

THE MAGAZINE FOR FIRE INDUSTRY PROFESSIONALS

Fire NZ

ISSUE 1 | AUGUST 2009

**SPECIAL WELCOME TO THE
INAUGURAL FIRE NZ MAGAZINE**

EXPANDING THE FRONTIERS

Conference and Exhibition

9-10 September 2009

Ellerslie Event Centre, Auckland



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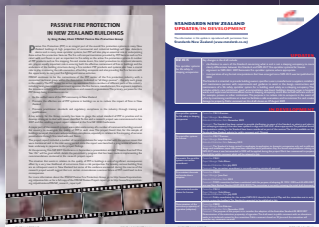


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THE INSTITUTION OF FIRE ENGINEERS
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SPECIAL WELCOME

to the Inaugural



Magazine

Both the Institution and the Association are bodies with similar objectives – that is, to promote safer communities and their occupants through the effective application of knowledge, to reduce the impact of uncontrolled fire. Our members work in many diverse ways; engineered building design, effective design and operation of fire safety systems and by direct fire fighting methods.



Between our organisations there are many opportunities to provide complimentary benefits to our members as well. There is the achievement of qualifications on the national qualifications framework, professional engineering recognition and continuing professional development (CPD) sessions across a range of relevant subjects. Also there is the opportunity to listen and learn from a range of speakers over a range of subjects at joint conferences.

2009 sees a joint annual conference, hosted by both the Institution of Fire Engineers (NZ Branch) (IFE) and the Fire Protection Association New Zealand (FPANZ). A first for us! But a common approach in both Australia and the United Kingdom, where joint conferences have been held many times.

As a form of communication sharing, this inaugural copy of our joint magazine mirrors the “International Journal for Fire Professionals – Fire Risk Management” but provides a more local flavour, with articles of interest to our joint, broad membership.

I commend its content and ask that you contribute informative articles, read with interest opinion and technical content and support our advertisers, without whom presenting this to you would be far more difficult.

Brian Davey
President, NZ Branch
Institution of Fire Engineers



The Fire Protection Association New Zealand (FPANZ) has for the past 14 years provided a monthly newsletter to members' which has been the key part of our becoming the voice of the industry. We have discussed the possibility of upgrading this Newsletter to a magazine size and quality but have always determined it would not be a practical venture for an industry of our size. Now with the impetus provided by the combining of the Institution of Fire Engineers (NZ Branch) (IFE) and the FPANZ to stage this years conference it has become a practicality



It is also significant that the Society of Fire Protection Engineers (SFPE) and other related organisations have assisted by penning articles to support the magazines production. In effect this brings our industry closer together and contributes to the success of the magazine which in itself is an achievement. We therefore thank the IFE executive, and particularly Mitchell Brown, for providing the idea and pushing it forward.

We have also been surprised by the support given by the advertisers and we thank them for their contribution in giving this support so that we can produce the magazine free to members.

This inaugural production is a first in many respects but particularly in the cooperation between the various sections of the industry. By comparison to others we are a small industry but cooperation between the various participants gives us the strength to accomplish above our weight.

So thanks to all those who have made it possible to produce this magazine and lets hope that we can go on to make it a regular and informative production into the future.

Kevin Kennedy
President
Fire Protection Association NZ



**EXPANDING THE
FRONTIERS
CONFERENCE AND EXHIBITION 2009**

How do Facilities Managers achieve better interaction with multiple fire protection systems?

CASE STUDY: VICTORIA UNIVERSITY, WELLINGTON, NEW ZEALAND

This was the challenging question facing Victoria University's property management team. And the question was made more complex with the University's buildings not being grouped together on one campus - a number are located across Wellington's CBD. Added to that, many of the fire detection systems are quite old, with the technology used at the time not capable of providing expanded information to a remote facilities management office.

After considerable consultation, an upgrade programme for the fire detection systems across the University's properties was developed. Each building will progressively have a Pertronic F120 analogue addressable fire control panel installed, which in turn is then connected to a Pertronic Colour Graphics System, centralised in the facilities management office. If necessary, the F120 panels can be interfaced to the older detectors and manual call points originally installed until funding becomes available for upgrades to full analogue addressable systems (this process has already occurred in the University's Laby and Cotton buildings).

At the core of the upgrade programme is a key software development from Pertronic Industries. Fire control panels are usually connected to graphics systems by dedicated cabling. But that was not practical for the University, with their buildings being so widespread. Each F120 panel used in the upgrade is supplied with Pertronic Network Gateway software, allowing Pertronic analogue addressable panels to communicate with the Pertronic Graphics System through the University's own Ethernet LAN, already available in all their buildings.

In the facilities management office, Graphics System operators can monitor - and react to - alarm events in different buildings as they occur. When a building is upgraded to a full analogue addressable system the operators know the specific location of each alarm event. The staff and student response in the building affected is better managed to ensure prompt evacuation from real alarms, yet minimise the disruption from any nuisance alarms.



Images shown are screen shots from the University's graphics system

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Executive Directors' Report

for the Inaugural



This month we launch our first full glossy magazine – **fire NZ**, a joint collaboration between the Fire Protection Association New Zealand (FPANZ) and the Institution of Fire Engineers New Zealand Branch (IFE).



A lot of hard work and effort has gone in to turning the concept of a fire industry magazine for New Zealand professionals, into a reality and, in a sense, has taken us forward into a new “frontier”. And as such, we would like to say thank you to the advertisers whose support of that concept has made this magazine possible.

Not only have we partnered with the IFE with this magazine, but this year we also partner with them for the FIRE-NZ conference and exhibition. This collaboration is timely and welcome and adds a new dimension to FIRE-NZ with more speakers and two streams on the second day. From the early days of 2 stands and 40 delegates to over 40 stands and 350 delegates is proof enough that the FIRE-NZ Conference and Exhibition has now become the major fire industry event of the year and highlighted by the production of this magazine.

The Association itself has walked a long road over the years. Perhaps this is a good opportunity to acknowledge the “fathers” of this industry - people like John Fraser, Kevin Kennedy and the late Cliff Barnett, whose years of effort and hard work have forged the industry into what it is today.

This magazine is, in a way, the result of the hard work put into this industry over the past years. This is your magazine. We trust you find it informative and welcome your thoughts.

Bob Taylor
Executive Director
Fire Protection Association NZ



Welcome to this, the very first joint journal between the Institution of Fire Engineers New Zealand Branch (IFE) and the Fire Protection Association New Zealand (FPANZ). Thank you to Mitchell Brown for being the driving force behind this joint venture which mirrors the Fire Risk Management journal produced by the IFE home office and FPA in the United Kingdom. Your feedback on this conference edition magazine will be most welcome.



A resignation from the IFE (NZ) Branch Council was received too late to include an article in our last newsletter, although we were just in time to be able to include a councillor nomination form in the same envelope. The nomination period has been extended and will close on 31 August. If more nominations are received than positions available on Branch Council, an election will be held after the AGM. Nomination forms for Branch Council positions are available from the IFE website (ife.org.nz).

The closing date for exam applications of 31st October is fast approaching and now is the time to start planning and studying. The Graduate examination is the first university style exam offered by the IFE. It allows you to research your chosen paper and demonstrate your knowledge in that specialist subject. It provides the underpinning knowledge for your profession and shows your ability to take that extra step up. The Institution of Fire Engineers examinations combined with a portfolio of continuing professional development could help advance your career. Take the challenge!

Gary Ward
Executive Director, NZ Branch
Institution of Fire Engineers



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THE INSTITUTION OF FIRE ENGINEERS
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A Forum of Fire Protection and
Fire Engineering Professionals



Expanding the Frontiers

Programme Wednesday 9 September

8.30 am Registration

9.00 am **OPENING ADDRESS - Hon Maurice Williamson, Minister of Building and Construction**
Mr Williamson will present his views on the sector followed by a question and answer time.

9.45 am Fire Service 2020

Mike Hall, National Commander, NZFS

The modern Fire Service is facing more pressure for change than at any time over the last 100 years. In fact, there is probably no such thing as a pure "Fire Service" anymore. In New Zealand "traditional" urban fires have been decreasing steadily for many years, whilst Fire Service attendance at other types of incidents has steadily increased. In reality the NZFS is a broad based fire, rescue and emergency management organization. Recognition of this is starting to be built into forward planning through the National Resource Allocation Model (NRAM) which has broad based implications for the future of NZFS. At the same time, environmental and weather issues are creating both challenges and opportunities for NZFS. Challenges include the need to produce a new view of operations within a carbon sensitive regime, whilst opportunities arise when traditional cost benefit relationships are altered in the NZFS favour by carbon considerations. Emerging technology choices will also radically effect the future of NZFS. Mike will take a broad based look at some of these factors within the context of how NZFS might look in the year 2020.

10.15 am Morning Tea

10.45 am Tamahere Fire Report **Dr Paula Beever, NZFS**

The inquiry of the Icepak Coolstore Explosion and Fire identified nine different factors, any one of which could have avoided the risks and injuries to the responding fire fighters. These indicate that the fundamental cause of the incident may lie in part in systemic defects in the regulatory environment and also in the communication between the various regulatory agencies. The inquiry made a number of recommendations for changes in the legislation and improvements to fire service practice in relation to collecting information about building fire risks.

11.30 am Showing Fire Design Compliance, A New Way **Nick Saunders, Senior Advisor, Department of Building and Housing**

The Department of Building and Housing have been developing a new framework for fire design as a result of the review of the New Zealand Building Code. The development is now at a stage that it is close to being ready for consultation with a wider audience. This presentation will summarise the development process so far and give an overview of the proposed framework and how things might change in the near future.

12.00 pm From the DRU to the Didgeridoo: a Kiwi Perspective on Fire Engineering in Australia **Jonathan Shelley - Aurecon**

The fundamentals of performance based design are the same everywhere, so how does the environment in which the fire engineer works affect the outcome? Having been based in Australia since 2007, Jonathan Shelley compares and contrasts the state of fire engineering in the State of Queensland and asks whether there are any lessons learnt for New Zealand.

12.30 pm Lunch

2.00 pm Through the Looking Glass **Alan Moule, National Consultants Ltd**

In many cases fire design is cost driven, not value driven. The cheque book drives developers and designers, survival drives fire designers, regulation and policy drives other organisations and risk mitigation drives the BCA. Experiencing these pressures from all sides brings a conclusion that the system needs a shake up before it blows up.

