UNDERWRITERS LABORATORIES OF CANADA INC.

LABORATOIRES DES ASSUREURS DU CANADA INC.

ULC STANDARDS MANUAL PART 1: ADMINISTRATION MANUAL

Approvals
(Name & Title)

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Document Revision History

Originator	Revisions Made to Document	Issue. Rev #	Date
Gunsimar Paintal/ G. Rae Dulmage	This revision regularizes the transition of this controlled document from ULC QMS document control system to Corporate SharePoint document control system. As a result, the document has been assigned a new number and will default to Issue 1.0. As such the references to other QMS documents within this document have been updated to reflect the new document numbers. As part of this transition, the document was reviewed in compliance with the 2 year review policy and no changes were suggested/required. As such no approval is required for this document. **The Document History is attached to the document profile in SharePoint.**	1.0	2013/08/23

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1.0 PURPOSE

1.1 To provide the structure and set up of the administration of the standards development process at ULC Standards. This manual is provided as an aid to persons and individuals who work or are involved in the standards development process as part of the National Standards System of Canada.

1.2 In order to avoid duplication and for the successful implementation of this Manual, staff are required to access the various Manuals, Procedures, Work Instructions, Formats etc. as appropriate and as available on ULC's Intranet under Library & Documentation. Appropriate references as and where required have been made within this document to facilitate a seamless flow through the controlled Quality Management System Documents.

2.0 SCOPE

2.1 This document applies to all activities related to standards development within ULC Standards.

3.0 RESPONSIBILITY

3.1 **Director, ULC Standards** is responsible for the policy setting, strategies, growth, operations and the successful accreditation of ULC Standards.

3.2 **Manager, ULC Standards** is responsible for the day-to-day operation and adherence of the staff to the work program and procedures of ULC Standards.

3.3 **Project Managers (also known as Senior Standards Coordinator, Standards Coordinator, Standards Specialist, Committee Secretary)** are responsible for the administration of the standards development process in accordance with the procedures, work instructions, forms and work program of ULC Standards.

4.0 DEFINITIONS

Not Applicable

5.0 CROSS-REFERENCE TABLE

Section	Title	CAN-P-1[a] Section/Clause
6.1	Standards Development Procedures	8.1
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[a] CAN-P-1, Program Requirements for the Accreditation of Standards Development Organizations and for the Approval of National Standards of Canada

6.0 REQUIREMENTS/PROCEDURES

6.1 STANDARDS DEVELOPMENT PROCEDURES

6.1.1 ULC Standard's written procedures for standards development are found in Part 2, Manual of Procedure for Standards Development.

6.1.2 ULC Standards shall provide SCC with an up-to-date Standards Manual, including all revisions on an ongoing basis.

6.2 STAFFING AND PHYSICAL RESOURCES

6.2.1 Refer to the ULC Intranet for the organizational structure of ULC Standards.

6.2.2 Refer to the ULC Human Resources Department for the job descriptions of the staff involved in ULC Standards. The Human Resources Department keeps personnel records for all staff in ULC Standards. The records contain training records, certificates received, resumes, and electronic performance appraisals.

6.2.3 Training of staff is monitored by the Standards Manager who maintains a list of training courses that staff have completed.

6.2.4 ULC Standards is located in Ottawa. It also maintains an office in Toronto. ULC Standards is provided with computers, printers, scanners, fax machines and teleconference equipment. ULC Standards has facilities for holding standards committee meetings in Ottawa and Toronto. In addition, ULC Standards has use of office facilities in Vancouver and Montreal, with meeting space available for holding standards committee meetings.

6.3 SECRETARIAT SUPPORT

6.3.1 ULC Standards staff provides secretariat support. Secretariat support includes, but is not limited to the following:

A Ensure adherence to procedures prescribed in the Standards Manual;

B Support for members through guidance and training;

C Communication with organizations and individual experts on a national basis who are likely to have substantial concern and competence in the field of the committee's work;

D Review of requests for committee memberships;

E Determining that committee members participate actively and that all those having a substantial concern with the committee's activities have the opportunity to participate;

F Where applicable, proposing work programs together with proposed completion dates and direction and guidance to the committee;

G Responsibility for the administrative work, including secretarial services, arrangements for meetings, preparation and distribution of draft standards, letter ballots, minutes of meetings, collations and follow-up of comments, proof-reading, etc;

H Processing of ballots;

I Reporting of results of voting and comments;

J Maintenance of standards within the scope of the committee, arranging for the publication, translation and distribution of standards;

K Providing technical information to be used in standards by committee members, wherever possible;

L Keeping abreast of associated standards and the activities of national or international standards development organizations in similar areas of interest;

M Ensuring that committee work proceeds as expeditiously as possible; and

N Maintaining of information on individuals, companies, organizations and agencies capable of contributing to the deliberations of the committee(s).

