

APPENDIX A

ENERGY STAR® for Fenestration Products
 Revised Proposed Changes to the Canadian Technical Specification

This is the revised proposal for changing the Canadian ENERGY STAR technical specification for fenestration products. Natural Resources Canada (NRCan) would like to thank all those who commented on our first proposal.

1. Implementation Date

A number of comments were received with respect to the proposed implementation date and the number of changes being proposed. Therefore, the new proposed effective date is **February 1, 2015**.

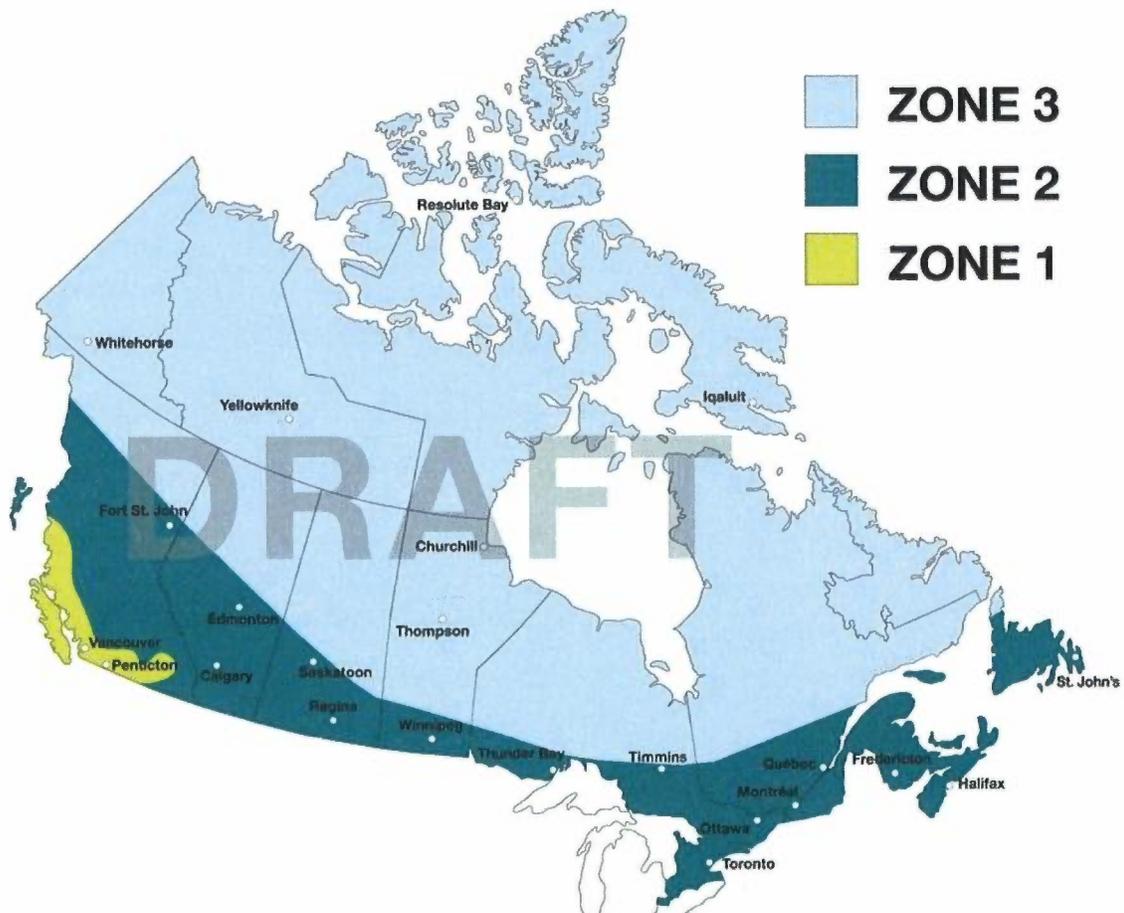
2. Zone Map

The proposed new 3 zone map was accepted by almost all of those who submitted comments. The move to using the Heating Degree Day (HDD) values as found in the current edition of the Model National Building Code (MNBC) (See Appendix A) was also accepted.

Zone 1: <3500 HDDs

Zone 2: 3500 to <6000 HDDs

Zone 3: >=6000 HDDs



3. Qualifying Levels

More stringent qualifying levels were generally accepted by stakeholders (see Tables 1 and 2) if the industry was given more time to adapt which NRCAN is now proposing to do. The elimination of the U-factor cap in the Energy Rating (ER) compliance path was also generally accepted, therefore, this change will go forward.

A number of negative comments were received about changing the minimum ER values to a minimum SHGC value in the window and door criteria table, therefore this proposal has been dropped. To replace the minimum SHGC value, minimum ER values have been calculated using the maximum U-factor in metric units for each zone, the SHGC value of 0.20 and the air leakage value of 0.5 L/s/m². These minimum ER values are proposed to apply to windows and sliding glass doors only. The minimum ER will not apply to hinged doors, sidelites and door transoms. There was also a suggestion to raise the minimum allowable SHGC to at least 0.25 (or the equivalent ER value), however it is felt at this time that the program needs to allow participants the flexibility of offering at least some lower solar gain products. NRCAN will continue to monitor this aspect to see if a higher minimum solar gain value is warranted in the future.

