Information Bulletin
Building and Safety Standards Branch
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No. P24-01
April 2, 2024

2024 Edition of the British Columbia Plumbing Code

This bulletin provides information about the British Columbia Plumbing Code (Plumbing Code) 2024 and new requirements for plumbing systems. The Plumbing Code 2024 is legally adopted as the British Columbia Building Code Book II (Plumbing Systems) and applies to projects for which a building permit is applied for on or after March 8, 2024.

Updates to the BC Codes

Plumbing Code users should be aware of the changes in the Building Code 2024 from the 2018 edition that relate to plumbing systems. These changes are discussed in Bulletin B24-05. For example, the term 'owner' is now defined which helps establish who can perform plumbing work on a single detached dwelling.

Getting the Plumbing Code

The British Columbia Building Code 2024 Book I (General) (Building Code) adopts the British Columbia Building Code Book II (Plumbing Systems) by reference in Part 7 of Division B, it also effectively states that **the British Columbia Building Code 2024 Book II (Plumbing Systems) is the National Plumbing Code of Canada 2020** (NPC 2020).

British Columbia will not be producing a consolidated Plumbing Code 2024 document. Plumbing Code users will follow the provisions relevant to plumbing systems in the Building Code 2024[1], such as Part 1 of Division A and Part 7 of Division B, and obtain a copy of the NPC 2020 from the nrc-publications.canada.ca website to use together as the Plumbing Code 2024.

Using the Plumbing Code

The NPC 2020 is a national model document, and there are unique-to-B.C. provisions that are required to coordinate with B.C.'s regulatory framework and to clarify rules and establish who can perform what work.

Plumbing Code 2024 users shall replace references within the NPC 2020 to the National Building Code of Canada and National Energy Code of Canada for Buildings with reference to the British Columbia Building Code and replace references to the National Fire Code of Canada with reference to the British Columbia Fire Code.

[1] The Building Code 2024 is available on the Building and Safety Standards Branch website.

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Alternative solutions to the acceptable solutions in Division B of the NPC 2020 are permitted using the objectives and functional statements attributed to them in the NPC 2020, however the process and conditions for alternative solutions is established in Part 1 of Division A of the Building Code 2024. For example, Clause 1.2.1.1.(1)(b) of Division A of the Building Code 2024 states that alternative solutions must be accepted by the authority having jurisdiction under Section 2.3. of Division C. There is no change to the process or requirements for alternative solutions from the 2018 edition of the Plumbing Code other than that it is now being established in Division A of the Building Code 2024 instead of a consolidated Plumbing Code.

Subsection 1.2.3. of Division A of the Building Code 2024 states that personnel performing plumbing work must either have a Canadian plumbing tradesperson's certificate or be an apprentice of someone with a Canadian plumbing tradesperson's certificate. There is an exception from tradesperson's qualifications that permits registered owners to perform plumbing work on a single detached dwelling that they occupy. There is no change to these requirements from the 2018 edition of the Plumbing Code other than that it is now being established in Division A of the Building Code 2024 instead of a consolidated Plumbing Code.

Part 7 of Division B of the Building Code 2024 continues B.C.'s clarification that a water closet with a dual-flush cycle of 6.0 L and 4.1 L meets the water usage requirements in Table 2.6.1.6. of Division B of the NPC 2020.

Existing unique-to-B.C. Provisions

B.C. historically expanded permissions for the use of non-potable water systems. The NPC 2020 includes updates that followed B.C.'s lead and allow non-potable water systems to serve water closets, urinals, trap seal primers, and irrigation systems[2].

B.C. historically restricted the use of Type M hard temper copper tube in above-ground water distribution systems. Type M hard temper copper tube has been permitted for use in above-ground water distribution systems in the model national codes for many editions and is supported by copper tube manufacturers. By adopting the NPC 2020 as the Plumbing Code 2024, B.C. now permits the use of Type M hard temper copper tube to be used in above-ground water distribution systems[3].

[2] Limited to directly connected underground irrigation systems that only dispense water below the surface of the ground.

[3] See Sentence 2.2.7.4.(2) and Table 2.2.7.4. of Division B of the Plumbing Code 2024.

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New from the NPC 2020

B.C. removed permissions for the use of asbestos-containing materials in the 2018 edition of the Plumbing Code but did not offer alternatives. Asbestos-containing materials remain 'not permitted', but the NPC 2020 provides an option to use fibrocement pipe and fittings.

Polyethylene of raised temperature (PE-RT) tube and fittings are permitted as an optional material for potable water systems[4]. Cellular core polyvinyl chloride (PVC) pipe and fittings are permitted as an optional material but limited for use in residential buildings containing one or two dwelling units, and in row houses that do not exceed three storeys in height.

To reduce the risk of scalding, the maximum temperature of water discharging from shower heads or into bathtubs in healthcare facilities and seniors' residences is 43°Celcius. Water temperature control requirements are expanded from fixed-location shower heads to water supplied to all shower heads.

Shower drain sizes are based on litres per minute discharged from all shower heads and body sprays. Previous editions base drain sizes on the number of shower heads.

For protection from radon and other soil cases and contaminants, subsurface drainage sumps and tanks require a water-tight and air-tight cover[5].

Non-potable rainwater harvesting systems[6], a specific subset of non-potable water systems, has prescriptive solutions that govern design, fabrication, and installation. These provisions for the collection and use of rainwater are based on good engineering practice. Harvested rainwater needs to be treated, and in a situation where a fixture combines potable water with harvested rainwater, the potable water system must be protected by a backflow preventer.

Toxicity testing (chemical contaminants) is required for all components of potable water systems. Most material standards already require toxicity testing through reference to the NSF/ANSI/CAN Standard 61, "Drinking Water System Components – Health Effects," standard. Section 2 of Division B requires toxicity testing for components where their material standard doesn't require toxicity testing or where it may not have been clear toxicity testing is required.

Gate valves and screw caps were previously permitted, although not typically used, as options for backflow protection for drainage systems to reduce the risk of basement flooding. Gate valves and screw caps rely on manual intervention which may not be available or occur during/following a backflow event and are no longer listed as acceptable solutions.

[4] PE-RT tube is not permitted for drainage systems, building sewers, or venting systems.
[5] See Sentence 2.4.6.3.(3) of Division B of the Plumbing Code 2024.
[6] See Subsection 2.7.2. of Division B of the Plumbing Code 2024.