



# भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI 110002

## कार्यसूची

हमारा संदर्भ : सीईडी 38/ए-2.17

04 अक्टूबर 2024

विषय : विशेष संरचना विषय समिति, सीईडी 38 की सत्रहवीं बैठक की कार्यसूची

### सीईडी 38 के सभी सदस्य

प्रियमहोदय/महोदया,

हमारे सम संख्यक पत्र दिनांक **23 सितंबर 2024** के संदर्भ में विशेष संरचना विषय समिति, सीईडी 38 की सत्रहवीं बैठक की कार्यसूची की एक प्रति आपको भेज रहे हैं। बैठक निम्नानुसार आयोजित होगी:

तकनीकीसमिति	दिन	तिथि	समय	स्थान
विशेष संरचना विषय समिति, सीईडी 38	गुरुवार	10 अक्टूबर 2024	11:00 बजे	<b>संवाद (ग्रीनरूम)</b> (ऑनलाइन+ऑफलाइन) भारतीय मानक ब्यूरो, मानक भवन, 9, बहादुर शाह जफर मार्ग नई दिल्ली 110 002

बैठक की कार्यसूची तैयार की जा रही है और आपको यथासमय भेज दी जाएगी।

बैठक में वीडियो कॉन्फ्रेंसिंग के द्वारा भाग लेने के लिए एक **Webex Link** आपको भेजा जा रहा है। हम आशा करते हैं कि आप इस महत्वपूर्ण बैठक में भाग लेंगे। इस बैठक में भाग लेने की पुष्टि कृपया ई-मेल से भेज दें।

मीटिंगलिंक: <https://bismanak.webex.com/bismanak/j.php?MTID=mdee1bae9c7ee6d79d76338d4e5aa3763>

बैठक संख्या : 2510 046 4429

पासवर्ड : CED38

धन्यवाद।

भवदीय,  
(अशोक सारण)

वैज्ञानिक 'बी' सीईडी 47

ईमेल : [ced38@bis.gov.in](mailto:ced38@bis.gov.in), [ashoksaran@bis.gov.in](mailto:ashoksaran@bis.gov.in)

फ़ोन न.: 011-23238121

संगलन : उपरिलिखित



**भारतीय मानक ब्यूरो**  
**BUREAU OF INDIAN STANDARDS**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG, NEW DELHI 110002

**AGENDA**

**Our Ref: CED 38/A-2.17**

**04 October 2024**

**Subject:** Agenda for the Seventeenth Meeting of Special Structures  
Sectional Committee, CED 38.

**ALL MEMBERS OF CED 38**

Dear Sir/Madam,

In continuation to our Meeting Notice of even number dated **23 September 2024**, please find enclosed herewith a copy of the Agenda of the Seventeenth Meeting of Special Structures Sectional Committee, CED 38. The schedule of the meeting is as given below:

<b>Technical Committee</b>	<b>Day</b>	<b>Date</b>	<b>Time</b>	<b>Venue</b>
Special Structures Sectional Committee, CED 38	Thursday	10 October 2024	11:00 h	<b>Samvaad Room, (Online + Offline), Bureau of Indian Standards, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi 110002</b>

Kindly note that a **Webex link** will be sent to you for joining the meeting through video conferencing.

You are kindly requested to make it convenient to participate in the meeting and a line in confirmation through E-mail would be highly appreciated.

**URL:** <https://bismanak.webex.com/bismanak/j.php?MTID=mdee1bae9c7ee6d79d76338d4e5aa3763>

**Meeting ID:** 2510 046 4429

**Password:** CED38

Thanking you,

Yours faithfully

**(Ashok Saran)**

Scientist 'B', CED 38

E-mail: [ced38@bis.gov.in](mailto:ced38@bis.gov.in), [ashoksaran@bis.gov.in](mailto:ashoksaran@bis.gov.in)

