteria and Procedures for the Preparation and Approval of National Standards of Canada
- CAN-P-2 is Primarily Concerned with:
  - Consensus
  - Balanced Committee membership
  - Public Review
  - Standards Available in English and French
  - Maintenance of Standards
  - Reaffirmation every 5 years

Canadian Standards Development Overview

- Standards developed through consensus by committees of affected stakeholders
- These committees are organized and managed by an organization that specializes in the development of standards (e.g. ULC Standards)
- Benefits of Participation: Opportunity for professional development and personal growth, membership in the Canadian committee and/or subcommittees, and chance to make new contacts and network.

5. HOW A ULC STANDARD IS DEVELOPED

1. Stakeholder files New Work Item Proposal with ULC
2. ULC accepts request and presents it to existing committee or forms new one
3. Public Notice of Intent is issued
4. Committee assigns project to an existing Subcommittee or forms new one
5. Subcommittee may assign project to Working Group(s)
6. Draft developed by TC/SC/WG
7. Committee ballots on draft standard
ULC Standards Development

8. 45 day ballot period - approval by 2/3 majority
9. Public Notice for comment issued at point of ballot
10. Comments and ballot results reviewed by TC/SC/WG
11. Standard submitted for Second Level Review. Evidence of compliance with CAN-P-2 is required
12. Request to publish standard submitted to SCC. Evidence of compliance with CAN-P-2 is required

6. ULC BUILDING CONSTRUCTION MATERIALS COMMITTEE AND ITS STANDARDS

ULC Building Construction Materials Committee – S100A Standards

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<td>Standard Methods of Fire Endurance Tests of Building Construction and Materials</td>
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<td>Standard Method of Test for Surface Burning Characteristics of Building Materials and Assemblies</td>
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<tr>
<td>CAN/ULC-S102.2-10</td>
<td>Method of Test for Surface Burning Characteristics of Flooring, Floor Coverings, and Miscellaneous Materials and Assemblies</td>
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<td>Standard Method of Fire Test of Light Diffusers and Lenses</td>
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<td>Standard Method of Test for Fire and Smoke Characteristics of Electrical Wiring, Cables and Non-Metallic Raceways</td>
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<td>CAN/ULC-S103-09</td>
<td>Standard Specification for “Tin-Clad” Fire Doors Meeting the Performance Required by CAN/ULC-S104</td>
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<td>CAN/ULC-S104-10</td>
<td>Standard Method for Fire Tests of Door Assemblies</td>
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<tr>
<td>CAN/ULC-S105-09</td>
<td>Standard Specification for Fire Door Frames Meeting the Performance Required by CAN/ULC-S104</td>
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<td>CAN/ULC-S114-05</td>
<td>Standard Method of Test for Determination of Non-Combustibility in Building Materials</td>
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<td>CAN/ULC-S115-11</td>
<td>Standard Method of Fire Tests of Firestop Systems</td>
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<td>Standard Method of Test for the Evaluation of Protective Coverings for Foamed Plastic</td>
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<td>CAN/ULC-S127-07</td>
<td>Standard Corner Wall Method of Test for Flammability Characteristics of Non-Melting Foam Plastic Building Materials</td>
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<td>Standard Method Of Test For Smoulder Resistance Of Insulation (Basket Method)</td>
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<td>Standard Test Method for the Determination of Combustibility Parameters of Building Materials Using an Oxygen Consumption Calorimeter (Cone Calorimeter)</td>
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<td>Standard Method of Test for Fire Growth of Matresses (Open Flame Test)</td>
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<td>Standard Method of Test for Fire Growth of Insulated Building Panels in a Full-Scale Room Configuration</td>
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<td>Standard Method of Fire Test for Evaluation of Integrity of Electrical Power, Data and Optical Fibre Cables</td>
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<td>Standard Method of Fire Tests for Non-Metallic Electrical and Optical Fiber Cable Tray Systems</td>
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<tr>
<td>CAN/ULC-S144-12</td>
<td>Standard Method of Fire Resistance Test - Grease Duct Assemblies</td>
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Thank you

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