



BUREAU OF INDIAN STANDARDS

**Minutes for Twenty Third Meeting of Cement Matrix Products Sectional Committee,
CED 53**

Meeting No. Twenty Third Meeting (23rd)
Date 24 April 2024, Time 1030h
Venue Hybrid Meeting from (Blue room)
(BIS HQ, New Delhi, India - 110002)

Chairperson: Shri V. V. Arora, In Personal Capacity

Member Secretary: Divya S

Members Present

Cement Manufacturers Association, New Delhi	Shri Anil Kumar Pillai
Central Public Works Department, New Delhi	Shri Dinesh K Ujjainia
CSIR - Central Building Research Institute, Roorkee	Dr Santha Kumar G.
Engineers India Limited, New Delhi	Shri Vikram K. Gupta
Everest Industries Limited, New Delhi	Shri Jawahar I. Rawtani
Hyderabad Industries Limited, Hyderabad	Dr Thirumal (<i>Representative</i>)
Indian Hume Pipe Company Limited, Mumbai	Shri Omkar Nikam
JSW Cement Limited, Mumbai	Smt Lopamudra Sengupta
National Council for Cement and Building Materials, Faridabad	Shri Amit Trivedi
National Test House, Kolkata	Dr Somit Neogi
Spun Pipe Manufacturers Association of Maharashtra, Nanded	Shri D. N. Joshi

ITEM 0 OPENING REMARKS BY THE CHAIRPERSON

The Chairman extended a warm welcome to the members of the Committee. He noted that a number of projects were active under the Committee and recommended they be taken up working group/subcommittee wise. He requested the cooperation of all the members for the same.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

1.1 The Committee examined the comments received from M/s Medhavi Cement Products Pvt Ltd and noted that those were suggestions on the revision of IS 458 rather than comments on the recording of Minutes. The Committee requested the working group working on the revision of IS 458 to consider these suggestions as well, and **CONFIRMED** the Minutes of the last (Twenty Second) meetings of the Cement Matrix Products Sectional Committee, CED 6 held on 21 November 2023, as circulated to members vide BISDG letter No. CED 53/A-2.22 dated 24 November 2023.

ITEM 2 REVIEW OF COMPOSITION OF SECTIONAL COMMITTEE, SUBCOMMITTEES AND PANEL

2.1 Composition of the Sectional Committee

2.1.1 The Committee examined the present composition of the Committee as given at Annex 1 of the Agenda. The new decisions regarding the required attendance of the BIS management were explained to the Committee members. The Committee noted that the following members had not attended the last 2 meetings of the Committee, and were absent for the current meeting as well.

SI No.	NAME OF THE ORGANISATION	REPRESENTED BY	STATUS	MEETINGS			ATTENDANCE
				21 th	22 nd	23 rd	
1	All India AC Pressure Pipe Manufacturers Association, Indore	Shri N. Kishan Reddy Shri P.S. Kalani (Alternate)	M	A	A	A	0/3
2	Brihan Mumbai Municipal Corporation, Mumbai	Shri Vishal Thombare	M	A	A	A	0/3
3	Central Pollution Control Board, Delhi	Shri J. S. Kamyotra Shri P. K. Gupta (Alternate)	O	A	A	A	0/3
4	Central Public Health & Environmental Engineering Organization, New Delhi	Nomination awaited	U	A	A	A	0/3
5	Directorate General of Factory Advise Services and Labour Institute, Mumbai	Dr H.M. Bhandari Shri Amit Gola (Alternate)	O	A	A	A	0/3
6	Housing & Urban Development Corporation Limited, New Delhi	Shri N. L. Manjoka Shri Akhilesh Kumar (Alternate)	U	A	A	A	0/3

7	Indian Institute of Technology Delhi,	Prof R. Ayothiraman	T	A	A	A	0/3
8	Military Engineer Services, Engineer-in-Chief's Branch, Integrated HQ of MoD (Army), New Delhi	Col Sumeet Singh Makkar Lt Col K.V. Vinayaka (Alternate)	U	A	A	A	0/3
9	North Delhi Municipal Corporation, New Delhi	Shri Pradeep Bansal Shri M. P. Gupta (Alternate)	U	A	A	A	0/3

The Committee decided that the contribution of these members vide comments/emails/drafts may also be considered prior to any adverse action.

