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BC BUILDING CODE 2018
SUBSECTION 3.3.6, HAZARDOUS AREAS

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In the BC Building Code 2018 is Subsection 3.3.6 which addresses the design of hazardous areas, specifically the areas of a building where dangerous goods such as flammable, reactive or corrosive substances are stored or used.

Subsection 3.3.6 was developed to harmonize the fire separation requirements of the Fire Code with the Building Code in order to clarify the requirements for hazardous areas in both Codes.

This newsletter briefly highlights the key points to applying and using Subsection 3.3.6:

Does Subsection 3.3.6 Apply?

Subsection 3.3.6 applies to the areas in a building where the storage, handling, use and processing of dangerous goods exceed the exempt quantities identified in the BC Fire Code 2018. It is important to note that Subsection 3.3.6 is not limited to only industrial occupancies; it applies to any occupancy where the exempt quantities of dangerous goods are exceeded.

Subsection 3.3.6 references other acts, regulations and standards related to explosion, ventilation and electrical safety that may apply to structural, mechanical and electrical design.

Appendix A of the Building Code explains that dangerous goods that directly supply an appliance, apparatus or equipment are not regulated by the Building or Fire Code.

Are there Fire Separation Requirements in the Fire Code that Do Not Appear in the Building Code?

Yes, Subsection 3.3.6 has not incorporated all of the Fire Code requirements into the Building Code. Examples include:

- Laboratories - 1h rated fire separation from the remainder of a building may be required.
- Dedicated aerosol storage areas - 1h rated fire separations capable of withstanding the impact of a rocketing can may be required.
- Storage areas for loose combustible fibres - 1h or 2h rated fire separation may be required depending on quantities stored.

Special attention should also be given to the language used in Subsection 3.3.6, such as the term “where required by the BC Fire Code” to avoid unnecessarily providing fire separations for certain types of dangerous goods storage. A thorough understanding of the Fire Code as well as the Building Code is essential when reviewing Subsection 3.3.6.

GHL can provide assistance by reviewing the types of dangerous goods in order to make recommendations for fire protection and life safety design.

ABOUT THE AUTHORS

Henning White (FP Technologist, CFPS) is a graduate of the Fire Protection Engineering Technology Program at Seneca College in Toronto and is a member of the Fire Prevention Officers’ Association of BC. Henning has 10 years’ experience as a Fire and Building Code Consultant in Ontario, Alberta and BC. In early 2013 he received the title of CFPS (Certified Fire Protection Specialist), an internationally recognized designation offered by the National Fire Protection Association, and is currently registering as an Applied Science Technologist with the ASTTBC.

Wendy Morrison (PL Eng, BCQ) is a Building Technologist with 18 years’ experience at GHL, is registered with Engineers and Geoscientists BC as a Professional Licensee Engineering with the title PL Eng, and is a member of the Building Officials Association of BC (BOABC) and holds the title BCQ (Building Code Qualified); she is one of the first two BOABC members to achieve this designation while working in the private sector as a Code Consultant. Wendy has a multi-disciplinary background in administration, 10 years in the legal field, and has completed studies in Public Administration and Political Science.

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