

July 29, 2024

Canadian Board for Harmonized Construction Codes
1200 Montreal Road, building M-20
Ottawa, Ontario
K1A 0R6

RE: Proposed Change 2061: Overheating in New Dwelling Units

The Middlesex-London Health Unit (MLHU) is mandated by Ontario's *Health Protection and Promotion Act (HPPA)* to deliver public health programs and services specified within the Ontario Public Health Standards (OPHS) to prevent the spread of disease and to promote and protect the health of people in London and Middlesex County. One of the requirements included in this mandate is to reduce exposure to health hazards (Ministry of Health and Long-Term Care, 2021).

"Proposed Change 2061: Overheating in New Dwelling Units" acknowledges that there are negative health impacts from exposure to extreme heat indoors and aims to add a maximum indoor air temperature to address overheating in new dwelling units. Setting a maximum indoor air temperature aligns with Ontario public health's mandate to reduce exposure to health hazards, including extreme heat, and is an important step to help reduce the negative health impacts of overheating indoors, especially for those most vulnerable (PHAC, 2022). The MLHU is pleased to have the opportunity to comment on "Proposed Change 2061: Overheating in New Dwelling Units" and submits the following comments and recommendations for consideration and inclusion in the amended National Building Code (NBC) of Canada.

Section 9.33. Heating and Air-conditioning

9.33.3 Design Temperatures

Maximum Temperature

The MLHU supports establishing a maximum indoor air temperature. The MLHU also supports the suggested language in section 9.33.3.1[2] (page 4 of the proposed change), "maintaining an indoor air temperature of not more than 26°C", as this language corresponds with existing language in section 9.33.3.3(1) of Division B in the National Building Code (National Research Council of Canada, 2022).

As indicated within the justification section of the proposed change, there is precedence for setting a maximum indoor air temperature of 26°C to reduce the negative impacts of indoor heat. However, to provide the best protection for those most vulnerable, it is important that evidence regarding the proposed maximum indoor air temperature be monitored as research continues to evolve.

Living Space

Currently within the justification section (page 2 and 4), it indicates "in at least one living space in new dwelling units". Conversely, within the abbreviated impact analysis section (page 6), it indicates "in a single living space within each dwelling unit". Given the variety of buildings that the proposed change

could apply to, using “in at least one living space” could allow for greater flexibility in the application, potentially allowing application to all living spaces.

When determining living space(s) where the maximum indoor air temperature should not be exceeded, several factors should be taken into consideration, including accessibility to all occupants, the amount of time spent within the living space, and the ability to protect multiple occupants during the day and night. To align with existing language in section 9.33.3.1(1) of the NBC and British Columbia’s building code, the “living space” should also exclude unfinished basements, service rooms, crawl spaces, etc. (National Research Council of Canada, 2022; Government of British Columbia, 2024).

Section 1.3. Divisions A, B, and C, of this Code

Section 1.3.3. Application of Division B

The table presented on page 1 of the proposed changes denotes that housing and small buildings could potentially be affected; it does not indicate large buildings are affected. However, within the abbreviated impact analysis (page 6/9), it references “Part 9 and apartment type dwellings”. No definition is provided for apartment type dwellings in the analysis, although apartment buildings are defined as having “more than two dwelling units” in section A-1.4.1.2.(1) of the current Code. As such, it is unclear if the proposed change also applies to large buildings.

If the proposed change's intent is to exclude large buildings, the MLHU recommends modifying the approach to include dwelling units in all buildings (Part 9 and large buildings). Applying it to all buildings, would be in line with the recent changes to the British Columbia (B.C.) Building Code (Government of British Columbia, 2024) and provide greater protection from overheating indoors.

Section 1.4 Terms and Abbreviations

1.4.1.2. Defined Terms

Air-conditioning can contribute to greenhouse gas emissions and increase energy consumption (WHO, 2018). Within the amended NBC, consideration should be given to providing a definition of “cooling facilities” (mentioned in section 9.33.3.1[2]) that contains a variety of options including sustainable, low-carbon, energy efficient systems. Encouraging these options aligns with the OE Environment objective in section 2.2.1.1 of the Code to use energy efficiently (National Research Council of Canada, 2022), and can reduce negative impacts on the environment.

If you have any questions, please do not hesitate to contact us.

Sincerely,



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