BC BUILDING CODE INTERPRETATION COMMITTEE

A joint committee with members representing AIBC, EGBC, BOABC

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| Interpretation Date: | August 13, 2024 |
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| Building Code Edition: | BC Building Code 2024, Book I: General |
| Subject: | Industrial Mineral Stockpile Cover |
| Keywords: | Low Hazard Industrial, Storage Building, Low Fire Load |
| Building Code Reference(s): | Division A, 1.4.1.2.(1); Division B, 3.2.2.91. |

Question(s):

- 1. Can an industrial mineral stockpile cover (triodetic dome) with no human occupancy be used for permanent storage of mineral stockpile materials without having to meet any requirements of the BC Building Code?
- 2. If such a mineral storage structure is considered a building, would Article 3.2.2.91. "Group F, Division 3, One Storey, Low Fire Load Occupancy" be an appropriate major occupancy classification?

Interpretation:

No (with exceptions).

In various industries it is common to utilize large cover structures for the storage of raw materials, products, or equipment. Such structures typically do not have a continuous human occupancy, are unconditioned, and may be open to the exterior. Common construction includes truss or framed structures covered by lightweight materials, in configurations such as domes, industrial sheds, or tents.

Such structures fall within the definition of building in the BC Building Code (BCBC) and are therefore subject to the applicable requirements of this regulation. Broadly speaking, a building is any kind of structure supporting or sheltering a use, including not only persons, but also animals or property.

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

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 *Authority Having Jurisdiction*. The views of the joint committee should not be construed as legal advice.

2024-09-02

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This interpretation is consistent with past BCIC interpretations and BC Building Code Appeals Board rulings for non-traditional structures such as the following:

- BCIC Interpretation 18-0265 Use of Containers as a Building for Storage
- BCAB Ruling #1335 Definition of Building, Water Storage Reservoir, Article 1.1.3.2
- BCAB Ruling #1418 Definition of "Building", Covered Storage Bins, Article 1.1.3.2.
- BCAB Ruling #1455 Definition of Building, Article 1.1.3.2.
- BCAB Ruling #1640 Article 1.1.3.2. Definition of Building ("umbrella" structure) Sentence 4.1.1.3.(1), Structural Design Requirements (application to fabric "umbrella" structure)

Regardless of its classification as a building, it may be that not all the requirements of the building code ought to apply. The NRC's Users Guide to Part 3 ("what is a building?", Page 5) acknowledged this despite many structures being considered buildings, it may be impractical for all the requirements of the building code to apply. The Users Guide identified that the designer and the authority must agree on the most appropriate fit and that "Good judgment must be exercised in determining whether to apply a requirement under extenuating circumstances, provided always that the safety of the occupants is not threatened."

If the interpretation of whether a given building is unclear within a particular jurisdiction, the code user is encouraged to contact the local Authority Having Jurisdiction so they can provide additional guidance.

2. Yes.

In many cases, to be suitable for storage in an exterior unconditioned space, the stored resource or product is non-reactive and non-hazardous. If the material is also effectively non-combustible and it can be demonstrated that the total combustible fuel load is not more than 50 kg/m² or 1 200 MJ/m² of floor area, then a Group F, Division 3 major occupancy may be appropriate.

Article 3.2.2.91. identifies the further constraint that the use should be a Low Fire Load Occupancy, meaning that the total fuel load should be consistent with the fuel load that

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| might be expected of a power generating plant or facility used for the manufacture or storage of noncombustible materials. Conceptually means little to no combustible fuel loads and may require some interpretation by the designer and AHJ in circumstances where this is not inherently clear. |
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