2.30 pm Burden or Benefit **Mike Spearpoint, Senior Lecturer in Fire and Structural Engineering, University of Canterbury**

People ask, why spend money on fire protection. They don't know how bad things can get without it. The outcomes are dramatic and in some cases terminal. Find out more to win over the sceptics.

3.00 pm Afternoon Tea

3.30 pm Fire Engineering Design of the Watercube **Marianne Foley, Principal Fire Safety Engineer, Arup**

The award winning Watercube was the swimming venue for the 2008 Olympic Games, and officially the world's fastest swimming pool. Already an icon, performance based fire engineering was fundamental to creating this building in terms of architectural vision, structural design, buildability, functionality, environmental performance and cost. The presentation will focus on some of the fire safety design challenges for this unique building.

4.00 pm The Death of Common Sense **Peter Matheson, Director, PF Consulting Limited**

Expanding the frontiers of your profession and business rather than your bank account, could be the catch cry during these economically turbulent times. Have you paused from your hard work and actually reviewed what your business is about. Achieving your maximum potential without drowning in compliance issues and other non productive issues? Are you giving your customers value for money and what they really need? The money in your bank account does not grow on trees.....it actually comes from clients who accept your professionalism!

4.30 pm AGM - IFE and FPANZ

5.30 pm Canapes and Drinks

7.00 pm Industry Dinner - GUEST SPEAKER: PETER LEITCH - AKA "THE MAD BUTCHER"

There will also be a live band - Retro. The theme for the dinner is Retro, so if you're in the mood (and this is optional), take out your old retro clothes and dress up for the part.

Expanding the Frontiers

Programme Thursday 10 September

8.30 am Registration

9.00 am **Is it Time to Move to the Next Level of Fire Protection – Residential Fire Sprinklers?**

William A. Stewart, FIFireE, CFO, CMM, AdeC, Fire Chief – Toronto Fire Services

Fire engineering has made major contributions in their reliability and development of residential fire sprinklers. It is critical that we move to the next level of fire protection to reduce the fire fatalities and injuries. While Fire Services across the globe have been diligent in its pursuit of fire protection, there continues to be preventable deaths and injuries from fire. The large majority of fire deaths and injuries in North America are due to residential fires, rather than fires in commercial or industrial properties. Because the large majority of fire deaths and injuries occur in residential fires, protection measures which target residential properties have potential to prevent injuries and save lives. Advocacy for fire sprinklers in residential buildings will increase survivability in the room of fire origin.

9.45 am **Performance Based Engineering ... New Zealand's Fault?**

Professor Arnold Dix, Australia

Besides kiwifruit and wool, New Zealand's other dubious claim to fame is performance based engineering. Having ravaged the fire engineering world like a dose of swine flu it now can be revealed as little more than wishful thinking in a barbaric world. Sloppy maths, poor judgment and dubious risk assessment workshops are at the heart of this disease. Alternatively, have we as professionals simply become lazy.

10.30 am Morning Tea

FPANZ Stream

11.00 am **Emergency evacuation plans and policies – people who cannot use stairs deserve better**

Vivian Naylor, Barrier Free Advisor & Education, CCS Disability Action

Can we put our hands on our hearts and say that we adequately meet the evacuation needs of people who cannot climb stairs? That it is acceptable to leave these people in a stairwell, with the emergency sirens blasting, whilst others rush past them to safety? Can we be satisfied that management systems, into which we put so much faith, really do deliver? It is a common perception that wheelchair users would be those left behind. But there are many ambulant people for whom walking down flights of stairs is not an option. For too long, catering for the needs of people with impairments, usually wheelchair users, has been put into the "too hard" basket. Despite practical suggestions from the sector, subsequent amendments to fire codes and regulations have avoided the issue. Apart from codes and regulations, all building users need, first and foremost, to take responsibility for themselves and this presentation covers ways in which improvements can be easily and cheaply implemented.

11.30 am **Water Supply for Fire Systems – How much and at what pressure?**

Richard Taylor, Waitakere City Council

This presentation will discuss the issues facing water suppliers in providing water for fire protection systems. The water balance, the four component approach to managing water losses, the relationship between pressure and leakage, the implications of pressure management on existing and proposed fire sprinkler systems, and domestic sprinkler systems will be covered.

12.00 **Disaster Averted? One Year On**

Greg Baker—BRANZ

At the FIRE-NZ 2009 Conference a research report entitled "Determining Barriers to Industry Delivery of Fire-Safe Buildings in New Zealand" was released. The research had surveyed the standard of passive fire protection in a small sample of New Zealand commercial buildings. The project identified widespread non-compliance, especially in relation to fire stopping of services penetrations through fire-rated walls and floors. This presentation provides an update on the programme of activities which have been underway in the intervening 12 months to address the issues that were identified in the report.

IFE Stream

International Trends and Issues in Fire Appliance Design
Kevin O'Sullivan, F.I. Fire E., Manager, Ruawhetu Engineering Ltd

The influence of reduced severity and frequency of fire, environmental awareness and regulations, Occupational Safety and Health awareness and Design improvements and new technology – are producing new vehicle types, new layouts, new difficulties and new solutions in the three major Fire Service blocks which use either European, Asian or American format vehicles. This presentation will illustrate examples of a range of issues and solutions covering all the above factors.

Undertaking Fire Systems Upgrades at Huntly Power Station - A Risk Management Prospective

Ami Singh, Electrical Engineer, Huntly Power Station, Genesis Energy

Undertaking fire system upgrades on an existing generation plant can be challenging and rewarding, especially when it is the largest thermal station in New Zealand with ageing fire systems. Upgrades to the fire detection, fire protection and sounder systems have recently been completed at Huntly Power Station. Ami Singh will examine the risk management protocols setup during the fire system upgrades, to prevent damage to plant, machinery, environment with systems out of service, whilst maintaining generation portfolio and not compromising personnel safety.

Wider Horizons – broadening our approach to fire investigation

Peter Wilding, Manager Fire Investigation and Arson Reduction, NZFS

The traditional focus of fire investigation has been to determine cause and origin. Yet firefighters regularly witness the effects of fire in relation to human behaviour, building design and suppression systems. Peter Wilding will discuss the innovative approach of integrated fire investigation that will allow improved learning human behaviour, contemporary building construction and fire protection across the broader community.

12.30 am Lunch	
	FPANZ Stream 1.30 pm Climate Change and Fire Protection Impact Rob Llewellyn, Chairman, CFPA – Asia Climate change is a serious threat to us and must occupy much of the attention of the international fire protection community for the next decade. We have opportunity to advance sustainable development; encourage new kinds of technologies, industries and jobs; and integrate climate change risks into national policies and practices. International Fire Protection action must be at the center of our response to climate change.
	IFE Stream Performance Based Fire Engineering: Satisfying the Building Code Performance Requirements for Fire Service Operations. Ed Claridge, Fire Engineer, NZ Fire Service and Daryn Glasgow, Fire Engineer, Beca Fire New Zealand has had a performance based building code for nearly 20 years and yet there is little information available on how to achieve the performance requirements of the code relating to Fire Service Operations. The two presenters explore how the use of the international Fire Engineering Guidelines and the Fire Brigade Intervention Model was used to satisfy these performance criteria for the redevelopment of the Eden Park Stadium.
2.00 pm	Emergency Response – Taking a Holistic Approach into the Next Decade Norm Winn, Principal, Norm Winn & Associates Pty Ltd Too often the “it won’t happen to us” syndrome drives our approach to Emergency Response. The use of technology, examination of the local environment, developing procedures and training people are all critical elements to ensure sound corporate governance is a place and a duty of care has been met.
2.30pm	Are Fire Extinguishers Essential? Mark Cowen, Phoenix Advisory Services The Hand Operated Fire Fighting Equipment (HOFFE) market in New Zealand turns over approximately 40-60 million dollars per year in sales and service in New Zealand, yet we struggle to get our own industry members and legislators interested in this product... is it really essential or can we just leave fire risk to be dealt with by fixed systems?
3.00 pm Afternoon Tea	
3.00 pm	Victorian Fires – What Can be Changed Superintendent Warwick Isemonger, NSW Fire Brigades The Victorian Fires have exhibited phenomena not seen previously that will require new concepts to prevent recurrence.
	Fire Services’ Response and Cooperation with Agencies responding to the Sunrise Propane Explosion Incident William A. Stewart, FIFireE, CFO, CMM, AdeC, Fire Chief – Toronto Fire Services The advancement of fire engineering, enforcement of fire regulations, and the collaboration between municipal, provincial and specialized agencies can assist with reducing the risk and exposure of fire and multiple chemicals to citizens in communities. At a propane site, the unexpected occurred on August 12, 2008 at 3:49 a.m., that led to a massive explosion and the spread of containments resulting in the evacuation of 10,000 residents from their homes. While the immediate response of Toronto Fire Services mitigated the devastation, through increased cooperation between fire experts, new regulations, and communication with residents, confidence can be gained for all citizens to live in areas surrounding commercial facilities in a safe and secure neighbourhood.
4.00 pm	PLENARY—Pictorial Overview of Victorian Bushfires with Commentary by Warwick Isemonger Hand out of the Continuing Professional Development Certificates to conference delegates and raffle draws.
4.30 pm	Finish – Canapes and Drinks (Pay Bar)

Notice of Annual General Meeting of the Institution of Fire Engineers (NZ Branch)

Annual General Meeting to be held 4.30pm on Wednesday 9th September 2009

The IFE (NZ) AGM Meeting has been set for 4.30pm on Wednesday 9th September 2009 at Ellerslie Convention Centre, 80-100 Ascot Ave, Greenlane East, Auckland and coincides with the FIRE-NZ 2009 Exhibition and Conference.



Notice of Fire Protection Association NZ – AGM and Nominations

Annual General Meeting to be held 4.30pm on Wednesday 9th September 2009

The FPANZ AGM Meeting has been set for 4.30pm on Wednesday 9th September 2009 at Ellerslie Convention Centre, 80-100 Ascot Ave, Greenlane East, Auckland and coincides with the FIRE-NZ 2009 Exhibition and Conference.

This is an open meeting and all members are invited to attend. The Agenda, Nomination for President and National Executive forms have been emailed to all FPA NZ members. Forms need to be returned to FPANZ by the date as set out on each form.

