

BUREAU OF INDIAN STANDARDS**MINUTES****Cement and Concrete Sectional Committee, CED 02 : Thirty Ninth Meeting****Friday, 6 September 2024 : 1030 h to 1330 h****Hybrid Meeting**

From Copper Room, Manak Bhawan, Bureau of Indian Standards, 9, Bahadur Shah Zafar Marg, New Delhi – 110002

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Through WEBEX Video Conference

Chairperson: Shri Jose Kurian

Member Secretaries: Shri. Jitendra Kumar
Chaudhary
Smt. Divya S.

Attendees: *Please refer Annex 1*

ITEM 0 OPENING REMARKS

The Member Secretary welcomed all the members and invitees to the 39th Meeting of CED 02 and provided the background of the agenda items to be discussed during the meeting. The Chairperson also welcomed the participants in the meeting and requested to actively participate in the discussion and provide their valuable inputs/suggestions on the various agenda items to be discussed during the meeting.

The Committee also acknowledged and extended its congratulations to Shri V. V. Arora and Shri P. N. Ojha on their appointments as Vice Chairman of CED 2 and Chairman of CED 53, respectively. The Chairperson informed that Shri Arora will continue as the Vice Chairperson of CED 02 until the revision of IS 456 will be completed and thereafter will be appointed as the Chairperson. Furthermore, the Committee expressed its commendation to Shri L. K. Jain for being honored with the Distinguished Alumnus Award from Nagpur University.

Regarding the ongoing revision of IS 456, the Member Secretary informed that a series of meetings of CED 2:2/P5 Panel on revision of IS 456 were held last year to discuss the initial draft of IS 456. The discussion was completed in March 2024. Thereafter, the draft along with the recommendations of the panel on the various chapters under IS 456 were given to the respective Working Group conveners for making the suitable modifications/corrections. He informed that some of the corrected chapters had been received by BIS and some of them are under progress. Once all the corrections will be done, BIS will issue the Preliminary Draft of IS 456 to all members of CED 02, its Subcommittees, Panels and Working Groups for commenting along with the concerned Panel under NBC. The Member Secretary also informed that the draft will be issued tentatively by end of October 2024. The Committee noted and agreed on the same.

With these introductory remarks, the Chairperson requested the Member Secretary to take the agenda item wise.

ITEM 1 CONFIRMATION OF THE MINUTES OF LAST MEETING

1.1 The Minutes of the last (thirty eighth) meeting of the Committee held on 17 May 2024 were circulated vide BIS DG letter No. CED 2/A-2.38 vide email dated 03 June 2024. The Committee also noted to make the change of representation of Dr V. Ramachandra and Shri Shubho Chakraborty to CMA in place of Ultratech Cement Ltd.

In view of the above, the Committee confirmed the Minutes as circulated along with the above change.

ITEM 2 COMPOSITION OF THE COMMITTEE

2.1 The Committee noted the composition of the Sectional Committee as given at Annex 1 of the Agenda. The Committee also noted the various co-option requests received on CED 02 and noted/decided the following:

- 1) The Committee decided to co-opt RDC Concrete (India) Ltd, Mumbai considering their importance in the field on cement and concrete, and construction sector.
- 2) The Committee decided to drop Hindustan Consulting Associates Pvt. Ltd., New Delhi due to lack of participation.
- 3) The Committee noted that, given the presence of more than seven cement manufacturers, including the Cement Manufacturers Association, there is a necessity to maintain balanced representation from various stakeholders within the Committee. Consequently, the request for co-option from Dalmia Cements Limited was not accepted.
- 4) The Committee noted that already there are many academic institutions represented in CED 02, the co-option request from IIT Mandi was not accepted and will be considered in future.
- 5) The Committee observed that the Cement Manufacturers Association (CMA) is a constituent of CED 02, which serves as the apex body in India representing the perspectives of cement manufacturers and industries to the government. In this context, the Committee expressed a desire to gain further insight into the South Indian Cement Manufacturers Association (SICMA). Accordingly, the Committee requested the Bureau of Indian Standards (BIS) to communicate with SICMA to ascertain their position, background, and objectives for joining this Committee. A suitable decision will be made at the next meeting of CED 02.

