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Proposed Change 1973

Code Reference(s):	NBC20 Div.B 5.9.1.1. (first printing)
Subject:	Environmental Separation Table 5.9.1.1.
Title:	Replacement of Reference to Outdated CAN/CGSB Standard with a Reference to an ASTM Standard
Description:	This proposed change replaces the reference to CAN/CGSB-37.58-M86, "Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing," with a reference to ASTM C836/C836M-18, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course," in Table 5.9.1.1.

This change could potentially affect the following topic areas:

- | | |
|--|---|
| <input type="checkbox"/> Division A | <input checked="" type="checkbox"/> Division B |
| <input type="checkbox"/> Division C | <input checked="" type="checkbox"/> Design and Construction |
| <input type="checkbox"/> Building operations | <input type="checkbox"/> Housing |
| <input type="checkbox"/> Small Buildings | <input checked="" type="checkbox"/> Large Buildings |
| <input type="checkbox"/> Fire Protection | <input type="checkbox"/> Occupant safety in use |
| <input type="checkbox"/> Accessibility | <input type="checkbox"/> Structural Requirements |
| <input checked="" type="checkbox"/> Building Envelope | <input type="checkbox"/> Energy Efficiency |
| <input type="checkbox"/> Heating, Ventilating and Air Conditioning | <input type="checkbox"/> Plumbing |
| | <input type="checkbox"/> Construction and Demolition Sites |

Problem

CAN/CGSB-37.58-M86, "Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing," which is currently referenced in Table 5.9.1.1. of Division B of the NBC, had not been updated since 1986 and was withdrawn in 2005.

The withdrawal of the standard over 15 years ago means that industry is no longer using this standard as a reference for minimum performance or material suitability. Therefore, if the standard were to remain in the NBC, it would cause confusion and conflict between designers, manufacturers, authorities having jurisdiction and the legal community. These conflicts would occur when

- authorities having jurisdiction request documentation from manufacturers during permit reviews to prove Code compliance,
- designers require Code compliance for use of their design specifications on a project, or
- lawyers demand proof of Code compliance during possible court cases.

Justification

At the mid-cycle review of updates to the standards currently referenced in Table 5.9.1.1., it was determined that CAN/CGSB-37.58-M86

- was withdrawn in 2005, and
- is no longer used in practice.

Therefore, it was agreed to replace the reference to this withdrawn standard with a reference to ASTM C836/C836M-18, "Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course."

Replacing the reference

- removes the need to prove compliance with a standard that is no longer relevant to the industry
- provides Code users with a relevant and up-to-date standard with which to comply.

This proposed change would eliminate potential conflicts and confusion for designers, manufacturers, authorities having jurisdiction and the legal community, as noted above.

PROPOSED CHANGE

NBC20 Div.B 5.9.1.1. (first printing)

[5.9.1.1.] 5.9.1.1. Compliance with Applicable Standards

- [1] 1)** Except as provided in Sentence (2) and elsewhere in this Part, materials and components, and their installation, shall conform to the requirements of the applicable standards in Table 5.9.1.1. where those materials or components are
- [a] a) incorporated into environmental separators or assemblies exposed to the exterior, and
- [b] b) installed to fulfill the requirements of this Part.
- (See Note A-5.9.1.1.(1).)
- [2] 2)** The requirements for *flame-spread ratings* contained in thermal insulation standards shall be applied only as required in Part 3.

**Table [5.9.1.1.] 5.9.1.1.
Standards Applicable to Environmental Separators and Assemblies Exposed to the Exterior
Forming Part of Sentence [5.9.1.1.] 5.9.1.1.([1] 1)**

Issuing Agency	Document Number	Title of Document
ANSI	A135.6	Engineered Wood Siding
ASME	B18.6.1	Wood Screws (Inch Series)
ASTM	A123/A123M	Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM	A153/A153M	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM	A653/A653M	Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM	C4	Standard Specification for Clay Drain Tile and Perforated Clay Drain Tile
ASTM	C73	Standard Specification for Calcium Silicate Brick (Sand-Lime Brick)
ASTM	C126	Ceramic Glazed Structural Clay Facing Tile, Facing Brick, and Solid Masonry Units
ASTM	C212	Standard Specification for Structural Clay Facing Tile

