

## Orlando 2000: PCI/FHWA/ fib Symposium on High Performance Concrete, 24–27 September 2000

Members of the *fib* and all active participants in its work will have recently received the final invitation to this event, organized by the PCI on behalf of the above associations and the *fib* National US Group, formed by the PCI, ASBI and PTI. More than a dozen further associations are supporting the event. All readers of this issue of *fib-news* are kindly invited to participate in this truly international event: if you did not receive the final invitation, please contact the PCI at the address given below immediately.

The technical programme, as indicated below, will cover a wide range of topics related to the subject. The PCI will hold its 46th annual convention, and an informative exhibition as well as an attractive social programme will entertain participants, guests and spouses. Numerous meetings of the organizing and cooperating associations are scheduled. Of particular importance for the *fib* are the following:

During the weekend preceding the symposium:

- Steering Committee, meeting Saturday 23 September, 14.00–19.00 h. Participation for members only. Invitations and an agenda will be sent in due course.
- Council, meeting Sunday 24 September, 9.00–15.00 h. Participation for heads of delegation or their representatives only. Invitations and an agenda will be sent in due course.
- General Assembly, Sunday 24 September, 15.30–17.00 h. Open to the public but voting only by delegates or deputies

of national groups. General reports from the President and the Deputy President as chairman of the Steering Committee. Election of the new *fib* President and Deputy President. Invitations and an agenda will be sent in due course.

During the symposium:

- Monday morning's Opening Ceremonies will set the scene for the award of the *fib*'s medal of merit to three laureates.
- The *fib*'s 'Approach to High Performance Concrete Structures', Tuesday 23 September, 8.30–11.45 h. Six invited contributions will cover the *fib*'s approach to codification, service life design, precast concrete in building construction, application of high performance concrete in Norway, seismic design of prefabricated frames and the design and construction of the Vasco da Gama Bridge, Lisbon.
- *fib* Technical Activities Workshop, Wednesday 27 September, 14.00–17.00 h. Presentation and discussion of some of the latest bulletins published in the *fib*: *A Guide for Good Bridge Design* elaborated by Commission 1, Special Design Considerations for Precast Prestressed Hollow Core Floors (*fib* guide, Bulletin 6) and *Lightweight Aggregate Concrete* (*fib* guide, Bulletin 8). A panel discussion, entitled the '*fib* Model Code – The Future', will close this workshop, which will certainly be attended by many of the *fib* members present.

Other technical sessions during the symposium, from Monday noon to Wednesday evening, are entitled:

- PRESSS – precast seismic structural systems research programme: developing innovative solutions for precast frame and wall systems (session held previously on Sunday afternoon).
- Developing solutions for future industry growth.
- Precast prestressed hollowcore.
- Precast prestressed piling.
- General history, marketing and implementation.
- Materials and mix design.
- Architectural precast concrete.
- Seismic.
- New business opportunities.
- Laboratory research and future direction.
- Quality concepts, fabrication and transportation.
- Student education – key to future industrial growth.
- Management information systems.
- Technical update.
- Innovative precast prestressed concrete structures.
- Construction techniques.
- Structural design and concepts.
- Training of plant personnel workshop.
- Insurance and risk management – techniques and practices.
- Structural performance and code requirements.
- FHWA showcase projects and case studies.

Most of these sessions will be held in parallel. Together they make an exciting 3 day programme full of attractive contributions for all interested in any of the subjects and/or in the work of the *fib*, PCI and FHWA. This will be a unique opportunity to meet colleagues from all over the world, and is certainly an event not to be missed!

Final invitation and registration forms are available from the PCI secretariat: PCI Convention Registration, 209 W. Jackson Boulevard, Chicago, IL 60606, USA; Tel.: (+1.312) 786 0300; Fax: 786 0353; email: info@pci.org; Web: <http://www.pci.org> ●

## news

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# Summary report from the Steering Committee meeting in Sharm El-Sheikh

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The Presidium of the *fib* wants to inform delegates, deputies and *fib* members as soon and as comprehensively as possible of the latest decisions of the Council and Steering Committee. Thus, decisions relevant to all *fib* members will be made public through reports in *fib-news*. Here the report from the Steering Committee meeting in Sharm El-Sheikh, Friday 24 March 2000 is given.

