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PRESIDENT'S REPORT, ANNUAL GENERAL MEETING NOVEMBER 2006

Looking over President's reports for the past few years I noted that they all commented on how busy SFPE had been in that year.

This past year has been just the same, if not busier and I attribute this to the stronger profile SFPE has in the engineering community, and to changes the building industry are facing which we have to be part of and comment on.

I am referring, of course, to our work on the IPENZ Taskforce on Fire Engineering, proposed changes to the Building Code and our review of Compliance Document C/AS1.

The work of the IPENZ Taskforce on Fire Engineering will have a significant impact on the development of fire engineering in New Zealand.

As reported at the 2005 AGM, the Taskforce was created to address concerns from various organisations involved in regulating and representing fire engineering in New Zealand, including the Department of Building and Housing, IPENZ (as the registering body for CPEng and as a professional body) SFPE (NZ Chapter), New Zealand Fire Service and Territorial Local Authorities.

The Taskforce held a series of meetings in the first half of the year culminating in their draft report, dated June 2006, being placed on the IPENZ website with members being invited to make submissions or comments for consideration by the Taskforce.

The key point of the report identified the need to define what a fire engineer is, and also the role played by people operating in other 'fire' areas such as fire protection, fire investigation, teaching etc. There is a lot of other information in the report, too much for me to comment on in this review of our activities over the last year.

Comments have been received on the draft report and it is anticipated that the final report will be presented to IPENZ before the end of this year.

We have also been very active on the technical seminar front with nine seminars held in Auckland, and a lesser number in Christchurch. One seminar of particular note was that given by Prof Roger Plank on Advances in Structural Fire Design.

In addition to technical seminars, SFPE organised, and ran, two training seminars on CFD modelling, at which Morgan Hurley was the principal lecturer. These seminars, one a beginners course and the other for advanced users of CFD were a great success, with a total of 30 attendees over the two courses. The success of these courses is in no small part due to the efforts of the organising committee and I would like to give my thanks and that of the SFPE executive to Rachel

Carter, Debbie Scott and Geoff Naulls for their sterling effort in organising the course, and to those who assisted over the two days.

The Chapter also owes a huge thanks to Cliff Barnett who is standing down after 13 years of service on the executive. Cliff was the inaugural President in 1994/1995, remained as an executive member and has held the role of Secretary/Treasurer from November 2001. I personally would like to thank Cliff and present him with this small token of my appreciation.

Another major initiative undertaken by the executive was the review of the Building Code discussion document "Building for the 21st Century: Review of the Building Code" and submission of our findings to the Department of Building and Housing. The executive advised the Department of Building and Housing that SFPE strongly supported the principle that the Building Code remains performance based and that we considered it vitally important that performance based criteria don't become so prescriptive that there ends up being effectively only one solution. We also advised the DBH that SFPE strongly supports:

- The acknowledgement that we cannot eliminate risk
- The principle that the Building Code needs to have flexibility and be
- visionary – taking into account future needs.
- A Building Code that encourages innovation.

As President I have attended a further workshop run by the Department in Auckland as part of the ongoing review of the Building Code .

The executive has also been working on the Strategic Plan of the Chapter which has as its goals,

- Advancement of the science and practice of fire engineering.
- Maintenance of high ethical standards and fostering of engineering education.

The work that the executive has done on the Taskforce and the review of the Building Code, and the technical seminars and workshops, are all in line with these objectives. Members must ensure that they maintain high ethical and technical standards so that fire engineering takes its' rightful place alongside the other building engineering disciplines. The future of fire engineering is in your hands.

Richard Brand

President, NZ Chapter SFPE

SECRETARY & TREASURER'S REPORT, ANNUAL GENERAL MEETING NOVEMBER 2006

Membership

Currently there are 155 names on our list of Members and Friends of the Chapter. A breakdown of these is as follows:

	2006	2005	2004
Fellows of SFPE (Int'l)	2	2	2
Member of SFPE (Int'l)	41	45	38
Life Member of SFPE (Int'l)	1	1	1
Associates and/or Affiliates of SFPE (Int'l)	2	1	9
Student members of SFPE (Int'l)	-	2	2
Friends of the NZ Chapter	109	101	92
Honorary Member.	-	-	1
	<u>155</u>	<u>152</u>	<u>145</u>

Technical Meetings

Eight meetings were held in Auckland, five meetings in Wellington and eleven in Dunedin. A report was received from Christchurch for the first time in four years.