Issuing Agency	Document Number	Title of Document
ASTM	C412M	Standard Specification for Concrete Drain Tile
ASTM	C444M	Standard Specification for Perforated Concrete Pipe
ASTM	C553	Standard Specification for Mineral Fiber Blanket Thermal Insulation for Commercial and Industrial Applications
ASTM	C612	Standard Specification for Mineral Fiber Block and Board Thermal Insulation
ASTM	C700	Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated
ASTM	C726	Standard Specification for Mineral Wool Roof Insulation Board
ASTM	C834 ⁽¹⁾	Standard Specification for Latex Sealants
ASTM	C836/836M-18	Standard Specification for High Solids Content, Cold Liquid-Applied Elastomeric Waterproofing Membrane for Use with Separate Wearing Course
ASTM	C840	Standard Specification for Application and Finishing of Gypsum Board
ASTM	C920 ⁽¹⁾	Standard Specification for Elastomeric Joint Sealants
ASTM	C991	Standard Specification for Flexible Fibrous Glass Insulation for Metal Buildings
ASTM	C1002	Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs
ASTM	C1177/C1177M	Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing
ASTM	C1178/C1178M	Standard Specification for Coated Glass Mat Water-Resistant Gypsum Backing Panel
ASTM	C1184 ⁽¹⁾	Standard Specification for Structural Silicone Sealants
ASTM	C1280	Standard Specification for Application of Exterior Gypsum Panel Products for Use as Sheathing
ASTM	C1311 ⁽¹⁾	Standard Specification for Solvent Release Sealants
ASTM	C1330 ⁽¹⁾	Standard Specification for Cylindrical Sealant Backing for Use with Cold Liquid-Applied Sealants
ASTM	C1396/C1396M ⁽²⁾	Standard Specification for Gypsum Board
ASTM	C1658/C1658M ⁽³⁾	Standard Specification for Glass Mat Gypsum Panels
ASTM	D1227/D1227M	Standard Specification for Emulsified Asphalt Used as a Protective Coating for Roofing
ASTM	D2178/D2178M	Standard Specification for Asphalt Glass Felt Used in Roofing and Waterproofing
ASTM	D3019/D3019M ⁽⁴⁾	Standard Specification for Lap Cement Used with Asphalt Roll Roofing, Non-Fibered, and Fibered
ASTM	D4479/D4479M	Standard Specification for Asphalt Roof Coatings – Asbestos-Free

Issuing Agency	Document Number	Title of Document
ASTM	D4637/D4637M	Standard Specification for EPDM Sheet Used In Single-Ply Roof Membrane
ASTM	D4811/D4811M	Standard Specification for Nonvulcanized (Uncured) Rubber Sheet Used as Roof Flashing
ASTM	D6878/D6878M	Standard Specification for Thermoplastic Polyolefin Based Sheet Roofing
ASTM	E2190	Standard Specification for Insulating Glass Unit Performance and Evaluation
BNQ	BNQ 3624-115	Polyethylene (PE) Pipe and Fittings for Soil and Foundation Drainage
CGSB	CAN/CGSB-11.3-M	Hardboard
CGSB	CAN/CGSB-12.1	Safety Glazing
CGSB	CAN/CGSB-12.2-M	Flat, Clear Sheet Glass
CGSB	CAN/CGSB-12.3-M	Flat, Clear Float Glass
CGSB	CAN/CGSB-12.4-M	Heat Absorbing Glass
CGSB	CAN/CGSB-12.8	Insulating glass units
CGSB	CAN/CGSB-12.9	Spandrel glass
CGSB	37-GP-9Ma	Primer, Asphalt, Unfilled, for Asphalt Roofing, Dampproofing and Waterproofing
CGSB	CAN/CGSB-37.50-M	Hot-Applied, Rubberized Asphalt for Roofing and Waterproofing
CGSB	CAN/CGSB-37.54	Polyvinyl Chloride Roofing and Waterproofing Membrane
CGSB	CAN/CGSB-37.58-M	Membrane, Elastomeric, Cold-Applied Liquid, for Non-Exposed Use in Roofing and Waterproofing
CGSB	CAN/CGSB-41.24	Rigid Vinyl Siding, Soffits and Fascia
CGSB	CAN/CGSB-51.32-M	Sheathing, Membrane, Breather Type
CGSB	CAN/CGSB-51.33-M	Vapour Barrier Sheet, Excluding Polyethylene, for Use in Building Construction
CGSB	CAN/CGSB-51.34-M	Vapour Barrier, Polyethylene Sheet for Use in Building Construction
CGSB	CAN/CGSB-93.1-M	Sheet, Aluminum Alloy, Prefinished, Residential
CGSB	CAN/CGSB-93.2-M	Prefinished Aluminum Siding, Soffits, and Fascia, for Residential Use
CSA	A23.1	Concrete materials and methods of concrete construction
CSA	CAN/CSA-A82	Fired masonry brick made from clay or shale
CSA	CAN3-A93-M	Natural Airflow Ventilators for Buildings
CSA	CAN/CSA-A123.2	Asphalt-Coated Roofing Sheets
CSA	A123.3	Asphalt Saturated Organic Roofing Felt
CSA	CAN/CSA-A123.4	Asphalt for Constructing Built-Up Roof Coverings and Waterproofing Systems