A number of negative comments were also received about the proposal to have U-factors in metric units only in the criteria tables, therefore, NRCAN has decided to retain the current Zones B, C and D U-factor metric and imperial values for the new Zones 1, 2 and 3 to maintain consistency.

Table 1: Energy Efficiency Requirements for Windows and Doors

Zone	Energy Rating (ER) Path	OR	U-factor Path		
	Minimum ER (Unitless)		Maximum U-factor W/m ² ·K (Btu/h·ft. ² ·°F)	AND	Minimum ER Windows and Sliding Glass Doors Only (Unitless)
1	25		1.60 (0.28)		16
2	29		1.40 (0.25)		20
3	34		1.20 (0.21)		24

Table 2: Energy Efficiency Requirements for Skylights*

Zone	Maximum U-factor W/m ² K (Btu/h·ft. ² ·°F)
1	2.60 (0.46)
2	2.40 (0.42)
3	2.10 (0.37)

*Levels for tubular skylights under review

A problem has recently been identified in the way U-factor values have been determined for Tubular Daylighting Devices (tubular skylights), therefore, suitable levels for these products are still being evaluated at this time.

4. Other Proposed Changes

A. Air Leakage

Both NRCan and the U.S. EPA remain committed to the certification of product performance to maintain the integrity of the ENERGY STAR symbol, therefore, the requirement for certified air leakage values is still being proposed. Manufacturers will be able to submit air leakage results certified by the NFRC or other accredited certification agencies. Certification to a full physical performance standard such as NAFS will be encouraged. Non-certified test results will no longer be accepted as of February 1, 2015 and any models with non-certified test results in the NRCan database will be archived.

NRCan received comments noting that an air leakage rate of ≤ 2.5 l/s/m² for hinged doors would not meet the Model National Building Code of Canada, therefore, it is now proposed that all fenestration products including hinged doors must have an air leakage of ≤ 1.5 l/s/m².

B. Installation Instructions

It is currently required that installation instructions be shipped to the end-user along with the product. NRCan is still proposing to amend this requirement so that an electronic version on a company or industry association website will be an acceptable alternative. However, NRCan is no longer proposing to prescribe what details should be included.

Please send all comments on this second proposal to Steve Hopwood, Natural Resources Canada to shopwood@nrcan.gc.ca or by fax at 613-947-5286 by **January 18, 2013**. For further information on this proposal, you may also contact him at 613-995-6741.

APPENDIX B



**PUBLIC CODE CHANGE PROPOSAL FORM
FOR PUBLIC PROPOSALS TO THE INTERNATIONAL CODES
2012-2014 CODE DEVELOPMENT CYCLE**

CLOSING DATES:

**Group A Codes: January 3, 2012
Group B Codes: January 3, 2013
Group C Codes: January 6, 2014**

See Item 3 of these instructions for additional information concerning Group A, B and Group C Code Development Committees Responsibilities

1)

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I. CODE: IRC-12-14

Code Sections/Tables/Figures Proposed for Revision (3.3.2); Note: If the proposal is for a new section, indicate (new).

Tables R402.1.1 and R402.1.3

Proponent: Name/Company/Representing (3.3.1): (NOTE: DO NOT USE ACRONYMS FOR YOUR COMPANY OR ORGANIZATIONAL NAME)

Thomas S. Zaremba/Roetzel & Andress/Pilkington North America and AGC Glass Company North America

Revise as follows:

Revise Tables R402.1.1 and R402.1.3 as follows:

TABLE R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	GLAZED FENESTRATION SHGC ^{b,e}	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC ^{b,e}	<i>(remainder of table unchanged)</i>
1	NR	≤ 0.25	0.75	0.25	
2	0.40	≤ 0.25	0.65	0.25	
3	0.35	≤ 0.25	0.55	0.25	
4 except Marine	0.35	≤ 0.40	0.55	0.40	
5 and Marine 4	0.32-0.25	NR	0.55	NR	
	≡ 0.26	≥ 0.22			
	≡ 0.27	≥ 0.27			
	≡ 0.28	≥ 0.32			
	≡ 0.29	≥ 0.37			
6	0.32-0.25	NR	0.55	NR	
	≡ 0.26	≥ 0.22			
	≡ 0.27	≥ 0.27			
	≡ 0.28	≥ 0.32			
	≡ 0.29	≥ 0.37			
7 and 8	0.32-0.25	NR	0.55	NR	
	≡ 0.26	≥ 0.22			
	≡ 0.27	≥ 0.27			
	≡ 0.28	≥ 0.32			
	≡ 0.29	≥ 0.37			
	≡ 0.30	≥ 0.42			

a. R-values are minimums. Except as otherwise noted, U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the installed R-value of the insulation shall not be less than the R-value specified in the table.

TABLE R402.1.3
EQUIVALENT U-FACTORS^a

CLIMATE ZONE	FENESTRATION U-FACTOR ^b	SKYLIGHT ^b U-FACTOR	<i>(remainder of table unchanged)</i>
1	0.50	0.75	
2	0.40	0.65	
3	0.35	0.55	
4 except Marine	0.35	0.55	
5 and Marine 4	0.32-0.25	0.55	
6	0.32-0.25	0.55	
7 and 8	0.32-0.25	0.55	