Topics covered were:

- Building Act Interpretations
- Fire Protection Technical Update
- Advances in Structural Fire Design
- Changes to the Evacuation Regulations
- NZFS Practical Information
- Advances in detection and fire alarm panel technology
- Graduate Update
- Intumescent for Passive Protection of Steelwork

Three workshops were held in 2006. This is reflected in the increase in income for 2006.

Two issues of "45 South" were sent to all members.

Dues

NZ SFPE's current fee is \$30 + GST = \$33.75. IPENZ raised its Technical Group fee to \$38.00 + GST = \$42.75 in Oct 06. This raises the new integrated IPENZ/SFPE fee to \$76.50.

Accounts

Attached is a statement of financial performance, based on the preliminary balance sheet offered by IPENZ for our confirmation of their accuracy in regard to our technical group. No problems are foreseen in having this balance sheet audited.

Cliff Barnett

Secretary/Treasurer, NZ Chapter SFPE

CONFERENCE REPORT: THE 6TH INTERNATIONAL CONFERENCE ON PERFORMANCE-BASED CODES AND FIRE SAFETY DESIGN METHODS, TOKYO, JUNE 2006

The 6th International Conference on Performance-Based Codes and Fire Safety Design Methods was held in Tokyo, Japan in June 2006.

The conference was well attended by countries throughout the world, there were 29 papers presented as well as the Case Study presentations.

Rachel Carter, Vian Ahmed and I submitted a paper entitled 'Fire Engineering – A New Zealand Update'. This paper described to the international fire engineering community how New Zealand is coping with the introduction of Performance Based Fire Engineering 15 years after it was introduced, the lessons we have learnt and the future we see for it.

Rachel Carter and I presented the paper in Tokyo, which was well received by most (with one notable exception from someone in the regulatory authority field!). It was great to meet some of the 'names' in the fire engineering world.

Debbie Scott

Treasurer, NZ Chapter SFPE

INTERNATIONAL FIRE SAFETY CONFERENCE IN AUCKLAND, APRIL 2008

The Society of Fire Protection Engineers (USA) in conjunction with the New Zealand Chapter, the Society for Fire Safety (Aust) and the International Conference for Research and Innovation in Building (CIB) is organising the 7th International Conference Based Codes and Fire Safety Design Methods, to be held in Auckland, April 2008. The call for papers has just been released and is included with this issue of 45 South.

Submission deadline for abstracts is 11th June 2007.

The Society of Fire Safety (Australia) and SFPE (USA) have agreed to join forces to support and in Australia to co-badge this 'Sky is the Limit' conference in Auckland 2008 and also the next Australian Fire Safety Engineering International conference (to be held in Australia in 2009). This agreement marks a closer cooperation between these two groups for the organisation of future conferences and is in line with the SFS desire for closer cooperation with like organisations

CURRENT RESEARCH AT THE UNIVERSITY OF CANTERBURY

All students undertaking their Master of Engineering in Fire Engineering (MEFE) or PhD studies complete a research project. Research areas often include fire dynamics; structural performance; the effects of codes, regulations and standards; human behaviour; risk assessment and computer modelling. Here we give a snapshot of projects being worked on by the current full-time and part-time students which may be of interest to SFPE members. Previous research projects are published as Fire Engineering Research Reports and output from the work described below will be available once the student has successfully completed. Research reports can be downloaded from the department's website at http://www.civil.canterbury.ac.nz/fire/fe_resrch_reps.shtml and a list of papers published in the international journals can also be found at <http://www.civil.canterbury.ac.nz/fire/firepubs.asp>.

MEFE PROJECTS

Computer modelling is an area in which we have several students working on their projects. Dennis Pau is enhancing the combustion property database in FDS to improve the model's ability to calculate the rate of heat release of burning items. There are two students comparing the results from series of residential fire tests carried out in a house at Cardington, UK. Julie Saunders is investigating the FDS model while Chris Thomas has just finished a similar comparison with BRANZFIRE. In addition to research on specific programs we have projects that provide more general support to modelling activities. Daniel Tobeck is extending data storage and analysis functions for modelling applications and part of his work is being sponsored by the SFPE New Zealand Chapter. Johannes Dimyadi has completed an investigation on sharing object-oriented CAD data with computer models and in particular extending that work to FDS.

Research is often needed to underpin the fire safety regulations and to assess their impact. Delwyn Lloyd was awarded this year's Arup Fire scholarship and she is comparing the safety of occupants in buildings currently designed to the New Zealand Acceptable Solution with a proposed suite of prescribed design scenarios for performance-based design. One of the proposed design fire scenarios is for a deliberately lit fire. Paul Richards is investigating what might be considered reasonable design fires for such a case. Alan Merry is looking at the impact of the recent changes to the consent process and in particular how the New Zealand Fire Service Design Review Unit (DRU) has influenced alternative solution fire designs.