Any queries regarding the AGM or the nominations forms, please email fpanz@fireprotection.org.nz.



Workshop Presentations

Wednesday 9 September

3.30 ppm

Web & Mobile Geographic Information Systems for the Fire Services
Eagle Technology

An emerging tool that is aiding Fire Services around the globe is Geographical Information System (GIS) technology. This presentation will discuss, through real life examples how evolving web & mobile GIS technology is assisting emergency services in planning, preparing, responding and managing incidents.

4.00-6.00 ppm

Field Testing of a New Methodology for Showing Compliance with the Fire Safety Clauses of the Building Code

The Department of Building & Housing

The Department of Building and Housing has been developing a new methodology for showing compliance with the building code with respect to fire safety. The new methodology is intended to be applied in cases where the existing Acceptable Solutions are not followed. The next step in that development is to ask the design fraternity and building control sector to become involved and provide input to the process. The Department would like to enlist the assistance of professional fire engineers to test the methodology to ensure it results in designs that are both code compliant and provide a level of safety at least comparable to building designs currently considered to be acceptable. Building officials are invited to acquaint themselves with the new methodology as the first step towards understanding the proposed format and requirements. This workshop will introduce the methodology, explain how it works and the procedure that the Department would like fire professionals to follow during the field testing period, expected to be two months.

5.00 pm

New Zealand Fire Service Demonstration

The New Zealand Fire Service will be putting on an outdoor demonstration of methods to deal with the number one fire danger in homes. Kitchen fires represent the most likely fire in a home. The demonstration will show various ways to manage this risk. *Please Note: This is an outdoor demonstration.*

Exhibition Floor Plan

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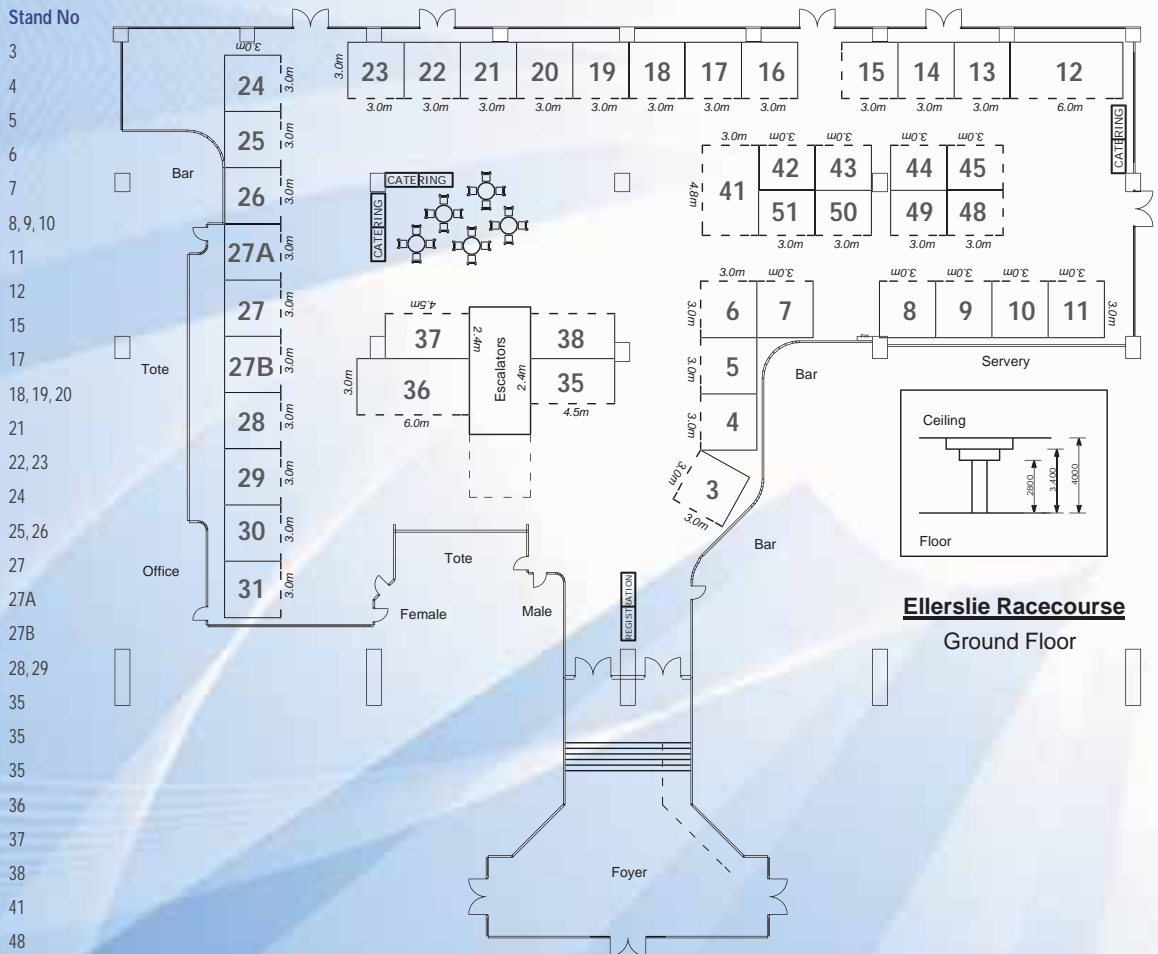
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Conference Speakers

OPENING SPEAKER

Hon Maurice Williamson Minister of Building & Construction

The Hon Maurice Williamson has a Bachelor of Science in Physics and Mathematics with Post-Graduate studies in Computer Science and Applied Mathematics and has also studied Political Science and Education. He joined the Corporate Planning Division of Air New Zealand in 1975 holding positions of Operations Research Analyst, Planning Analyst and Department Supervisor. He remained here until the 1987 election campaign. Joining the National Party in 1978 he first won the Pakuranga seat in August of 1987 and has held it since then. He is the current Minister for Building & Construction; Minister of Customs; Minister of Statistics, Minister for Small Business. He is the former National Party Spokesman Transport; Communications & Information Technology, Former Deputy Chair Transport & Industrial Relations Select Committee; Former Minister of Transport; Research, Science and Technology

Greg Baker, BRANZ

Greg Baker has been involved in the building industry for his whole working career, having started as a structural engineering consultant in the mid 80's. Following this he worked for 14 years in the manufacturing and construction sector and for the past 7 years as Fire and Structural Engineering Manager for BRANZ Ltd in Wellington. Greg holds a BE (Civil) from the University of Auckland and a ME(Fire) from the University of Canterbury. Greg is the Chair of the FPANZ Passive Fire Protection Group and is currently project manager at BRANZ of a five year research project which will provide tools for providing risk-informed performance metrics for the fire engineering design of buildings.

Dr Paula Beever, National Director Fire Risk Management, NZ Fire Service

As National Director, Fire Risk Management, Dr Paula Beever is accountable to the Chief Executive for the provision to the New Zealand Fire Service of fire risk management advice and for providing community education, fire engineering and fire research services to underpin the organizations legal mandate to provide fire safety advice to the public of New Zealand. Paula came to New Zealand from Victoria University in Melbourne, Australia where she had been an Associate Professor since March 1996, engaged in teaching and research activities in fire safety engineering. She is currently an Adjunct Professor of Victoria University. As a former Director of Ove Arup and Partners, one of the world's major international engineering design consultancies, Paula ran a team of fire safety engineers, undertaking work on fire safety design in buildings. She contributed to major international projects in South-East Asia, Europe and the USA. She has worked within performance-based building codes in the UK, Australia and New Zealand and has participated in influencing legislation in all three countries. Previously Paula worked for 10 years at the Fire Research Station in the UK, carrying out research in powder handling, fire hazards to buildings on reclaimed land, sprinkler protection of storages and fire modeling. In 1986/87 she spent eight months on secondment in the USA at the National Institute of Standards and Technology.

Ed Claridge, Fire Engineer, NZ Fire Service

Ed Claridge has been a member of the NZFS Fire Engineering Unit since 2005. Ed obtained a BSc (Hons) in Fire from the University of Leeds and is currently writing his thesis on Fire Brigade Intervention for completion of the Master's degree in fire engineering from the University of Canterbury. Previously Ed worked in the UK as a fire engineer and risk assessor in the nuclear industry and for an international risk management consultancy. Ed is a member and branch councillor of the Institution of Fire Engineers and a member of the Society of Fire Protection Engineers.

Mark Cowen H.O.F.F.E. Chair

Mark has been in the Fire Protection Industry for over 21 years, the last 15 years with Wormald moving through this business in many roles; IANZ signatory, extinguisher service technician, trainer, NZ fire training manager, South Island FE regional manager and lastly as Tyco Safety Products manager. Mark holds a NZQA level 3 National Certificate in Hand Held Fire fighting Equipment as well as a Certificate in Adult Teaching. Mark has now established his own company Phoenix Advisory Services. He believes in enjoying your chosen career and is passionate about the HOFFE industry, golf and his family – not necessarily in that order ...

Professor Arnold Dix, Australia

Professor Arnold Dix is both a Scientist and Lawyer. He is a Professor of both Engineering and Medicine. He is a long standing member of PIARC's road tunnel working groups and the United States NFPA for both underground road and rail. He is Chairman of the International Tunneling Associations contractual practices group and secretary of the security group. He is currently the principal investigator for the fatal Burnley tunnel incident in Australia. He advises consortiums and governments on managing complex technical issues associated with the design, construction and operation of tunnels.

Marianne Foley, Principal Fire Safety Engineer, Arup

Marianne Foley is a Principal Fire Safety Engineer with Arup, specialising in the development of innovative performance based solutions for fire safety. This includes a focus working proactively with the architect, client and design team to maximise the benefits of fire engineering, and early involvement of authorities, to minimise approvals risk. Marianne has a wide variety of relevant project experience, including sporting venues, arts buildings, healthcare, and commercial. She has a PhD in Fire Engineering from the University of Edinburgh where she studied under Dougal Drysdale, and is based in Arup's Sydney office.