The President, Deputy President, Secretary General and some invited guests were present, as well as six out of the 10 elected members, and one statutory member (Commission Chairman): Braestrup (elected member, Denmark), Cox (elected member, South Africa), Fardis (elected member, Greece), Favre (invited Presidium member, Switzerland), Helland (elected member, Norway), Klein (Commission 1), Subba Rao (elected member, India), Taerwe (Belgium), Tewes (Secretary General), Uomoto (Commission 8), van Acker (Commission 6), Virlogeux (President), Walraven (Deputy President, in the chair), Wicke (invited chairman of Special Activity Group 2, Austria) and Yamazaki (elected member, Japan)

The meeting was opened at 14.00 h by the Steering Committee's Chairman, Deputy President Walraven, and closed at 18.00 h.

## Working programmes and membership in commissions and task groups

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The chairmen present and the Secretary General reported on progress or problems in the commissions. A short summary follows.

For Commission 1, 'Structures', its chairman Klein reported that the document *Examples: Practical Design*, drafted by Task Group 1.1, 'Design Applications', will soon be reviewed by the commission members. After finalization of the examples document the task group will be disbanded. The commission may suggest new task groups for further tasks as appropriate. Task Group 1.2, 'Bridges', will finalise the draft of *Guidance for Good Bridge Design* as a high priority.

For Special Activity Group 1, 'Transition of EC 2 from ENV to EN', Deputy President Walraven reminded the Steering Committee of the fact that, although this group was dormant, most of its members were active in the project team of CEN TC 250/SC 2. Eurocode 2 was thus taking more and more items from Model Code 90, which he considered to be a good development, underlining the importance of the CEB-FIP Model Code.

For Special Activity Group 2, 'Dissemination of Knowledge', the chairman, Wicke, reported that the group had been reorganized into two working groups. The first one, responsible for the Textbook (bulletins 1-3), was now awaiting comments and the decision to publish the bulletins as a hardcover version. If the outcome is favourable the group would meet in the summer to discuss further action (organization of corrections, proof reading, etc.). Another question to be addressed in a future Steering Committee meeting would be whether or not further textbooks should be drafted (for example on seismic design or on bridges).

The second working group within Special Activity Group 2 concentrates on *fib* seminars. It decided to canvas national member groups to get a first indication of priorities for short courses or seminars.

## Technical Activities Workshop Orlando, Wednesday 27 September 2000

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After discussion the programme in the table was agreed.

## *fib* award for research and design

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Deputy President Walraven suggested a procedure whereby a diploma will be awarded to younger engineers (one practising engineer, one PhD researcher), on the suggestion of national groups, as laid down in the approved *fib* awards procedure. Each national group will preselect the candidates at a national level and typically suggest one in each category (in any case not more than the country has votes). They will make sure that an English summary or appraisal of not more than 2-3 pages is made available to the jury. It was decided to give the award during a special session in combination with the normal *fib* symposium of that year. The first diplomas will be awarded in 2001, at the Berlin symposium. The best two or three candidates in each category (PhD and practising engineer) will be invited to present their work in a special session and discuss it with *fib* members (and possibly be offered a free participation in the following symposium). The very best candidate in each category will then be given the award. The Steering Committee will appoint beforehand a jury of five or six experts and invite national groups to submit candidates. The Deputy President will prepare a circular explaining the details of the procedure, which will be sent to national delegations.

## Publication of bulletins

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The Secretary General presented an enclosure on the bulletins under preparation. These were discussed in detail and from the decisions taken the following can be reported:

Time	Title	Speakers
14.00–14.30 h	<i>fib</i> Bulletin, <i>Guide for Good Bridge Design</i>	Jean-François Klein (presentations and public discussion)
14.30–15.00 h	<i>fib</i> Bulletin 6, <i>Special Design Considerations for Precast Prestressed Hollow Core Floors</i>	Arnold van Acker (presentations and public discussion)
15.00–15.30 h	<i>fib</i> Bulletin 8, <i>Lightweight Aggregate Concrete</i>	Steinar Helland (presentations and public discussion)
15.30–16.30 h	<i>fib</i> Model Code – The Future	Steinar Helland, Peter Marti, Michel Virlogeux, Joost Walraven (panel discussion and public)

- The final draft state-of-the-art report *Bond of Reinforcement in Concrete* has now become available to the Secretariat. The Steering Committee asked its chairman, Walraven, to choose, if necessary, two further members in order to assess the document. If accepted it will go to print as soon as possible, subject to some editorial corrections.
- The results from Task Group 8.1, 'Light-

weight Aggregate Concrete', will be combined into one single bulletin (No. 8). Part 1, the recommended extensions to the Model Code, will be classified as a guidance document (according to a decision of Council in its meeting the day after this Steering Committee meeting). The chairman, Walraven, will preface the edition of the document accordingly. Parts 2 and 3 will be published, as suggested, as technical and state-of-the-art reports, respectively.

