

Newsletter No. 15 (October 2008) of the JSCE Concrete Committee reported on the scope and activities of JSCE task committee 336 on “Reliability-Based Design of Concrete Structures”. The objective of these important and timely activities is to investigate techniques for introducing reliability-based design into design codes for concrete structures in Japan and to present the practical examples of seismic safety (through working group WG1 “Reliability-based seismic design”) or durability evaluation for concrete structures (through working group WG2: “Reliability-based durability design”) based on reliability theory. I would like to take this opportunity to bring to the attention of the readers of the Newsletter the relevant activities of the International Federation for Structural Concrete (in short *fib*, standing for federation internationale du beton):

- A new Task Group, no. 7.7: “Direct probability-based seismic design of buildings” has been set up by *fib*’s Technical Council during its meeting in Tokyo on October 25th, 2008. The Task Group has been established in the framework of *fib*’s permanent Commission 7: “Seismic Design”. It will work under the chairmanship of Prof. Paolo E. Pinto (University of Rome, La Sapienza, Italy) to produce by 2011 a proposal for direct design of buildings for specified probabilistically-defined performance objectives (i.e., target probability of exceedance of a selected measure of damage/cost).
- Reliability-based methods, namely:
 - A fully probabilistic method;
 - The partial factor method;are used for the verification of limit states associated to durability according to the upcoming *fib* Model Code 2010. These methods are specified in detail for the following deterioration mechanisms:
 - Carbonation-induced corrosion;
 - Chloride-induced corrosion;
 - Freeze-thaw attack.

For the readers of the Newsletter who are not too familiar with *fib*, I would like to introduce this international federation (www.fib-international.org). Its mission is to develop at an international level the study of scientific and practical matters for the advancement of the technical, economic, aesthetic and environmental performance of concrete construction. *fib* was founded in 1998, by the merger of CEB (Comité Euro-Internationale du Béton) and FIP (Fédération Internationale de la Précontrainte). A parallel may be drawn between the history of these international organisations and the international economic and political developments during the 2nd half of the 20th century: FIP and CEB, founded in 1952 and 1953, were mainly Franco-German organisations – with strong participation from the Belgium, the Netherlands and Italy – just like the European Carbon and Steel Community, which was established in 1952 and developed by 1957 into the European Economic Community. CEB and FIP soon grew to encompass practically all European countries on both sides of the “Iron Curtain”, but with Western Europe still at their core. By the time of the CEB and FIP merger in 1998, and especially afterwards, the scope was truly global. Nowadays *fib* has National Member Groups from 37 countries spanning the globe from North and South America to Japan and New Zealand. Although Europe as a whole is still its main pillar, Japan is a close runner up.

A unique feature of *fib* is its core of “Statutory members”, i.e. of National Member Groups (NMGs) representing the relevant members or member organisations in a country. A NMG may be formed by an existing association, or by co-operation of several of them, or may be specially created to bring together all bodies interested in *fib*’s work. For example, JCI and JPCEA are jointly the NMG of Japan. *fib*’s General Assembly comprises the representatives of NMGs and meets once a year to discuss and vote on financial, administrative and important technical matters (such as a Model Code). The same members, together with the experts leading the technical work in *fib*’s Commissions, constitute the Technical Council – meeting twice a year. The 170 corporate and 700 individual members of *fib* contribute to the technical work at its ten Commissions:

1. Structures
2. Safety and performance concepts
3. Environmental aspects of design and construction
4. Modeling of structural behaviour and design
5. Structural service life aspects
6. Prefabrication
7. Seismic design
8. Concrete
9. Reinforcing and prestressing materials and systems

10. Construction

The Commissions are free to organise their work in ad hoc Task Groups, each one charged to produce in three to four years a State-of-the-Art report, a Guide to good practice, a Recommendation, etc. Their output is disseminated to *fib*'s members in the form of technical publications, called "Bulletins" and produced at a rate of six or seven per year. At the top of *fib*'s products are its widely acclaimed Model Codes. The first one, produced jointly by CEB and FIP in 1978, was the basis of the 1984 pre-standard version of Eurocode 2: Design of concrete structures, while the 1990 CEB/FIP Model Code has set the stage for the 2004 European Standard version of Eurocode 2. Their successor, due to be completed in 2010, is performance-based and covers not only serviceability and structural safety, but also sustainability, life cycle management, conservation, dismantlement and recycle/reuse. As far as materials are concerned, the scope of the 2010 Model Code includes also non-metallic reinforcement and fibre-reinforced concrete.

fib holds every four years its Congress; the 1st one took place in Osaka in October 2002, the 3rd Congress will take place in Washington DC in 2010. It also organises one or two Symposia every year on specific themes. These events constitute the prime international forum for sharing knowledge, information and experiences between concrete experts in academia and industry. *fib* publishes also a quarterly scientific journal: *Structural Concrete*. The *fib* journal, as well as its Symposia and Congresses, are all open to non-members of *fib*, who are welcome to contribute with their knowledge and expertise.

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