

BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing
AIBC, EGBC, BOABC

File No: 24-0139

INTERPRETATION

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Interpretation Date:	December 16, 2025
Building Code Edition:	BC Building Code 2024, Book II: Plumbing Systems (BCPC) and BC Building Code Book I: General
Subject:	Floor Drain in a High Voltage Room
Keywords:	Floor Drain, High Voltage Room
Building Code Reference(s):	2.4.3.4.(1)
Question:	<ol style="list-style-type: none">1. If a high voltage room does not contain flammable, dangerous or toxic chemicals, can the floor drain be directly connected to a drainage system?2. If the answer to the question above is no, can this floor drain be connected to a foundation drainage system?
Interpretation:	<p>1. No.</p> <p>Sentence 2.4.3.4.(1) states that “a floor drain or other fixture located in an oil transformer vault, a high voltage room or any room where flammable, dangerous or toxic chemicals are stored or handled shall not be connected to a drainage system.”</p> <p>Although “high voltage room” is not a defined term in the BCBC, high voltage is defined in the Canadian Electrical Code as follows:</p> <p style="padding-left: 40px;">High voltage —</p> <ul style="list-style-type: none">a) for ac circuits, any voltage exceeding 1000 V ac; orb) for dc circuits, any voltage exceeding 1060 V dc.* <p>Based on the definition of "high voltage" in the Canadian Electrical Code, floor drains installed in this space cannot be directly connected to a drainage system (which is a defined term). If a drain is required in a high voltage room, this may be accomplished through an indirect connection to a funnel floor drain located in another space in the building. Note that the floor drain should not be located on the floor that supports the high</p> <p style="text-align: center;"></p> <hr/> <p>Patrick Shek, P.Eng., CP, FEC, Committee Chair</p>
<p>The views expressed are the consensus of the joint committee with members representing AIBC, EGBC and BOABC, which form the BC Building Code Interpretation Committee. The Building and Safety Standards Branch, Province of BC and the City of Vancouver participate in the committee's proceedings with respect to interpretations of the BC Building Code. The purpose of the committee is to encourage uniform province wide interpretation of the BC Building Code. These views should not be considered as the official interpretation of legislated requirements based on the BC Building Code, as final responsibility for an interpretation rests with the local <i>Authority Having Jurisdiction</i>. The views of the joint committee should not be construed as legal advice.</p>	

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voltage transformer. It must be located at the bottom of the electrical pull pit within the high voltage room.

If the above solution is not possible, there are other options available should a drain be required in this space, such as draining the electrical pull pit to a dry well or, if necessary, to a pumped system. The registered professional of record should evaluate the options and consult with the local authority to appropriately deal with this issue.

The intent statement for Sentence 2.4.3.4.(1) is as follows:

To limit the probability that a discharge of flammable, dangerous or toxic chemicals into drainage systems will lead to explosions or fires, which could lead to harm to persons.

Even though modern dry transformers are not subject to chemical spills, the wording of Sentence 2.4.3.4.(1) still applies to rooms that contain high voltage equipment as defined by the Canadian Electrical Code. The actual hazard is to prevent backup of the drainage system into the high voltage room which could lead to harm to persons.

2. No.

Given the restrictions regarding soil gas ingress into buildings, providing a path for this to occur would be poor practice.



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

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