Phone No. 011-23238121

Encl: As Above

**BUREAU OF INDIAN STANDARDS**

**AGENDA**

**Special Structures Sectional Committee, CED 38 : Seventeenth Meeting**

**Thursday, 10 October 2024 : 1100 h**

**Through Video Conferencing**

<https://bismanak.webex.com/bismanak/j.php?MTID=mdee1bae9c7ee6d79d76338d4e5aa3763>

**Pass: CED38**

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**CHAIRPERSON** : Ms. Alpa R. Sheth  
**MEMBER SECRETARY** : Shri Ashok Saran

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**ITEM 0 OPENING REMARKS**

**ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING**

The Minutes of the last (Sixteenth) meeting of the Special Structures Sectional Committee, CED 38 held on 9 May 2024 were circulated. No comments have been received on the same.

The Committee may **CONFIRM**.

**ITEM 2 COMPOSITION**

**2.1** The present composition of the sectional committee is given at **Annex 1**.

The Committee may **CONSIDER** and **REVIEW** the composition.

**ITEM 3 ROLLING ANNUAL ACTION PLAN**

**3.1** Bureau of Indian Standards (BIS) has adopted a Rolling Annual Action Plan which is a dynamic and adaptable framework designed to guide the standardization activities on an annual basis. Unlike a fixed annual plan, the rolling approach allows for ongoing adjustments and flexibility to accommodate emerging needs and changing industry requirements. It enhances agility, stakeholder engagement, and focus on priorities, while facilitating effective monitoring and long-term planning.

Therefore, all the sectional committee are being advised to frame a rolling annual action plan and adhere to the respective timelines for draft formulation.

3.2 BIS has taken a decision that all standards before 2000 have to be revised within the next three years. This plan has been designed with that in view.

Committee decided tentative timeline for the finalization of these drafts as given below.

SI No.	Topic/ Item Title
1	Composite Tall Buildings
2	Tensile Membrane structures
3	Criteria for the design of reinforced concrete arches (IS 4090)
4	Criteria for design of reinforced concrete bins for the storage of granular and powdery materials (IS 4995)

The Committee may **NOTE** and **ADVISE**.

#### ITEM 4 ANNUAL ACTION PLAN

A Programme of work under the Sectional Committee along with its scope is given at Annex 2. The Committee requested to DECIDE on future work plan and strategies to be adopted for this year aiming at contribution in related to standardization activity both at national and international level (if available, ISO).

The Committee may **NOTE** and **ADVISE**.

#### ITEM 5 ISSUES ARISING OUT OF THE PREVIOUS MEETING

**Note:** Due to structural reforms in organization of Sectional committee, the subcommittee are being done away with and only panels and working groups would function under the sectional committee.

In view of the above

#### 5.1 Works Related to Bins, Shell Structures and Concrete Cooling Towers Working panel', CED 38: P-1

##### 5.1.1 IS 4995 (Parts 1 & 2) Criteria for Design of Reinforced Concrete Bins for Storage of Granular and Powdery Materials

Shri V. N. Heggade, the Convener, informed the Committee in the last meeting that the modified draft would be ready for the Committee's consideration by the end of July 2024.

Draft is still awaited.

The Composition of the Working panel:

- 1) Shri V. N. Heggade, In Personal Capacity, Mumbai (Convener)
- 2) Dr. P Harikrishna, CSIR Chennai  
Shri V. Ramesh Kumar, CSIR Chennai

- DR. Kanchana Devi A, CSIR Chennai
- 3) Shri Sandeep Deshmukh, HSCPL Mumbai
  - 4) Shri A. S. Oundhakar, Invictus Consultancy Services, Mumbai
  - 5) Shri S. Rathinavel, L&T Construction, Chennai
  - 6) Shri Arvind Shrivastava, NPCIL Mumbai  
Shri Manoj K Nema, NPCIL Mumbai
  - 7) Shri Santanu Chatterjee, PCTL Kolkata  
Shri Rajat Bhaumik, PCTL Kolkata
  - 8) Shri Parag Patni, STUP Consultants Private Limited, Mumbai  
Shri Ramesh Babu V, STUP Consultants Private Limited, Mumbai
  - 9) Shri Upendranath Bhupal, Spectrum Techno Consultants Private Limited, Mumbai  
Shri Umesh Rajeshirke, Spectrum Techno Consultants Private Limited, Mumbai
  - 10) Ms. Kiran Madhavi, Tangent Solutions India Private Limited, Hyderabad

The Committee may **CONSIDER** and **DECIDE**.

