

Proposed Ontario Building Code Change #A4-4 for Active Solar Hot Water Systems Canadian Standards Association

AREA 4 - (CHANGE # A4 - 4)

DESCRIPTION OF PROPOSED AMENDMENT

Active Solar Hot Water Systems use the sun's energy to heat water. The proposed amendment would clarify that the standard for solar domestic hot water systems applies to packaged systems.

EXISTING BUILDING CODE PROVISION

7.2.10.13. Solar Domestic Hot Water

(1) Equipment for solar heating of potable water shall conform to CAN/CSA-F379.1, "Solar Domestic Hot Water Systems (Liquid to Liquid Heat Transfer)".

7.6.1.15. Solar Domestic Hot Water Systems

(1) Systems for solar heating of potable water shall be installed in conformance with CAN/CSA-F383, "Installation Code for Solar Domestic Hot Water Systems".

PROPOSED BUILDING CODE AMENDMENT

7.2.10.13. Solar Domestic Hot Water

(1) Equipment, that is part of a packaged SDHW system for solar heating of potable water, shall conform to CAN/CSA-F379.1, "Solar Domestic Hot Water Systems (Liquid to Liquid Heat Transfer)".

7.6.1.15. Solar Domestic Hot Water Systems

(1) Except as provided in Sentence (2) a system for solar heating of potable water shall be installed in accordance with good engineering practice.

(2) Packaged SDHW systems for solar heating of potable water in residential occupancies shall be installed in conformance with CAN/CSA-F383, "Installation Code for Solar Domestic Hot Water Systems".

Draft CSA "COMMENT" on this Section

The proposed changes for Solar Domestic Hot Water (7.2.10.13) should recognize/inform that CSA International TIL-MSE-45 Interim Requirements for Solar Domestic Hot Water Systems is the interim certification requirement for "Packaged Systems" (factory or dealer certified) pending publication of the new edition of CSA F379.1 currently under development.

The proposed change to (7.2.10.13) does not provide any guidance regarding the design or selection of components used in "Non-Packaged" Systems. Although it may be implied from proposed Clause 7.6.1.5 for installation of SDHWS that a professional

engineer would be involved in designing the non-packaged system and selecting the components, there is no stated requirement that the components selected by the engineer need to meet the component testing required by CSA F379 or CSA TIL-MSE 45. This disconnect could be addressed in part by requiring solar collectors used in non-packaged systems to comply with CAN/CSA F378 Solar Collectors. However, local permitting officials will still be put in the position of having to interpret whether glycol/potable water single walled heat exchangers that have not been tested by Canadian accredited laboratories meet the criteria of Clause 7.6.2.1. Connection of Systems "(1) Connections to potable water systems shall be designed and installed so that nonpotable water or substances that may render the water non-potable cannot enter the system." I'm not sure if this will help address the concerns of the local officials who wonder how an engineer or installer can claim to meet this requirement in the absence of Canadian accredited test verification.

Robert Storey
Project Manager
Canadian Standards Association
5060 Spectrum Way
Mississauga, Ontario L4W 5N6, Canada
Website www.csa.ca