Canada’s Flammability Standards

Stuart Harrad, University of Birmingham
Miriam Diamond & Golnoush Abbasi, University of Toronto
Lisa Melymuk, formerly Univ of Toronto, now RECETOX, Masaryk Univ
Fe de Leon, Canadian Environmental Law Association
1.1 What regulations set out requirements for fire protection in furniture, textiles and electrical equipment in your country?

- Appears to be complex patchwork
  - Standards at municipal, provincial and federal levels
  - Differs according to product/material
    - E.g., bedding & kids sleepwear according to Hazardous Products Act under Health Canada
    - Health Canada Consumer Products Safety Division will establish flammability standards for products if they are found to affect health
- Appears to frequently default to U.S. standards, e.g., TB 117
Emma Goosey XRF’ing a chair in Toronto with TB 117 notice
Flammability requirements for general textile products have been in effect under item 4 of Part I of Schedule I to the HPA since 1971. These products, when tested in accordance with the Canadian General Standards Board standard CAN/CGSB 4.2 NO. 27.5-94 entitled *Textile Test Methods - Flame Resistance - 45° Angle Test - One Second Flame Impingement*, as amended from time to time, are prohibited if they have a flame spread time of one of the following:

- 3.5 seconds or less, if the product does not have a raised fibre surface; or
- 4 seconds or less, if the product has a raised fibre surface and exhibits ignition or fusion of its base fibres.
1.3 What regulations set out requirements for fire protection in furniture, textiles and electrical equipment in your country?

Example 2:

Transport Canada

Technical Standards Document No. 302, Revision 0 - Flammability of Interior Materials


http://www.tc.gc.ca/eng/roadsafety/safevehicles-mvstm_tsd-tsd-3020rev0_e-785.htm
Example 3:

Standard is U.S. NFPA 705

2007 Ontario Fire Code

Division: B
Code Reference: 2.3.2.2.
Code Reference Analyzed: 2.3.2.2.

Code Text:
(Unofficial and abbreviated text. Read more...)
Flame retardant treatments shall be renewed as often as required to ensure that the material will pass the match flame test in NFPA 705, "Recommended Practice for a Field Flame Test for Textiles and Films".

Intent Statements:
(Provided for explanatory purposes only. Read more...)
[F82-OS1.2] To reduce the probability that the flame retardant treatment will no longer be effective, which could lead to materials that have an inappropriately high flammability property, which could lead to the spread of fire across the exposed surfaces of the materials, which could lead to harm to persons.

[F82-OS1.5] To reduce the probability that the flame retardant treatment will no longer be effective, which could lead to materials that have an inappropriately high flammability property, which could lead to the spread of fire across the exposed surfaces of the materials,
1.4 What regulations set out requirements for fire protection in furniture, textiles and electrical equipment in your country?

Note Bene

- Some legislation makes reference to flammability codes that can only be obtained through purchase.
- A journalist, noting the undemocratic nature of the situation, purchased some codes and was going to publish them until threatened...
2. Which official bodies are responsible for introducing and revising the regulations?

**Standards Council of Canada**
- Crown Corp
- “accredits Canadian standards development organizations”

**Underwriters Lab of Canada**
- Primarily resp for flammability standards

**Canadian Standards Assoc**
- Mostly industrial standards, e.g., construction

**Canadian General Standards Board**

**Industry Canada**
- Answers to Parliament

**Bureau de normalisation de Quebec**

Standards must be purchased, not publicly available
3. Who enforces the regulations and how are they enforced?

• Standards are generally not enforceable

Example:

**Flammability of Textile Products in Canada**

For products that do not comply with the HPA flammability requirements: take enforcement actions depending on the risk of the products to the consumer, including:

• providing a verbal or written warning for corrective action to be taken by industry
• negotiating with industry to voluntarily discontinue the sale of these products through removal, disposal or recall at industry's expense
• seizing noncompliant products and/or prosecuting industry under the HPA

4. What criteria have to be met, how are those criteria assessed (e.g. standard tests); and where are the standard tests set out?

- Don’t know because standards (other than the 2 examples found) are not publicly available, but must be purchased (e.g., from ULC or CSA)
- From 1 document found by Lisa on web:

  Testing fabric according to CAN/ULC-S109 Flame Resistance
  - small-flame (fabric held 20mm above tip of 40mm flame for 12 sec) and
  - Large-flame (fabric held 100 mm above 280 mm flame at 25° angle for 2 min)
  - Results reported as char damage & residue
5. Who are the correct individuals to speak to in a government department who have responsibility for the above (introduction, revision, enforcement or regulations)?

- Probably many people in many agencies who avoid answering questions posed by academics & journalists!
- Difficult to get response from Health Canada & Environment Canada (we tried!)
- Apparent confusion
  - E.g., Toronto fireman quizzed by Golnoush referred to “North American standards” which presumably mean U.S.