## **5.2 Works Related to 'Composites Construction Working panel', CED 38: P-2**

**5.2.1** The Composite Construction Working panel, P-2, was requested to explore the possibility of creating a handbook on the above subjects in the future for better clarity and educational purposes.

Composition of the Working panel:

- 1) Dr S. Arul Jayachandran, Indian Institute of Technology Madras, Chennai (Convenor)
- 2) Shri C. N. Srinivasan, CR Narayana Rao Architects, Chennai
- 3) Dr M. B. Anoop, CSIR Chennai  
Dr Saptarshi Sasmal, CSIR Chennai  
Shri M. Kannusamy, CSIR Chennai
- 4) Shri Anurag Sinha, Engineers India Limited, New Delhi
- 5) Shri N. P. Rajamane, Indian Concrete Institute, Chennai
- 6) Shri Arijit Guha, Institute for Steel Development and Growth, Kolkata  
Shri P. L. Rao, Institute for Steel Development and Growth, Kolkata
- 7) Shri R. Balasubramanian, L&T Construction, Chennai
- 8) Shri Y. T. Praveenchandra, NPCIL Mumbai  
Shri A. K. Laharia, NPCIL Mumbai
- 9) Prof Umamaheshwari, SRM University, Chennai
- 10) Mr. A.T. Samuel, STUP Consultants Private Limited, Mumbai
- 11) Prof Arul Mary, In Personal Capacity
- 12) Dr V. Kalyanaraman, In Personal Capacity

The Committee may **CONSIDER** and **DECIDE**.

### 5.3 Works Related to 'Chimney and Staging Working panel', CED 38:P-3

#### 5.3.1 IS 4998:2015 Criteria for Design for Reinforced Concrete Chimneys

In last meeting decided, the Consideration of comments from Shri C. R. Arjun (TCE) by Dr. Harikrishna (SERC) and Dr. Sengupta (Convener, CED 38:P-3) to prepare a draft amendment if required. Additionally, review of IS 4998 for its revision.

The draft amendment is still awaited.

Composition of the Working panel:

- 1) Dr Amlan Kumar Sengupta, IIT Madras, Chennai
- 2) Dr P. Srinivasan, CSIR Chennai  
    Mr. G. Ramesh Babu, CSIR Chennai  
    Dr. P Harikrishna, CSIR Chennai  
    Dr. M. Keerthana, CSIR Chennai
- 3) Shri S.K. Arora, GE Power India Limited, Noida
- 4) Shri Rakesh Kumar, Gammon Engineers and Contractors Private Limited, Mumbai
- 5) Dr. Devdas Menon, IIT Madras, Chennai
- 6) Shri A. S. Oundhkar, Invictus Consultancy Services, Mumbai
- 7) Dr Praveen Khandelwal, NTPC Limited, Noida
- 8) Shri R. N. Sarangi, NPCIL, Mumbai  
    Shri G. Prabhakar, NPCIL, Mumbai
- 9) Shri Parag Patni, STUP Consultants Private Limited, Mumbai
- 10) Dr O. R. Jaiswal, Visvesvaraya National Institute of Technology, Nagpur
- 11) Dr S. Arunachalam, In Personal Capacity, Guna
- 12) Shri Lalit Kumar Jain, In Personal Capacity, Nagpur

The Committee may **CONSIDER** and **DECIDE**.

### 5.4 Works related to 'Shell, Plates and Arches Working Panel', CED 38:P-4

#### 5.4.1 Revision of IS 4090 'Criteria for Design of Reinforced Concrete Arches'

The draft is yet to be sent for wide circulation.