6.4 RECORDS

6.4.1 ULC Standards maintains electronic records of all committee meetings, subcommittee meetings, task group meetings, working group meetings, membership rosters, as well as records of all standard ballot drafts, ballots sent and received, comments and actions taken.. Records are kept by ULC Standards for review by Standards Council of Canada, ULC officers, staff and committee members.

6.4.2 Records contain information such as:

A Agenda;

B Minutes of meetings;

C Membership rosters;

D Voting;

E Distribution;

F Publication;

G Reaffirmation;

H Withdrawal;

I Proposals; and

J Comments on Proposals.

6.4.3 Records are kept for 10 years on CSDS and on the ULC Server in Toronto.

6.4.4 Each subject area under the jurisdiction of ULC are assigned a number as follows:

A S100 - Building Construction;

B S200 - Accident Hazard;

C S300 - Security and Burglary Protection;

D S400 - Electrical Equipment;

E S500 - Fire Protection Equipment;

F S600 - Gas and Oil Equipment;

G S700 - Thermal Insulation;

H S800 - Utility Safety

I S900 - Liquids and Materials; and

J S1000 - Integrated Testing

6.4.5 Standard files are by Standard Number and the Edition number.

6.4.7 Disaster Recovery – In the event of a disaster, the electronic records are backed up and stored off-site by the ULC IT Department.

6.4.8 Files for the Canadian Advisory Committee (CAC)/Canadian Sub-Committee (CSC) CAC of an International Standard Technical Committee for which ULC holds the secretariat, are retained at the SCC Sitescape Forum and in the SCC filing system. These files are denoted by the technical committee's designation such as "CAC/ISO/TC92", Canadian Advisory Committee on ISO Technical Committee 92 on Fire Safety.

6.5 STANDARDS DEVELOPMENT ORGANIZATION – HISTORY AND ATTRIBUTES OF ULC AND ULC STANDARDS

6.5.1 Underwriters Laboratories of Canada (ULC) was incorporated in 1920 by Letters Patent issued by the Government of Canada. The organization maintains and operates laboratories and a Certification Service for the examination, testing and certification of devices, constructions, materials and methods to determine their relation to life, fire, electrical safety, casualty hazards, public and environmental safety and protection, or their value in the prevention of crime. Underwriters Laboratories of Canada was transitioned into two new entities on April 1, 2010. Under the new structure, ULC activities related to certification testing and inspections were transferred to a new corporation called Underwriters Laboratories of Canada Inc. while Standards development activities were transferred to a new not-for-profit membership corporation called ULC Standards.

6.5.2 ULC Standards develops and publishes standards on products and test methods having a bearing on fire or accident hazards, crime prevention, thermal insulation, and electrical live working.

6.5.3 The origin of the organization can be traced back to the year 1894 at which time a group of fire insurance companies operating in the United States established an organization called Underwriters Laboratories Inc. with headquarters in Chicago and thereby initiated a testing, inspection and standards writing service that was made available to manufacturers in the United States and Canada who wished to have their products rated, classified or approved. The benefits of that service soon found much utility among the governmental inspection authorities and the insurance industry in Canada with the resultant increasing demand for an "Underwriters Approval" on Canadian-made products.

6.5.4 This led to the formation of a separate Canadian organization under the name of "Underwriters Laboratories of Canada" in 1920, first as an affiliate of UL in Chicago, then from 1949 to 1974 as a completely separate Canadian entity under sponsorship of a Board called "Canadian Underwriters Association", a group of fire and casualty insurance companies operating in Canada. From 1974 to 1995, ULC operated as a completely separate Canadian entity without sponsorship. In 1995, ULC affiliated with Underwriters Laboratories Inc.

6.5.5 ULC's first operating facilities in Canada were opened January 1, 1950 on Richmond Street, Toronto. On October 4, 1954 operations moved into a new facility in Toronto (formerly Scarborough), Ontario, where the ULC head office is still located. The Toronto location has extensive test facilities for fire resistance testing, an electrical laboratory, a chemical laboratory, a fully equipped fire service hydraulic laboratory, and gas and fire suppression and detection equipment testing. ULC also has leased laboratory and office space in Montreal and Vancouver. ULC Standards is located in Ottawa. A minimum number of Standards staff are also maintained in Toronto.