2.2 The Committee noted the composition of CED 2:1 and CED 2:2 as given in the agenda of the meeting.

2.3 The Committee noted the composition of the various Panels under CED 02 as given in the agenda of the meeting. Also, based on brief deliberations, the Committee decided the following:

2.3.1 The Member Secretary informed the Committee about the recent guidelines issued by BIS on restructuring/revamping of Working Groups and Panels under the Technical Committees. He mentioned that in line with the BIS's guidelines, the Panel on revision of IS 457, CED 2:2/P6 need to be dropped and it will be registered as the Working Group on revision of IS 457, CED 2:2/WG 5 as this Panel deals with only one single standard. The Composition of this Working Group will remain same as that of the Panel. The Committee noted and agreed on the same.

2.3.2 The Committee accepted the request of Shri V. V. Arora to be relieved from his role as Convener of the CED 2:2/P9 Panel on Ferrocement due to his other important commitments. In this regard, the Committee requested its members to provide their inputs regarding the position and responsibilities of the convenorship for the Panel on Ferrocement Construction, CED 2:2/P9. However, Until a new Convener is appointed, Shri V. V. Arora will continue to serve in this capacity.

2.4 The Committee noted the Working Groups under CED 02.

ITEM 3 NEW WORK ITEM PROPOSALS

3.1 Standard Practice for Making and Curing Test Specimen in the Field

The Committee considered the proposal from Shri A. K. Jain on Standard practice for Making and Curing Test Specimen in the field. Shri A. K. Jain mentioned that site engineers are not much aware of the method of preparing and curing of specimens on site due to absence of any laid down standard practice. Generally, it creates variations between the specimen tested on the field and at the RMC plant. He also mentioned that ASTM C31 specifies how concrete is to be transported to the site, how it is to be stored and tested on the site. The new standard will also be helpful for creating awareness of the site staff to handle the specimen on the site.

Shri Anil Banchor from RDC Concrete mentioned that curing tanks at the site do not have any temperature control and hence there is a need for the standard so as to specify casting and curing of the specimen on site.

Considering the above remarks and observations from various other members, the Committee decided to create a group of experts under the leadership of Shri A. K. Jain to prepare a draft on the above proposal and present it to the Committee by the next meeting and thereafter the Committee will decide whether this proposal can be added in the existing part of IS 1199 or it is to be created as a standalone document.

The following members agreed to participate in the group for creating the draft:

- 1) Dr S. K. Singh, CBRI Roorkee
- 2) Dr K. Sivakumar, LNT Chennai
- 3) Shri Anil Banchor and Shri Avijit Choubey from RDC Concrete
- 4) Shri Dinesh Kumar Ujjainia, CPWD

3.2 Water Absorption of Concrete

The Committee considered the request from BIS and informed that IS 516 Part 2/Sec 2 Hardened Concrete — Methods of Test: Part 2 Properties of Hardened Concrete other than Strength: Section 2 Initial Surface Absorption (First Revision) covers the specified requirement and hence separate standard for water absorption of concrete is not required.

3.3 Antimicrobial Cement Additives

The Committee considered the proposal from Dr Basha Dash from Institute of Minerals and Materials Technology, Bhubaneshwar on antimicrobial cement additives and decided to invite the proposer in the next meeting to give the background and more clarity on the subject.

3.4 Specifications and test methods for Corrosion Inhibitors in Reinforced Concrete Applications

The Committee considered the request from Dr Shweta Goyal from Thapar Institute of Engineering and Technology on corrosion inhibitors.

Shri P. N. Ojha from NCB informed that NCB is involved in the testing of corrosion inhibitors for last 10 years. He mentioned that there are a series of tests for corrosion inhibitors. As per the present scenario, bipolar corrosion inhibitors are mostly used in the industry. Most of the manufacturers in India are producing organic type bipolar corrosion inhibitors. These are mostly used in the infrastructure and metro projects. Shri A. K. Jain, CBRI and various other members of the Committee also supported to create a separate standard on corrosion inhibitors.

In view of the above, the Committee decided to constitute a Working Group on Corrosion Inhibitors. The task of this working group will be to create specifications and test method standard on corrosion inhibitors in reinforced concrete applications. The composition of the Working Group is given as below:

- 1) Shri P. N. Ojha, NCB (Convener)
- 2) Dr S. K. Singh, CBRI Roorkee
- 3) Fosroc
- 4) Sika India Pvt Ltd.
- 5) Sunanda Chemicals
- 6) Dr Shweta Goyal, Thapar Institute of Engineering and Technology, Patiala
- 7) Dr Radhakrishna Pillai, IIT Madras
- 8) L&T Construction, Chennai
- 9) Conchem Labs, Mumbai

3.5 Specifications for processed steel slag aggregates for road applications

The Committee considered the request from CRRRI on Specification for processed steel slag aggregates for road applications and referred it to CED 2:2/P8 Panel on Aggregates for further consideration and discussion.