Composition of the Working panel:

- 1) Shri G. Prabhakar, NPCIL Mumbai
- 2) Dr K. Ramanjaneyulu, CSIR, Chennai
- 3) Dr. A. Mehar Prasad, IIT Madras, Chennai
- 4) Shri C. Y. Shivaji, L&T Construction, Chennai
- 5) Dr B. R. Jayalekshmi, National Institute of Technology Karnataka, Surathkal
- 6) Prof Umamaheshwari, SRM University, Chennai  
    Dr. K.S. Satyanarayanan, SRM University, Chennai

The Committee may **CONSIDER** and **DECIDE**.

## **5.5 Works related to 'Tall Building Working Panel', CED 38:P-5**

### **5.5.1 New Standard Criteria for Structural Safety of Tall Composite Buildings**

Consideration of the first draft, which will be ready by the end of August 2024. Ms. Alpa Sheth, the Chairperson, stated in the last meeting.

The Draft is still awaited.

Composition of the Working panel:

- 1) Ms. Alpa R. Sheth, Vakil Mehta Sheth Consulting Engineers, Mumbai
- 2) Shri Anil Hira, Buro Happold, Mumbai
- 3) Shri C. N. Srinivasan, CR Narayana Rao Architects, Chennai
- 4) Dr. Achal Kumar Mittal, CSIR, Roorkee  
Shri Siddharth Behera, CSIR, Roorkee
- 5) Shri G. Ramesh Babu, CSIR, Chennai  
Dr. P Harikrishna, CSIR, Chennai  
Dr. M. Keerthana, CSIR, Chennai
- 6) Shri A. K. Rajdev, CPWD, New Delhi
- 7) Shri Alok Goyal, IIT Bombay, Mumbai  
Dr. Ravi Sinha, IIT Bombay, Mumbai
- 8) Dr. Dipti Ranjan Sahoo, IIT, New Delhi
- 9) Dr S. Arul Jayachandran, IIT Madras, Chennai  
Dr. A. Mehar Prasad, IIT Madras, Chennai  
Prof C. V. R. Murty, IIT Madras, Chennai  
Dr S. T. G. Raghukanth, IIT Madras, Chennai
- 10) Dr. Prem Krishna, Indian Society of Wind Engineering, New Delhi
- 11) Shri Arijit Guha, Institute for Steel Development and Growth, Kolkata  
Shri P. L. Rao, Institute for Steel Development and Growth, Kolkata
- 12) Mr. S. Veeramani, L&T Construction, Chennai  
Shri C. K. Somaraju, L&T Construction, Chennai
- 13) Shri S. C. Mehrotra, Mehro Consultants, New Delhi
- 14) Shri G. Prabhakar, NPCIL, Mumbai
- 15) Shri Ranjith Chandunni, RECI Engineering, Mumbai
- 16) Dr K. Suresh Kumar, RWDI Consulting Engineers (India) Private Limited, Trivandrum
- 17) Prof. Shailesh Gandhi, Sardar Vallabhbhai National Institute of Technology, Surat
- 18) Shri Neville Mathias, Skidmore, Owings & Merrill, Mumbai
- 19) Shri Bharat Thej Dogga, Urban Shaastra Smart Build Private Limited, Chennai
- 20) Shri R.D. Chaudhari, Vakil Mehta Sheth Consulting Engineers, Mumbai
- 21) Prof V. S. Raju, In Personal Capacity
- 22) Shri Jaydeep Wagh, In Personal Capacity
- 23) Dr V. Kalyanaraman, In Personal Capacity

The Committee may **CONSIDER** and **DECIDE**.

## 5.6 Works related to 'Tensile Membrane Structures, CED 38:P-6

In last meeting The Committee requested Dr Siddhartha Ghosh Convener, to expedite the preparation of the draft Indian Standard for the consideration of the Committee.

The Draft is still awaited.

Committee may **CONSIDER** and **DECIDE**.