Current laboratory based work includes that of Paul Martini who has been testing the fire performance of fabric interliners for domestic upholstered furniture and Marcus Le Quesne who is conducting salt water experiments in the fluids laboratory to determine the flow characteristics through openings in compartment ceilings.

Other projects include the work by Nick Brown who has been working alongside Charles Clifton at HERA on the design of steel structures and the work has included some full-scale testing conducted at BRANZ. Vian Ahmed is assessing the use and performance of natural venting systems using plastic roof skylights. Jason Dyer has been examining the design and performance of sprinkler systems in high ceiling spaces and has focussed on the impact of sprinkler skipping. Finally Mun-Kit Cheong is assessing the design fire requirements for smoke extraction systems for traffic tunnels in Singapore.

PhD PROJECTS

Tony Parkes has completed his experiments for his research into radiation compartment effects. Results have been used to compare the measurements with predictions made by the FDS model and he is in the process of analysing his data.

Jerry Chang has almost completed his research on fire resistance of hollow-core prestressed concrete floor units in multi-storey buildings. The project is funded through a larger FRST programme examining Future Building Systems. A suitable analytical model has been developed and Jerry has been investigating the fire performance of the flooring systems that arise from the FRST project.

Roger Harrison is focussing on issues relating to the design of smoke management systems which can provide conditions for

safe means of escape during a fire. Roger was one of 40 international students awarded a New Zealand International Doctoral Research Scholarship. His work follows on from the research he carried out for his Masters and at this stage he has completed the process of characterising the fire conditions in his experimental rig and now progressing with his test matrix.

Mike Spearpoint

*New Zealand Fire Service Commission Lecturer
University of Canterbury*

7TH INTERNATIONAL CONFERENCE ON PERFORMANCE-BASED CODES AND FIRE SAFETY DESIGN METHODS

Many decades ago, air travel was considered exciting. Today, it is just an accepted part of doing business. Similarly, two decades ago, performance-based design had an aura of excitement about it. Today, just like air travel, it is an accepted part of fire safety engineering. However, valuable lessons are still being learned and research continues regarding performance-based codes and performance-based fire safety design.

Starting in 1996, the Society of Fire Protection Engineers, along with several partner organizations, has held a bi-annual seminar to showcase the state-of-the-art in performance-based code approaches and engineering design methods. In 2008, this conference will move to New Zealand, which was one of the first countries to adopt a purely performance based Building Code.

Over the last ten years, this conference has earned a reputation among the fire protection engineering community as the preeminent event for information on the leading-edge technology in the areas of performance-based codes and engineering design methods. Papers will be presented on newly emerging technologies, as well as perspectives on approaches that have worked well, and approaches that have not worked as well as originally desired. Abstracts are invited for paper presentations on subjects relating to current developments and observations relating to the use or implementation of performance-based codes or fire safety design methods.