Daryn Glasgow, BE(Hons) MIFireE, Senior Fire Engineer, Beca Carter Hollings and Ferner

Daryn Glasgow began his firefighting career as a crash rescue firefighter in the RNZAF before moving to the New Zealand Fire Service. He spent 10 years as an operational firefighter/officer, also developing operational training material and instructing and managing NZFS recruit courses. After a period in the NZFS Fire Engineering Unit and Design Review Unit Daryn moved to Beca where he is presently a Senior Fire Engineer. He has an Honours Degree in Mechanical Engineering, continues postgraduate studies in fire engineering and is presently a branch councillor for the NZ Branch of the Institution of Fire Engineers. He is currently fire engineering lead on a number of large performance based fire engineering projects including the Eden Park redevelopment, Middlemore Hospital Clinical Services Building and new developments at AUT University.

Mike Hall, CEO National Commander, NZ Fire Service

Mike Hall is currently Chief Executive and National Commander of the NZ Fire Service. Mike commenced his fire service career in Manchester in 1969, moving to the Queensland Fire and Rescue Service in 1974. Mike has held every operational rank across the three Services, with key functional roles such as strategic planning, human resource management, and technology integration. In Queensland, Mike played a fundamental role in defining, developing and introducing key organisational and cultural reforms into fire service management – a process he is now continuing in New Zealand. Mike was awarded the Australian Fire Service Medal in 1995 for work in communications reforms. He is a Fellow of the Institution of Fire Engineers (IFE), a Fellow of the Australian and New Zealand Institutes of Management, and a Director of the Australasian Fire Authorities Council (AFAC).

Warwick Isemonger - NSW Fire Brigades

Warwick has been employed by the New South Wales Fire Brigades for the past 30 years – 18 years as an operational fire-fighter and officer, 5 years in the Fire Safety Division, 2 years as Staff Officer to Director Capability Development, 4 years in his current role as manager False Alarm Reduction. In all, Warwick has spent 10 years in Fire Safety and Fire Prevention Role in the New South Wales Fire Brigade. He has completed 75% of a Bachelor Building Surveying at University Western Sydney. He is a member of Fire Protection Association of Australia and Australian Institute of Building Surveyors and currently sits on Australian Standard AS1851 (Maintenance of Fire Protection Systems and Equipment). Warwick is currently working on AFAC False Alarm Working Group and FPA False Alarm Code of Practice Committees.

Peter Matheson, Director, PF Consulting Limited

Working for the betterment of risk management standards has been my career lasting over 40 years since joining the NZ Fire Service in 1965 with additional experience in aviation and underground mining operations in Southern Africa. Responsibility for all risk management services provided by ACE New Zealand for over twenty years and involvement with large industrials and multinational businesses in the Asia Pacific Region allowed me to develop cost effective loss prevention programmes and education in loss control concepts. Combined with courses in Hartford USA and the American Insurances Services (New York), allows me to provide sound risk management principles for business continuance and ongoing profitability for clients.

Conference Speakers

Alan Moule, National Consultants Limited

Alan Moule, a qualified and experienced fire engineer, has had over 22 years experience in fire and fire engineering and is the Principal of National Consultants Limited. He has wide experience in many roles concerning fire. Until recently he was employed in New Zealand with the Department of Building and Housing. His insights are unique and his solution could even work.

Vivian Naylor, CCS Disability Action, Northern Region

Vivian Naylor graduated in Zoology from the University of London in 1968. She worked as an agricultural entomologist in Bolivia until a road accident, in which she broke her back, forced her to return to England – to rehabilitate, live and work. She switched her interests to the 'concrete jungle' and in New Zealand her current work is to promote Universal Design – working with councils, architects, and companies in the building industry, educating and advising on how the built environment can be designed to create a safe and inclusive environment for everyone.

David Neil, Auckland Emergency Management Office

David Neil has been an Emergency Management Advisor with the Auckland Region Emergency management Office for the last 18 months. He joined the team following retirement from the Fire Service as Assistant Fire Region Manager (Auckland Region). David has the reference responsibilities for professional development, group welfare and recovery.

Kevin O'Sullivan, FI FireE Manager, Ruawhetu Engineering Ltd

Kevin O'Sullivan has been involved with fire pumps and equipment for fifty-one years, from a volunteer in North Auckland to a Senior Fire Commander in Auckland, having a special interest in vehicles, pumps and equipment. Since 1995 he has worked as the international technical representative for a US fire pump company. He travels widely on all continents and has designed or developed many fire service items. His IFE involvement dates from receiving the Graduate examination in 1962 to being elected a Fellow in 2005. He remains active in fire appliance design and pump applications in many countries.

Nick Saunders, Senior Advisor Department of Building and Housing

Nick Saunders is a Senior Advisor at the Department of Building and Housing. He has been associated with the fire profession for over 20 years, firstly in the UK and the past 11 years in New Zealand, the last five of which has been at the Department with responsibility for fire engineering matters. He has been closely involved in the review of the Building Code and the development of a new framework for fire compliance.

Ami Singh, Electrical Engineer Huntly Power Station, Genesis Energy

Ami Singh is an Electrical Engineer for Genesis Energy based at Huntly Power Station. He was the Project Manager for the Huntly Power Station's Fire Systems Upgrade Project. With his involvement in the project, he has developed a keen interest in fire detection design and risk management of fire systems. As an Electrical Engineer, his areas of expertise include low voltage switchboards, power distribution and lighting.

William A. Stewart, FIFireE, CFO, CMM, AdeC Fire Chief – Toronto Fire Service

Chief Stewart is a thirty-seven year Fire Service veteran having served in the former City of North York Fire Department for 26 years prior to the amalgamation of the new City of Toronto on January 1, 1998. He has served as an operations fire fighter, Captain, Administration Chief, Assistant Deputy, Deputy Chief and the Fire Chief since May 1, 2003. Bill has served as a member of the Professional Standards Setting Body, Ontario Fire College, in the review of all standards for fire fighter training in Ontario. He is also the Chairman, Fire Apparatus and Equipment Committee, Underwriters' Laboratories of Canada; immediate Past President of the Metropolitan Fire Chiefs Association, and International Association of Fire Chiefs/National Fire Protection Association and is the International President of the Institution of Fire Engineers. Bill is committed to life long learning, and is currently serving as a Board member for Public Administration and Governance, Ryerson University.

Jonathan Shelley, Aurecon

Jonathan Shelley spent 10 years in the New Zealand Fire Service as an operational firefighter, a member of the Fire Engineering Unit and the Deputy Chief of the Fire Safety Department in Auckland. During this time Jonathan was heavily involved in the establishment and operation of the Design Review Unit in its formative years. Jonathan has a Master's degree in fire engineering from the University of Canterbury, and has been the fire engineering leader in Queensland for the multidisciplinary consultancy Aurecon since 2007.

Mike Spearpoint, Senior Lecturer in Fire and Structural Engineering, University of Canterbury

Mike Spearpoint is the Senior Lecturer in Fire and Structural Engineering at the University of Canterbury. Mike obtained a BSc(Hons) in Physics from the University of Nottingham, a Masters of Science in Fire Protection Engineering from the University of Maryland and his PhD from the University of Canterbury. Mike is a member of the Institution of Fire Engineers, the Society of Fire Protection Engineers and the International Association for Fire Safety Science. He is also a Chartered Engineer registered by the Engineering Council UK.

Richard Taylor, Assets and Network Manager, Eco Water, Waitakere City Council

Richard has been involved with managing the water supply at Waitakere City for over 20 years. He is currently the Assets and Network Manager at EcoWater. During his career at Council he has implemented the setting up of water supply zones in the City's network, introduced telemetry monitoring of flows and pressures in the network, and implemented pressure management across two thirds of the network. He is involved nationally with the Water Supply Managers Group and has led several national water loss initiatives including the coordination of Water Loss Conferences in New Zealand in 2006 and 2008.

Stuart Waring, Manager Data and Spatial Applications, NZ Fire Service

Stuart has responsibility for leading a team of IT professionals providing national data and application services that support the NZ Fire Service Communication Centres, Fire Alarm Signal Transport Systems, Fire Weather Systems, Spatial and Reporting Systems and solutions. Stuart has been involved in delivering information technology solutions in New Zealand for the past 25 years, including previous appointments within the Department of Conservation, NZ Police, and private industry.

Peter Wilding, Manager Fire Investigation and Arson Reduction, NZ Fire Service

Peter Wilding's has served as an operational firefighter and later as an executive officer with the NZ Fire Service. After managing two of the career fire districts in the Auckland Fire Region, Peter was appointed as the National Recruitment Manager. In April 2008 Peter was appointed as Manager Fire Investigation and Arson Reduction and asked with developing and deploying Best Practice fire investigation and Arson Reduction within the NZ Fire Service. During this role Peter has travelled extensively throughout Australasia and to the UK examining fire services considered excellent in their approach to fire investigation.

Norm Winn, Principal, Norm Winn & Associates Pty Ltd

Norm Winn is the Principal of Norm Winn & Associates Pty Ltd, with 48 years experience in the Fire Safety Industry. During 30 years with the Country Fire Authority, 18 years as Assistant Chief Officer, he headed up all departments; raining, Fire Safety, Operations and Research. Norms formal studies and as a member of the Government Bushfire Reconstruction Task Force, Hazardous Materials and the Emergency Evacuation Tasks Forces, the Building Review Committee and a number of Australian Standards Committees, have provided a sound background for his Consultancy which was set up 18 years ago. Norm applies innovative Emergency Response, Audit processes and Essential Services Maintenance concepts to Hospitals, Aged Care Facilities, Government Departments, high rise buildings and industrial and manufacturing plants. Norm is currently the Chairman of AS3745 (FP17) Emergency Procedures for Buildings and past Chair FPA State Committee, is a member of both AS1851 Maintenance of Fire Equipment and AS4655 Fire Audits for Buildings and the Society of Fire Safety Victorian State Committee.

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Fire Fighting Water Supplies – Thoughts and Concerns

Chris Mak, Aon Sprinkler Certification

As Chairman of the committee who produced NZS4541:2007, I have decided to comment on some issues that I have noticed over the last few years as I strongly believe they will be of value to the industry as a whole. The article may also give readers some guidance and insights as to why certain clauses were introduced into the Standard when it was last revised in 2007.

