BUREAU OF INDIAN STANDARDS

AGENDA

Structural Safety Sectional Committee, CED 37
Meeting No. **:** Nineteenth Meeting
Date **:** Monday, 09 December 2024, Time 1030 h
Venue **:** Vimarsha (Blue room) from (BIS HQ, New Delhi, India - 110002)
Meeting number **:** 2515 941 1109
Password **:** ced37@
Meeting link:
https://bismanak.webex.com/bismanak/j.php?MTID=m41ccd3d07ff503a1cc730b8ecc811c7d

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CHAIRPERSON **:** Dr Ravi Sinha, IIT Bombay, Mumbai
VICE CHAIRPERSON **:** Shri Aman Deep, Creative Design Consultant and Engineers Pvt Ltd, Ghaziabad
MEMBER SECRETARY **:** Smt Divya S, BIS

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Item 0 OPENING REMARKS BY THE CHAIRPERSON

Item 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Minutes of the last meeting of Structural Safety Sectional Committee CED 37 held on 11 July 2024, circulated vide BIS letter No. CED 37/A-2.18 dated 25 July 2024. No comments have been received.

The Committee may **CONFIRM** the Minutes of the last meeting.

Item 2 COMPOSITION OF THE SECTIONAL COMMITTEE

2.1 The present composition of the Structural Safety Sectional Committee, CED 37 of the members in the last three meetings is given at **Annex 1.**

The committee may **NOTE**.

2.2 A Co-option Request was received from the Central Water Commission, New Delhi

They have informed the contact details of nominee members in the following:

Principal Member
Shri S.K. Sharma
Director, CMDD (E&NE)
Mob:9210891320
Email: cmddene@nic.in

Alternate Member
Sh. Samarth Agarwal
Director, CMDD (N&W)
Mob: 9910706333
Email: cmddnw@nic.in

The Committee may **CONSIDER.**

2.3 The composition of Working group 01–IS 875 (Part 1) under the Sectional Committee is given below:

Organization	***Representative***
Tata Consulting Engineers Limited, Navi Mumbai	Mr. R. L. Dinesh (*Convenor*)
CSIR - Central Building Research Institute, Roorkee	Mr. Siddharth Behera
CSIR - Structural Engineering Research Centre, Chennai	Dr Bharathi Priya C.
Larsen and Toubro Limited, Chennai	Dr Sreenath
Skeleton Consultants Private Limited, Noida	Dr. Abhay Gupta
In Personal Capacity	Mr. Sajjan Singh Nagel

The Committee may **NOTE**.

2.4 The composition of Working group 01–IS 875 (Part 2) under the Sectional Committee is given below:

Organization	***Representative***
Creative Design Consultants and Engineers Private Limited, Ghaziabad	Mr. Aman Deep (*Convenor*)
CSIR - Central Building Research Institute, Roorkee	Dr. Chanchal Sonkar
CSIR - Structural Engineering Research Centre, Chennai	Dr. M. B. Anoop
Thapar Institute of Engineering & Technology, Patiala	Dr Shweta Goya

The Committee may **NOTE**.

2.5 The composition of Working group 01–IS 875 (Part 3) under the Sectional Committee is given below:

Organization	***Representative***
CSIR - Structural Engineering Research Centre, Chennai	Dr. P Harikrishna (*Convenor*)
Indian Institute of Technology BHU, Varanasi	Dr A. Sarkar
Jaypee University of Engineering and Technology, Guna	Dr S. Arunachalam
RWDI Consulting Engineers (India) Private Limited, Trivandrum	Shri Rahul P. S.
In Personal Capacity	Dr. Prem Krishna

The Committee may **NOTE**.

2.6 The composition of Working group 01–IS 875 (Part 4) under the Sectional Committee is given below:

Organization	***Representative***
Creative Design Consultants and Engineers Private Limited, Ghaziabad	Mr. Aman Deep (*Convenor*)
Atomic Energy Regulatory Board, Mumbai	Dr. A.D. Roshan
CSIR - Central Building Research Institute, Roorkee	Dr. R. Siva Chidambaram
CSIR - Structural Engineering Research Centre, Chennai	Dr. Bharathi Priya C.
Indian Institute of Technology Delhi, New Delhi	Dr. Dipti Ranjan Sahoo Prof. Mahesh Tandon
Thapar Institute of Engineering & Technology, Patiala	Dr. Shweta Goyal

The Committee may **NOTE**.

