



भारतीय मानक ब्यूरो BUREAU OF INDIAN STANDARDS

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

कार्यवृत्त

हमारा संदर्भ: सीईडी 47/ए-2.16

30 सितम्बर 2024

विषय : पत्तन, पोताश्रय और अपतट अधिष्ठापन विषय समिति, सीईडी 47 की सोलहवीं बैठक के कार्यवृत्त

सीईडी 47 के सभी सदस्य

प्रिय महोदय,

पत्तन, पोताश्रय और अपतट अधिष्ठापन विषय समिति, सीईडी 47 की सोलहवीं बैठक जो 19 सितम्बर 2024 को नई दिल्ली में सम्पन्न हुई, के कार्यवृत्त भेजते हुए प्रसन्नता हो रही है। कार्यवृत्त की पुष्टि सीईडी 47 समिति के अध्यक्ष डॉ आर. सुंदरवाडीवेलु, द्वारा की जा चुकी है।

आपसे अनुरोध है कि कृपया कार्यवृत्त का अवलोकन करें और इसकी यथार्थता पर अगर कोई सम्मितियाँ हों तो अधोहस्ताक्षरकर्ता को भेज दें। यदि सम्मति प्राप्त नहीं होती तो आपकी सुविधा के लिए यह समझा जाएगा कि आपने कार्यवृत्त का अनुमोदन कर दिया है।

धन्यवाद।

भवदीय,

(अशोक सारण)

सदस्य सचिव सीईडी 47

वैज्ञानिक 'बी' (सिविल इंजीनियरी)

ई-मेल: ashoksaran@bis.gov.in

फोन न. 011-23238121

संगलन : उपरिलखित



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

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

MINUTES

Our Ref: CED 47/A-2.16

30 September 2024

Subject: Minutes of the Sixteenth Meeting of Ports, Harbours and Offshore Installations Sectional Committee, CED 47

ALL MEMBERS OF CED 47

Dear Sir,

Please find enclosed a copy of the Minutes of the Sixteenth Meeting of the Ports, Harbours and Offshore Installations Sectional Committee, CED 47 held on 19 September 2024 in New Delhi. The Minutes have been duly approved by Dr. R Sundaravadivelu.

Comments, if any, confined to the accuracy of recording may please be sent to the undersigned at the earliest, preferably within two weeks' time. If no reply is received within the above period, we may be permitted to presume your approval of the Minutes as recorded.

Thanking you,

Yours faithfully,

Sd/-

(Ashok Saran)
Scientist 'B' (Civil Engg)
e-mail: ashoksaran@bis.gov.in
Tel: 011-23238121

Encl: As above

MINUTES
BUREAU OF INDIAN STANDARDS

Ports, Harbours and Offshore Installations Sectional Committee, CED 47	:	Sixteenth Meeting
Thursday, 19 September 2024	:	1100 h-1400 h

Chairperson: Dr R. Sundaravadivelu

Member Secretary: Shri Ashok Saran, Sc. B (CED)

Members Present:

Members joined physically

<i>Sl No.</i>	<i>Representative</i>	<i>Organization</i>
1)	Mr. Pinaki Ranjan Adak	ITD Cementation India Limited, Kolkata
2)	Shri N. Sunil Kumar	JSW Infrastructure limited

Members joined virtually

<i>Sl No.</i>	<i>Representative</i>	<i>Organization</i>
	Shri Abhishek Basu	Adani Infrastructure Management Services Limited
	Shri M. B. Belliappa	Central Institute of Coastal Engineering for Fishery, Bengaluru
	Shri Bhaskar Pal	Engineers India Limited, New Delhi
	Dr A. Subbulakshmi	CSIR - Structural Engineering Research Centre, Chennai
	Dr P Harikrishna	CSIR - Structural Engineering Research Centre, Chennai
	Shri S. Vishnuvardhan	CSIR - Structural Engineering Research Centre, Chennai

	Mr. Hitesh Bhatt	Adani Infrastructure Management Services Limited
	Shri D. Illangovan	CSIR - National Institute of Oceanography, Dona Paula - Goa
	Shri J. K. Ahluwalia	AECOM India Private Limited, Gurugram
	Mr. Prof Nilanjan Saha	Indian Institute of Technology Madras, Chennai
	Shri Prodyot Kumar Roy	ITD Cementation India Limited, Kolkata
	Shri A. A. Purohit	Central Water and Power Research Station, Pune
	Shri R Saravanan	RITES Limited, Gurugram
	Dr S. A. Sannasiraj	Indian Institute of Technology Madras, Chennai
	Shri V. N. Heggade	IN PERSONAL CAPACITY
	Shri K Vedgairi	IN PERSONAL CAPACITY
	Shri Sanjeev Gupta	AECOM India Private Limited, Gurugram
	Ms. Vasusmitha Joshi	Afcons Infrastructure Limited, New Delhi
	Shri Kiran Raju	Rep. National Centre for Coastal Research Chennai (NCCR)
	Shri Arun Kumar Avula	Rep. National Institute of Ocean Technology, Chennai
	Shri Manish Kumar	Royal Haskoningdhv India, Noida
	Shri Ramji Singh	Ministry of Ports, Shipping and Waterways, New Delhi