Over the last few years, the fire protection industry has had to look critically at the power behind most sprinkler systems – the public water supply reticulation. Issues have arisen on both cost and the potential or perceived reliability concerns. Most fixed fire fighting systems are obviously reliant on water. When I returned to New Zealand in 1992 after a few years working overseas, I joined a sprinkler contractor and was responsible for pricing and managing the installation of sprinkler systems. At that time, the provisional sum we typically allowed for a connection to the public supply was \$4000 for a 100mm connection and \$6000 for a 150mm connection. I recall pricing a project on Auckland's Quay Street which required a connection under the road and was shocked to find I needed to allow \$20,000. I now find that this is a typical cost for most connections, with some ranging higher. This is a significant burden on the building owners who are installing sprinkler systems, and these high costs can act as a deterrent to installing the sprinkler system.



One example that leads to increased costs is the need to install back flow prevention devices on all sprinkler systems. While there is no doubt that our industry had a blasé attitude towards back flow on some systems (such as those containing potential contaminants or on site water storage), I believe we would contend that the existing use of an alarm valve provided a superior level of protection to that provided by formally tested and listed backflow device. While there was no evidence presented that satisfied the additional costs placed on the building owner, nor any proven benefits, the need for additional backflow on sprinklers is a battle that the industry has lost.

However, we now find that (often successful) attempts to further impose additional costs on building owners in the installation of back flow prevention devices are being made. This includes requirements to install these devices at the boundary (which requires additional costs in monitoring valves and providing remote pressure gauge tapping points) on the basis that someone may tap illegally into the underground supply to the building.

The Fire Protection Association has more recently been in discussion with authorities to minimise any additional burdens. One example was a recent Metrowater requirement to design sprinkler systems to only use the minimum water pressure level guaranteed by the company. This was of significant concern, as not only did it impose additional cost, but it had the real potential to significantly reduce the reliability of sprinkler systems. For example, if the expected water supply pressure available for design was in the order of a typical 500kPa, and the minimum guaranteed service level was 200kPa, design could require the need to install diesel driven pumps and pressure control valves, which, due to their complexity, would reduce the reliability of sprinkler systems.

After a series of meetings with Metrowater, it was agreed that as long as the building owners are aware that Metrowater will not attempt to rectify any water supply deficiency unless it is below the guarantee level, they will allow the designer freedom to design within the measured water supply adopting existing conventions. This is effectively the status quo – under the Water Supply Model Bylaws used by many Territorial Authorities, while they were required to provide water for fire fighting purposes, they were not required to do so at any guaranteed level.

It is important that those involved in specifying or designing sprinkler systems take prudent cognisance of these minimum service levels and communicate this with their clients. Highlighting the minimum service levels is obviously a method to transfer any potential risk, should water supplies deteriorate in the future.

Recently, some Water Supply Authorities were attempting to enforce a requirement to install water supply filters upstream of back flow prevention devices. As these will usually not comply with NZS4541's specified requirements for strainers, this is something that needs to be resisted. Such filters will trap particles and block the filter – even though these particles could pass through the system, they would not block sprinkler heads. In the worst case I have seen, a 200mm

filter basket was totally blocked, potentially starving the sprinkler system of water. Any devices installed upstream of these back flow prevention devices must be strainers listed as complying with NZS4541, or some other internationally recognised fire protection code or standard.

Additional concerns regarding the reliability of fire fighting water supplies include a push by some lobby groups to degrade the reputation of sprinkler systems, due to their perceived concerns about public water supplies following an earthquake. While it is no secret that in parts of New Zealand, the public water supply would be vulnerable after a significant earthquake, the need to enhance building design features for fire following an earthquake needs to be a measured one. These lobby groups want to see Building Code Trade-Ups afforded by installation of a sprinkler system removed, thereby effectively increasing the level of passive fire protection, and making the cost benefits of a sprinkler system less attractive. Alternatively, the sprinkler water supply reliability would be potentially reduced and costs increased, by requiring on site water storage and a diesel pump. The Fire Protection Association is obviously not burying its head in the sand on this issue, and is aware that a letter has been sent to the Department of Building and Housing asking that a balanced review of the need to enhance fire fighting water supplies following an earthquake be reviewed on a cost versus benefit basis as part of the review of the Building Code. In some cases, the need to have on-site storage and pumping will be valid (an obvious example would be for a major public hospital required to remain functioning following a catastrophic event). However, for many sprinkler systems, the additional costs would not be warranted. A typical example could be a sprinkler system protecting a small community hall.

When I was Chair of the Standards Committee that produced NZS4541, I introduced some concepts to the development committee aimed squarely at increasing the reliability of sprinkler systems for little extra cost. One of these is gauge schedules. Many testers are merely scribes – they visit sites, carry out functional tests and record various pressures. However, due to a lack of knowledge and understanding that's almost certainly due to a lack of educated training, they do not recognise when systems are not in sound condition. For example, I have investigated one case where the pump impeller key had disappeared, and while the diesel engine was spinning, the impeller was not turning. The tester had recorded the suction and discharge pressures as being identical, without reporting a serious fault to his supervisory staff. Gauge schedules are aimed at giving the tester the tools to recognise faults. They should state the expected criteria testers should look for, and state at what point an assessment has been carried out to indicate whether a critical defect is likely to occur. NZS4541 includes a recommendation that this information should be prepared for existing systems. I am concerned to hear considerable feedback that building owners and their advisors are reacting negatively to these recommendations where, for the cost of a couple of hours of an intelligent designer's time, the sprinkler system reliability can be considerably enhanced.

Another feature that has been introduced into the Standard by the Committee was the need to inspect and routinely replace elastomeric elements of flexible coupling where, if they fail, drive is lost. This was the result of investigations into two recent diesel engine failures where such an event happened. In one case, the diesel engine that was destroyed was rated at close to 250kW – not a cheap exercise. It was of interest that while we were looking at making these changes, it was reported that a large American based insurer was introducing similar changes to their approvals regime.

Those involved in the sprinkler industry will also realise that until recently, a discrepancy existed in the Standard with respect to hydrant demands. If the hydrant in a connection from a town's main was located on the building owner's property, a hydrant demand had to be allowed for in the building's water supply demand. If it was located on public land, then it could be ignored. The 2007 edition of NZS 4541 now requires that all systems be treated the same. An assessment needs to be made to ascertain if a hydrant demand is available. If it is not available, and the design would impose a burden on the building owner, such as the need to install a pump or tank, of one otherwise would not be available, the designer is required to notify the Fire Service of the anticipated shortfall. This is aimed at allowing the Fire Service to account for this in their pre-incident planning. It should be noted that this does not need to be in the form of a waiver.

In closing, water is critical to almost all fire protection systems. If you are concerned with issues that you are encountering in the field, I urge you to do something about it. You can:

- Write to Bob Taylor, Executive Director of the FPANZ and ask him to draw it to the attention of the FPANZ Water Supply Committee.
- Write to Standards New Zealand (Attention: Michelle Wessing, General Manager- Sector leader for Fire Safety - email: michelle.wessing@standards.co.nz,) and ask them to approach the Fire Service and Department of Building and Housing to discuss amending the standard (Standards New Zealand are very good issue and information conduits to the key stakeholders in our industry – nothing I have said in this article is intended to criticise them or their Standards development process).
- Write a newsletter article and ask the FPANZ to publish it in their newsletter, which will bring the concerns to the attention of a wider audience.

Disclaimer: "Please note that this article contains my viewpoints and is not an official statement endorsed by Standards New Zealand."

HOME SPRINKLERS ARE COMING!

James Firestone, Fire Engineer, New Zealand Fire Service

This was the message sounded large and clear at the fourth NZ Home Sprinkler Coalition Industry one day Workshop held in Christchurch last month. What matters now is just how long it will take to become mandatory. This will of course depend upon how proactive and united the industry becomes. These themes were highlighted at the workshop and included presentations from:

- James Firestone a fire engineer with the NZ Fire Service,
- Bob Taylor of the Fire Protection Association of NZ,
- Wayne Roden a Senior Building Inspector with Christchurch City Council,
- Peter Downey from Hydraulic Design Ltd,
- John Davidson a fire engineer with MacDonald and Barnett,
- Nick Reid the National Sales Manager of RX Plastics Ltd.
- Kirin Soma of Unifire Sprinklers Ltd.
- Arun Khotkar of Wallace Pumps Ltd.

There is no doubt that this initiative is growing and interest in these systems has resulted in a multitude of different types being offered to the market to address each type of application. One of these system types is now seen as often the easiest and in some cases cheapest to install, which is the tank and pump solution. This system also best leverages an "off the shelf," "drop in place" solution that can be installed within the week, best facilitating the timelines many home owners are working to.

The importance of getting these systems right by following through a proper documented process from starting with the obtaining of a building consent to signing off on a commissioning checklist were highlighted and cannot be understated as these systems are for simplicity designed to be "set and forget".

The NZ Standard (NZS4517 - Fire Sprinkler Systems for Houses) has just been released for public comment and anyone interested is urged to put in their justified views. The public comment draft can be viewed at www.standards.co.nz

The day started with a welcome and introduction from James Firestone. This was followed with an update of the current NZ situation and recent world events as an indication of the potential trends for this initiative. A review and follow-up from the discussions and outcomes outlined at the 3rd NZHSC workshop. Finally a discussion on what is the fire service's role and how is it trying to advance this technology?

The following speakers covered the following key issues;

Bob Taylor, FPANZ

- What can drive this initiative forward?
- DVD highlight of these benefits

James Firestone, NZFS

Examples of the main types of systems for the NZ market. Rural vs. Urban. Tank vs. Water main. Independent vs. Combined Domestic Plumbing systems. Proposed approaches to take for retrofits, new homes and whole sub-divisions.

- What is a Home Sprinkler System and how does it compare with a NZS4515 (Residential Sprinkler) systems?
- Home sprinkler systems for dummies - What are the main parts of a home sprinkler system compliant with NZS4517?
- What are a home sprinklers strengths and limitations? Why has the NZ Fire Service taken this approach for the home owner market!

- Keeping it simple - what are the basic design strategies that should be followed?
- The importance of commissioning!

What must be conducted for proper commissioning of these systems. What should be the required documentation, system sign off and hand over? Example of a simple checklist.

Wayne Roden, Christchurch City Council

A BCA's perspective and the required documentation and system sign off.

Peter Downey, Training for the industry

Training and professional development requirements for industry practitioners and the need for CPD.

Mitchell Brown, NZFS - Home Sprinkler Strategy

What strategy needs to be adopted to make this a success for all involved. An agreed strategy to achieve the goal is needed.