2.7 The composition of Working group 01–IS 875 (Part 5) under the Sectional Committee is given below:

Organization	***Representative***
In Personal Capacity, New Delhi	Dr. Lakshmy Parameswaran (*Convenor*)
CSIR - Structural Engineering Research Centre, Chennai	Dr. B. Arun Sundaram
Dhirendra Group of Companies, Mumbai	Dr. Gopal Rai

Indian Institute of Technology Delhi, New Delhi	Dr. Suresh Bhalla
Indian Institute of Technology Madras, Chennai	Prof Rupen Goswami

The Committee may **NOTE**.

Item 3 ROLLING ANNUAL ACTION PLAN

In the last meeting, the Committee agreed with the subject identified for the rolling action plan. The Committee requested all members to contribute to finalizing these drafts within a stipulated type. The status of these draft given below:

SI No.	Topic/ Item Title	Status
1	IS 875 (Part 1) Dead Loads	Working draft received
2	IS 875 (Part 2) Imposed Loads	Working draft received
3	IS 875 (Part 3) Wind Loads	Draft awaited

The Committee may **NOTE**.

Item 4 WORK PLAN FOR REVISION OF IS 875

The following proposed structure for the revision of IS 875 was received from the Shri Aman Deep.

Permanent Actions:

A. Dead Loads – Self weight. Superimposed dead load (partitions, finishing etc (permanent), Loads of supported constructions
B. Earth Pressure, Hydrostatic/ fluid pressure, ballast, and other well-defined pressures
C. Actions from movements due to differential settlement effect
D. Pre-stressing and imposed deformations from construction process

Variable Actions:

E. Imposed Loads due to use and occupancy – Live Loads, Stack load, Moving load, erection loads, impact loads
F. Wind Load
G. Snow Load
H. Atmospheric and floating ice action
I. Actions due to current and Waves
J. Actions due to effects arising from contraction an expansion resulting from climatic change or technological temperature changes such as heating/ cooling, moisture changes
K. Environmental influences
L. Seismic actions/ earthquake effects
M. Actions due to fluids including ground water and floods

Accidental Actions

N. Actions due to explosion, collisions
O. Actions due erosion, land slides
P. Actions due to fire
Q. Actions due to Blast
R. Other actions –Fire effect, creep effect, fatigue effect, abrasion, corrosion effect

We may have Parts of IS875 as below:

Part 1: Load classifications (Terminology and Symbols)
Part 2: Basis for Design of Structures Load Combinations
Part 3: Dead Loads
Part 4: Imposed Loads
Part 5: Wind Loads
Part 6: Snow Loads
Part 7: Temperature Loads
Part 8: Hydrostatic Pressures and Uplift loads
Part 9: Earth Pressure
Part 10: Blast Loads
Part 11: Special other Loads & effects

The Committee may **CONSIDER.**

Item 5 COMMENTS ON PRINTED STANDARD

5.1 IS 875 Part 3: 2021 Design Loads (other than Earthquake) for Buildings and Structures - Code of Practice: Part 3 Wind Loads (Third Revision)

The comments received from Meet Trada on IS 875 Part 3: 2021 is tabled below:

S.No.	Commentator/Organization	Clause/Para Commented	Comments/Modified wordings	Justifications for the proposed change
1	Meet Trada meettrada009@gmail.com 9510031929	10.2	Please include an explanation for the same.	"Bs" equation doesn't have detailed information about "s". It is indicated in Figure 9 which is not clear.

The Committee may **DISCUSS.**

5.2 IS 875 Part 4: 2021 Design Loads (other than Earthquake) for Buildings and Structures - Code of Practice: Part 4 Snow Loads (Third Revision)

The comments received from Shri Shashi Narayan, NIT Uttarakhand on IS 875 Part 4: 2021 is Attached as **Annex 2**.

The Committee may **DISCUSS.**

Item 6 ISSUES ARISING FROM THE PREVIOUS MEETINGS

6.1 IS 875 (Part 1) Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures (Part 1) Dead Loads – Unit Weights of Building Materials and Stored Materials (*Second Revision*)

In the previous meetings, it had been decided to issue the draft of IS 875 (Part 1) received from CED 37/WG 01 in wide circulation. However, in the last meeting, it was decided that the draft may modified in the view of CPWD, DSR and that the modified draft may be wide circulated .