## Future meetings

The following future meetings of the Steering Committee were scheduled:

- Orlando (Florida, USA), Saturday 23 September 2000 (14.00–19.00 h).
- Patras (Greece), Friday 20 April 2001. ●

# Summary report from the Council meeting in Sharm El-Sheikh

The Presidium of the *fib* wants to inform delegates, deputies and *fib* members as soon and as comprehensively as possible of the latest decisions of the Council and Steering Committee. Thus, decisions relevant to all *fib* members will be made public through reports in *fib-news*. Here, the report from the Council meeting in Sharm El-Sheikh, Saturday 25 March 2000 is given.

In addition to the President, Secretary-General and an invited guest were present 16 Members of Council (Heads of National Delegations if not otherwise stated) and 2 Deputies. Thus, 17 out of the 39 member countries in *fib* were represented: Balázs

(Hungary), Braestrup (Denmark), Cox (South Africa), Fardis (Greece), Favre (Switzerland), Gwozdziwicz (Deputy, Poland), Helland (Norway), Lacroix (Honorary President, France, for Teyssandier), Lima (Argentina), Meager (Deputy, Australia), Moharram (Egypt), Ozaka (Japan), Perisic (Yugoslavia), Sestak (Slovakia), Subba Rao (India), Tewes (Secretary General), Virlogeux (France, President, in the chair), Walraven (The Netherlands), Walther (Honorary President, Switzerland), Wicke (Austria) and Yamazaki (Japan, Steering Committee Member, report on *fib* Congress 2002).

The meeting was opened at 10.00 h by President Virlogeux, and closed at 18.00 h.

## Finances and membership

The Secretary General explained in detail the income and expenses sheets and the draft balance for 1999 and budget for 2000. The year 1999 was the first regular accounting year for the *fib*. Thanks to the efforts made by practically all national groups paying their dues promptly and keeping their engagements as promised for the first 3 years, the financial situation can be considered to be sound. This was noted with satisfaction, and the draft budget for 2000 approved. The accounts will now be audited.

All national delegations were considered to be in good standing, and may exercise full voting rights at the General Assembly in Orlando.

The campaign for sponsoring members launched after the decisions taken in October 1999 in Prague has had good initial results. Thanks to the efforts made by the Japanese National Group, 15 new sponsoring members can be welcomed by the Council:

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- Abe Kogyosho Co. Ltd, Gifu-Shi, Gifu-Ken.
- DPS Bridge Works Co. Ltd, Tokyo.
- FKK Kyokuto Kogen Concrete Shinko Co. Ltd, Tokyo.
- Fuji P. S. Corporation, Fukuoka.
- Kajima Corporation, Tokyo.
- Maeta Concrete Industry Ltd, Sendai.
- Nishimatsu Construction Co. Ltd., Tokyo.
- Obayashi Corporation, Tokyo.
- Oriental Construction Co. Ltd, Tokyo.
- PC Bridge Company Ltd, Tokyo.
- P. S. Corporation, Tokyo.
- SE Corporation, Tokyo.
- Shimizu Corporation, Tokyo.
- Sumitomo Construction Co. Ltd, Tokyo.
- Taisei Corporation, Tokyo.

Also, in Greece, a new sponsoring member joined the *fib*:

- Gefyra SA, Halandri.

And a further Japanese company joined as a supporting member:

- Kawada Construction Co. Ltd, Tokyo.

On behalf of Council, the President welcomed all the new members: the *fib* is grateful for the support, and is looking forward to a fruitful cooperation in all areas.

## Progress in commissions and task groups: future policy and research topics

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Walraven gave a short summary of the preceding Steering Committee Meeting. During the Technical Activities Workshop in Orlando, on Wednesday afternoon (27 September 2000), a presentation and public discussion of initial ideas with respect to the drafting of a future Model Code will be arranged. Issues such as the appropriate degree of sophistication for such a future Code and the degree of detailing that should be chosen need to be addressed. The preparation for a profound debate on these subjects at a later stage will re-

quire appropriate input by all national delegations.

## Publications

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### Bulletins

Upcoming publications were briefly discussed, and the recommendations of the Steering Committee confirmed (see the summary report of that meeting).

### The journal *Structural Concrete*

The question was raised as to whether the *fib* could provide every task group member, or at least every commission member, with a free copy of the journal, regardless of their being an *fib* member or not. There can be no doubt that the contributions from these participants in the *fib*'s work are highly appreciated. However, the present income from so-called 'ordinary members' (i.e. members subscribing only to the journal, but receiving some further benefits such as a reduced annual fee after having attended an *fib* symposium, and the right to buy one bulletin per year at a discount rate) is not nearly covering the costs involved. If national groups feel it appropriate to reward their members in task groups and commissions for their voluntary work, they should use for this purpose the free copies of *fib*-news that they receive. Also, extra copies of the journal may be ordered. An appropriate offer with very reasonable rates was recently circulated by the Secretariat to all heads of delegations.

