

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 24-0052

INTERPRETATION

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| Interpretation Date: | December 10, 2024 |
| Building Code Edition: | BC Building Code 2024, Book II: Plumbing Systems (BCPC) and BC Building Code Book I: General |
| Subject: | Sizing a Vent Stack |
| Keywords: | Vent Stack, Vent Stack Sizing |
| Building Code Reference(s): | 2.5.8.4.(1) & (2), Table 2.5.8.4., 2.4.9.1.(1)(a) |

Question:

When sizing a vent stack in accordance with Table 2.5.8.4., which has a longer developed length than the maximum permitted in the table, can the vent stack be increased in size to accommodate this extra developed length?

Interpretation:

Yes (with conditions).

For this example, we will assume we are sizing a vent stack to serve a NPS 3 stack with a load of 100 FUs at its' base and a developed length of 200 m. See below for an excerpt from Table 2.5.8.4.

Table 2.5.8.4.
Size and Developed Length of Stack Vents and Vent Stacks⁽¹⁾
Forming Part of Sentences 2.5.8.4.(1) and (2)

| Nominal Pipe Size of Stack, NPS ⁽²⁾ | Total Hydraulic Load Being Vented, fixture units | Nominal Pipe Size of Stack Vent or Vent Stack, NPS | | | | | | | | | |
|--|--|--|-----|------|-----|----|----|----|----|----|----|
| | | 1¼ | 1½ | 2 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
| | | Maximum Length of Stack Vent or Vent Stack, m | | | | | | | | | |
| 1¼ | 2 | 9 | NL | NL | NL | NL | NL | NL | NL | NL | NL |
| | 8 | 15 | 46 | NL | NL | NL | NL | NL | NL | NL | NL |
| 1½ | 12 | 9 | 23 | 61 | NL | NL | NL | NL | NL | NL | NL |
| | 24 | 8 | 15 | 46 | NL | NL | NL | NL | NL | NL | NL |
| 3 | 10 | NP | 13 | 46 | 317 | NL | NL | NL | NL | NL | NL |
| | 21 | NP | 10 | 33.5 | 247 | NL | NL | NL | NL | NL | NL |
| | 53 | NP | 8 | 28.5 | 207 | NL | NL | NL | NL | NL | NL |
| | 102 | NP | 7.5 | 26 | 189 | NL | NL | NL | NL | NL | NL |



Patrick Shek, P.Eng., CP, FEC, Committee Chair

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Given the fixture unit load on the stack described above (100 FUs) and the developed length of the NPS 3 vent stack (200 m), it does not comply with Table 2.5.8.4. However, the designer, or installer, could choose to increase the vent stack to NPS 4. The maximum developed length for this vent stack is now noted as “NL” which the footnote to the Table says is “not limited” or unrestricted.

To comply with Clause 2.4.9.1.(1)(a), the size of the stack below the vent stack connection must be increased to NPS 4 while the stack above this connection can remain NPS 3.



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