6.5.6 ULC's first technical advisory body, now called the ULC Advisory Council, was formed in 1952 with representation from the Dominion Fire Commissioner, all provincial fire marshals, managers of territorial insurance associations, and a building commissioner. The Council has since been expanded to include provincial and municipal building and electrical authorities, National Research Council of Canada, and UL. This Council meets annually and discusses at meetings and through correspondence matters pertinent to standards preparation and their revisions.

6.5.7 ULC and ULC Standards utilizes other advisory councils such as for gas equipment through the IGAC - Interprovincial Gas Advisory Council (1960); electrical equipment through CACES - Canadian Advisory Committee on Electrical Safety (1967); and environmental protection through CCME (Canadian Council of Ministers of the Environment).

6.5.8 The attributes of ULC Standards as a standards development organization that would enhance the acceptability of National Standards of Canada include:

A A staff trained, competent and dedicated to the task of serving the public of Canada;

B Highly developed facilities directed towards the aims and objectives of the organization;

C An independent, not-for-profit organization with a tradition of unbiased public service in the fields of standards writing and testing for safety;

D Knowledge and a co-operative working relationship with those concerned in the fields of life, electrical and fire safety across Canada;

E Published National Standards of Canada since 1973, the validity of which has been confirmed by long use; and

F Experience and knowledge extending over a large area of the field of activities.

6.6 NATIONAL CHARACTER

6.6.1 ULC and ULC Standards exist to be of service to inspection authorities, insurance inspection agencies, manufacturers, plant operators, architects, utilities, consulting engineers, consumers, and others across Canada by developing standards and supplying authoritative information on products. The certification of products by ULC provides data with respect to the degree of hazard, if any, or the ability of a product to perform its required protective function. Such certification is established following investigation of the product, material or method for conformance to the requirements and standards of ULC Standards or other SCC accredited Standards Development Organizations. All certified products are examined with a view to their proper installation in accordance with nationally recognized codes.

6.6.2 Listings and standards of ULC and ULC Standards are accepted quite generally on a nation-wide basis by inspection authorities, industry and users.

6.6.3 The following is a list of ULC's subject area:

A Fire hazard, fire protection and associated life safety of building materials, products and constructions;

B Gas vents and factory-built chimneys;

C Burglary protection equipment systems and services;

D Stationary storage containers for flammable liquids;

E Fire extinguishers and fire extinguishing systems;

F Fire ladders;

G Hand-operated dispensing devices and associated fittings for dispensing flammable liquids;

H Flammability of liquids and materials;

I Heating and ventilating ducts;

J Fire fighting equipment and apparatus;

K Methods of fire test for materials;

L Fireplaces and fireplace stoves for solid fuels;

M Cargo tanks and associated components and systems for use with flammable liquid tank vehicles;

N Fire alarm equipment and systems;

O Thermal Insulation; and

P Live Working.

6.6.4 The standards of ULC Standards cover the following subject areas, as described by their respective committee scope:

A **Committee on Fire Test: ULC-S100A**

(i) To develop test methods for the evaluation of building materials and assemblies and furnishings used in buildings when exposed to fire conditions;

(ii) To develop standards based on the performance of building materials and assemblies and furnishings when subjected to test conditions; and

(iii) To develop standards for the engineering design of assemblies and structural elements for exposure to fire conditions.

B **Committee on Security and Burglar Alarm Equipment and Systems: ULC-S300A**

To develop standards, test methods and other pertinent requirements for burglar equipment and systems and to develop classification requirements involving installation, operation and maintenance for this equipment and systems.

C **Committee on Physical Security Equipment: ULC-S300B**

To develop and maintain standards governing the performance, under specified test conditions, of physical security equipment.

D **Committee on Automobile Theft Deterrent Equipment & Systems: ULC-S300V**

To develop and maintain standards governing the performance and installation, under specified test conditions, of automobile theft deterrent equipment and systems.

E **Committee on Live Working: ULC-S400A**

To develop and maintain standards for Live Working based on IEC/TC78 standards as National Standards of Canada.