ITEM 3 FINALISED DRAFT STANDARDS

3.1 Draft Indian Standard for Precast Concrete Grating – Specification Doc No: CED 53 (22006)F

The committee deliberated on the Chairman's suggestion regarding the document and decided to modify **Doc No: CED 53 (22006)F** to reflect that fly ash as per IS 3812(Part 1) alone may be utilized in the manufacture of Precast Concrete Grating.

Item 4 ISSUES ARISING OUT OF THE PREVIOUS MEETING

4.1 The Committee noted the status of all the revisions pending from the previous meeting and noted that inputs were awaited in almost all of them. The Committee recommended that WG/SC meetings for these revisions may be held and the progress be reported to the Committee in the next meeting.

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Sl No.	Subject	Current composition of the WG	Present status
1.	IS 2185 (Part 1 to 4), and Specification for Concrete Masonry Units	a) Shri P.N. Ojha, NCCBM (Convener) b) Shri M. K. Mallick, CPWD c) Shri S. K. Singh, CSIR-CBRI d) Shri Rajdeep Chowdhury, Biltech Building Elements Limited e) Shri Avinash Pareek, Association of Fly Ash Products Manufacturers f) Shri Shri G.B. Singh, Systems Buildings Technologists g) Shri Vijay Kumbhani, Pavers and Blocks Manufacturers Association	The Committee requested the WG to hold a meeting and to update the Committee

2.	IS 6441 (Part 10) Methods of test for autoclaved cellular concrete products: Part 10 Determination of Water Absorption	<ul style="list-style-type: none"> a) Shri P.N. Ojha, NCCBM (Convener) b) Shri M. K. Mallick, CPWD c) Shri S. K. Singh, CSIR-CBRI d) Shri G.B. Singh, Systems Buildings Technologists e) Dr D. Satyanarayanan, HIL Limited f) Shri Rajdeep Chowdhury, Biltech Building Elements Limited g) Shri Jawahar I. Rawatani, Everest Industries Ltd h) Shri Vijay Kumbhani, Pavers and Blocks Manufacturers Association i) Smt Harini santhanam, Saint Gobain Research India Private Ltd j) Shri Avinash Pareek, Association of Fly Ash Products Manufacturers 	The Committee requested the WG to hold a meeting and to update the Committee
3.	IS 12592:2002 Specification for precast concrete manhole cover and frame	<ul style="list-style-type: none"> a) Shri P.N. Ojha, NCCBM (Convener) b) Shri Vijay Kumbhani, Pavers and Blocks Manufacturers Association c) Shri M. K. Mallick, CPWD d) Shri S. K. Singh, CSIR-CBRI e) Shri Raj Naveeth Rao, Visaka Industries Limited f) Shri V. Dakshina Murthiy, L&T Construction g) Shri C.Y. Gavhane, Medhavi Cement Products 	The Committee requested the WG to hold a meeting and to update the Committee
4.	IS 1592:2003 Specification for asbestos cement pressure pipes and joints (Fourth Revision)	<ul style="list-style-type: none"> a) Shri S.K. Soni, A. Infrastructure Ltd b) Shri Venkatesware Pipes Ltd. c) Shri V. Dakshina Murthiy, d) L&T Construction 	The Committee requested the WG to hold a meeting and to update the Committee
5.	IS 14862 Specifications for Fibre Cement Flat Sheets	<ul style="list-style-type: none"> a) Shri Sanjay Sharma, Sahyadri Industries Limited b) Shri Raj Naveeth Rao, Visaka Industries Limited c) Shri Jawahar I. Rawatani, Everest Industries Ltd d) Shri A. Anantharaj, Ramco Industries Ltd e) Dr D. Satyanarayanan, HIL Limited 	The Committee requested the WG to hold a meeting and to update the Committee

