CANADIAN
Sheet Steel Building
INSTITUTE

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STEEL BUILDING SYSTEMS

SNOW LOAD DESIGN CRITERIA FOR ARENA-TYPE ASSEMBLY BUILDINGS

1. PREFACE

A basic policy of CSSBI Member Companies requires conformity to the latest requirements of the National Building Code of Canada unless otherwise specified by the authority having jurisdiction. This applies to the design, manufacture and erection of Steel Building Systems arenas provided as a complete package by the manufacturer, either directly or through authorized dealers. The major loading affecting the design and safety of such structures is snow load on the roof.

2. SNOW LOAD DESIGN

The National Building Code of Canada allows two basic roof snow loads for design purposes. The first is equal to eight-tenths of the established ground snow load. The second is equal to six-tenths of the established ground snow load. The second alternative, amounting to a 25 percent reduction of design snow load compared to the first, may be selected only when the roof is likely to be windswept throughout the life of the building and when there are no obstructions favouring build-up and retention of snow on the roof area.

Although there are many situations where the more liberal alternative is justified, the decision to design for reduced snow load in any particular situation requires professional judgment based on a thorough analysis of topography, climatic conditions and proximity of other buildings both present and future.

3. REQUIREMENT

In view of the obvious difficulty in correctly forecasting future events over which effective control cannot be exercised, the following policy regarding basic design snow loads has been adopted by CSSBI Member Companies manufacturing Steel Building Systems:

"A Steel Building System intended for use as an arena shall be designed for a minimum basic roof snow load equal to eight-tenths of the applicable ground snow load given in the National Building Code of Canada unless a professional consultant, on behalf of the owner, is responsible for the specification of design loads. In that case, the Steel Building System shall be designed for the snow loading which the consultant prescribes, on the understanding that the consultant accepts sole responsibility for the adequacy and suitability of any specified snow load less than that stipulated above."

It is believed that this policy statement is in the best interests of owners, users and builders of arena structures, and provides added assurance of safety against unforeseen future events. Specific technical information on design loadings, building standards and code requirements relating to Steel Building Systems are available from the Canadian Sheet Steel Building Institute.

(over)

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The Steel Building Systems Fabricator Members of the Institute are:

Armco Canada Ltd.
15 Campbell Road
Guelph, Ontario, N1H 6P2

Behlen-Wickes Company Ltd.
P.O. Box 1120
Brandon, Manitoba, R7A 6A4

Butler Manufacturing Company (Canada) Ltd.
P.O. Box 5006
Burlington, Ontario, L7R 3Z3

Robertson Building Systems Ltd.
Box 100, Station A
411 Parkdale Avenue North
Hamilton, Ontario, L8N 3B6

Samuel Building Systems
a division of Canadian Metal Rolling Mills Ltd.
5100 Harvester Rd.
Burlington, Ontario, L7L 4X2

Star Steel Ltd.
3500 Dufferin Street
Downsview, Ontario, M3K 1N2

Stran-Steel Building Systems
a division of Westeel-Rosco Limited
105 Industrial Road
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