

## STEEL BUILDING SYSTEMS

### ISSUE

Municipal Affairs has received numerous complaints regarding the manufacture, sale, auctioneering, advertising and use of steel building systems without the required certification to CSA A660 standard for “Certification of Manufacturers of Steel Building Systems.” In particular, there are examples of steel building systems in rural areas where buildings are purported to be farm or agricultural buildings when in fact the purpose or use of these buildings is commercial or other use regulated by the Alberta Building Code (ABC).

This bulletin is to emphasize the importance of compliance to the CSA A660 standard by responsible persons under the Safety Codes Act including manufacturers, designers, vendors and owners, as well as to provide guidance for safety codes officers and local authorities in applying the requirements of the Alberta Building Code (ABC) 2014 for steel building systems.

### DISCUSSION

CSA A660 is referenced under Article 4.3.4.3. ABC 2014 and requires steel building systems to be manufactured by companies certified to the CSA A660 standard. Steel building systems are defined in the CSA A660 standard as, “an integrated assembly of manufactured steel primary structural components, secondary structural components of any material, and cladding of any material, specifically designed by the manufacturer to support and transfer loads and provide a complete or partial building shell.”

The CSA A660 standard requires that the manufacturers’ production facilities, staff and quality assurance systems be certified by an independent certification agency. The manufacturer will provide a “Certificate of Design and Manufacturing Conformance” signed and sealed by a registered professional for each building project. Complying with the CSA A660 standard ensures that the manufacturer has been audited to the following items:

- (a) personnel;
- (b) design and engineering;
- (c) materials control;
- (d) fabrication;
- (e) warehousing, packaging and shipping;
- (f) erection responsibility; and
- (g) plant quality program.

### Steel building systems under the ABC

The goal of public safety is paramount. This standard was developed to assist regulatory officials in reviewing building permit submissions incorporating steel building systems, and provide confidence to persons that the steel frame building has been designed in accordance with applicable safety codes and standards.

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Unless stated otherwise, all Code references in this STANDATA are to Division B of the Alberta Building Code 2014.



Issue of this STANDATA is authorized by  
the Chief Building Administrator

*[Original Signed]*  
James Orr



Sentence 4.3.4.3.(1) ABC 2014 requires certification of manufacturers of steel building systems to the CSA A660 standard. The requirement for certification was first included in ABC 2006 and applies to steel building systems that fall within the scope of ABC 2014 as described in Sub-section 1.1.1. of Division A. Even though the ABC does not apply to farm buildings as noted in Sentence 1.1.1.1.(5) of Division A, safety codes officers have a duty to confirm through the permitting and inspection process that such buildings are in compliance with the ABC and certified to the CSA A660 standard. The ABC reference and description for farm buildings that are exempt from the ABC are set out in this bulletin.

Manufacturers of steel building systems who are not certified to the CSA A660 standard are guilty of an offence under the Safety Codes Act and subject to enforcement and penalties. Penalties for an offence include a maximum of \$100,000 for a first offence to imprisonment for a term not exceeding 6 months and a maximum of \$500,000 for a second offence to imprisonment for a term not exceeding 12 months. Other responsible persons such as owners, professionals, designers, vendors and contractors may also be subject to the same enforcement and penalties.

### How Do I Find Out if a Manufacturer is Certified to CSA A660?

A list of certified manufacturers can be accessed through the web site of the Canadian Welding Bureau (CWB Group) at <https://www.cwbgroup.org/services/certified-directory-search> or under Certified Directory Search. Be advised that this list can change frequently as new companies are certified.

### CODE REFERENCES

1. Sentence 4.3.4.3.(1) states:

#### 4.3.4.3. Steel Building Systems

1) Steel *building* systems shall be manufactured by companies certified in accordance with the requirements of CSA A660, "Certification of Manufacturers of Steel Building Systems."

2. Sentence 1.1.1.1.(5) Division A states:

5) This Code does not apply to  
a) a *building* of low human *occupancy* associated with the operation of the farm or acreage on which it is located, where the *building* is used for the  
i) housing of livestock,  
ii) storage or maintenance of equipment, or  
iii) storage of materials or produce,  
(See Appendix A.)

3. Appendix A states:

**A-1.1.1.1.(5)(a) Farm and Acreage Buildings.** Farm and acreage buildings include, but are not limited to, produce storage facilities, livestock and poultry housing, milking centres, manure storage facilities, grain bins, silos, feed preparation centres, farm workshops, and horse riding, exercise and training facilities not used by the public. Farm buildings may be classed as low or high human occupancy, depending on the occupant load.

Examples of farm buildings likely to be classed as low human occupancy as defined in Article 1.2.1.2. of the National Farm Building Code of Canada are livestock and poultry housing, manure and machinery storage facilities, and horse exercise and training facilities where no bleachers or viewing areas are provided.

Examples of buildings that would be classed as other than low human occupancy include farm retail centres for feeds, horticultural and livestock produce, auction barns and show areas where bleachers or other public facilities are provided. Farm work centres where the number of workers frequently exceeds the limit for low human occupancy are also in this category.

It is possible to have areas of both high and low human occupancy in the same building, provided that the structural safety and fire separation requirements for high human occupancy are met in the part thus designated.