3.6 Categorization of Properly Washed Recycled Concrete Aggregates and Recycled Aggregates in IS Standards

The Committee considered the request on Categorization of properly Washed Recycled Concrete Aggregates and Recycled Aggregates in Indian Standards from M/S CDE Asia Ltd. and referred it to CED 2:2/P8 Panel on Aggregates for further consideration and discussion.

ITEM 4 DRAFT STANDARDS FOR CONSIDERATION

The Committee considered the draft standard on Ultrafine fly ash as recommended by the cement Panel CED 2:1/P1.

Shri Avijit Choubey mentioned that ultrafine fly ash resulting from grinding of fly ash should be allowed to be used in the manufacturing of ultrafine fly ash as it has comparable properties as that of ultrafine fly ash obtained through classification route. Shri A. K. Jain informed that this matter was considered in the Working Group meetings and thereafter in the cement Panel meeting and it was decided that in order to keep the particle shape as round and spherical, the classification route shall be used in production. He also mentioned that the properties of ground fly ash to work as an ultrafine material are not known and it require further research and studies to be deliberated. The performance of ultrafine fly ash obtained through classification route had been evaluated at IIT Delhi and NCB.

Considering the above, the Committee decided that since the ultrafine fly ash draft had gone through all stages of its development and no comments were received regarding the ground fly ash, decided to move forward with the recommendations of CED 2:1/P1 Panel and finalise the draft standard for publication. The Committee also decided that the issues pointed out by RDC Concrete shall be referred to the cement panel CED 2:1/P1 for consideration and discussion and requested them to share their data and studies on the properties and performance of ultrafine fly ash obtained through grinding. The Committee agreed on the same.

Item 5 COMMENTS RECEIVED ON PUBLISHED INDIAN STANDARDS

5.1 The Committee considered the comments received on various published standards and referred them to the respective Panels under CED 2 for consideration and deliberation.

Regarding the comment received from Shri H. M. Kikani from Bhumi Research Center, Surat on an editorial change of unit of pulse velocity as km/sec instead of m/s as given in IS 516 (Part 5/Sec 1). The Committee, after considering the comment, found that the comment is correct and hence the unit of pulse velocity need to be changed and hence decided to issue an amendment for the same. The Committee requested BIS Secretariat to prepare a draft amendment on IS 516 (Part 5/Sec 1) to correct the unit of pulse velocity as km/sec in the equation for calculation of E and send it directly for publication as the matter is urgent and non-controversial.

Item 6 PROGRESS OF WORK

6.1 The Committee noted the presented Programme of Work of CED 02.

The Member-Secretary also informed that since the publication of Ultrafine fly ash [Doc No. CED 02(17395)WC] had exceeded its timeline for formulation and publication, it is proposed to drop the present document, and re-register it as a new document (with the same content, but with a new number), which will be continued till its publication. Similarly for draft amendment no. 2 to IS 1343 [Doc No. CED 02(13883)] had exceed its timeline for publication. Since the contents of the draft amendment had been included in the ongoing revision of IS 456, it is proposed to drop the document. The Committee noted and agreed to the same.

6.2 Transfer of draft standards on post installed anchorages in concrete to CED 13

The Committee agreed with the recommendations of the Joint meeting of Working Groups on anchorages in concrete under CED 02 and Working Group on revision of IS 1946 under CED 13 to transfer the anchor draft standards prepared by CED 02 to CED 13 for further consideration and publication. The Committee also requested CED 13 to provide acknowledge the effort of CED 02 for the formulation of the draft standards on anchorages in concrete. The Committee also decided that once the draft standard on Installation and inspection of anchors on site will be ready for the wide circulation, the same will also be transferred to CED 13.

6.3 Comprehensive Exercise of Review of Old Indian Standards

6.3.1 The Committee noted the given agenda item.

6.3.2 The Committee noted the given agenda item.

6.3.3 Since no comments had been received, the Committee decided to reaffirm the standards listed below for the next 5 years.

