

# Journey from Guidelines to Indian Standard 16231 (Part 4): 2014 – A CCPS Initiative

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In the modern lifestyle, increased Glass use in buildings offers many advantages and during last few years, glass became a favored feature in buildings and is used extensively in both exterior and interior applications. As per an estimate domestic float glass sale of 886 MT/day in 2000-01 has been increased to 4006 MT/day in 2014-15 (April-June). Glass is

heat gain/loss in buildings, the higher risk of human injuries to humans and problem faced by the Fire Brigade while carrying fire fighting and rescue operations.

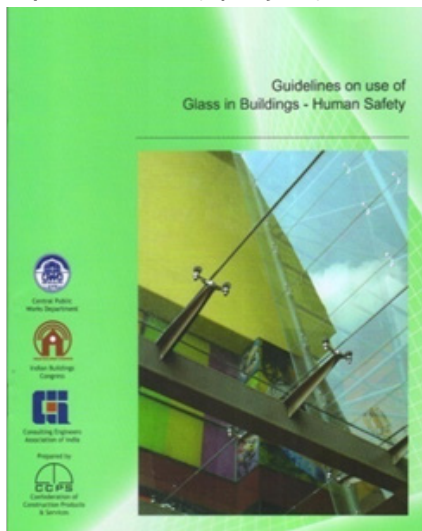
Recognizing the gravity of the problem, necessity of Guidelines suggesting how to regulate glass in relation to human safety, was felt by the industry and IGMA (now part of AIGMF) came forward to assign the project to Confederation of Construction Products and Services (CCPS) - a not for profit organization. CCPS prepared the "Guidelines on use of Glass in Buildings – Human Safety" for the Indian Construction Industry in a record time of eleven months adopting consensus method entirely lead by the private sector and supported by industry and involving stakeholders and government like CPWD, M/o UD, various PWDs, major municipalities, IBC, CEAI etc. Steering Committee was constituted to decide the scope, methodology and guide the proceedings. In order to ensure the integrity of the process, the changes at each stage were discussed and documented. Meetings were organized at Delhi, Mumbai, Bangalore and finally at Delhi, so as to ensure wider involvement and participation of various organizations and professionals throughout the

country. The final draft was approved in the Steering Committee meeting held on November 2, 2007 and Guidelines were printed and widely circulated for propagation and adoption.

Planning Commission has also taken note of increased glass use in buildings that too without following any safety norms or guidelines and a meeting was called by Mr. Anwarul Hoda, the then Hon'ble Member (HUD), Planning Commission on 12.12.2008 in Yojana Bhawan, where CCPS gave a presentation on the Guidelines. Hon'ble Member expressed his concern at the absence of standards and guidelines on safety while using glass in buildings in the country. Hon'ble Member stressed the need for inclusion of conditionality in Building Byelaws and issued letters dated 04.02.2009 and 26.11.2009 to Principal Secretaries of HUD Deptts of all States and UTs to ensure human safety while using glass in buildings.

Since the main concern was of human safety, an Expert Committee was constituted in May 2008 under the

Guidelines on Use of Glass in Buildings: Human Safety



popularly utilized in the construction of several elements which include facades, display windows, skylights, skywalks, entrances, revolving doors, canopies, winter gardens and conservatories. Glass being fragile in nature therefore selecting glass can be a challenge and the decision for right type of glass for different applications, in terms of type of building, uses, requirement, performance, quality, eminence etc., was very crucial. Wrong selection of glass type was widespread and resulted in increased





Mr Deepak Gahlwot, Convener CCPS delivering lecture on "Selection of glass and safe use of glass in buildings" to Civil Engineering students of Amity University on Oct 10, 2013

Chairmanship of Mr. P. B. Vijay, former DG, CPWD having representation from Indian Buildings Congress (IBC), Consulting Engineers Association of India (CEAI), CPWD, CCPS and stakeholders to review and analyse the CCPS Guidelines. Expert Committee met over five meetings and suggested amendments which were included in the modified edition. Guidelines were reviewed from time to time and a chapter on 'Suggestions for Fire Safety' was added in the third addition. While writing Preface to this edition, Mr. T. Nandakumar, Member, National Disaster Management Authority, New Delhi appreciated the efforts of CCPS and AGP-AIGMF for shouldering the responsibility and working for the cause of human safety.

CCPS made all efforts to propagate the Guidelines for getting the

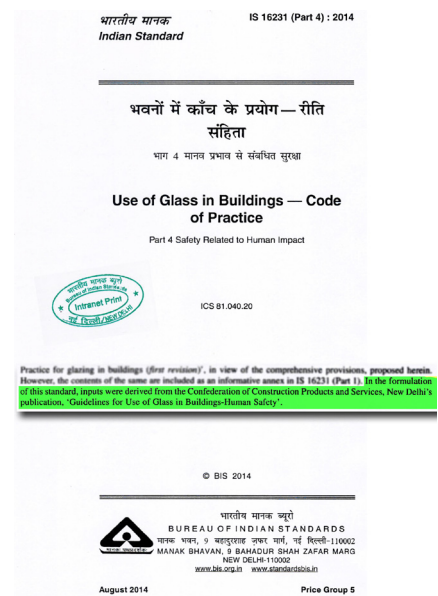
Guidelines implemented in the country which include organizing Workshops, Training programs, Seminars, presenting papers and giving presentations, attending meetings, writing to all concerned which resulted in implementation of Guidelines by 19 States and Central & State Govt. Depts., PSUs and eminent construction agencies, which include Central PWD, Govt. of Andhra Pradesh, Govt. of Rajasthan, NBCC, Airport Authority of India, Haryana PWD, Delhi PWD, DDA, JDA, ITPO, Amity School of Engineering and Technology, Ahluwalia Contracts (I) Ltd., Mumbai Fire Brigade, BMC etc.

With the continuous persuasions of CCPS, Bureau of Indian Standards (BIS) also agreed to formulate standard on "Safe use of glass in buildings" covering comprehensive components



Mr. Shashi Kant Adviser, CCPS & Mr. D. S. Sachdev in meeting with Mr. T. K. Anil Kumar, IAS, Secretary, U D Dept., Govt. of Karnataka & Mr. S. B. Hunnur, Director, TCPO on Jan 25, 2014

in the Sectional Committee CED 13 meeting held under the Chairmanship of Mr. D. S. Sachdev, on 05.11.2008. A specialized Working Group on Safe use of glass under the Chairmanship of Mr. R. N. Dandekar, Chief Engineer (CDO), CPWD comprising of 8 members including CCPS was also constituted by BIS for preparing drafts on various parts/sections of the proposed glass standard. Finally, IS: 16231 (Part 4): 2014 on "Code of Practice on use of Glass in Buildings - Safety Related to Human Impact" has been uploaded by Bureau of Indian Standards on November 17, 2014 and is now available for Sale. BIS has



duly endorsed in the 'Foreword' that this Standard has been derived from CCPS 'Guidelines on use of Glass in Buildings-Human Safety'. Our efforts have been proved successful and one of the important and desired targets has been achieved. CCPS is committed to continue to strive and work for getting the recommendations of CCPS Guidelines and IS: 16231 (Part 4): 2014 included in the revised National Building Code 2015, Byelaws of Local Bodies and Development Authorities and wide propagation to ensure human and fire safety while using glass in buildings ■