## Congresses and symposia

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The Council unanimously approved the new document *Guidelines for fib Sponsorship of Congresses, Symposia and Conferences*, as drafted and suggested by the Presidium. Heads of delegations received these beforehand.

- Orlando, 24–27 September 2000: the

Council agreed on the meetings and sessions as given in the programme summary published in this issue of *fib*-news.

- Perth, 11–14 September 2001: the Australian Deputy, Meager, gave a short report on recent developments. The *fib* is assisting in the preparation of some details for the technical programme of this important regional event.
- Berlin, 3–5 October 2001: this *fib* symposium for the year 2001 will be entitled 'Concrete and Environment'. On the preceding Tuesday, 2 October, the whole day will be available for a technical activity workshop in the morning and a session in the afternoon for the presentation of the finalists for the *fib* award for research and design.

## Awards

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### *fib* medallists 2000

In a secret vote cast on a number of proposed candidates Council voted with exactly equal results for three *fib* medallists in 2000. The laureates will receive the medal in Orlando.

### *fib* award for research and design

As laid down in the awards procedure, on suggestion of the National Group, the diplomas will be given to young engineers (one to a practising engineer, one to a researcher on the basis of an accomplished PhD thesis). The Council approved the procedure as described in the summary report from the Steering Committee meeting in Sharm El-Sheikh.

## Future meetings

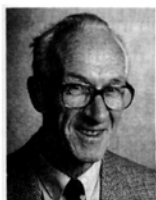
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The following future meetings of Council were agreed:

- Orlando (Florida, USA), Sunday 24 September 2000 (9.00–15.00 h).
- Patras (Greece), Friday/Saturday 20/21 April 2001. ●

# Obituary: Ivar Holand

## 1924–2000



Professor I. Holland

Professor Ivar Holand, convener of *fib* Task Group 8.1, 'Lightweight Aggregate Concrete', died on 28 April 2000 at the age of 75.

Ivar Holand was employed for more than 40 years by the Norwegian University of Science and Technology (NTNU) in Trondheim. He officially retired in 1994, but he never stopped working and devoting his knowledge and experience to further the development of structural concrete. At the time of his death he was the convener of the task group on light-weight aggregate concrete in *fib* Commission 8. Less than a year ago he delivered a keynote lecture at the 5th International Symposium on High Strength/High Performance Concrete in Sandefjord, and reminded us all of the

breadth and depth of his scientific knowledge.

Ivar Holand graduated in Civil Engineering from NTNU in 1948 and subsequently obtained the degree of dr. techn. from the same university in 1958, on the 'design of circular cylindrical shells'. In the later years he furthered his interest in applied structural mechanics through consulting and construction management assignments with some of Norway's leading design and construction companies. He was thus well equipped with theoretical and practical experience when he took up his first academic position at NTNU in 1958, and became Professor of Structural Mechanics in 1963.

Professor Ivar Holand had a long and distinguished academic career as a Professor at NTNU and as Manager of the Cement and Concrete Research Institute at SINTEF. In the early 1960s he was an internationally recognized pioneer in the research and development of finite element analysis and its introduction into structural design. Later he developed a broad interest in applied re-

search related to risk and safety, which led to him being a key figure in the development of national and international Standards and Codes of Practice. In these fields he participated in and chaired many committees and made valuable contributions over a broad range of subjects. He chaired the former FIP/CEB working group on high-strength/high-performance concrete and also the working group on light-weight aggregate concrete, which has become the present *fib* Task Group 8.1, having now finalized its work by publishing Bulletin 8.

Professor Ivar Holand was recognized by the profession and by society through a number of awards and appointments. He was a member of several scientific academies, an honorary member of the Norwegian Concrete Association and of the Nordic Concrete Federation, and he achieved the rare distinction of Knight of the First Class of the Order of St Olav.

