

BUREAU OF INDIAN STANDARDS

RECORD OF DISCUSSIONS

Meeting of the Working Group, CED 46:P1/WG 2 under Panel for Administration, Development Control Rules and General Building Requirements, CED 46:P1 to Revise Part 3 'Development Control Rules and General Building Requirements' of NBC

**: First Meeting
(Third Sitting)**

Tuesday, 01 October 2024

: 1400 h – 1715 h

In Online Mode:

Convener: Shri Rajpal Kaushik

**Member Secretary
NBC Officer:**

: Shri Arun Kumar S
Shri Abhishek Sharma

Members Present

- 1) Dr V. S. Naidu, Hyderabad
- 2) Shri Santosh Warrick, Mumbai
- 3) Shri Shashikant Jadhav, Mumbai
- 4) Shri Pawan Kumar, TCPO

Invitee

- 5) Shri V Suresh, Thiruvananthapuram

Absent/Regrets

- 6) Dr Sandeep Raut, TCPO
- 7) Shri R. Srinivas, New Delhi
- 8) Smt Ruchita Gupta, SPA
- 9) Shri Akshay Kumar Beuria, IIA

Item 0 OPENING REMARKS

The Expert Group noted that the day's meeting was with a view to addressing the the remainder of the comments/inputs received from members and that of developments based on SP 73 for inclusion in Part 3 of NBC.

Item 3 COMMENTS ON NBC

The members discussed thoroughly the various items as given in the Agenda and its Annexes.

Based on the same, the following were decided:

- a) Podiums are used mainly for parking vehicles and those uses listed in Clause **4.6.1** of Part 3. The buildings constructed on top of them in the form of towers are used for specific occupancies such as residential, business, etc.
- b) MFS representative mentioned that podiums be restricted for car parking. Based on the experience since NBC 2016, the fire tenders, aerial ladder platforms, turntable ladders and hydraulic platforms have not been successfully traversing the driveway to reach the top of podium (in Maharashtra) considering the turning radius required in the ramp and the clear height required for the vehicle to drive through, although the necessary provisions exist in the Code. Distinct provisions for MLCP and podiums are required, although both have vehicles in them. Shri Santosh Warrick and Shri Rajpal Kaushik were authorized to suggest the necessary changes to clause 4.6.1.
- c) Table 5 on comparative FAR to have modified values for Type 1 construction for occupancies namely: mercantile, industrial and storage, from the existing values of 8.0, 7.5 and 6.0.
- d) Shri Suresh clarified to the Group including all members that Table 5 is merely for comparison purposes and **should** only be read along with Table 1 of Part 4 of NBC. Authorities should use Table 5 for guidance and arrive at their number for FAR based on the various technical aspects listed in Notes 2 and 3. Shri Suresh mentioned that the numbers are not absolute values to be picked up by the authorities. The Fire resistance ratings indicated in Table 1 of Part 4 are mandatory to serve as a starting point for FAR calculations.
- e) It was suggested that the last row of Table 1 of Part 4 to indicate the following in place of the existing: “not required, having no impact” for roof construction located at 6.7 m or more in height.
- f) Considering that some more rows were included in NBC 2016 in the Table 6 on FAR and coverage for group housing (to aid in HFA of GoI and considering that land is a scarce resource), it was decided to delete the existing rows (xiii) to (xvi). This was decided considering the various categories of group housing that cater to LIG and EWS which typically have a floor area of 50-60 m² and 30-45 m² respectively.
- g) It was decided to rationalize the number of columns in Table 9 ‘Norms for Off-Street Parking Spaces’ of Annex A from (5) to (3) to address the population range namely; less than 1,00,000; 1,00,000 to 10,00,000 and more than

10,00,000. The above was also decided after considering the practical knowledge and confidence from AMRUT 1.0 and AMRUT 2.0 which covered respectively 500 cities and 3878 statutory towns (Municipal Corporations and Municipalities) in the country. Dr. Pawan Kumar, TCPO was requested to share inputs regarding classification/ nomenclature.

- h) Regarding the Clause 5 on open spaces and amenities, particularly educational facilities, it was decided to have a comparative study of the provisions given in the following and harmonize the same in the revision of NBC:

- 1) URDPFI Guidelines
- 2) NBC 2016
- 3) AICTE
- 4) CBSE
- 5) IMA
- 6) UGC

In doing so, it was decided to specify NOT just one uniform value but have the values specified for developments & buildings (i) urban areas, and in (ii) rural areas (covering cities of classes III and IV as in the population/census).

- i) To include the provisions on “Subdivision and Amalgamation of Plots” as in SP 73 (in its **Clause 5.5**) considering the vast amounts of possibilities of reconstruction/redevelopment considering increasing urbanization.
- j) **The Group also observed and clarified** that the re-development of EWS should not be in the form of High-rises and Super High-rises that require vast amounts of electricity for vertical transportation, and pumping requirements of huge quantities of water apart from human comfort considering the relatively small size of tenements. It was observed that a maximum of six or seven stories is ideal to have such redeveloped buildings.
- k) To include the provisions on “Urban Design Features” as in SP 73 (in **Clause 5.8**), excluding its **5.8.7** and **5.8.8** which are already covered respectively in Part 10 and Part 2 of NBC 2016.
- l) The suggestion of Shri Kaushik to include ‘47 parts of a building’ as below in SP 73 to be listed/covered in Part 3 to enable the users for their comprehension and for spatial planning:

- | | | |
|----------------|----------------|---------------|
| 1) Foundations | 10) Windows | 19) Basements |
| 2) Plinth | 11) Doors | 20) Chimneys |
| 3) Walls | 12) Partitions | 21) Canopies |
| 4) Floors | 13) Ceilings | 22) Domes |
| 5) Roofs | 14) Beams | 23) Skylights |
| 6) Staircases | 15) Columns | 24) Railings |
| 7) Lifts | 16) Balconies | 25) Parapets |
| 8) Escalators | 17) Corridors | 26) Louvers |
| 9) Ramps | 18) Verandahs | 27) Shafts |

28) Ventilators	36) Telecommunicatio n Installations	42) Waste Disposal Systems
29) Gratings	37) Building Management Systems	43) Safety Signages
30) Ducts	38) Water Supply Systems	44) Security Systems
31) HVAC Systems	39) Drainage Systems	45) Renewable Energy Systems
32) Electrical Installations	40) Sanitary Installations	46) Insulation and Soundproofing
33) Plumbing Installations	41) Gas Supply Systems	47) External Cladding
34) Fire Safety Systems		
35) Lightning Protection Systems		

- m) The accessibility-related provisions (particularly for schools) should aid in and support the mandates as in the GOI's notification. Accessible lifts are a much better option than providing ramps which require relatively more human effort to push the wheelchair on the ramp.
- n) To include the updated and key provisions in the proposed standard on "hilly areas" under CED 51. To include notes under Table 65 (of SP 73) describing about small towns, mediums towns and large cities. To also obtain the specific inputs from the WG of CED 51. *BIS was requested to obtain the new rules of Uttarakhand and Himachal Pradesh and share.*
- o) To include a new clause on DCR for coastal regions elaborating the provisions as in **10.4** of SP 73. Dr. Naidu was requested to send brief provisions on the same based on his detailed inputs to CED 51 which is developing a separate standard. Dr. Naidu kindly agreed to also include:
- 1) the zones/classifications,
 - 2) permitted activities,
 - 3) not permitted activities including tall buildings, etc.

BIS was requested to suitably incorporate reference to the wind speed map of India to address the cyclone aspects and the tsunami map (which was earlier widely circulated by CED 39). Dr. Naidu agreed to the suggestion to include the necessary provisions in the Clauses and related details in the Annex.

- p) The suggestion of Shri Kaushik to include Clause 10 on 'Special Developments and Buildings' as in SP 73 was agreed to be listed/covered in Part 3 and suitably sequence them [particularly ignoring those covered in other parts of NBC like metro stations, educational buildings as in decided in (h) above].
- q) To include only the crucial planning/regulatory/development aspects of CPTED in Part 3 and the remainder may be included in a separate standard.

The Group noted that the following items were already NOTED/ CONSIDERED in the first meeting.

Item 1 COMPOSITION

Item 2 PROJECT OF REVISION OF NBC

2.1 Contents of Part 3 of NBC 2016.

2.2 The Group noted that the following developments since the publication of a Special Publication, namely, **SP 73:2023 'Standardized Development and Building Regulations, 2023'** were already considered/decided:

- 1) Land use zones including mixed-use developments;
- 2) Buffer zones and green belts;
- 3) TOD;
- 4) TDR, CFAR, PFAR;
- 5) Open spaces and setbacks;
- 6) Block of buildings;
- 7) Fire tender movement access
- 8) Special requirements for developments and buildings.
- 9) Parking spaces;
- 10) Urban design features;
- 11) Development in hilly areas; and
- 12) Coastal Zone Regulations

3.3.4 Comments of M/s Samarthyam on ACCESSIBILITY

The Group noted that the following items (2.3 to 4.1) will be CONSIDERED in the next meeting.

2.3 The two additional inputs as below which were briefly noted will be decided in the next meeting for suitable inclusion:

A) Inputs of Shri Shashikant Jadhav regarding TDR and AR in line with the **modified policy of the state of Maharashtra** (*the inputs were sent through email on 29 September 2024 from ced46@bis.gov.in*)

B) Inputs of Ms Manjari Kapoor, SPA regarding CPTED as a new clause no. 30 **'Requirements For Built Environments To Prevent Crime And For**

Resilience Against Extreme Events.' (the inputs were sent through email on 29 September 2024 from ced46@bis.gov.in). BIS was requested to invite Ms. Manjari Kapoor, SPA.

3.1 Comments on Part 3 of NBC 2016 as given at **Annex 2** of the Agenda.

A) Inputs received in the Development of SP 73:2023

- a) Definition of Building Height for Hilly Areas
- b) Height of High-rise Buildings
- c) Provisions for podium

B) Related excerpts from the report titled '**Compilation and Study of International Leading Practices**' as listed in the **PDF titled Annex 3 (attached separately)** of the Agenda covering the following items:

Best Practices Regarding	Related Part of NBC
Leading practices in Land Use Classification	Part 3
Leading Practices in Land Development Tools (Transferable Development Rights)	Part 3
Leading Practices in Land Development Tools (Floor Area Ratio)	Part 3
Leading practices in Accessibility/ Universal Design	Part 3

3.3 The following inputs received in BIS:

3.3.1 *Environment Friendly Buildings* - MoEF&CC matter

3.3.2 *National Minimum Standards and Protocol for Creches (Operation and Management)*

3.3.3 *Minimum Standards for Senior Citizen Homes*

3.3.5 The request for Revision of Definition of High-Rise Building received from Fire Advisor, MHA, Gol.

Item 4 NEW WORK ITEM

4.1 Technical Specifications Guide to the National Building Code of India

Item 5 DATE & PLACE OF THE NEXT MEETING

5.1 It was decided to have the next meeting of the Group on Wednesday, 09 October 2024 in hybrid mode.

Item 6 ANY OTHER BUSINESS

There being no other item, the meeting ended with thanks to one and all; and specially to the invitees for their technical inputs, support and co-operation.