Further updates are awaited.

Committee may **CONSIDER**.

6.2 IS 875 (Part 2) Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures (Part 2) Imposed Loads (*Second Revision*)

In its last meeting, the Convenor of Working Group (CED 37/WG 2) Shri Aman Deep, CCEPL, Ghaziabad had been tasked with preparing a Working Draft for the revision of standard. The draft prepared by him is attached as **Annex 3**.

Committee may **ADVICE**.

6.3 IS 875 (Part 3): 2015 'Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures (Part 3) Wind Loads'

In its last meeting, the committee had requested CED 37/WG 3 (Convener Dr P. Harikrishan, SERC, Chennai) to submit the working draft and explanatory handbook.

Drafts are still awaited.

Committee may **CONSIDER**.

6.4 Development of Standards Relating to Guidelines for Construction and Operation of Wind Tunnels

In its last meeting, the committee had requested CED 37/WG 3 (Convener Dr P. Harikrishan, SERC, Chennai) to submit the working draft for both parts:

- Part 1 Specification of Wind Tunnel
- Part 2 Protocol of Testing.

Drafts are still awaited.

Committee may **CONSIDER**.

6.5 IS 875 (Part 5): 1987 'Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures (Part 5) Special Loads and Load Combinations (*Second Revision*)'

In its last meeting, the committee had requested CED 37/WG 4 (Convener Mr. Aman Deep, CCEPL, Ghaziabad) to submit the working draft.

Working draft still awaited.

Committee may **CONSIDER**.

6.6 Development of Standards Relating to Structural Health Monitoring of Buildings

In its last meeting, the committee had requested CED 37/WG 5 (Convener Dr Lakshmy Parameswaran, In personal capacity) to submit the following working drafts:

- Part 1 Equipment required for monitoring,
- Part 2 Assessment of building and its requirements and
- Part 3 Health monitoring of new building, which is a continuous process for right from the time when the building is constructed.

Working draft still awaited.

Committee may **CONSIDER**.

6.7 Indian Standard on different type of loads

In its last meeting, the committee had requested CED 37/WG 4 (Convener Mr. Aman Deep, CCEPL, Ghaziabad) to submit the following working drafts:

- Temperature Loads (new part of IS 875)
- Soil and hydrostatic pressures (new part of IS 875)
- Impact loads (new part of IS 875)
- Construction loads (new part of IS 875)
- Fatigue loads (new part of IS 875)
- Explosions effects (new part of IS 875)
- Fire loads (new part of IS 875)

Working draft still awaited.

Committee may **CONSIDER**.

6.8 In the last meeting the committee had agreed in principle with the proposal of Special meeting of Chairpersons of the Committees under CEDC relating to ISs on Structural Design & Towards Revision of NBC's Part 6 Structural Design/ Sec 1 Loads, Forces & Effects held on 30 May 2024 at IIT Chennai and decided to submit their view after study the working group's observation.

Inputs still awaited.

Committee may **CONSIDER**.

6.9 In the last meeting the committee had decided to conduct R&D studies on the design philosophies used by the leading infrastructure developed countries such as ASCE/ASTM, EN, NZ/AUS and Singapore. Committee requested members to suggest term of reference for this R&D.

Inputs still awaited.

Committee may **CONSIDER**.

6.10 In the last meeting, the Committee had decided to conduct R&D studies on the survey of imposed loads and fire loads in buildings; and Dr. S. Arunachalam had mentioned that he was involved a similar study that was carried out by IIT Madras in early 1980s.

Accordingly, the details of the study were shared by him. The summary of the same is attached as **Annex 4**.

Committee may **CONSIDER**.

Item 7 INTERNATIONAL ACTIVITIES

7.1 India is a 'P' member on ISO/TC 98; ISO/TC 98/SC 1, 2 and 3. Details of these committees are given below:

DESIGNATION	NAME
ISO/TC 98	Bases for design of structures
ISO/TC 98/SC 1	Terminology and symbols
ISO/TC 98/SC 2	Reliability of structures
ISO/TC 98/SC 3	Loads, forces and other actions

India is a signatory to WTO Agreement on Technical Barriers to Trade (TBT) and has aligned its standards formulation procedures to the 'Code of good practices for preparation, adoption and application of standards'. One of the provisions of the code requires BIS to use international standards wherever they exist as a basis for standards being developed and wherever practicable to do so.