James Firestone & Gary Luff, NZFS - Practical demonstration

Live fire sprinkler demonstration in container compartment.

Nick Reid, RX Plastics

Tanks & water storage

The Fire Service couplings to comply with NZS4509:2008

Brian Mulford, Wallace Pumps - Pumps for home sprinklers

- What must a pump do?
- How do you specify one that does the job?
- Is there such a thing as an "off the shelf" pump solution?
- What we offer that best suits a combined domestic plumbing home sprinkler system.

John Davidson, MacDonald Barnett Partners Ltd

Update on NZS4517:2002 which shall be released for public comment in July.

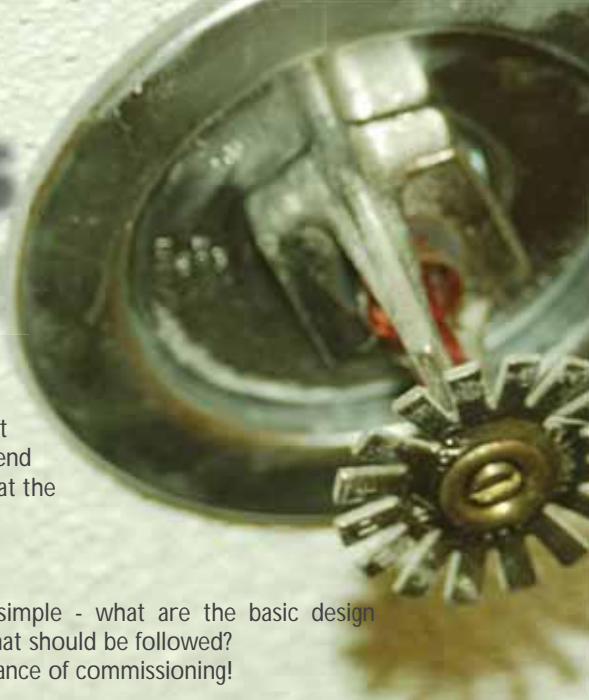
Pat Pearl, Fire Safety Ltd

Look at what we offer! Design package. Review service, Back-up power solutions for remote areas, etc.

James Firestone, NZFS - Summary of the day

- Workshops on the identified tasks (including those outlined from the first three NZHSC meetings).
- Where to from here?

The next home sprinkler coalition meeting is to be held in Auckland on the 8th of September at the Auckland Fire Region HQ, Poynton Terrace, Auckland Central.



TRIBUTE FROM THE IFE International President



The partnership and the creation of this inaugural magazine is a true tribute to ensure and enhance the communications of fire engineering and fire prevention best practices in New Zealand. As the International President of the Institution, I am pleased to see the partnership created between FPA and the IFE in this endeavour. The work undertaken by both organizations truly complements the creation of the magazine for the members of both the IFE and FPA in New Zealand. The magazine will offer relevant information to the fire prevention and fire engineering communities in your country. I am confident the information presented in the future issues of the magazine will provide best practices in the pursuit of fire life safety, fire prevention, community safety and building design to protect future generations in your great country from the ravages of fire.

The Institution of Fire Engineers and the Fire Protection Association in the United Kingdom publish a joint journal known as Fire Risk Management. This publication is published monthly and is distributed internationally to members of both the IFE and FPA. The magazine presents monthly themes to promote best practices in the interest of fire life safety, community safety and fire engineering. Further, FPA Australia and IFE Australia also publish a joint magazine. The work undertaken by all involved will benefit the broad fire engineering community globally. The members of

both organizations in New Zealand are committed to ensuring the respective communities are protected from the threat of fire. Respectfully, we know that our common goal as fire engineers, fire officers, building designers and architects is to protect our citizens and to promote public safety. Our common goal is to design buildings which will enhance fire life safety and reduce the loss of life now and in the future.

In closing, please accept my congratulations on behalf of the members of the Institution of Fire Engineers and our best wishes on the launch of the magazine to promote life safety for all New Zealanders! This magazine will serve as a focal point for effective communications for relevant fire engineering and fire prevention articles. I look forward to visiting New Zealand in September and receiving feedback on the magazine at the IFE/FPANZ Conference 2009, being held on September 9 and 10, in Auckland, New Zealand.



William A. Stewart, FIFireE, CFO, CMM, AdeC
International President, Institution of Fire Engineers

Ofqual Impact on IFE Examinations Explained

The Institution of Fire Engineers has recently been appointed as an approved Awarding Body by the Office of the Qualifications and Examinations Register (Ofqual). The application was approved in only six months rather than the normal two years, because of the professional manner in which the IFE examinations are conducted and the high standard that is set. This is exciting news for the IFE because it is the only awarding body in the UK 'Fire' sector which means it can now develop fire industry vocational awards.

Because the accredited qualifications are now placed on the UK national framework, they can no longer have the traditional IFE titles and instead need to be named in a way that reflects the framework. The name changes to the syllabus, exams and certificates are as follows:

Preliminary	becomes the Level 2 Certificate
Intermediate	becomes the Level 3 Certificate
Graduate	becomes the Level 3 Diploma
Member	becomes the Level 4 Certificate

The new certificates grant exemption from the educational requirements to apply for the different membership levels within the IFE. For example, if you pass all four papers in the Level 3 Diploma, you can apply for membership of the IFE at Graduate level.

The changes clearly affect IFE members in the UK, however there is a positive impact on IFE members throughout the world including here in New Zealand. Firstly, discussions have already commenced with the Fire and Rescue Services Industry Training Organisation (FRSITO) to achieve recognition of IFE examinations on the NZQA framework. The fact that Ofqual, a recognised body, have benchmarked the IFE exams should now make this process easier. The IFE New Zealand Branch

will keep you informed on progress and the potential benefits to members.

The other significant change in having accredited qualifications is that applications to sit exams is no longer restricted to IFE members and anyone can apply to sit the exams in March 2010. However membership of the IFE is still recommended as it gives access to IFE resources including the Fire Risk Management journal, articles from which have often been a source of exam questions. Here in New Zealand we are planning further initiatives for IFE members such as establishing a small reference library of IFE material and a series of study seminars for the more technical exams.

This award is a huge achievement for the IFE with much future potential for development. If you have any questions about the changes to the examinations please look at the IFE UK website www.ife.org.uk or contact an IFE New Zealand Branch Councillor.



Gary Ward, Executive Director, IFE NZ Branch



What does a Building Consent Authority, BCA, expect from their fire peer reviewer?

Simple question – complex answer. The BCA needs to have carefully considered what they expect from the fire peer reviewer. As a BCA, they are responsible to ensure the building consent documentation demonstrates compliance with the building code. Among other things that includes the fire design and supporting documentation. The supporting documentation to support the fire design can cross a number of different disciplines: architectural, electrical, mechanical and structural.

Typically there are two different approaches used by TAs for fire peer review:

- Technical review of the fire report only
- Technical review of the fire report and review of documentation to ensure implementation of the fire report.

It is up to the BCA to control the process. A consistent process needs to be established with regard to peer review.

Technical Fire Report Review

In the first instance – technical review of the fire report. Only the BCA engages the fire peer reviewer to review the fire report to ensure the design complies with the building code. The design may be Acceptable Solution compliant or alternative solution, it may also be an existing building and include 'as nearly as reasonable practicable' approach. Using this approach, the BCA is responsible to ensure that the documentation submitted for building consent implements the requirements of the fire design.

Technical Fire Report Review And Documentation Review

The second approach is to request not just technical review of the fire report but to include review of all related documentation. In this instance there may be an expectation by the BCA that the fire peer reviewer has reviewed supporting documentation. But this expectation can only be fulfilled if the BCA has clearly identified what they expect from the fire peer reviewer.

BCA Process

It is the responsibility of the BCA to decide what they expect from the fire peer reviewer. The BCA then needs to develop written guidance that sets out their expectations. Items to consider in developing written guidance:

- What type of review is expected?
 - Technical review only.
 - Technical review and documentation review.
- Who is qualified to provide peer review services?
- Who is the peer reviewer actually working for?
- Does the BCA determine who provides peer review or will they let the applicant choose?
- If the BCA allows the applicant to choose:
 - does the applicant choose from a list provided by the BCA.
 - does the applicant decide and submit the name of the peer reviewer to the BCA for approval.
 - does the applicant decide with no input from the BCA.
- Who actually engages the peer reviewer?
 - The Council engages the peer reviewer.
 - The applicant engages the peer reviewer.
- What information does the Council expect back from the peer reviewer?
 - A Producer Statement Design review.
 - A list of correspondence that took place between peer reviewer and the applicant.
 - The actual correspondence that took place between the peer reviewer and the applicant.
 - Information on the final reviewed and accepted fire report title and revision.
 - A list of the final reviewed and accepted documentation and revisions.

BCA Written Guidance

The written guidance document needs to clarify what review is expected.

Are they to review:

- Fire report only?
- Fire report and consent documentation?

Documentation

When considering the building consent documentation supporting the fire report – fire information can be found on:

- Architectural drawings
- Electrical drawings
- Mechanical drawings
- Structural drawings

Each of these drawings has different items that may affect the fire report. Comments on the different disciplines drawings are briefly mentioned below.

Architectural Drawings

The architectural documentation for construction includes information such as the following:

- Construction details and location of fire separations,
- Position of door swing,
- Door Schedule for door fire rating, door details – vision panels, hold open devices and hardware,
- Interior finish of walls
- Exterior finish of walls

Electrical Drawings

Electrical drawings have specific fire information in terms of Exit signs and indirect fire responsibility in terms of emergency lighting. There is an overlap with emergency lighting where it is reasonable for the fire engineer to ensure the emergency lighting is in the correct location but not necessarily be responsible to review lighting fixtures for lux levels.

Mechanical Drawings

With mechanical drawings the primary concern is that fire dampers are provided at the location of fire separations. There will also sometimes be an interface in terms of smoke control and the appropriate volume of smoke exhaust.

Structural Drawings

The structural drawings often have an interface in terms of the fire rating of structural elements. The BCA needs to consider what they expect of the peer reviewer in terms of this item.

Summary

With clear thought and written guidance the BCA can reduce the stress and strain on their staff with regard to fire peer reviews and save processing time. A draft of the guidance document is available for any BCA that would like a copy please contact me for a copy to be emailed.

