

BUREAU OF INDIAN STANDARDS

RECORD OF DISCUSSIONS

Meeting of Advisory Group for Fire and Life Safety, : First Meeting
CED 46:P2/WG4

jointly with

Meeting on Expert Group for Fire and Life Safety, : Eighth Meeting
CED 46:P2/WG 3

Monday, 25 November 2024 : 1100 h - 1430 h

In Online Mode from Manak Bhavan, Bureau of Indian Standards, 9 Bahadur Shah Zafar Marg, New Delhi 110 002

Convener: Shri S. K. Dheri

Member Secretary : Shri Arun Kumar S

Members Present:

- 1) Shri V. Suresh, Thiruvananthapuram
- 2) Dr G. C. Misra, New Delhi
- 3) Shri Santosh S. Warick, Mumbai
- 4) Shri Srinivas Valluri, Hyderabad
- 5) Shri Sandeep Goel, New Delhi
- 6) Shri Abhay Purandare, Vadodara
- 7) Shri Vinod Kapse, Pune
- 8) Shri Tarak Chakraborty, Kolkata
- 9) Shri Kiran Hatyal, Mumbai
- 10) Shri Rajesh Choudhary, BIS

Regrets:

- 1) Shri Shashikant Jadhav, Mumbai

Item 0 OPENING REMARKS

The Convener of the Advisory Group and of the Drafting Group namely Shri S. K. Dheri and Shri M.V. Deshmukh respectively welcomed the members and invitees present to the meeting.

Item 1 TECHNICAL MATTERS

The Group noted the 39 paged compilation of the minutes of 7 meetings of the Drafting Group and appreciated for arriving at decisions on various points including those specific ones on which advised has been sought today. The Group also confirmed that the flow of the clauses in this chapter (Part 4) shall be retained as in the 2016 edition and with updates including new clauses & deletions in line with the decisions of the Drafting Group.

The following specific points were debated in detail and based on the same decisions were made:

A) It was agreed to modify Table 3 of NBC relating to occupant load factor for specific usage like gymnasium, gaming room, swimming pool, club, play area by deleting the same from the notes and including them suitably within the Table. Wherever required, it was authorized to list the sub-occupancy number and indicate the load factor.

Dr G C Misra, Shri Sandeep Goel, Shri Vinod Kapse, Shri Abhay Purandare and Shri Santosh Warrick were requested to provide the updated Table 3 as soon as possible to address/include in the P-draft.

B) The matter of all-around open spaces in buildings having plot sizes smaller than those given in Part 3 of NBC was noted. The suggestion of replacing the 360-degrees access (by a fire engine or disaster relief vehicle) around a building with access along the abutting main road and two adjacent sides was agreed to. This was also based on the fact that in-building firefighting systems are available in the case of high-rise and special buildings mandatorily as per the Code. It was decided to give a clarification in Part 3 addressing the following:

“For smaller plots and having non-high rise and non-special buildings the width of 6 m may not be possible and approach to at least 2 sides apart from the front entrance to road be made available.”

C) While increasing the maximum area of fire door in clause 3.4.5.2 from 5.6 m² with 7.2 m², it was decided to ensure that the provisions in Part 4 and in IS 3614 do not contradict.

D) The recommendation to do away with the requirement of MSMO pumps in the case of high-rises having more than 60 m that have higher dependability due to gravity-based water supply for firefighting purposes, having low maintenance, low life-cycle cost, a redundant riser, no over pressurization, etc makes this system a practicable one, which is also followed in various other countries of the world. The Group also noted those few buildings within the country that a functioning using this system.

The Group noted that there shall be no change in size for exterior firefighting applications from the existing standards but the interior ones may have a restricted number of jets that can be used in low, medium, high hazard. Also, the new age hand controlled branch to

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be mandated in the internal hydrant system/boxes thereby having a variety of water throw options which could be using: spray, jet, hollow jet, combination of jet and spray. The availability of 3.5 bars at the top most level and submission of hydraulic calculations to indicate the water availability has worked well in all the systems that have been maintained regularly as per the respective standard. Any suitable clarification for the sizes of hoses to be brought in the Code respectively for fully sprinklered and non-sprinklered buildings.

The Group noted all the other decisions arrived earlier including the following and agreed to address the same in the draft of revision of Part 4.

- a) Include the concept of a vertical firefighting shaft that is connected at the level of exit discharge through a horizontal to our fire-rated exit passageway, and include a refuge area on the lobbies on all floors so as to avoid refuge areas only at designated floors.
- b) No compromise on the sizes of openings in the case of high-rises and special buildings including schools so that any falling debris will not damage the adjacent property.
- c) To validate the adoption of a new system of firefighting tanks in the case of buildings above 60 m to ensure discharge is also available along with pressure in the gravity-based system.
- d) To suitably include the provision in Part 4 for having space around the water tank & pumps at higher levels to maintain them and if need be replace them; for which inputs to the structural engineer should be provided, as already indicated in Part 0 of NBC.
- e) Table 7 is to be revamped by deleting the last 2 columns regarding water supply and pump capacity, and by introducing a reference to the respective Indian Standard of CED 22/CED 36 towards hydraulic calculations and arriving at the exact size of pump and quantity of water. To also review the area/height cover in Column 2 w.r.t the scope of this Part and ensure harmony among them. (Shri Hatyal and Shri Kapse to provide the update Table).
- f) To delete the requirement of water curtain in the case of basement carpark & warehouses.
- g) To update the terminology clause by including the definitions of those terms that are actually used now in the ongoing revision. (Shri Purandare to provide the Clause 2).
- h) In line with earlier minutes of Drafting Group, BIS to prepare the preliminary draft, taking help of the above and Shri Sandeep Goel and issue the draft by 30 November 2024.

Shri Suresh appreciated the developments so far and as the Chairperson of the National Building Code Sectional Committee, CED 46 advice the issue of preliminary draft of revision of **Part 4** by 30 November 2024 in line with the mandate provided to all the 22 Panels. Both the above Groups may continue their further discussions to address other changes in line with the developments in other committees of BIS including those

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in the 32 other chapters of NBC which are being issued as preliminary draft by 30 November 2024.

Item 2 DATE & PLACE OF THE NEXT MEETING

The Drafting Group and Advisory Group were authorized to meet as often as possible so as to arrive at a further updated version that should be issued as wide circulation draft apart from deciding on the comments to be received on the P-draft. Based on the request of Dr Misra, it was decided to invite him to further meetings of Drafting Group, as a member

Item 3 ANY OTHER BUSINESS

There being no other item, the meeting ended with thanks to one and all.