## ITEM 6 Transfer of Standards/Subjects

### 6.1 Transfer of Standard from CED 07 to CED 38 Sectional Committees under CEDC

CED 07 Sectional Committee in its last meeting has proposed the transfer of standards pertaining to Steel Chimneys (IS 6533 Part 1 and IS 6533 Part 2) as well as those concerning Bins and Silos (IS 9178 Part 1, Part 2, and Part 3) to CED 38 Sectional committee as these standards are related to special structures. Considering these suggestions the Special structures sectional committee, CED 38 has agreed to the same.

The Civil Engineering Division Council noted and agreed to the proposal of the transfer of the following standards:

- a) IS 9178 (Part 1): 1979 - (Criteria for design of steel bins for storage of bulk materials: Part 1 General requirements and assessment of loads)
- b) IS 9178 (Part 2): 1979 - (Criteria for design of steel bins for storage of bulk materials: Part 2 Design criteria)
- c) IS 9178 (Part 3): 1980 - (Criteria for design of steel bins for storage of bulk materials: Part 3 Bins designed for mass flow and funnel flow)
- d) IS 6533 (Part 1): 1989 - (Design and construction of steel chimney — Code of practice: Part 1 Mechanical aspect (first revision))
- e) IS 6533 (Part 2): 1989 - (Design and construction of steel chimney — Code of practice: Part 2 Structural aspect (first revision))

The Committee may **Consider**.

### 6.2 ISSUES ARISING OUT OF THE PREVIOUS MEETING OF CED 07

1.	<b>IS 9178 (Part 1): 1979</b> Criteria for design of steel bins for storage of bulk materials: Part 1 General requirements and assessment of loads	In last meeting Shri Oundhakar was authorized to form a Working Group to expedite the revision of IS 9178 Parts 1 to 3 based on the requirements. Shri V. N. Heggade was requested to provide his inputs on the same and to be part of the above WG.  The Draft is still awaited.
2.	<b>IS 9178 (Part 2): 1979</b> Criteria for design of steel bins for storage of bulk materials: Part 2 Design criteria	
3.	<b>IS 9178 (Part 3): 1980</b> Criteria for design of steel bins for storage of bulk materials: Part 3 Bins designed for mass flow and funnel flow	
4.	<b>IS 6533 (Part 1) :1989</b>	In last meeting, Shri C. R. Arjun had agreed



	Design and construction of steel chimney — Code of practice: Part 1 Mechanical aspect (first revision)	to provide the draft for revision of IS 6533 Parts 1 and 2 and Shri A. S. Oundhakar had agreed to provide the inputs for the same.
<b>5.</b>	<b>IS 6533 (Part 2) :1989</b> Design and construction of steel chimney — Code of practice: Part 2 Structural aspect (first revision)	The Draft is still awaited.

The Committee may **CONSIDER** and **DECIDE**.

## **ITEM 7 WORK PROGRAMME OF THE COMMITTEE**

### **7.1 Programme of Work**

**7.1.1** A Programme of work under the Sectional Committee along with its scope is given at **Annex 2**. The Committee requested to **DECIDE** on future work plan and strategies to be adopted for this year aiming at contribution in related to standardization activity both at national and international level.  
(if available, ISO).

The Committee may **CONSIDER** and **DECIDE**

## **ITEM 8 ANY OTHER BUSINESS**

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## ANNEX 1

### COMPOSITION OF SPECIAL STRUCTURES SECTIONAL COMMITTEE, CED 38

Nos. of Meeting	Date	Place
Fourteenth	28 March 2023	VC
Fifteenth	23 June 2023	VC
Sixteenth	22 Feb 2024	VC