Ivar Holand was a gifted man of great integrity. He combined his deep theoretical knowledge with managerial skills and the ability to inspire his colleagues and his students, blending the authority of his position with an unusual modesty. We shall miss his valuable advice and we shall remember him fondly for his keen enthusiasm and his warm human qualities. ●

Jan Moksnes

# Congratulations



Dr T. N. Subba Rao

The International Federation of Asia and Western Pacific Contractor's Associations (IFAWPCA), at its 30th convention held at Kathmandu on 6 December 1999, conferred on Dr T. N. Subba Rao the honour of 'Life Time Member – in recognition of his valuable and selfless contribution for the cause of contractor's interests in the IFAWPCA

region for nearly three decades'. The federation comprises nationally recognized associations from 16 nations in South-East Asia and the Western Pacific, including Australia and New Zealand. It is the highest honour the federation can bestow on a member and it can be given to five living members only. Dr Rao serves in the *fib* as head of delegation of the Indian national group, and has been elected a member of the Steering Committee, and serves as one of its two representatives on the Presidium. He has been presented in more detail in *fib-news*, 1999, No. 1. ●

## news

# Upcoming symposia

## Connections between Steel and Concrete, 9–12 September 2001, Stuttgart

Organised by the IWB, University of Stuttgart, Germany, and co-sponsored by the *fib* and RILEM, the symposium will focus on the local behaviour of connections between steel and concrete without neglecting their influence on the global behaviour of a structure. It will bring into contact the experts in practice and research of both fields, who will benefit from an exchange of the latest advancements in technology and developments for the design of fastenings to concrete and composite structures.

Papers are invited in the following categories: test methods, behaviour and design, dynamic loading (shock, earthquake, fatigue), durability, response to fire, exceptional structures (airports; power-plants), related topics (anchorage to masonry). The deadline for the submission of brief abstracts is 30 September 2000.

A First Announcement and Call for Papers flyer is inserted in the June issue of the *fib* journal *Structural Concrete*. However, for technical reasons this cannot not be included in the separate off-prints of *fib-news*: should you belong to the readers of the latter and are you interested in receiving the call for papers flyer, please contact the symposium secretariat directly:

Secretariat for the Symposium,  
c/o IWB University of Stuttgart,  
Pfaffenwaldring 4,  
D-70550 Stuttgart, Germany  
Tel.: (+49.711) 685 3320  
Fax: 685 3349  
Email: contact@iwb.uni-stuttgart.de  
Web: <http://www.iwb.uni-stuttgart.de>

## Concrete 2001: Adding Value Through Innovation, 11–14 September 2001, Perth

Organized as the biennial conference and exhibition of the Concrete Institute of Australia, and co-sponsored by the *fib* and ACI, the conference will among others include the following topics: concrete challenges from the past to the future, global and in particular Asian opportunities through technological development, material properties, structural design, standards and regulations, concrete in hostile environments, and technology and its impact on designers, suppliers, equipment and contractors. More information and a call for papers brochure can be obtained from:

Concrete 2001,  
c/o Congress West Pty Ltd,  
PO Box 1248  
West Perth, WA 6872,  
Australia  
Tel.: (+61.8) 9322 6906  
Fax 9322 1734  
Email: [conwes@congresswest.com.au](mailto:conwes@congresswest.com.au)  
Web: <http://www.congresswest.com.au/concrete2001>

## The *fib* Symposium 2001: Concrete and Environment, 2–5 October 2001, Berlin

Organised by the dbv (Deutscher Beton- und Bautechnik-Verein E.V.) on behalf of the German *fib* group, the *fib* symposium 2001 will deal with the interaction between environ-

ment and concrete structures, covering the following areas:

- sustainable development in concrete construction
- impact of concrete structures on the environment, and vice versa
- ability of concrete structures to protect the environment from hazards.

The symposium will offer an international forum for engineers active in practice or research, politicians, architects and constructors. Prominent international keynote speakers will open the various technical sessions. As usual, meetings of the Council, Steering Committee, commissions and task groups will be arranged in conjunction with this major symposium in 2001. A technical activities workshop will present the latest results from the *fib*'s various bodies, and the diplomas for young engineers will be awarded for the first time.

Papers are invited in the following areas:

- Sustainable design and construction: conceptual design, life cycle analysis (LCA), demountable structures, recycling concepts in concrete construction, lifetime concepts.
- Energy conservation in building construction: methods for evaluation and limiting values.
- Aesthetic aspects of concrete structures and concrete construction: interaction between concrete structures and the environment.
- Durability of concrete structures: performance concepts, service life design.
- Environmental compatibility of concrete structures: emission of hazardous substances from concrete structures, e.g. through leaching.
- Protective structures: the potential of concrete and concrete structures to protect man and the environment.