6.	Amendment on IS 459:1992 Specification on Corrugated and Semi-Corrugated Asbestos Cement Sheets.	<ul style="list-style-type: none"> a) Shri P. N. Ojha, NCCBM (Convener) b) Shri Jawahar I. Rawatani, Everest Industries Ltd c) Shri Durgesh C Sharma, Asbestos Information Centre d) Shri R. K. Khandekar NTPC Ltd e) Dr D. Satyanarayanan, HIL Limited f) Shri Raj Naveeth Rao, Visaka Industries Limited g) Shri A. Anantharaj, Ramco Industries Ltd 	The Committee requested the WG to hold a meeting and to update the Committee
7.	Proposed standard on Specification for “RCC Precast Boundary Wall”	<ul style="list-style-type: none"> a) Shri Anand Jain, In Personal Capacity (Convener) b) Shri S. K. Singh, CSIR-CBRI c) Shri C.Y. Gavhane, Medhavi Cement Products d) Shri S. Gupta NTC Tiles Ltd e) Shri Raj Naveeth Rao, Visaka Industries Limited 	The Committee requested the WG to hold a meeting and to update the Committee
8.	Proposed standard on Specification for “EPS BLOCK”	<ul style="list-style-type: none"> a) Shri S. K. Singh, CSIR-CBRI (Convener) b) Shri P.N. Ojha, NCCBM c) Shri A. Jain, Premier Bars Pvt. Ltd d) Shri Avinash Pareek, Association of Fly Ash Products Manufacturers 	The Committee requested the WG to hold a meeting and to update the Committee
9.	Proposed standard on Inspection chamber	<ul style="list-style-type: none"> a) Shri V. Dakshina Murthiay, L&T Construction b) Shri Kushagra Gupta, SGG, RCC Pipe c) Shri C.Y. Gavhane, Medhavi Cement Products 	The Committee requested the WG to hold a meeting and to update the Committee
10	IS 16720: 2018 Pulverized fuel ash-cement bricks – Specification	CED 53:1	The Committee reviewed the comment but felt that the existing provisions given in the standard is in line with other brick and block standards. However, the committee decided that the comment may be considered in the next revision.
11	IS 17908: 2023 Fibre cement sheet – Lightweight concrete	CED 53, CED 53:1	The committee examined the comments and made the decisions as given in Annex A.

	sandwich panels — Specification		
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5.1 IS 458:2021 Precast Concrete Pipes (with and without Reinforcement)

The Committee examined the proposal for R&D received from Shri Joshi. It was decided that as per the latest guidelines of BIS, a terms of reference for the revision of IS 458 may be prepared, with assistance from Shri Joshi and presented in the next meeting of the Committee.

5.2 Action Research Project (ARP) & Working Drafts

5.2.1 IS 11769: Part 3: 1986 Guidelines for Safe Use of Products Containing Asbestos: Part 3 Non-cement Asbestos Products Other Than Friction Materials

The Committee requested the members to examine the draft submitted as a result of ARP which had been circulated to the members earlier, and to submit their comments on the same. The Committee requested BIS Secretariat to circulate the drafts once again.

4.1.1 IS 12080: 1987 Recommendations for Local Exhaust Ventilation Systems in Premises Manufacturing Products Containing Asbestos

The Committee requested the members to examine the draft submitted as a result of ARP which had been circulated to the members earlier, and to submit their comments on the same. The Committee requested BIS Secretariat to circulate the drafts once again.

4.1.2 IS 12079: 1987 Recommendations for packaging, transport and storage of asbestos

The Committee requested the members to examine the draft submitted as a result of ARP which had been circulated to the members earlier, and to submit their comments on the same. The Committee requested BIS Secretariat to circulate the drafts once again.

4.2 Input by way of Action Research Projects (ARP) of Previous Meeting

The Committee requested the members to examine the draft submitted as a result of ARP which had been circulated to the members earlier, and to submit their comments on the same. The Committee requested BIS Secretariat to circulate the drafts once again.