Mandatory Hand Operated Fire Fighting Equipment

NZS4503 (2005) is unlike many other Fire Industry New Zealand Standards. The Hand Operated Fire Fighting Equipment (HOFFE) operators through out our country work with a varying amount of uncertainty when it comes to supporting legislation that building owners and other key stake holders can clearly digest and understand.

This unfortunately also applies to some HOFFE businesses operating at present. As Chair of the HOFFE sub group I have been approached on many occasions by both member and non members who have had their own interpretation of how NZS4503 is a *mandatory requirement* for building owners. I have also received many calls from end users who have had HOFFE operators (thankfully non FPANZ members!) actually threaten them with NZS4503...stating that they would report them to OSH or their insurance company. You can imagine how this gets received!

So what is FPANZ trying to do to clarify for New Zealanders the HOFFE situation? I have included some extracts from a white paper I have written for the FPANZ executive to review – these hopefully will show the direction that we wish to take to make the HOFFE elements of industrial and commercial safety a clear path for all concerned to follow.

As the FPA executive we all know at present there is no clear mandatory legislation for HOFFE - there are different references that point to this product being required / good to have...but nothing in carved stone, enforceable for the bulk of industry to easily follow and understand.

The Fire Service Evacuation of Buildings Regulations Clause 13(2) (a) state fire extinguishers to be included under a code of practice. It also states that the National Commander may require an owner or tenant of a building to install fire extinguishers and maintain them. This code of practice has never been written and the National Commander cannot make a determination without the support of the Department of Internal Affairs (DIA).

Along with many other bodies the Insurance Council of New Zealand was a active committee member sitting on the re write of NZS4503 (2005) and as such annually serviced HOFFE inclusion as part of most commercial insurance policies is typically in place as a requirement for coverage.

Both FPANZ Evacuation Consultants Group and the Insurance Industry have asked the Fire Service to have a code of practice published. Our NZFS executive member followed this up and an approach was made to the fire policy unit of the Minister of Internal Affairs regarding this matter. In terms of the Fire Service Act, it is the Fire Service Commission (working off recommendations from the NC of the NZFS) that recommend to the Minister to issue a Code of Practice. The policy unit would not support the issue of a code of practice without a robust analysis of the cost and benefit to the national good. After this approach the DIA are aware that this detailed study and cost benefit analysis will be presented by the FPANZ for future review.

Two studies are known to have taken place in the last 20 years. One was done in England and the other in the USA. Both showed some similar trends with regard to usage of equipment to fire service assistance calls being made and some cost benefit analysis being supplied in support of regulating HOFFE inclusion. These studies from two similar English speaking socio economic countries should be included in a New Zealand presentation.

The intent of the FPANZ is to build a Fire Industry study that shows the active use of HOFFE through out the country and a cost benefit analysis that clearly points to the inclusion of this equipment in buildings to protect life and property. From this we hope to show the ongoing value of HOFFE to all New Zealanders. A possible bi product of HOFFE legislation being in place may be that service operators of the future may have to be licensed to work on HOFFE as per the Licensed Building Practitioner (LBP) process that is under review with the Department of Building and Housing. This would be welcome from my perspective as I can see the number of disgruntled calls from end users dissipating under a regulated system!

Mark Cowen, Chair HOFFE Sub Group
FPANZ



New Zealand Institute of Water & Atmospheric Research Ltd advise: RECOVERY OF GLOBAL OZONE LAYER IN RESPONSE TO MONTREAL PROTOCOL

NIWA recently published in their in-house magazine Water & Atmosphere a graph (see Figure 1). First I draw your attention to the blue line. This shows the total loading of halogens effective in destroying ozone in the Antarctic stratosphere. The early steady increase in stratospheric halogen loading slowed in the early 1990s and then peaked around the turn of the century in response to international adherence to the Montreal Protocol and to the efforts of organisations such as your OWIL.

This is a success story which can serve as a model for international action required to curb other threats to our environment. Society owes a huge debt of gratitude to organisations such as Halon Recycling NZ Ltd for making this international effort so successful.

As a result of your efforts and those of others throughout the world, stratospheric halogen level

are expected to decline through the coming century as shown by the blue line in Figure 1. These are projections based on continued adherence to the Montreal Protocol, and vigilance to ensure adherence is still required.

Plotted in red in Figure 1 are data from NIWA's ozone research programme. It is a measure of the severity of Antarctic ozone depletion. You can see that the severity of the Antarctic ozone hole has largely followed Antarctic stratospheric temperatures. Plotted in green is a projection of how we expect the Antarctic ozone hole will recover through the coming century based on a simple model we have developed as part of our research. You can see that we expect ozone levels over Antarctica to return to 1980 levels some time around 2060. The worst has most likely passed and we now expect a gradual recovery. **This is indeed great news.**

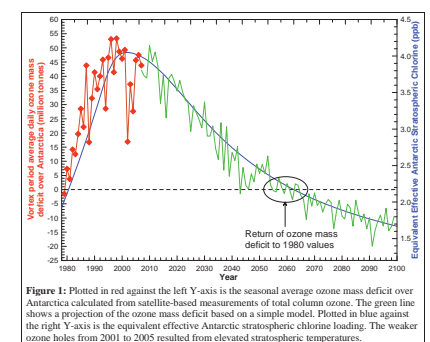


Figure 1: Plotted in red against the left Y-axis is the seasonal average ozone mass deficit over Antarctica calculated from satellite-based measurements of total column ozone. The green line shows a projection of the ozone mass deficit based on a simple model. Plotted in blue against the right Y-axis is the equivalent effective Antarctic stratospheric chlorine loading. The weaker ozone holes from 2001 to 2005 resulted from elevated stratospheric temperatures.

Figure 1

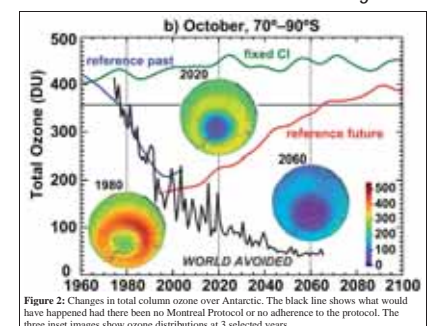


Figure 2: Changes in total column ozone over Antarctica. The black line shows what would have happened had there been no Montreal Protocol or no adherence to the protocol. The three inset images show ozone distributions at 3 selected years.


Figure 2

FPANZ Conclusion:

The Fire Protection Association of NZ wish to acknowledge the contribution of Member companies who recovered the many units then packed them ready for collection arranged by Halon Recycling NZ Ltd.

Additionally the Owners contribution in meeting the cost of collection, despatch and destruction in a safe environmental process.

As expressed in the NIWA letter the continuing collection is necessary and will be facilitated by Halon Recycling NZ Ltd ongoing.



This is your chance
to make New Zealand
homes and families
fire protected 24/7.

The New Zealand Fire Service Home Sprinkler strategy is supported by the Institution of Fire Engineers (NZ Branch) and the Fire Protection Association New Zealand. For more information go to www.homesprinklers.fire.org.nz or www.fireprotection.org.nz/sprinklers.htm to assist in making our homes fire protected 24/7.

MITCHELL BROWN
AREA MANAGER - MANAWATU
WESTERN FIRE REGION



fire.org.nz



Photoluminescent markings of specified features in escape routes may be used to meet Clause F6 of the New Zealand Building Code, "Visibility in Escape Routes".

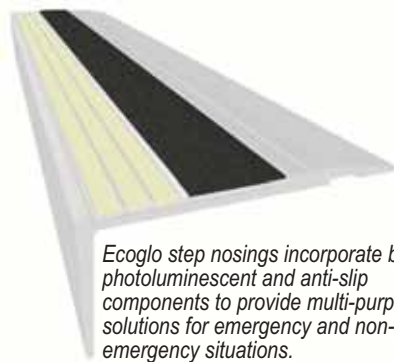
Emergency Lighting Solution

The New Zealand Building Code for emergency lighting, Clause F6 'Visibility in Escape Routes', now states that specified features must be made 'reasonably visible' from 10 metres. This is a significant change to the previous wording that stated buildings must be provided with 'adequate lighting' in escape routes. This change allows photoluminescent material that meets the visibility test to be used to meet F6. It is achieved by marking specific escape path features such as stair edges, hazards and handrails.

For the past 10 years Christchurch based company, Ecoglo, have been developing and manufacturing photoluminescent (PL) escape path systems which have been increasing safety in buildings, large and small, throughout the world. The products have undergone independent testing by an accredited laboratory to prove visibility from 10 metres.

Ecoglo products can be used as standalone systems for Risk Group B and C buildings which require 90 and 30 minutes of visibility, respectively. Risk group A buildings (eg prisons), which must remain visible until the restoration of the main lighting system, could use Ecoglo products to enhance their emergency system, especially as PL is instantly visible and failsafe.

Occupants of New York's World Trade Centre struggled to exit in darkness during the bombing in 1993. As a result the



Ecoglo step nosings incorporate both photoluminescent and anti-slip components to provide multi-purpose solutions for emergency and non-emergency situations.

Centre had PL markings installed into the stairwell and this significantly improved the speed and ease of egress during the 9/11 attack. A Task Force into safety, following this attack, resulted in the passing of legislation requiring all buildings, old and new, over 7 stories high, to have PL markings in stairwells. The International Code Council which applies in 50 other states has also passed legislation requiring PL markings in new buildings over 75ft high.

Not only are PL markings able to be used to meet F6 they also have distinct advantages over traditional emergency

Ecoglo Strengths and Benefits

ECOGLO STRENGTHS

Meets code requirements

High quality photoluminescence

Heat bonded to aluminium

Step edge contrast

Increases safety

Works in smoke conditions

Uses natural or artificial light

UV resistance

Internationally accredited testing

New Zealand made

Proven results

DELIVER REAL BENEFITS

NZBC D1 Access Routes

NZBC F6 Visibility in Escape Routes

Visible for hours in dark conditions

Hardwearing, no repainting or maintenance

Reduces falls in light or dark conditions

Aids egress in both emergency and non-emergency situations

Aids egress in fire emergencies

Decreases electricity usage and increases sustainability

Can be installed inside or out

Use with confidence

Work directly with the manufacturer

Many installations throughout NZ and the world.

systems. Traditional lighting systems are costly to install and maintain, can have problems with partial and total failure, there can be issues with shadows from evacuees obstructing the view of the stairs and they have operating time constraints (eg battery runs out or generator runs out of fuel).