By Invitation

1)	Dr G Vaidyanathan	IN PERSONAL CAPACITY
2)	Shri K Hari	Jindal Steel and Power Limited (JSPL)
3)	Prof. Sriram	Indian Institute of Technology Madras, Chennai
4)	Shri Sivasubramanian	Rail Vikas Nigam Limited (RVNL)
5)	Shri T N Krishnamoorthi	IN PERSONAL CAPACITY
6)	Shri DVS Murthy	WAPCOS

From BIS

	Shri Dwaipayan Bhadra	Head (Civil Engg)
	Shri Abhishek Pal	Sc 'D' (Civil Engg)

Item 0 OPENING REMARKS

0.1 HEAD (Civil Engg)

Shri Dwaipayan Bhadra (Head, Civil Engg) welcomed all the members of the Sixteenth meeting of committee and appreciated the interest shown by them in the work of the Committee and their contribution to the national standardization effort. He emphasized to conduct the meetings at regular intervals (quarterly) so that subjects can be taken at regular intervals. He emphasized that the Prime Minister is prioritizing the standardization process, stressing the need for the country to lead on the global stage. Ports and harbors are critical areas, where gap between National and International standards must be bridged.

0.2 CHAIRMAN

Dr R. Sundaravadivelu and Shri Abishek pal have placed on record the excellent contribution of the outgoing Chairman Dr. Hariharan.

The chairman extended his warm welcome to all the members to the Sixteenth meeting of the national Sectional Committee of BIS on ports, harbours and offshore installations. He expressed the hope that with the co-operation of the member's significant progress could be made in standardization work.

He drew the attention of the committee members towards new subjects for standardization like High strength Dynamic Test for vertical load test in lieu of static test on marine piles, Lateral load test necessity, distribution of dissipation of energy between multiple fenders Pile founding level criteria based on pile penetration by different method of pile driving based on chistel weight, drop or torque etc which can be taken up in future and incorporated in the existing codes.

He requested the member secretary to proceed with the agenda item wise.

ITEM 1 CONFIRMATION OF THE MINUTES OF THE LAST MEETING

The Committee confirmed the minutes of the last meeting as circulated.

ITEM 2 ROLLING ANNUAL ACTION PLAN

2.1 The Committee agreed with the subject identified for the rolling action Plan.

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

SI No.	Topic/ Item Title	Remarks
1	IS 4651 Part 5 Code of Practice for Planning and Design of Ports and Harbours: Part 5 Layout and Functional Requirements	Item 5.1

2	Design code for Breakwaters	Item 5.2
3	Coastal and Wave Loadings	Item 5.4

ITEM 3 PROGRAMME OF WORK

The Committee noted the present programme of work as given in Annex 2 of the Agenda.

ITEM 4 COMPOSITION

4.1 The Committee went through the guidelines for the composition of the sectional Committee and appreciated the holistic view for engaging the concerned stakeholder; in view of that Committee reviewed the present composition of CED 47 and took the following decision:

a) Co-option

- 1)JSW Infrastructure Limited, Mumbai Represented by Shri N. Sunil Kumar (Principal) and Shri Rakesh Singh Sisodia (*Alternate*)
- 2)Jindal Steel and Power Limited, Gurugram represented by Shri K. Hari
- 3)Rail Vikas Nigam Limited represented by Shri Sivasubramanian
- 4)WAPCOS Limited represented by Shri DVS Murthy
- 5)Shri T N Krishnamoorthi, In Personal Capacity
- 6)Dr G Vaidyanathan, Chief Manager, JNPT

b) Change in the Existing Organization

As informed by the representatives the name of L&T Infrastructure Engineering Limited (L&T IEL) would be changed to Assystem STUP which would be represented by

Shri P. R. Rajesh
Shri H. Immanuel Anderson (*Alternate*)

As informed by the representatives the name of Howe Engineering Projects (India) Private Limited, Ahmedabad would be changed to Adani Infra India Limited which would be represented by Represented by