4.3 Comment on IS 17725: 2022 Precast Concrete Circular Manhole — Specification

The committee examined the comments and made the decisions as given in Annex B. The Committee decided that an amendment may be prepared in accordance with the first two comments (as mentioned in Annex B), which may be presented to the Committee in the next meeting. In the meanwhile, the Committee decided that the remaining comments will be considered again during the revision of the standard as well. In the meanwhile, the Committee requested the members to examine the standard and to suggest if any more modifications are required.

4.4 Proposed standard on “Precast Concrete U Drains”

The Committee noted the progress and decided that Pakona Engineers may be contacted regarding the subject.

4.5 Proposed standard on “Jacking Pipes, Box Culverts and U Drains”

The Committee noted the progress and decided that Medhavi Cement Products may be contacted regarding the subject.

5 COMMENT ON EXISTING STANDARDS

5.1 IS 2185 Part 3 Concrete Masonry Units Part 3 Autoclaved Cellular Aerated Concrete Blocks

The Committee discussed the comment. The response prepared by BIS, as reproduced below was tabled during the meeting.

With regard to the first and second queries raised by you, you may refer the clause 2.1 of IS 6461 (Part 4):1972 ‘Glossary of Terms Relating to Cement Concrete Part 4 Types of Concrete’:

The product under IS 2185 (Part 3) has been termed as Autoclaved Cellular Aerated Concrete Blocks in coherence with the definition of aerated concrete as given under the standard.

Further, you are also requested to see the definition of concrete as per clause 2.84 of IS 6461(Part 12) ‘Glossary of terms relating to cement concrete: Part 12 miscellaneous’

With regard to your third query regarding the grouping of fly ash and sand both as aggregates, the same is again in terms with the definitions of aggregates as per IS 383:2016 ‘Coarse and fine aggregates for concrete -- Specification’

The Committee endorsed the above.

Item 6 INTERNATIONAL STANDARDIZATION

The Committee noted the information provided under the Agenda item.

Item 7 PROGRESS OF WORK

The Committee noted the progress of work and decided to circulate the drafts which were due for review and to reaffirm and revise IS 784:2019 ‘Prestressed concrete pipes (including specials)- specification’.

Item 8 COMMENTS FROM MANAK MANTHAN

The Committee discussed the comments received through manak manthan and made the following observations/decisions.

IS No.	Commentator / Organisation	Clause/Para/Table/Figure No. Commented	Comments/Modified Wordings	Justification of the Proposed change	Decision of Committee
IS 17908: 2023	Er E Ramakrishnan Secretary Bhoo Cultural Academy	4.5 Fibrous	Why there is no IS standards of discreet elements.	Discreet means (with cautious) – products name is Fiber Cement Sheet	The members from M/s Everest and M/s HIL informed that they were already having inhouse standards regarding the discreet elements and offered to share the same with the Committee. The Committee decided, these may be incorporated in the standard or developed as a separate standard based on the inputs received.
		4.8 Adhesive	Why no standards for vermiculite perlite expanded polystyrene beads?		The manufacturers were requested to share their inhouse standards on the topic. The Committee decided, these may be incorporated in the standard or developed as a separate standard based on the inputs received.
		10 Marking	Need occupational health standards.		The manufacturers informed that the handling instructions are usually sent along with the product but not marked on the product. Regardless, the Committee felt hat we may include a set of safety precautions similar to that in IS 14862. M/s Everest volunteered to provide a draft on the same.
		Annex A	Asbestos information center	How it is handled and fixed in position without affecting humans	The Committee pointed out that the standard deals in non asbestos product and that the comment is not relevant.