Issuing Agency	Document Number	Title of Document
CSA	A123.5	Asphalt shingles made from glass felt and surfaced with mineral granules
CSA	CAN/CSA-A123.16	Asphalt-coated glass-base sheets
CSA	A123.17	Asphalt Glass Felt Used in Roofing and Waterproofing
CSA	A123.23	Product specification for polymer-modified bitumen sheet, prefabricated and reinforced
CSA	A123.51	Asphalt shingle application on roof slopes 1:6 and steeper
CSA	A165.1	Concrete block masonry units
CSA	A165.2	Concrete brick masonry units
CSA	A165.3	Prefaced concrete masonry units
CSA	CAN/CSA-A179	Mortar and Grout for Unit Masonry
CSA	CAN/CSA-A220 Series	Concrete Roof Tiles
CSA	CAN/CSA-A371	Masonry Construction for Buildings
CSA	A3001	Cementitious Materials for Use in Concrete
CSA	B182.1	Plastic drain and sewer pipe and pipe fittings
CSA	G40.21	Structural quality steel
CSA	CAN/CSA-G401	Corrugated steel pipe products
CSA	CAN/CSA-O80 Series	Wood preservation
CSA	O118.1	Western Red Cedar Shakes and Shingles
CSA	O118.2	Eastern White Cedar Shingles
CSA	O121	Douglas fir plywood
CSA	O141	Softwood Lumber
CSA	O151	Canadian softwood plywood
CSA	O153	Poplar plywood
CSA	O325	Construction sheathing
CSA	O437.0	OSB and Waferboard
HPVA	ANSI/HPVA HP-1	American National Standard for Hardwood and Decorative Plywood
ULC	CAN/ULC-S701.1	Standard for Thermal Insulation, Polystyrene Boards
ULC	CAN/ULC-S702.1	Standard for Mineral Fibre Thermal Insulation for Buildings, Part 1: Material Specification
ULC	CAN/ULC-S703	Standard for Cellulose Fibre Insulation (CFI) for Buildings
ULC	CAN/ULC-S704.1	Standard for Thermal Insulation, Polyurethane and Polyisocyanurate, Boards, Faced

Issuing Agency	Document Number	Title of Document
ULC	CAN/ULC-S705.1	Standard for Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Material Specification
ULC	CAN/ULC-S705.2	Standard for Thermal Insulation – Spray Applied Rigid Polyurethane Foam, Medium Density – Application
ULC	CAN/ULC-S706.1	Standard for Wood Fibre Insulating Boards for Buildings
ULC	CAN/ULC-S710.1	Standard for Bead-Applied One Component Polyurethane Air Sealant Foam, Part 1: Material Specification
ULC	CAN/ULC-S711.1	Standard for Bead-Applied Two Component Polyurethane Air Sealant Foam, Part 1: Material Specification
ULC	CAN/ULC-S717.1	Standard for Flat Wall Insulating Concrete Form (ICF) Units – Material Properties

Notes to Table [5.9.1.1.] 5.9.1.1.:

- (1) See Note A-Table 5.9.1.1.
 - (2) The *flame-spread rating* of gypsum board shall be determined in accordance with CAN/ULC-S102, in lieu of ASTM E84 as indicated in ASTM C1396/C1396M.
 - (3) The *flame-spread rating* of gypsum panels shall be determined in accordance with CAN/ULC-S102, in lieu of ASTM E84 as indicated in ASTM C1658/C1658M.
 - (4) For the purpose of compliance with Part 5, ASTM D3019/D3019M shall only apply to the non-fibered and non-asbestos-fibered types of asphalt roll roofing.
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Impact analysis

This proposed change is expected to have a positive impact in that it would resolve all potential conflicts created by the Code reference to an outdated standard as a minimum requirement and align the Code with current industry practice.

Enforcement implications

Replacing the reference to the withdrawn and outdated CGSB standard with a reference to an up-to-date ASTM standard as a minimum requirement would eliminate the conflict that could be created if an authority having jurisdiction were to demand proof of compliance to a standard that is not used by industry.

Who is affected

Designers, specifiers, manufacturers, building owners, building officials, lawyers and contractors. These groups would benefit from the elimination of the potential conflicts addressed above.

OBJECTIVE-BASED ANALYSIS OF NEW OR CHANGED PROVISIONS

NBC20 Div.B 5.9.1.1. (first printing)

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1)

[F20,F22,F51,F54,F55,F61,F63,F80-OH1.1,OH1.2] [F41,F55-OH1.1] [F55,F61,F80-OH1.3]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1)

[F20,F80-OS2.1] [F20,F22,F51,F61,F63,F80-OS2.3] [F51-OS2.5]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1) [F20-OS2.2] [F80-OS2.3]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1) [F80,F61,F63-OS3.1]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1) [F80,F61,F63-OH4]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1) ([\[a\]](#) a) [F61,F63-OS1.4]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1) [F20,F80-OP2.1,OP2.3] [F22,F80-OP2.4]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[1\]](#) 1) [F42-OH2.5]

[\[5.9.1.1.\]](#) 5.9.1.1. ([\[2\]](#) 2) no attributions