Shri Abhishek Basu

Shri Hitesh Bhatt (*Alternate-I*)
Shri Prakash Manickavasagam (*Alternate -II*)

c) Change in Exiting Members

- 1) Indian Institute of Technology Madras, Chennai Represented by
Prof S. A. Sannasiraj
Prof Nilanjan Saha (*Alternate I*)
Prof Sriram (*Alternate II*)
 - 2) National Centre for Coastal Research, Chennai Represented by
Dr M. V. Ramanamurthy
Dr R. S. Kankara (*Alternate I*)
Shri Kiran Raju (*Alternate II*)
 - 3) National Institute of Ocean Technology, Chennai Represented by
Dr Basanta Kumar Jena
Dr Vijaya Ravichandran (*Alternate I*)
Ms Shyamala (*Alternate II*)
 - 4) ITD Cementation India Limited, Kolkata Represented by
Shri Prodyot Kumar Roy
Shri Pinaki Ranjan Adak (*Alternate I*)
Shri Sudeep Kole (*Alternate II*)
- The chairman suggested to circulate the minutes and agenda for the next meeting and invite all the members to attend the meeting in person and alternate members to attend the meetings through VC

d) Withdrawal

- 1) Aurobindo Reality Infrastructure Private Limited, Hyderabad

4.2 Formation of Alert Group

To identify new areas where standardization may be required and to identify the need of R&D, Committee made an Alert Group. The composition of the working group is as given below:

- 1) Prof R. Sundaravadivelu, IIT Madras, Chennai
- 2) Representative, SERC, Chennai
- 3) ITD Cementation
- 4) Assystem Engineering company
- 5) Shri Sunil Kumar, JSW

4.3 New Members

The Committee requested the members to suggest the names of stakeholders who can actively contribute to standard formulation work under the Sectional Committee, CED 47.

ITEM 5 ISSUE ARISING FROM PREVIOUS MEETING

5.1 Revision of IS 4651 (Part 5):1980 Code of Practice for Planning and Design of Ports and Harbours: Part 5 Layout and Functional Requirements

In meeting, the Committee discussed the draft as presented by Shri N. Sunil Kumar and suggested the modifications in the draft.

The committee also considered the composition of CED47/WG1 responsible for revision of IS 4651 (Part 5) and suggested some changes in the same. The composition of the above working group is given below:

- 1) Prof. R. Sundaravadivelu IIT Madras, Chairman (Convenor)
- 2) Dr. M. V. Ramana Murthy, NCCR
- 3) Mr. Kiran Raju, NCCR
- 4) Prof. S. Sannasiraj, IIT Madras
- 5) Prof. Nilanjan Saha, IIT Madras
- 6) Prof. Sriram, IIT Madras
- 7) Prof. Manasa Ranjan Behera, IIT Bombay
- 8) Prof. NASAR Thuvanismail, NIT Surathkal
- 9) Prof. Muthu Kumaran NIT Trichy
- 10) Shri N. Sunil Kumar, JSW
- 11) Shri Pinaki Ranjan Adak, ITD
- 12) Shri Abhishek Basu, Adani Infra Ltd.
- 13) Shri Abhishek Pal, Scientist-D, BIS
- 14) Ms Vasusmitha Joshi AFCONS
- 15) Dr. Vijaya NIOT
- 16) Mr. Sivasubramanian RVNL
- 17) Dr. Subbulakshmi SERC
- 18) Ms. Shyamala NIOT
- 19) Dr. Chandramohan Indomer Coastal Hydraulics
- 20) Dr. Sivakolundu Indian Maritime University

Additionally, the Working Group 1 was also requested to review

1. IS 4651 (Parts 1 to 4).
2. Breakwaters
3. Hydrodynamic forces and effects on coastal structures

5.2 Breakwaters – Design, Construction and Testing (New part under IS 9527)

Committee discussed the draft prepared by Dr M. V. Raman Murthy, NCCR and presented by the Shri Kiran Raju and suggested the modifications in the draft.

5.3 The Committee noted the information explained by the Member Secretary during the meeting. The Committee decided to work on the following standards and prepared the Working Groups :

SI No.	IS No.	Existing Title	New Number and title	WG
	IS 9527	Code of practice for design and construction of port and harbour structures:	Code of practice for design and construction of port and harbour structures:	
	(Part1):1981	Part 1 Concrete piles and monoliths	IS 9527 (Part 1) – Marine Concrete Piles	1) Shri P. K. Ray (Convener), ITD Cementation India Limited, Kolkata 2) Shri Sunil Kumar, JSW 3) Shri Hitesh Bhatt, Adani Infra India Limited 4) Shri K. Vedagiri, In Personal Capacity
	-	<i>-(new part 2 of IS 9527)</i>	IS 9527 Part 2 - Steel Piles	1)Dr. Sundaravadivelu (Convener), In Personal Capacity, Chennai 2)Shri Sudeep Kole, ITD Cementation India Limited, Kolkata 3)Shri N. Sunil Kumar, JSW 4)Shri Deepak A.N., Assystem STUP
	(Part 3) : 1983	Part 3 Sheet pile walls	IS 9527 Part 3 Sheet and	1)Dr. Nilanjan Saha (Convener), IIT Madras