SI No.	IS No.	Title
1.	IS 17161 : 2020	Flexural Strength and Toughness Parameters of Fibre Reinforced Concrete — Method of Test
2.	IS 516 (Part 2/Sec 2) : 2020	Hardened concrete — Methods of test: Part 2 Properties of hardened concrete other than strength: Section 2 Initial surface absorption (<i>first revision</i>)
3.	IS 516 (Part 6) : 2020	Hardened concrete — Methods of test: Part 6 Determination of drying shrinkage and moisture movement of concrete samples (<i>first revision</i>)
4.	IS 516 (Part 11) : 2020	Hardened Concrete — Methods of Test Part 11 Determination of Portland Cement Content of Hardened Hydraulic Cement Concrete (First Revision)
5.	IS 516 (Part 5/Sec 4) : 2020	Hardened Concrete — Methods of Test Part 5 Non-Destructive Testing of Concrete Section 4 Rebound Hammer Test (First Revision)
6.	IS 516 (Part 8/Sec 1) : 2020	Hardened Concrete — Methods of Test Part 8 Determination of Modulus of Elasticity Section 1 Static Modulus of Elasticity and Poisson's Ratio in Compression (First Revision)

6.4 Ongoing R&D Projects

The Committee noted the details of ongoing R&D Projects under CED 02 and requested the BIS Secretariat to invite the Principal Investigators of the Project in the next meeting to kindly give the progress of the project done so far.

Item 7 CONCRETE, REINFORCED CONCRETE AND PRESTRESSED CONCRETE, ISO/TC 71

7.1 The Committee noted the details of ISO/TC 71 and its Subcommittees.

7.2 Ballots

The Committee noted all the ballots voted on/after the last meeting of CED 02. BIS Secretariat again requested all the members of the Committee to actively peruse the ISO documents and give their valuable feedback so that India can vote positively on the draft standards.

7.3 Upcoming ISO Meetings

7.3.1 & 7.3.2 29th Plenary Meeting of ISO/TC 71

The Committee noted the details of upcoming 31st meeting of ISO/TC 71/SC 1 and 29th Plenary Meeting of ISO/TC 71 and its Subcommittees. Based on the deliberations held during the meeting, the following delegation was decided to attend the meeting in the Virtual mode.

13 Nov 2024	ISO/TC 71/SC 1	Test methods for concrete
	Shri P. N. Ojha (<i>Leader of the delegation</i>)	NCB
	Shri V. V. Arora	In Personal Capacity
	Shri A. K. Jain	Principal Advisor, RMCMA
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS
19 Nov 2024	ISO/TC 71/SC 8	Environmental Management for concrete and concrete structures
	Shri Jose Kurian (<i>Leader of the delegation</i>)	In Personal Capacity
	Dr Shashank Bishnoi	IIT Delhi
	Dr K. V. L. Subramaniam	IIT Hyderabad
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS
	ISO/TC 71/SC 9	Steel-concrete composite and hybrid structures
	Prof. CVR Murty (<i>Leader of the delegation</i>)	IIT Madras
	Ms Alpa Sheth	VMS Consultants Pvt. Ltd.
	Shri Amandeep	Creative Design Consultants & Engineers Pvt Ltd.
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS
20 Nov 2024	ISO/TC 71/SC 5	Simplified design standard for concrete structures
	Prof Mahesh Tandon (<i>Leader of the delegation</i>)	TCPL
	Dr Rupen Goswami	IIT Madras
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS
	ISO/TC 71/SC 3	Concrete production and execution of concrete structures

	Shri V. V. Arora (<i>Leader of the delegation</i>)	In Personal Capacity
	Shri A. K. Jain	Principal Advisor, RMCMA
	Prof Manu Santhanam	IIT Madras
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS
	ISO/TC 71/SC 7	Maintenance and repair of concrete structures
	Shri Amandeep (<i>Leader of the delegation</i>)	Creative Design Consultants & Engineers Pvt Ltd.
	Shri P. N. Ojha	NCB
	Ms Lopamudra Sengupta	JSW
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS
	21 Nov 2024	ISO/TC 71/SC 6
Shri Amandeep (<i>Leader of the delegation</i>)		Creative Design Consultants & Engineers Pvt Ltd.
Dr Shamsheer Bahadur Singh		BITS Pilani
Dr V. V. L. Kanta Rao		In Personal Capacity
Smt Divya S. Shri Jitendra Kumar Chaudhary		BIS
22 Nov 2024	ISO/TC 71 Plenary	Concrete, reinforced concrete and prestressed concrete
	Shri Jose Kurian (<i>Leader of the delegation</i>)	In Personal Capacity
	Shri V. V. Arora	In Personal Capacity
	Shri P. N. Ojha	NCB
	Shri Amandeep	Creative Design Consultants & Engineers Pvt Ltd.
	Prof. Mahesh Tandon	
	Smt Divya S. Shri Jitendra Kumar Chaudhary	BIS