A preliminary invitation and call for papers will be issued soon, and may be ordered from:

Secretariat for the *fib* Symposium 2001,  
c/o dbv (Deutscher Beton- und Bautechnik-Verein E.V.),  
Kurfuerstenstrasse 129,  
D-10785 Berlin, Germany  
Tel.: (+49.30) 2360 9640  
Fax: 2360 9646  
Email: [meyer@betonverein.de](mailto:meyer@betonverein.de)  
Web: <http://www.betonverein.de> ●

# New bulletins

The series of *fib* bulletins for the subscription year 2000 started with number 5, *Protective Systems Against Hazards – Nature and Extent of the Problem*, mailed in December 1999 (presented in *fib-news* No. 1, March 2000). Bulletin 7, *Corrugated Plastic Ducts for Internal Bonded Post-tensioning*, described below, was mailed in April. Bulletin 6, *Special Design Considerations for Precast Prestressed Hollow Core Floors*, and Bulletin 8, *Lightweight Aggregate Concrete*, are expected to be available in June 2000. They will be sent to all corporate and individual subscribing members as part of their subscription for 2000. Non-members may order these and former publications from the *fib* Secretariat by simply using the form below.

## Special design considerations for precast prestressed hollow core floors (*fib* guide to good practice)

The former FIP commission on prefabrication drafted the FIP recommendations on the *Design of Precast Prestressed Hollow Core Floors*, published by the FIP in 1988 (Thomas Telford, London, ISBN 0-7277-1375-2). That document was highly appreciated by designers and public authorities because of the lack of guidance available elsewhere, especially with respect to some specific features of the product, for example the absence of transverse reinforcement. It has also served as a reference guide for national standards and especially for the CEN product standard on prestressed hollow core slabs.

During the production of that report it was felt that some design rules were incomplete or missing. In addition, research carried out since has resulted in complementary knowledge on the behaviour of hollow core floors, for example in combination with slender floor beams.

The present guide to good practice is intended to complement the existing recommendations. The research for the different items was carried out at the Chalmers Uni-

versity of Technology (Sweden), Politecnico di Torino (Italy), VTT (Finland), University of Nottingham (United Kingdom), Building Research Institute (Poland), University of Rome (Italy).

- *fib* Bulletin 6, Format DIN A4 (210 x 297 mm), 180 pages.
- Non-member price: 90 CHF, surface mail included (airmail at extra charge).

## Corrugated plastic ducts for internal bonded post-tensioning (*fib* technical report)

Optimum corrosion protection of post-tensioning tendons has been a priority since the birth of this technology. The UK temporary ban of grouted post-tensioning tendons, from 1992 to 1996, initiated a review of all aspects related to durability of post-tensioning tendons. One of the UK conclusions of this review was to require encapsulation of the post-tensioning tendons into wear-resistant and leak-tight plastic ducts to serve as an additional corrosion protection barrier. Since that time, other countries have at least partially adopted similar approaches.

Designs of these plastic ducts may vary significantly between different suppliers. In addition, experience with these systems is still relatively limited. Hence, these plastic ducts cannot be standardized at this time. Therefore, the former FIP Commission 2, and now *fib* Commission 9, 'Reinforcing and Prestressing Materials and Systems,' has set up a task group to prepare a *fib* report on corrugated plastic ducts for internal, bonded post-tensioning. This report is written as a guide for an approval process for such plastic ducts. It will serve readers such as authorities and engineers as a guide on how to set-up a formal state approval process for these ducts, or at least allow them to properly assess systems offered for a specific project.

- *fib* Bulletin 7, Format DIN A4 (210 x 297 mm), 52 pages.
- Non-member price: 60 CHF, surface mail included (airmail at extra charge).

## Lightweight aggregate concrete

### *Part 1 – Recommended extensions to Model Code 90 (fib guide)*

Starting in 1995 as a joint CEB/FIP working group on light-weight aggregate concrete (LWAC), the group was, after the merger of CEB and FIP, attached to the new *fib* Commission 8, 'Concrete'. As a background for an extension of the CEB/FIP Model Code 1990 (MC 90) it first delivered Bulletin 4. Similarly to what has been done before in the field of high-strength/high-performance concrete the present guide identifies the lacunae in the existing MC 90 and proposes supplementary or alternative solutions to be applied for LWACs. In order to facilitate its use the report has a two-column format following the numbering of MC 90.

The group has given preference to topics of practical importance for LWAC structures, and for which reliable information is available. Justifications of the proposed extensions are to be found in the references to each section.

### *Part 2 – Identification of research needs (fib technical report)*

The technical report identifies the research needs resulting from those clauses of MC 90 which need amendment, and for which more basic research should provide a better understanding of mechanical, physical and chemical processes.