call for PAPERS

Submission Deadline: 11 June 2007

7TH INTERNATIONAL CONFERENCE ON PERFORMANCE-BASED CODES AND FIRE SAFETY DESIGN METHODS



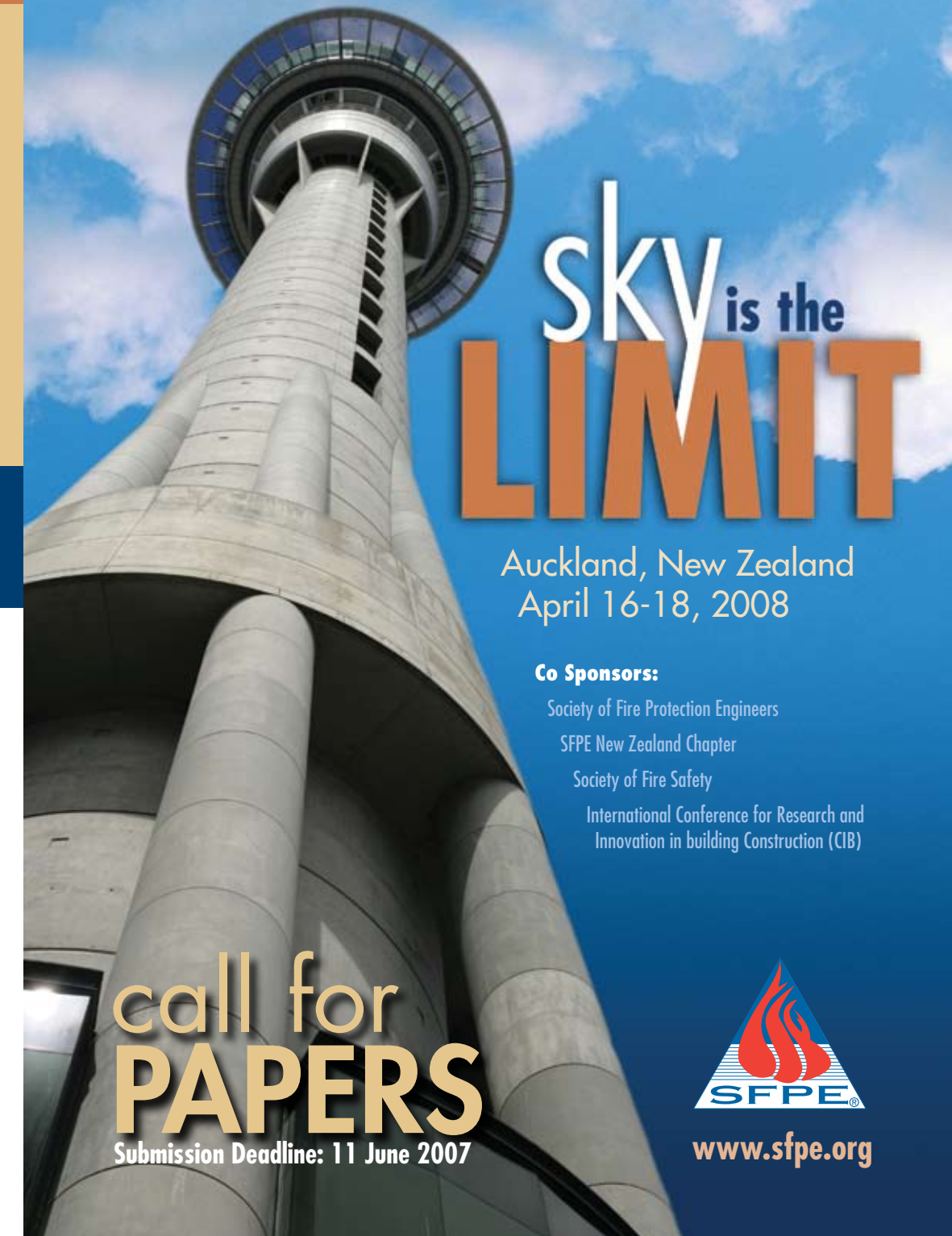
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Auckland, New Zealand
April 16-18, 2008

7TH INTERNATIONAL CONFERENCE ON PERFORMANCE-BASED CODES AND FIRE SAFETY DESIGN METHODS

SFPE Educational & Scientific Foundation
7315 Wisconsin Ave., Suite 620E
Bethesda, MD 20814, USA

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Innovation in building Construction (CIB)

call for PAPERS

Submission Deadline: 11 June 2007



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PROGRAM COMMITTEES

Program Committee

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Neil Gravestock, Marsh, LTD, New Zealand
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Michael Spearpoint, University of Canterbury, New Zealand
Beth Tubbs, International Code Council, USA

Organizing Committee

Julie Gordon, Society of Fire Protection Engineers, USA
New Zealand Chapter Representative (TBD)

SUBMISSION INFORMATION

Specifications for Submissions

Performance-Based Codes

Abstracts are solicited relating to performance-based regulatory structures, performance-based codes and performance-based standards. Viewpoints are invited on the infrastructure needed for the successful implementation of performance-based codes (education, professional registrations, enforcement, legal environment, etc.) Perspectives are also sought on experience (both positive and negative) associated with the use of performance-based codes.

Performance-Based Design

Abstracts are invited on fire safety engineering methods in use or under development. Viewpoints are also sought on dealing with uncertainty and new research findings relevant to performance-based design. Please note that case studies without generalizable results are typically not acceptable.

Audience

The participants in this conference will be professionals involved in engineering of all disciplines, regulation development and enforcement, testing, standards development and development of engineering design methods.

Submittal Requirements

Those wishing to present papers should submit a 1-2 page abstract to the conference secretariat by 11 June 2007. The conference language is English.

The abstract should identify the topic being addressed, the approach used or suggested for addressing the topic, and results or recommendations. All topics relevant to performance-based codes or fire safety design methods will be considered.

Please include the name, address and email address of the corresponding author with all submitted abstracts.

If accepted, completed papers will be due by 8 January 2008.

Submit abstracts to:

7th International Conference on Performance-Based Codes
and Fire Safety Design Methods
c/o Society of Fire Protection Engineers
7315 Wisconsin Avenue, Suite 620E
Bethesda, MD 20814 USA

