S16-01
Limit States Design of Steel Structures

1. Scope and Application

1.1 General

This Standard provides rules and requirements for the design, fabrication, and erection of steel structures. The design is based on limit states. The term "steel structures" refers to structural members and frames that consist primarily of structural steel components, including the detail parts, welds, bolts, or other fasteners required in fabrication and erection. This Standard also applies to structural steel components in structures framed in other materials.

1.2 Requirements

Requirements for steel structures such as bridges, antenna towers, offshore structures, and cold-formed steel structural members are given in other CSA Standards.

1.3 Application

This Standard applies unconditionally to steel structures, except that supplementary rules or requirements may be necessary for

(a) unusual types of construction;
(b) mixed systems of construction;
(c) steel structures that
    (i) have great height or spans;
    (ii) are required to be movable or be readily dismantled;
    (iii) are exposed to severe environmental conditions or possible severe loads such as those resulting from vehicle impact or chemical explosion;
    (iv) are required to satisfy aesthetic, architectural, or other requirements of a non-structural nature;
    (v) employ materials or products not listed in Clause 5; or
    (vi) have other special features that could affect the design, fabrication, or erection;
(d) tanks, stacks, other platework structures, poles, and piling; and
(e) crane-supporting structures.

1.4 Other Standards

The use of other standards for the design of members or parts of steel structures is neither warranted nor acceptable except where specifically directed in this Standard. The formulae provided in this Standard may be supplemented by a rational design based on theory, analysis, and engineering practice acceptable to the regulatory authority, provided that nominal margins (or factors) of safety at least equal to those intended in the provisions of this Standard are maintained. (See Appendix B.)