### *Part 3 – Case studies (fib state-of-the-art report)*

The state-of-the-art report documents 33 application examples of projects worldwide. Twenty-eight two-page and five one-page presentations aim to explain the motivation for adopting this technology and the choice of design considerations and codes applied. The practical experience during design and construction, the results obtained and the in-field performance are reported. For each example references list the literature where more detailed information can be found.

- *fib* Bulletin 8, Format DIN A4 (210 x 297 mm), 118 pages.
- Non-member price: 80 CHF, surface mail included (airmail at extra charge).

## BULLETIN ORDER FORM

I/we want to order the following bulletins:

Title	Non-member price (CHF/copy)
..... <i>Practical Design of Structural Concrete</i> FIP Recommendation (1999), 114 pp, DIN A4 (for summary see <i>fib-news</i> 1999, No. 4)	100
..... <i>fib</i> Bulletins 1, 2 and 3 <i>Structural Concrete – Textbook on Behaviour, Design and Performance</i> <i>fib</i> Manual (1999), 3 volumes, 860 pp, DIN A4 (for summary see <i>fib-news</i> 2000, No. 1)	300
..... <i>fib</i> Bulletin 4 <i>Lightweight Aggregate Concrete – Codes and Standards</i> <i>fib</i> State-of-the-art Report (1999), 46 pp, DIN A4 (for summary see <i>fib-news</i> 2000, No. 1)	60
..... <i>fib</i> Bulletin 5 <i>Protective Systems Against Hazards – Nature and Extent of the Problem</i> <i>fib</i> Technical Report (1999), 64 pp, DIN A4 (for summary see <i>fib-news</i> 2000, No. 1)	60
..... <i>fib</i> Bulletin 6 <i>Special Design Considerations for Precast Prestressed Hollow Core Floors</i> <i>fib</i> Technical Report (2000), 180 pp, DIN A4 (for summary see this issue of <i>fib-news</i> )	90
..... <i>fib</i> Bulletin 7 <i>Corrugated Plastic Ducts for Internal Bonded Post-tensioning</i> <i>fib</i> Technical Report (2000), 52 pp, DIN A4 (for summary see this issue of <i>fib-news</i> )	60
..... <i>fib</i> Bulletin 8 <i>Lightweight Aggregate Concrete</i> <i>Part 1: Recommended extensions to Model Code 90</i> <i>fib</i> Guide to Good Practice <i>Part 2: Identification of Research Needs</i> <i>fib</i> Technical Report <i>Part 3: Case Studies</i> <i>fib</i> State-of-the-art Report (2000) All three parts: 118 pp, DIN A4 (for summary see this issue of <i>fib-news</i> )	80

I/we want to order a former CEB or FIP publication:

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# Congresses and symposia

This calendar lists *fib* congresses and symposia (and co-sponsored events). It reflects the state of information available to the Secretariat at the time of printing, and the information given may be subject to change.