To attend the meetings of the Working Groups under ISO/TC 71, the Committee recommended the following experts, as they are already members of the respective Working Groups, being nominated by BIS:

Date	ISO Working Group	Nominated Expert from India (BIS)
21 Nov 2024	ISO/TC 71/SC 4/WG 1 Revision of ISO 19338:2014 Performance and assessment requirements for design standards on structural concrete	Shri Jose Kurian
21 Nov 2024	ISO/TC 71/WG 1 Life Cycle Management of concrete structures	Shri Amandeep

7.4 Nomination of experts in the ISO Working Groups

The Committee approved the nomination of following experts in the relevant Working Groups under ISO/ TC 71 and its Subcommittees considering their expertise and willingness to participate in the international standardization work.

- 1) Dr Rupen Goswami from IIT Madras in ISO/TC 71/SC 5/WG 1 Revision of ISO 28841: 2013 Guidelines for simplified seismic assessment and repair of concrete structures
- 2) Dr K.V.L. Subramaniam from IIT Hyderabad in ISO 13315-7 Environmental management for concrete and concrete structures Part 7 End of life phase of concrete and concrete structures

Item 8 ANY OTHER BUSINESS

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

ANNEX 1
LIST OF ATTENDEES

Member Name	Organization Name
Shri Jose Kurian (Chairperson, CED 02)	In Personal Capacity, Thiruvalla
Shri A. K. Jain	In Personal Capacity, Mumbai
Shri L. K. Jain	In Personal Capacity, Nagpur
Shri V. V. Arora	In Personal Capacity, Faridabad
Dr V Ramachandra	Cement Manufacturers Association, New Delhi
Shri Prakhar Shrivastava	Cement Manufacturers Association, New Delhi
Shri Shubho Chakravarty	Cement Manufacturers Association, New Delhi
Shri U. S. Vidyarthi	Central Soil and Materials Research Station, New Delhi
Shri Dinesh Kumar Ujjainia	Central Public Works Department, New Delhi
Dr SK Singh	CSIR - Central Building Research Institute, Roorkee
Dr Prabhat Ranjan	CSIR - Structural Engineering Research Centre, Chennai
Dr S. Bhaskar	CSIR - Structural Engineering Research Centre, Chennai
Shri Ravi Gera	Engineers India Limited, New Delhi
Shri Deepak Bansal	Housing and Urban Development Corporation Limited, New Delhi
Shri Nikhil Agrawal	Indian Association of Structural Engineers, New Delhi
Dr Dipti Ranjan Sahoo	Indian Institute of Technology Delhi, New Delhi
Dr Pramod Gupta	Indian Institute of Technology Roorkee, Roorkee
Dr M R Kalgal	Indian Concrete Institute, Chennai
Shri Manoj Kawalkar	Indian Concrete Institute, Chennai
Dr K. Sivakumar	L&T Construction, Chennai
Shri Brijesh Singh	National Council for Cement and Building Materials, Faridabad
Shri P. N. Ojha	National Council for Cement and Building Materials, Faridabad
Dr Somit Neogi	National Test House, Kolkata
Shri Anil Banchhor	RDC Concrete (India) Ltd, Mumbai
Shri Avijit Chaubey	RDC Concrete (India) Ltd, Mumbai
Shri S. Dakshinamoorthy	The India Cements Limited, Chennai

Shri Joys K.S.	The Indian Hume Pipe Company Limited, Mumbai
Shri S. J. Shah	The Indian Hume Pipe Company Limited, Mumbai
Shri Shantilal Jain	The Institution of Engineers (India), Kolkata
Shri Anil Kumar Pillai	The Ramco Cements Limited, Chennai
Shri Raju Goyal	Ultratech Cement Limited, Mumbai
Dr Rajiv Jha	Voluntary Organization in Interest of Consumer Education (VOICE), New Delhi
From BIS	
Smt Divya S.	Sc 'D'
Shri Jitendra Kumar Chaudhary	Sc 'B'
Invitees	
Shri Anil Sharma	In Personal Capacity, New Delhi
Shri Shounak Mitra	HILTI India Private Limited, New Delhi