The Committee may note the above, the international standards published and the subjects under development in ISO TC 98 and its sub-committees for information and their effective utilization in the standardization work undertaken by the Committee.

It may be noted that, in every meeting of the Sectional Committee it has been requested to all the members to actively participate in the standardization work of ISO/TC 98 and its sub-committee

and provide comments on the ballots circulated by BIS Secretariat. It is required for showing active participation of CED 37 as the National Mirror Committee at ISO level. In addition, as India is regularly voting on various draft International Standards, it would be worthwhile to participate and contribute/influence international standardization in this area.

The Committee may **NOTE**.

7.2 ISO TC 98/SC 1

As per the BIS letter dated 25th October 2024 the opinion of the members regarding contesting for the secretariat ship of ISO TC 98/SC 1 had been sought and most of the members had responded positively. Accordingly, a proposal for the same had been submitted to ISO with Dr Ravi Sinha as the Chairman and Ms Divya as the Committee Manager. The final decision of the ISO Secretariat is awaited.

The Committee may **NOTE**.

7.3 Meetings

7.3.1 Six meetings of ISO TC 98 and its Sub-Committees and WGs/AGH were held after the last meeting of CED 37. The details are as follows:

ISO/TC 98/SC 2/WG 13	8th meeting	23 September 2024
ISO/TC 98/SC 3/AHG 9	2nd meeting	23 September 2024
ISO/TC 98/SC 3/WG 11	5th meeting	24 September 2024
ISO/TC 98/SC 3	50th meeting	26th September 2024
ISO/TC 98	42nd meeting	27th September 2024
ISO/TC 98/SC 2	46th meeting	27th September 2024

The following experts had been nominated for the working group/adhoc group meetings of ISO TC 98.

ISO/TC 98/SC 2/WG 13	Dr Vasant Matsagar Dr Pradeep Ramancharla Ms Divya S (BIS)
ISO/TC 98/SC 3/AHG 9	Dr Ravi Sinha Ms Divya S (BIS)
ISO/TC 98/SC 3/WG 11	Dr Pradeep Ramancharla Ms Divya S (BIS)
ISO/TC 98/SC 3	Dr P. Harikrishna Dr Pradeep Ramancharla Ms Divya S (BIS)
ISO/TC 98	Dr P. Harikrishna Dr Ravi Sinha Dr Pradeep Ramancharla

	Dr Matsagar Vasant Ms Divya S (BIS)
ISO/TC 98/SC 2	Dr Pradeep Ramancharla Dr Matsagar Vasant Ms Divya S (BIS)

The Committee may **NOTE**.

7.3.2 *Upcoming Meeting of ISO/TC 98/SC 2/WG 13*

The 9th meeting of ISO/TC 98/SC 2/WG 13 is scheduled for 16 December 2024.

The Committee may **NOTE**.

7.4 Ballots

7.4.1 *Ballots voted after last meeting*

Sl. No.	ISO TC	Doc name	Doc name	Ballot cast date	Ballot **Approved** **Abstained** **Approved with comments** **Approved and expert nominated**
1	ISO/TC 98/SC 3	Renomination of Convenor of ISO/TC98/SC3/WG1	Renomination of Convenor of ISO/TC98/SC3/WG1	2024-10-05	Approved
2	ISO/TC 98/SC 3	Moving ISO/PWI 4355 in WG1 to active stage	ISO 4355:2013 "Bases for design of structures - Determination of snow loads in roofs"	2024-11-17	Approved

7.4.2 *The following ballots are currently open under ISO/TC 98, ISO/TC 98/SC 1, ISO/TC 268/SC 2 and ISO/TC 98/SC 3.*

Sl. No.	ISO TC	Doc name	Doc name	Due date
1	ISO/TC 98/SC 3	Approval of Scope for ISO/TC 98/SC 3	Approval of Scope for ISO/TC 98/SC 3	2025-02-07

Item 8 PROGRAMME OF WORK

8.1 The present position of work done by the Committee is given at **Annex 5**.

The Committee may **NOTE**.

Item 9 ANY OTHER BUSINESS

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