SINo.	NAME OF THE ORGANIZATION	REPRESENTED BY	STA-TUS	MEETINGS			ATTEN-DANCE
				14 <sup>th</sup>	15 <sup>th</sup>	16 <sup>th</sup>	
1	Vakil Mehta Sheth Consulting Engineers, Mumbai	Ms. Alpa R. Sheth <i>(Chairperson)</i>	U	P	P	P	3/3
2	Bharat Heavy Electrical Limited, New Delhi	Dr Animesh Das Shri K M Mohamed <i>(Alternate)</i>	U	P	P	P	3/3
3	CSIR - Central Building Research Institute, Roorkee	Dr. Achal Kumar Mittal Mr. S. K. Singh <i>(Alternate I)</i>	T	P	P	P	3/3
4	CSIR - Central Road Research Institute, New Delhi	Dr. Rajeev Goel Shri G. K. Sahu <i>(Alternate)</i>	T	P	P	P	3/3
5	CSIR - Structural Engineering Research Centre, Chennai	Dr. S. Parivallal Dr. P Harikrishna <i>(Alternate I)</i> Dr Amar Prakash <i>(Alternate II)</i> Dr. B. Arun Sundaram <i>(Alternate III)</i>	T	P	P	P	3/3
6	Central Public Works Department, New Delhi	Shri A.K. Rajdev Shri Saurobh Kumar <i>(Alternate I)</i>	U	P	P	P	3/3
7	Engineers India Limited, New Delhi	Shri Rajanji Srivastava Dr Sudip Paul <i>(Alternate)</i>	U	P	P	P	3/3
8	GE Power India Limited (Alstom Project India Limited), Noida	Shri S.K. Arora	T	A	P	A	1/3
9	Indian Association of Structural Engineers, New Delhi	Mr. Manoj K. Mittal Mr. Aman Deep <i>(Alternate)</i>	T	P	P	P	3/3
10	Indian Concrete Institute, Chennai	Shri Partha Gangopadhyay Shri P. S. Patankar <i>(Alternate)</i>	T	A	P	A	1/3
11	Indian Institute of	Dr. Ravi Sinha	T	P	P	P	3/3

SINo.	NAME OF THE ORGANIZATION	REPRESENTED BY	STA-TUS	MEETINGS			ATTEN-DANCE
				14 <sup>th</sup>	15 <sup>th</sup>	16 <sup>th</sup>	
	Technology Bombay, Mumbai	Prof Sidharatha Ghosh (Alternate)					
12	Indian Institute of Technology Delhi, New Delhi	Dr. Dipti Ranjan Sahoo Prof A. K. Jain (Alternate)	T	P	P	A	2/3
13	Indian Institute of Technology Kanpur, Kanpur	Dr Sudhir Mishra Dr Nihar Ranjan Patra (Alternate)	T	P	P	A	2/3
14	Indian Institute of Technology Madras, Chennai	Dr. A. Mehar Prasad Dr C. V. R. Murty (Alternate I) Dr S. Arul Jayachandran (Alternate II) Dr Amlan Kumar Sengupta (Alternate III) Dr Rupen Goswami (Alternate)	T	P	P	P	3/3
15	Indian Institute of Technology Roorkee, Roorkee	Mr. Pramod Kumar Gupta Dr M. A. Iqbal (Alternate)	T	P	P	P	3/3
16	Indian Society for Structural Engineers, Mumbai	Dr. Mahua Chakraborty Shri Hemant S. Vadalkar (Alternate)	T	P	P	P	3/3
17	Institute for Steel Development and Growth, Kolkata	Shri Arijit Guha Shri P. L. Rao (Alternate)	T	P	P	P	3/3
18	Invictus Consultancy Services, Mumbai	Shri A. S. Oundhakar	T	P	P	P	3/3
19	MECON Limited, Ranchi	Mr. J. K. Jha Mr. Abhinav Bharat Jha (Alternate)	U	P	P	P	3/3
20	NBCC (India) Limited, New Delhi	Shri R.P. Mishra Shri Nand Kishor Ram (Alternate)	T	P	P	A	2/3
21	NTPC Limited, New Delhi	Dr Praveen Khandelwal (Alternate)	U	P	P	P	3/3
22	National Institute of Technology Karnataka, Surathkal	Dr B. R. Jayalekshmi	T	P	A	P	2/3
23	Nuclear Power Corporation of India Limited, Mumbai	Shri G. Prabhakar	U	P	P	P	3/3
24	Paharpur Cooling Tower Limited, Kolkata	Shri Santanu Chatterjee Shri Rajat Bhaumik (Alternate)	U	P	P	P	3/3
25	Assystem STUP Consultants Private	Shri Parag Patni	U	P	A	A	1/3