	(Part 4) : 1980	Code of practice for design and construction of port and harbour structures: Part 4 Cellular sheet pile structures	Circular Sheet piles	<p>2)Shri Pinaki Ranjan Adak, ITD Cementation India Limited, Kolkata</p> <p>3)Shri Sanjeev Gupta, Aecom India Private Limited, Gurugram</p> <p>4)Shri Vedagiri, In Personal Capacity</p> <p>5) Shri K. Hari, JSPL</p> <p>6)Any representative from Industry</p>
	(Part 6) : 1989	Design and construction port and harbour Structures — Code of practice: Part 6 Block work	IS 9527 Part 4 - Block work	<p>1)Shri Vedagiri (Convener), In Personal Capacity</p> <p>2)Shri J.K. Ahulwalia, Aecom India Private Limited, Gurugram</p> <p>3)Shri Deepak A.N., Assystem STUP</p> <p>4)Shri V. Ramamurthy, Afcons Infrastructure Ltd, New Delhi</p>
	-	(<i>new part of IS 9527</i>)	IS 9527 Part 5 – Ship Building and Repair Facilities (including dry docks, wet docks, slipways, etc. amalgamating IS 10020)	<p>1)Dr. Sundaravadivelu (Convener), In Personal Capacity, Chennai</p> <p>2)Shri Deepak A. N, Assystem STUP</p> <p>3)Shri Immanuel Anderson, Assystem STUP</p> <p>4)Shri N. Sunil Kumar, JSW</p> <p>5)Vishakhapatnam Port Trust, Vizag</p> <p>6) Sivasubramanian, RVNL</p>

	-	<i>New Standard</i>	Riverine ports/Jetties for inland water transportation (including Floating Jetties, etc)	1)Prof Sannasi Raj (Convener), IIT Madras 2)Representative from Aecom 3)Shri Sunil Kumar, JSW 4)Shri P.K Ray, ITD Cementation India Limited, Kolkata 5)Shri Abhishek Basu, Adani Infra India Limited 6)Shri R. Saravanan, Rites Limited, Gurugram 7)Shri V.N. Heggade In Personal Capacity 8) Dr R. Sundaravadivelu, In Personal Capacity 9)Shri Abhishek Pal Scientist-D, BIS
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	-	<i>New Standard</i>	Hydrodynamic forces and effects on coastal structures	1)Prof. S. Sannasiraj, IIT Madras (Convenor) 2)R. Sundaravadivelu, In Personal Capacity 3)Dr. M. V. Ramana Murthy NCCR 4)Shri Kiran Raju NCCR 5)Prof. Nilanjan Saha IIT Madras 6)Prof. Sriram IIT Madras 7)Prof. Manasa Ranjan Behera IIT Bombay 8)Prof. NASAR Thuvanismail NIT Surathkal 9)Prof. Muthu kumaran NIT Trichy 10)Shri N. Sunil Kumar JSW 11)Shri Pinaki Ranjan Adak ITD 12)Shri Abhishek Basu Adani Infra India Limited 13)Shri Abhishek Pal Scientist-D/ Joint Director
	-	<i>New Standard</i>	Retrofitting of Coastal Structures	1)Prof Nilanjan Saha, (Convener), IIT Madras 2)Shri Abhishek Basu, Adani Infra India Limited 3)Shri N. Sunil Kumar, JSW 4)Representative from NCCR 5)Prof Sannasi Raj, IIT Madras 6)Shri Arun Kumar, NIOT, Chennai 7)Shri J. K. Ahulwalia, Aecom India Private Limited, Gurugram

5.4 Hydrodynamic Forces and Effects On Coastal Structures

The Committee discussed the draft prepared by Prof. S. Sannasiraj. The Committee decided to change the title of the draft as **Hydrodynamic forces and effects on coastal structures**. The committee decided the following major modifications along with other points:

- a) To add the minimum scour required to Design of sea wall.
- b) To incorporate return period and elaborate procedure for estimation of H_s based on probability of exceedence
- c) To include storm surge map
- d) To incorporate comments on updated Goda's formula and sample calculation of Tsunami forces
- e) To take extracts from IS 4651(Part 4) for tsunami height calculation.

ITEM 6 ANY OTHER BUSINESS

6.1 The Committee also requested all the WGs under CED 47 to meet as frequently as possible (including through webex/skype) and prepare the draft revision of the standards.

6.2 The next meeting of the committee will be held in the second week of January and venue will be communicated as soon as possible in consultation with the chairperson

6.3 The members joined the member secretary in expressing their heartfelt thanks to Dr R. Sundaravadivelu, Chairman for his leadership and successful conduct of the meeting. Dr R. Sundaravadivelu, too reciprocated and wished for continued participation and contribution by the members. BIS Secretariat then thanked all the members for their valuable time and technical contribution in this national standardization activity.
