

**BUREAU OF INDIAN STANDARDS****MINUTES**

**Panel for Acoustics, Sound Insulation and Noise Control, CED 46:P15** : **Fifth Meeting**

**Wednesday, 20 March 2024** : **1430 h – 1700 h**

**Dr Lal C. Verman Conference Hall, Bureau of Indian Standards, Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 110 002**

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**Convener:** Shri Gautam Suri

**Member Secretary:** Shri Arunkumar S., Head(NBC Cell)  
**NBC Officer** : Shri Shubham Chaudhary

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**Members Present Physically:**

1)	Shri Manoj Bapna	Military Engineer Services, New Delhi
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**Members Present Virtually:**

2)	Shri Saju Siddharthan	Central Public Works Department, New Delhi
3)	Dr S. K. Panigarhi	CSIR - Central Building Research Institute, Roorkee
4)	Shri Anup Kumar Prasad	CSIR - Central Building Research Institute, Roorkee
5)	Shri Kanti Lal Solanki	CSIR - Central Building Research Institute, Roorkee
6)	Dr Naveen Garg	CSIR - National Physical Laboratory, New Delhi
7)	Dr Chitra Gautam	CSIR - National Physical Laboratory, New Delhi
8)	Prof M. L. Munjal	Indian Institute of Science, Bengaluru
9)	Dr A. R. Mohanty	Indian Institute of Technology Kharagpur, Kharagpur
10)	Prof S. Narayanan	Indian Institute of Technology Madras, Chennai
11)	Dr E. Rajasekar	Indian Institute of Technology Roorkee, Roorkee
12)	Dr S. Kandaswamy	P. S. Subramanian Associates, Chennai
13)	Dr P. Senthil Kumar	P. S. Subramanian Associates, Chennai
14)	Dr Shuvojit Sarkar	School of Planning and Architecture, New Delhi
15)	Shri B. Sudhir	The Indian Institute of Architects, New Delhi
16)	Shri Sunish Jose	Rep. The Indian Institute of Architects, New Delhi
17)	Ms Bhawna Sharma	The Institution of Engineers (India), Kolkata

**From BIS :**

Shri Abhishek Pal, Scientist 'D' (Civil Engg)  
Shri Abhishek Sharma, Scientist 'B' (Civil Engg)

## **Item 0 OPENING REMARKS**

The Convener, Shri Gautam Suri, cordially welcomed the members to the fifth meeting of the Panel for Acoustics, Sound Insulation and Noise Control, CED 46:P15. He requested the members of the Panel to actively participate in the technical deliberations and particularly in the process of drafting of the clauses to revise the chapter on NBC. Reiterating the purpose of the meeting, he highlighted that the same aimed to outline the plan for revising the section on 'Acoustics, Sound Insulation and Noise Control' of the Code. Shri Suri appreciated the efforts of BIS in sharing proactively the Working Draft for revision of the Code thereby soliciting technical inputs and comments from the Panel members. Since, no comments had been received on the Working Draft until the day of the meeting, Shri Suri urged the members to send their comments in writing to BIS in a fortnight for further scrutiny. Shri Suri once again reiterated the importance of earnest engagement by every member towards this revision of the Code so that the updated draft can be put for public commenting around the end of this year.

With these words, the Convener suggested to take up the Agenda item-wise.

## **Item 1 CONFIRMATION OF MINUTES OF THE LAST MEETING**

**1.1** There being no comments, the Panel confirmed the Minutes of the last (fourth) meeting of the Panel held on 23 December 2015 in New Delhi, as circulated vide BIS DG letter No. CED 46:P15/A-2.4 dated 08 February 2016; based on which the National Building Code Sectional Committee, CED 46 had finalized the provisions and published the Code as NBC 2016 which was released on 15 March 2017.

## **Item 2 COMPOSITION**

**2.1** The Panel noted its existing composition as given at Annex 1 to the Agenda. The Panel thereafter reviewed the same and decided/noted as below:

- a) Military Engineer Services would henceforth be represented by Shri Manoj Bapna, Jt DGW (Des), Engineer-in-Chief's Branch and Shri M. K. Deepak, Jt Dir (Des), Engineer-in-Chief's Branch as their Principal and Alternate member respectively.
- b) To withdraw the nominations of M/s Lloyd Insulations Pvt Ltd, New Delhi in view of their non-participation and no interest.
- c) All India Radio, New Delhi would be represented by Shri Rajesh Kumar, DD(E), O/o ADG (R&D)-Research Department as their alternate member in view of the retirement on superannuation of Shri S. Hyder.
- d) The Panel decided not to consider the co-option request of M/s Saint Gobain India Pvt Ltd, in view of their limited contribution in the field of sound insulation and acoustics.

**Item 3 PROJECT OF REVISION OF NBC**

**3.1** The Panel noted the information regarding the comprehensive exercise of revision of NBC 2016, being carried out through the 22 Panels to bring updates to the various Parts/Sections of NBC 2016 (as at Annex 2 of the Agenda) and to bring out most modern and state-of-the-art revision of the Code.