SINo.	NAME OF THE ORGANIZATION	REPRESENTED BY	STA-TUS	MEETINGS			ATTEN-DANCE
				14 <sup>th</sup>	15 <sup>th</sup>	16 <sup>th</sup>	
	Limited, Mumbai						
26	Tandon Consultants Private Limited, New Delhi	Prof. Mahesh Tandon Shri Vinay Gupta ( <i>Alternate</i> )	T	A	A	P	1/3
27	Visvesvaraya National Institute of Technology, Nagpur	Dr O. R. Jaiswal Dr. Ratnesh Kumar ( <i>Alternate</i> )	T	P	A	A	1/3
28	In Personal Capacity	Shri Lalit Kumar Jain		P	P	A	2/3
29	In Personal Capacity	Shri V. N. Heggade	T	P	A	P	2/3
30	In Personal Capacity, Chennai	Dr V. Kalyanaraman	T	P	P	A	2/3

**ANNEX 2**  
(Item 7.1.1)

<b>CED 38 SCOPE</b>	SPECIAL STRUCTURES STANDARDIZATION IN THE FIELD OF DESIGN OF SPECIALSTRUCTURES SUCH AS CHIMNEYS, BINS AND SILOS, SHELL STRUCTURES, OVERHEAD WATER TANKS, COOLING TOWERS, SPACESTRUCTURES, COMPOSITE CONSTRUCTION, ETC, CONSISTING OF REINFORCED AND PRESTRESSED CONCRETE, HANDBOOKS RELATING TO SPECIAL STRUCTURES
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SI No.	IS Number/ DOC Number	Title	Reaffirm Date	No. of Amd.	Aspect
<b>STANDARDS PUBLISHED</b>					
1	IS 2210:2023	Criteria for design of reinforced concrete shell structures and folded plates ( <i>first revision</i> )			C
2	IS 4090:1967	Criteria for the design of reinforced concrete arches	Apr 2022		C
3	IS 4995 (Part 1):1974	Criteria for design of reinforced concrete bins for the storage of granular and powdery materials: Part 1 General requirements and assessment of bin loads ( <i>first revision</i> )	Apr 2022	1	C
4	IS 4995 (Part 2):1974	Criteria for design of reinforced concrete bins for storage of granular and powdery materials: Part 2 Design criteria ( <i>first revision</i> )	Apr 2022	1	C
5	IS 4998:2015	Design of reinforced concrete chimneys — Criteria ( <i>third revision</i> )	Dec 2020		C
6	IS 11384:2022	Code of practice for composite construction in structural steel and concrete( <i>first revision</i> )			C

7	IS 11504:2020	Criteria for structural design of reinforced concrete natural draught cooling towers ( <i>first revision</i> )			C
8	*IS 11682:1985	Criteria for design of RCC staging for overhead water tanks	Apr 2022		C
9	*IS 16700:2023	Criteria for structural safety of tall concrete buildings			SS
10	SP 43 (S&T):1987	Handbook on structures with reinforced concrete portal frames (without cranes)			O
11	IS 18758: 2024	Thermo-Hydraulic Designed of Induced Draught Counterflow Cooling Towers – Guidelines			
12	IS 3935: 1966	Code of practice for composite construction			
13	IS 9178 (Part 1):1979	Criteria for design of steel bins for storage of bulk materials: Part 1 General requirements and assessment of loads			
14	IS 9178 (Part 2):1979	Criteria for design of steel bins for storage of bulk materials: Part 2 Design criteria			
15	IS 9178 (Part 3):1980	Criteria for design of steel bins for storage of bulk materials: Part 3 Bins designed for mass flow and funnel flow			
16	IS 6533 (Part 1):1989	Design and construction of steel chimney — Code of practice: Part 1 Mechanical aspect ( <i>first revision</i> )			
17	IS 6533 (Part 2):1989	Design and construction of steel chimney — Code of practice: Part 2 Structural aspect ( <i>first revision</i> )			