Date and location	Event	Main organizer	Contact
24–27 September 2000 Orlando, Florida, USA	<i>fib</i> /PCI/FHWA International Symposium on High Performance Concrete Structures	PCI/FHWA <i>fib</i> group, USA	PCI—Precast/Prestressed Concrete Institute, 209 W. Jackson Boulevard, Chicago, IL 60606, USA Tel.: (+1.312) 786 0300; Fax: 786 0353 Email: info@pci.org Web: http://www.pci.org
5–7 October 2000 Vienna, Austria	<i>fib</i> 3rd International PhD Symposium on Civil Engineering	IKI—Institut Konstruktiver Ingenieurbau. Supported by <i>fib</i>	Professor Konrad Bergmeister Institut Konstruktiver Ingenieurbau, Universität für Bodenkultur, Peter-Jordan-Strasse 82, A-1190 Wien, Austria Tel.: (+43.1) 47654 5250; Fax: 47654 5292 Email: PhD-Symposium@ikiserver.boku.ac.at
21–23 March 2001 Malta	Inter-Association Conference: Safety, Risk and Reliability—Trends in Engineering	IABSE—for the Liaison Committee. Co-sponsored by <i>fib</i>	Secretariat IABSE, ETH Hönggerberg, CH-8093 Zurich, Switzerland Tel.: (+41.1) 633 2647; Fax: 633 1241 Email: secretariat@iabse.ethz.ch Web: http://www.iabse.ethz.ch
10–12 September 2001 Stuttgart, Germany	Symposium on Connections between Steel and Concrete	IWB—University of Stuttgart. Co-sponsored by <i>fib</i>	Professor Dr-Ing R. Eligehausen, Institut für Werkstoffe im Bauwesen, Universität Stuttgart, D-70550 Stuttgart, Germany Tel.: (+49.711) 685 3320; Fax: 685 2285 Email: contact@iwb.uni-stuttgart.de Web: http://www.iwb.uni-stuttgart.de
11–14 September 2001 Perth, Australia	Concrete 2001—Adding Value Through Innovation	CIA. Co-sponsored by <i>fib</i>	Concrete 2001, c/o Congress West Pty Ltd, PO Box 1248, West Perth, WA 6872, Australia Tel.: (+61.8) 9322 6906; Fax: 9322 1734 Email: conwes@congresswest.com.au Web: http://www.congresswest.com.au/concrete2001
2–5 October 2001 Berlin, Germany	<i>fib</i> Symposium: Concrete and Environment	German <i>fib</i> group	Deutscher Beton- und Bautechnik-Verein E.V., Kurfuerstenstr. 129, D-10785 Berlin, Germany Tel.: (+49.30) 2360 9640; Fax: 2360 9646 Email: meyer@betonverein.de Web: http://www.betonverein.de
16–20 June 2002 Leipzig, Germany	6th International Symposium on Utilization of High Strength/High Performance Concrete	Insitut für Massivbau und Baustofftechnologie. Co-sponsored by <i>fib</i>	Prof. Dr-Ing. Gert König, Universität Leipzig, Insitut für Massivbau und Baustofftechnologie, Marschnerstrasse 31, D-04109 Leipzig, Germany Tel.: (+49.341) 973 3800 Email: koenig@hpswifa.wifa.uni-leipzig.de
October 2002 Osaka, Japan	1st <i>fib</i> Congress: Concrete Structures in the 21st century	Japan Concrete Institute, JPCEA	<i>fib</i> Secretariat, Case Postale 88, CH-1015 Lausanne, Switzerland Tel.: (+41.21) 693 2747; Fax: 693 5884 Email: fib@epfl.ch
May 2003 Korfu, Greece	<i>fib</i> Symposium: Construction in Seismic Regions	Hellenic <i>fib</i> Group, Greece	<i>fib</i> Secretariat, Case Postale 88, CH-1015 Lausanne, Switzerland Tel.: (+41.21) 693 2747; Fax: 693 5884 Email: fib@epfl.ch

# news

## fib membership application

Category and annual subscription (CHF/year)	Membership benefits
<b>Individual</b>	
Ordinary member (130) (40 if below 28 years old)	<ul style="list-style-type: none"> <li>The quarterly journal <i>Structural Concrete</i> (surface mail; airmail delivery at extra charge)</li> <li>Once a year a technical publication (bulletin) at a discount rate</li> <li>Reduced subscription if attending <i>fib</i> congresses or symposia</li> </ul>
Subscribing Member (400)	<ul style="list-style-type: none"> <li>One copy of <i>all</i> technical publications (bulletins, printed books, and the journal <i>Structural Concrete</i>) published in the current year</li> <li>Further copies of publications (also former CEB or FIP publications) at a discount rate</li> <li>Reduced subscription if attending <i>fib</i> congresses or symposia</li> </ul>
<b>Corporate</b>	
Associate Member (750)	<ul style="list-style-type: none"> <li><i>All</i> technical publications (bulletins, printed books, and the journal <i>Structural Concrete</i>) published in the current year (on request <i>two</i> copies will be sent for the same price: one may stay in the central library; one can be given to the collaborator(s) concerned)</li> <li>Further copies of publications (also former CEB or FIP publications) at a discount rate</li> <li>Nomination of representative to be registered as an individual member in the <i>fib</i></li> <li>Reduced subscription if this representative is attending <i>fib</i> congresses or symposia</li> </ul>
Supporting Member (1250)	<p>Benefits as Associate Member, plus entitlement to:</p> <ul style="list-style-type: none"> <li>Receive discount rates when advertising in the journal <i>Structural Concrete</i></li> <li>Special mention in the directory</li> <li>Nomination of up to two representatives to be registered as individual members in the <i>fib</i></li> </ul>
Sponsoring Member (2500)	<p>Benefits as Supporting Member, plus entitlement to:</p> <ul style="list-style-type: none"> <li>Special mention on the <i>fib</i> Web site, including a link to the sponsor</li> <li>Use of the <i>fib</i>'s logo if stating 'Sponsoring Member of the <i>fib</i>' on their letterhead</li> <li>Nomination of a representative (without voting rights) to the General Assembly</li> <li>Nomination of a member of a task group in one particular field of interest</li> <li>Nomination of up to three representatives to be registered as individual members in the <i>fib</i></li> </ul>

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 Signature Date

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