

SPEAKER

DR CHARLES FLEISCHMANN

Department of Civil Engineering
University of Canterbury
Christchurch, New Zealand

D a t e

30 April 2012 (Mon)

T i m e

7.00 – 8.30 pm

V e n u e

Room N001
The Hong Kong
Polytechnic University

Reply to:
Miss Y.Y. Yeung
Tel: 2766 5862 Fax: 2765 7198
E-mail: beelize@polyu.edu.hk

Department of Building Services Engineering
The Hong Kong Polytechnic University
Hung Hom, Kowloon
[Ref: Performance-based design in New Zealand
and the New Verification Method]

- I enclose a cheque of HK\$200 for the registration for the lecture course on 30 Apr 2012.
- I am an IFE/HKIE member/BSE Alumni*. I enclose a cheque of HK\$150 for the registration for the lecture course on 30 Apr 2012.
- I am a SFPE member/BSE Alumni Association member*. I enclose a cheque of HK\$100 for the registration for the lecture course on 30 Apr 2012.

Name (in Full): _____

IFE/HKIE/BSE Alumni/SFPE/BSE-AA*

Membership No: _____

Company Name: _____

Company/Home* Address: _____

Tel: _____

E-mail: _____

(Upon receipt of payment, reservations will be confirmed by e-mail. Cheques to be made payable to **The Hong Kong Polytechnic University**. Substitute delegates allowed provided advance notification is given. "First come first served" basis.)



THE HONG KONG
POLYTECHNIC UNIVERSITY

DEPARTMENT OF
BUILDING SERVICES ENGINEERING



C P D L E C T U R E

Performance-based design in New Zealand and the New Verification Method

Organized by

Professor W.K. Chow
Director, Research Centre for Fire Engineering
Head of Department, Department of Building Services
Engineering
Leader, Former Area of Strength: Fire Safety Engineering
The Hong Kong Polytechnic University

PROGRAM SCHEDULE

6.45 – 7.00 pm◆	Registration
7.00 – 7.05 pm◆	Introduction
7.05 – 8.15 pm◆	Talk by Dr Charles Fleischmann
8.15 – 8.30 pm◆	Questions and answers

ABSTRACT

For nearly two decades performance-based design (PBD) has evolved and is now being touted as the future of building design for fire safety providing for cost effective and innovative solutions to fire safety challenges. Although PBD continues to grow in popularity and sophistication, fire engineering has yet to reach the same level of understanding compared with the more traditional disciplines where PBD is common. New Zealand was one of the early adopters of PBD and has learned a great deal from their experience over the last 2 decades. Under the current system the Fire Engineer recommends the design fire scenarios, design fires, performance criteria, and methodology for assessing the fire safety of the proposed design. If the design does not meet the performance criteria, the design is modified until the performance criteria are achieved. However, under the current system, there is a significant variability in the design fire scenarios, design fires, and performance criteria which has lead to inconsistencies in designs and the level of safety provided in some buildings. This presentation discusses the history of performance-based design in New Zealand and the lessons that have been learned. New Zealand is on the verge of releasing a new Verification Method for performance-based design which specifies the design scenarios, design fires, and performance criteria that are the cornerstones of PBD. This presentation will discuss this Verification Method and the process that was used to develop it. Verification Method has been developed to cater to most of the buildings built in New Zealand but not all buildings. The special considerations that should be made when a building does not fit the Verification Method will also be discussed.

Speaker

Dr Fleischmann is an Associate Professor of Department of Civil Engineering of University of Canterbury, New Zealand. His main research interests are on compartment fire modeling, computer modeling, backdraft and flashover.

He has more than 80 publications including chapters in two text books on the fire testing of furnishings. He was the lead author on the chapter, "Analytical Methods for Determining the Fire Resistance of Concrete Members" in the SFPE Handbook of Fire Protection Engineering and he was key contributor to the development of the SFPE Engineering Guide to Piloted Ignition of Solid Materials under Radiant Exposure. Research results from his work have been used in the development of the NIST Fire Dynamic Simulator.

In 2010, he received the University of Canterbury Teaching Award. The Teaching Award is recognition of an outstanding and sustained contribution to the teaching of fire engineering and a demonstrated commitment to enhancing the learning environment. In 2011, he received the Arthur B. Guise Medal at the 2011 SFPE Annual Meeting. The Medal recognizes eminent achievement in the advancement of the science and technology of fire protection engineering and is named in memory of the achievements of Arthur Guise, who singularly developed dry chemicals for use as fire extinguishing agents.