**3.2** The Panel noted the existing chapter titled 'Acoustics, Sound Insulation and Noise Control' in Section 4 of Part 8 'Building Services' of NBC 2016 and its contents as given in Annex 3 to the Agenda.

**3.2.1** The Panel noted that the ongoing revision of the National Building Code of India (NBC) is a comprehensive and interconnected effort involving thirty-three chapters. The endeavour also aims to encompass various facets of building permit process, with a special emphasis on Part 8/Section 4 'Acoustics, Sound Insulation and Noise Control'. In this context, the Panel agreed that such interconnection within the various Parts including with that in Part 11 'Approach to Sustainability' underscores the importance of a thorough and holistic approach to the revision.

**3.2.2** The Panel agreed that a methodical and consensus-driven approach, by leveraging the collective expertise of Panel members is essential and that the written suggestions and structured inputs/reviews from all the member organizations will be essential.

Based on the deliberations, it was decided to address the following aspects in detail in this revision, based on the written inputs in the form of draft provisions and the related information/details to be received from the respective members/organizations, as below:

- a) Elaboration of requirements for open office spaces / buildings to prevent data theft due to improper design of acoustical space and explore the provisions in ISO 3382-3:2022 (*Dr S. Kandaswamy*).
- b) Elaboration of requirements for long corridors (airports terminal buildings, metro stations) (*Dr S. Kandaswamy*).
- c) Design provisions on industrial buildings to be updated to cover specific industrial occupancies (*IIA - Shri B Sudhir*).
- d) Guidelines for neighbourhood acoustic shielding during infrastructure development (*IIA - Shri B. Sudhir*).
- e) Design provisions regarding noise barriers and testing thereof (*CSIR-NPL - Dr Naveen Garg*).
- f) Additional specific design provisions for HVAC systems in buildings (*IITR - Dr E. Rajasekar*).
- g) Regarding use of acoustic barriers/road side barriers (4 m to 5 m high) particularly for residential, educational and hospital buildings located along the highways on city outskirts (*IISc – Dr M. L. Munjal*).
- h) To include aspects relating to sound barriers and noise abatement in town planning particularly in the preparation of Zonal Plans (*Shri Gautam Suri*).
- i) To explore recommending explicitly the provisions as in DIN standards, to fix responsibility of the building professionals including the constructor to rectify

and redo the construction for acoustic performance as per the Code. (Dr S. Kandaswamy).

**3.3** It was decided that all the members of the Panel shall send their written inputs/comments/suggestions on the Working Draft of Part 8/Section 4 of NBC including the suggestive draft clauses before **30 April 2024**. Further, the Convener was authorized to constitute an Expert Group to discuss, approve and decide on the changes that are relevant for incorporation based on all the written inputs to be received.

#### **Item 4 COMMENTS RECEIVED ON / INPUTS RELATED TO PART 8/SECTION 4 'ACOUSTICS, SOUND INSULATION AND NOISE CONTROL' OF SP7 : 2016**

**4.1** It was decided by the Panel that the above Expert group (to be constituted) shall examine the comments from M/s Saint-Gobain India Pvt. Ltd. – Gyproc Business as given under the item of the agenda for suitable incorporation in the revision.

**4.2** It was decided by the Panel that the comments from M/s Ashok B. Lall Architects and Global Buildings Performance Network (GBPN) were not specific to the scope of this Part and may be relevant for consideration by CED 46:P1 in the revision of Part 3 of NBC.

#### **Item 5 PROJECT OF PROMOTION OF USE OF NBC 2016 IN ALL STATES AND UTs OF INDIA**

**5.1** The BIS' Secretariat explained about the above Project that involved an exercise of Promotion of use of National Building Code of India 2016 in all States and UTs of India. The major deliverable namely the draft Standardized Development and Building Regulations aligned with the provisions of NBC 2016 and the other deliverables such as the [State wise](#) regulations, [Pamphlets](#) for awareness of general public, [GUIDE TO USING THE NBC](#) were explained to the members who appreciated the entire BIS team.

**5.2** The Panel noted the information about the new special publication, **SP 73 : 2023 'Standardized Development and Building Regulations, 2023'** was also published and released, which is available for access (free download) from the BIS' website and from: <https://standardsbis.bsbedge.com/>

#### **Item 6 DATE & PLACE OF THE NEXT MEETING**

**6.1** It was decided to hold the next meeting of the Panel around May 2024 after the receipt of inputs (as per items **3.2.2** and **3.3** above) from the members of the Panel and after the scrutiny of the comments received on the chapter by the Expert group.

#### **Item 7 ANY OTHER BUSINESS**

**7.1** The BIS Secretariat and the members complimented the Convener, Shri Gautam Suri for excellently conducting the meeting and providing leadership in the revision exercise taken up in the important field of Acoustics, Sound Insulation

and Noise Control. The BIS Secretariat also thanked all the members and experts for taking active interest in the meeting leading to useful deliberations.

**7.2** There being no other business to transact, the meeting, thereafter, ended with a hearty vote of thanks to the Chair.

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