F C**ommittee on Solid State Lighting (SSL): S400B**

To develop standards addressing safety requirements applicable to solid state lighting devices, components, accessories, and equipment that may be integrated with or intended to be interoperable with luminaires.

G **Committee on Field-Replaceable Light Emitting Diode (LED) Light Engines: S400C**

To develop standards containing requirements pertaining to the construction, performance, and safety of field-replaceable light emitting diode (LED) light engines and their holders, bases and connectors. These requirements cover LED light engines rated up to 347 V provided with integral lamp bases of other than the screw, bayonet, or pin type configurations typically found on incandescent or fluorescent light sources. These requirements only cover lamp holders of a configuration not typically found on incandescent or fluorescent light sources.

H **Committee on Batteries for Use in Electric Vehicles (EV): S400D**

To develop standards containing requirements covering electrical energy storage assemblies such as battery packs and combination battery pack-electrochemical capacitor assemblies and the subassembly/modules that make up these assemblies for use in

electric-powered vehicles and requirements that cover nickel, lithium ion and lithium ion polymer batteries and battery packs for use in light electric vehicles (LEVs), with a maximum output of 60V DC.

I **Committee on Portable Fire Extinguishers: ULC-S500A**

To develop standards for the construction, performance, fire rating and classification of portable (hand and wheeled) fire extinguishing equipment, the media used, and the servicing of portable fire extinguishing equipment.

J **Committee on Fire Protection Equipment and Systems: ULC-S500B**

To develop Standards pertaining to but not limited to the construction and performance of fire protection equipment such as firefighting apparatus, municipal and forestry hoses and couplings, valves, etc.

K **Committee on Fire Alarm and Life Safety Equipment and Systems: ULC-S500F**

To develop standards, guidelines, methods of tests, installation, building/facility commissioning, and other pertinent requirements for life safety related to fire protection, detection and signaling equipment and systems, and to interact with other ULC Committees as applicable.

L **Committee on Fire Fighting Foams: ULC-S500G**

To develop and maintain standards pertaining to the performance of firefighting foams.

M **Committee on Stationary Steel Storage Containers for Flammable and Combustible Liquids: ULC-S600A**

To develop and maintain standards containing requirements pertaining to the design, construction and protection of shop fabricated steel storage containers of the non pressure type, used for the storage aboveground and underground of flammable and combustible liquids, such as gasoline, fuel oil, and similar products; and matters related thereto.

N **Committee on Stationary Non-Metallic Storage Containers for Flammable and Combustible Liquids: ULC-S600B**

To develop standards containing requirements pertaining to the design, construction and performance under field conditions, of shop-fabricated stationary nonmetallic storage containers for the storage aboveground and underground of flammable and combustible liquids.

O **Committee on Factory-Built Fireplaces, Chimneys and Vents: ULC- S600E**

To develop standards containing requirements pertaining to the, construction, performance, and safety of factory-built solid-fuel fired fireplaces designed primarily for heating purposes in stationary and mobile buildings; and factory-built chimneys and vents designed primarily for conveying flue-gases, powered by, gas-, liquid-, and solid-fuel fired appliances, to the exterior of stationary and mobile buildings.

P **ULC Committee on Fittings for Flammable and Combustible Liquids: ULC-S600H**

To develop standards, methods of tests and other pertinent requirements for devices and fittings, including components, associated with the containment and dispensing of flammable and combustible liquids.

Q **Committee on Kitchen Exhaust Equipment and Systems: ULC-S600K**

To develop standards and methods of tests and other pertinent requirements for equipment for smoke and vapor removal from commercial, industrial, institutional, and other similar applications and to develop installation, performance and fire suppression requirements for this equipment.

R **Committee on Oil-Water Separators: ULC-S600L**

To develop and maintain standards pertaining to the design, construction, and performance of assemblies used for the separation of non-emulsified and non-soluble hydrocarbons from water.

S **Committee on Thermal Insulation Materials and Systems: ULC-S700A**

To develop and maintain a single series of performance based material and application Standards, guidelines, methods of tests, and other pertinent requirements for thermal insulation materials and systems intended for use in residential, commercial and industrial construction, and other applications with the users' end needs in mind. Insulating systems are those assemblies that have as their primary function, the resistance to the flow of heat energy.

Q **Committee on Air Barrier Materials and Systems: ULC-S700B**

To develop and maintain a single series of performance based material and application Standards, guidelines, methods of test and other pertinent requirements for air barrier materials and systems intended for use in residential, industrial, commercial and institutional construction and other applications with the users' end needs in mind. An air barrier system is comprised of assemblies that are designed and installed to provide a continuous barrier to the movement of air through the building envelope.