Minutes CED53/A-2:23
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		Open	Details for no disposing of fiber cement sheet (Environment Hazard details)	Needed	The Committee noted that the non asbestos and can be disposed off just like any other building material.
		Clause 4.5 and 4.8	The reference standard for fibers and additives need to be mentioned	Fibers and additives specification limit is needed	The Committee noted that similar comment has already been discussed and decision taken.
	DARURU AKHIL	Cl.5.7	Average duration of curing by humid curing or air curing may be included		The Committee noted that he curing period is dependent on the ambient temperature. The performance based criteria for duration of curing temperature
		Annex D - Figure 6	Clarity on the diagram is recommended. As the loading condition represented in the figure seems to be symmetrical load and not uniformly distributed load. Hence clarity on the diagram is recommended.		The Committee clarified that the loading is not UDL, but is a 4 point loading system.
		Annex B	Method of determination of density does not incorporate conditioning of sample prior to carrying on the test. It is recommended to consider the same.		The Committee clarified that the samples are not usually conditioned prior to desity determination, and that the test is carried out at ambient consitions.
IS 458: 2021		Cl. 4.1	Reinforced pipe can be manufactured by vibration cast method only.	To have a more clear scope of licence, it can be mentioned in IS adding a note or sub clause in cl. 4 that Reinforced pipe can be manufactured by vibration cast method only.	The Committee clarified that the reinforced pipes may be manufactured by spun process also.

Minutes CED53/A-2:23
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SHUBHAM TIWARI	Cl. 7.4	In cl. 7.4 , Curing criteria for cement with flyash and slag is specified. Curing criterion for OPC cement, composite cement or some other type of cement shall be specified.	In case of pipes where cement used is Ordinary Portland cement, Flyash based cement, slag cement , composite cement or any other type of cement, the minimum period of water curing shall be 14 days	The Committee clarified that it is already mentioned in the standard that for OPC the curing time shall be 7 days, and that for flyash/slag based cement, it shall be 14 days.
	Cl. 7.4, last sentence	Impermeable membrane may be used for curing as per IS 456 may be made recommendatory	It is recommended that impermeable membrane may be used for curing as per IS 456	The Committee felt that the method of curing will not affect the quality significantly and hence may be left to the manufacturer
	Table 2	Spiral hard drawn steel (kg/linear metre) given in table 2 for NP2 pipes shall be less than corresponding values from table 3 for NP3 pipes. However, for sizes 450mm, 500mm and 600mm, the values given are higher in table 2 for NP2 pipes than table 3 for NP3 pipes.	Spiral hard drawn steel (kg/linear metre) given in table 2 for NP2 pipes for sizes 450mm, 500mm and 600mm may be corrected.	The Committee noted the comment and decided that the same may be taken up during revision of the standard.
	Table 8	The changes done in reinforcements – spirals, hard drawn steel (kg/linear metre) in Table 8 are not required as the weight has reduced so much, with that it would be very different to reduce ultimate load and strength requirement.	Table 8 may be kept as per old standard IS 458:2003	The Committee noted the comment and decided that the same may be taken up during revision of the standard.

Minutes CED53/A-2:23
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IS 16720 : 2018 Pulverized Fuel Ash- Cement Bricks- Specification	HRBO	Clause 7.2	Proportion of mixing of Raw materials may be suggested	TC may provide recommendatory notes on proportion of mixing of Raw materials with respect to different grades	The Committee felt that providing the raw material ratio will make the standard too prescriptive and decided to maintain a more performance based approach.
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Item 9 COMMENTS FROM SPMA

Amendment no. 1 of March 2024 to IS 458: 2021

IS No.	Commentator/ Organisation	Clause/Para/Table/Figure No. Commented	Comments/Modified Wordings	Justification of the Proposed change
IS 458: 2021 Precast Concrete Pipes (with and without Reinforcement)	SPMA	Table 5	At column 3, the figure should be 12+12	In place of 12+2
		Table 8	At column 3, the figure should be 12+12	In place of 12+2

The committee agreed to the comment and decided that either an amendment may be issued to clarify this, or this may be included in the upcoming revision of the standard.

Item 10 RESOLUTIONS OF THE MEETING

The resolutions of the meeting were prepared and circulated on the same day of the meeting and is attached as Annex C.

Item 11 ANY OTHER BUSINESS

11.1 The date of the next meeting was fixed as July 30, 2024.

11.2 The Committee noted that the subcommittees have not been active for a while and decided to reconstitute the same. The Committee endorsed the Chairman, in consultation with BIS secretariat to reconstitute the subcommittees.