R **Committee on Electric Utility Workplace Electrical Safety:**

ULC-S800A

To develop and maintain standard(s) pertaining to electric utility workplace electrical safety for generation, transmission, and distribution.

6.6.5 The need for standards for products falling within the above-mentioned subject areas exists on a broad national scale. Consequently, the associated ULC standards are correspondingly national in essence. Producers, users, regulators and general interests on a wide geographical basis throughout Canada are provided with an opportunity to contribute to the standards development in their areas of concern.

6.6.6 ULC Standards has co-operative working relationships with the major national authorities and interests concerned with similar areas of activities including various levels of federal, provincial and municipal governments and insurance interests. A large number of such bodies are represented on the various advisory councils, which provides representation from all provinces of Canada and some major cities.

6.6.7 ULC standards have been referenced in the National Building Code of Canada, the National Fire Code of Canada, the Canadian Electrical Code, Hazardous Products Act, Environmental Code, and all similar provincial and territorial codes and regulations for many years.

6.6.8 ULC Standards is located in Ottawa, Ontario. A minimum number of standards staff are also located in Toronto at the corporate headquarters of ULC.

6.6.9 ULC has its corporate headquarters in Toronto, Ontario, office and laboratories in Montreal and Vancouver.

6.7 NATIONAL STANDARDS OF CANADA DEVELOPMENT STRUCTURE

6.7.1 In the development of all standards through the development process at ULC Standards, including National Standards of Canada, every opportunity is afforded concerned interests and those materially affected by the standard to have equal access and participate in the development of the standard. This procedure is followed at all stages in the development of the standards.

6.7.2 Drafts of the proposed standard are circulated to a list of individuals or organizations representative of major national interests. This is in addition to the standards committee responsible for the development of the standard.

6.7.3 One additional important source of "input" to the standards-writing process and continual updating of standards is the information received from ULC and ULC Standards staff members who actively participate in the deliberations or committee work of other organizations and associations. A few of the more prominent bodies are listed below:

A America Society of Testing and Materials;

B Canadian Association of Fire Chiefs;

C Canadian Building Officials Association;

D Canadian Fire Safety Association;

E Canadian Fire Alarm Association;

F Canadian Standards Association;

G Canadian General Standards Board;

H International Organization for Standardization;

I International Electrotechnical Commission;

J International Association of Electrical Inspectors;

K National Building Code of Canada;

L National Fire Protection Association;

M Ontario Municipal Fire Prevention Officers Association;

N Society of Fire Protection Engineers.

O National Public Safety Council of Canada

P Standards Council of Canada Consumer and Public Interest Panel

Q ISO COPOLCO; and

R Canadian Commission on Building, Fire, Plumbing and Energy Codes.

6.7.4 A standard shall be circulated for a "Second Level Review" beyond the standards committee.

6.8 SEPARATION OF STANDARDS DEVELOPMENT FROM OTHER ACTIVITIES

6.8.1 In 1966, as the activities of ULC continued to increase, it became evident that a separate department, independent of the Engineering Department, would be required to provide the necessary staff, knowledge and facilities needed to carry out the functions associated with the writing and servicing of standards. Accordingly, the Standards and Records Department was formed. In 1996, the Standards Department became completely independent from the Records Department. On April 1, 2010, a new not-for-profit membership corporation was established called ULC Standards.

6.8.2 ULC Standards was given general responsibility for the compilation, publication and distribution of all ULC standards.

6.8.3 Where necessary, ULC Standards makes use of data and knowledge available from the Engineering Department of ULC for use in standards and by the membership of standards committees. Certification representatives who serve on standards committees are non-voting.

7.0 RECORDS

Refer to Section 6.4 for details.

8.0 MATERIALS/EQUIPMENT

Not Applicable

9.0 APPLICABLE DOCUMENTS

Doc. #	Title
CAN-P-1	**Program Requirements for the Accreditation of Standards Development Organizations and for the Approval of National Standards of Canada**
05-ST-P0826	**ULC Standards Manual Part 2: Procedure for Standards Development**
05-ST-P0827	**ULC Standards Manual Part 3: Manual of Style for Standards**
05-ST-P0828	**Guidelines for Standards Department Personnel**

10.0 SAFETY

Not Applicable