Photoluminescent escape path systems can eliminate these disadvantages. An additional benefit of PL systems is they are installed low to the ground which makes them easy to follow in smoke filled rooms. The solution is also sustainable as either natural light or the existing artificial light provides the charging source.

Ecoglo have advanced the technology to create products that are significantly more durable than the tape or paint options of other manufacturers. In these days of throwaway quality Ecoglo were determined to create a product that would last. Engineer, Mark Watson, developed a unique automated process which applies and then bakes in anti-slip and PL powders. The 180° heat applied, integrally bonds the powder

to the aluminium, meaning thousands of people can walk on Ecoglo products thousands of times with no wear and tear.

Building owners are very aware how often electrical lighting goes out and battery back-up lighting is either too slow to start, it fails completely or it does not operate for the duration of the blackout. Two examples of this are when the backup generator at Parliament failed leaving Ministers in the dark, and when the backup generator in Southland Hospital failed to kick in during a power cut (critical equipment, fortunately, had its own power supply). Ecoglo products are failsafe as they are continually absorbing the light in the environment. When the lights go out they glow brightly for many hours giving people confidence in exiting, even in emergency situations.

Some steps are just too hard to see, whether it be day or night. Prime Minister John Key's fall in January, resulting in a broken arm, was largely due to the poor visibility of the step. With Ecoglo you can clearly see the step whatever the light conditions as the combination of



Ecoglo can be installed indoors or outdoors onto any surface eg carpet, linoleum, concrete, checker plate, wood or tile with glue and fixers. This installation is the F4171 product onto carpet.

photoluminescence and the anti-slip mat creates excellent step edge contrast.

If you would like to receive a copy of the full F6 Photoluminescent Solution document please email info@ecoglo.com with F6 in the subject line.

Now you
see them



Now you
still see
them



**Can be used to meet
F6 Emergency Lighting
Requirements**



Ecoglo has developed advanced production techniques for photoluminescent path marking systems. Our enhanced technology results in superior luminosity to meet F6 and high durability to withstand large amounts of foot traffic.

New Zealand Installations: • AMI Stadium • Christchurch Town Hall • Otago School of Medicine • Vector Arena • Massey University • Genesis Energy • Auckland council carparks • Palmerston North Courthouse • Hampden School • Canterbury Softball Park • Millenium Hotel • Gloucester Towers • Scales House • Te Papa • Britomart

Product range: • Step edging • Step nosing • Signage • Handrail Markers

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PASSIVE FIRE PROTECTION IN NEW ZEALAND BUILDINGS

by Greg Baker, Chair FPANZ Passive Fire Protection Group

Passive Fire Protection (PFP) is an integral part of the overall fire protection systems in many New Zealand buildings. A high proportion of commercial and industrial buildings will have detectors, alarms and in many cases sprinkler systems, but PFP will also play an essential role in underpinning these active fire protection features. The fire cell compartmentation provided by PFP features such as fire rated walls and floors is just as important to fire safety as the active fire protection systems. A number of PFP products such as fire stopping, fire and smoke doors, fire rated protection to structural elements, etc., play an equally important role in ensuring both the effective containment of fires in buildings and the endurance of the building structure during a fire incident. PFP products and systems also have a crucial role to play in ensuring the safe evacuation of building occupants and also providing the Fire Service with the opportunity to carry out fire fighting and rescue activities.

Fire Protection Association New Zealand (FPANZ) continues to be the cornerstone of the PFP sector of the fire protection industry, with a committed technical group within the Association dedicated to "all things passive" - the only such group in the country. The PFP Group has active representation from a numbers of different parts of the industry including local government, government agencies, the Fire Service, manufacturers, fire engineers, suppliers, the insurance industry, educational institutions and research organisations. The primary purposes for the PFP Group being in existence are to:

- Be the unified voice of the PFP community in New Zealand
- Promote the effective use of PFP systems in buildings so as to reduce the impact of fires in New Zealand
- Promote practitioner standards and regulatory compliance in the industry through training and qualifications

A key activity for the Group recently has been to gauge the actual standard of PFP in practise and to develop strategies to deal with issues identified. To this end a research project was commissioned in late 2007 and the resulting project report released at the FIRE-NZ 2008 Conference.

A major part of the research project was a pilot-scale survey of a number of commercial buildings around the country, to investigate the quality of PFP in each case. The project found that, for the sample of buildings surveyed, there was widespread non-compliance, especially in relation to fire stopping of services penetrations through fire-rated walls and floors.

The project report included a number of recommendations for ways to deal with the various issues that were discovered and in the intervening period since the report was launched, a programme of work has been underway in response to the project findings.

At the upcoming FIRE-NZ 2009 Conference in September, a presentation entitled "Disaster Averted? One Year On" will be given which details the pan-industry progress that has been made in implementing the recommendations contained in the research project report.

The situation that exists in relation to the quality of PFP in buildings is one of significant consequences offset by a very low likelihood of occurrence from a risk perspective. Fortunately serious building fires are an infrequent event in New Zealand but some of the evidence uncovered during the course of the research project would suggest that in certain circumstances a serious failure of PFP could lead to dire consequences.

For more information about the FPANZ Passive Fire Protection Group go to <http://www.fireprotection.org.nz/passive.htm> or for a full copy of the FPANZ Passive Project report go to http://www.fireprotection.org.nz/publications/FPANZ_research_report.pdf



Standards New Zealand and UPDATES/IN DEVELOPMENT

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UPDATES

<p>DZ 4515</p> <p>Fire sprinkler systems for life safety in sleeping occupancies</p>	<p>Key changes in the draft include:</p> <ul style="list-style-type: none"> • clarification to users of the Standard concerning what is and is not a sleeping occupancy, to more clearly differentiate between this Standard and NZS 4517 Fire sprinkler systems for houses. • alignment to NZS 4541: 2007 Automatic fire sprinkler systems, where appropriate. • incorporation of any formal interpretations that have emerged since NZS 4515 was last published in 2003. <p>The Standard is intended to provide building owners, specifiers, users, manufacturers, suppliers, installers, and maintenance persons with requirements and guidance to assist in the design, construction, and maintenance of a life safety sprinkler system for a building used solely as a sleeping occupancy. This includes elderly care institutions, guest accommodation, apartment buildings, sleeping areas in hospital wards, and supervised accommodation home. A sleeping occupancy could also include self-care units in, for example, prisons or other institutions. The purpose is to reduce risk to occupants in the event of a fire by maintaining conditions at a level to facilitate a safe evacuation, and to minimise fire and smoke damage to property. Public comment on this draft closes on 07 August 2009</p>
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IN DEVELOPMENT

<p>Fire sprinkler systems for life safety in sleeping occupancies</p>	<p>Committee: P4515 Revision Project Manager: Erin Alderton Estimated Publication Date: December 2009 Comments: The Standard has been revised to provide clarification to users of the Standard on what is and what is not a sleeping occupancy. It has also been updated to align with NZS 4541 where appropriate. The published formal interpretations relating to the Standard have been considered as part of the revision. The draft is available on the Standards New Zealand website for public comment until 7 August.</p>
<p>Fire sprinkler systems for houses</p>	<p>Committee: P4517 Revision Project Manager: Erin Alderton Estimated Publication Date: February 2010 Comments: The Standard is being revised to emphasise its application to domestic occupancies only and to address design and installation issues that have been identified since publication. Any fire formal interpretations relating to NZS 4517 since it was last amended in 2003 will be applied during this project. Work has commenced to prepare the draft for public comment which will be released in July.</p>
<p>Automatic fire sprinkler systems correction amendment</p>	<p>Committee: P4541 Project Manager: Vicki Allison Estimated Publication Date: July 2009 Comments: The correction amendment is currently awaiting ministerial approval.</p>
<p>Fire-resistant doorsets and smoke doors adoption</p>	<p>Committee: P4520 Project Manager: Jono East Estimated Publication Date: 2010 Comments: P4520 committee has been constituted with the purpose of adopting AS 1905.1:2005 and AS 6905:2007 as a new New Zealand Standard (NZS 4520:20XX). The committee is currently reviewing the initial draft document.</p>
<p>Interconnected smoke alarms for houses</p>	<p>Committee: P4514 Project Manager: Vicki Allison Estimated Publication Date: July 2009 Comments: Public consultation for the revised NZS 4514 closed at the end of May and the committee met in early June to review the feedback. The Standard is expected to be published in July.</p>
<p>Determination of the extinction propensity of cigarettes (adoption)</p>	<p>Committee: P4830 Project Manager: Erin Alderton Estimated Publication Date: November 2009 Comments: The purpose of this project is to consider the adoption of the Australian Standard AS 4830:2007 Determination of the extinction propensity of cigarettes. The draft went to public comment with no alterations made to its technical content by the committee. Public comment closed on 22 June and the committee will consider any comments received.</p>

A DAY IN THE LIFE OF THE Fire Risk Management Officer

2012

This is a fictional representation of the role of the fire risk management officer in 2012 based on fire service vision and overseas fire service fire risk management current practice. Fire risk management approaches to support legislation and organisational effect to meet the needs of the 21st century community have come a long way, and the following provides some thoughts as to how fire services around the world can better support their communities.

In response to this the fire service personnel are charged with responsibility for fire risk management information gathering, data analysis, business planning and community outcome delivery to see reduced impacts of fire.

A fire risk management officer is indeed the firefighter on the fire appliance who has the daily interaction with all members of the community on a variety of levels to be the initial contact and advice provider.

Specialist Fire Risk Management Officers are employed throughout the organisation to deal with the more specific and technical needs to meet higher levels of technical interaction with the community.

The community has many ways to access the advice and information they seek in regards to fire risk management. Of course the internet is highly charged and able to provide fountains of information that meet most needs. Where verbal contact is required, the use of the 0800 Fire Info hotline achieves direct contact through to the specific subject matter expert who can be anywhere in the country.

Our staff have excellent language and presentation skills to meet the diversity of our communities and to ensure our messages and learning outcomes are best served.

In fact the recruit firefighter entry preference for new staff, is to be recruited into the fire service with roles that provide community contact through promotions and education. The community has guided the best opportunity to provide fire risk management information and support for the right days of the week and the best times to meet their needs.

Government drive for interaction with the various community based agencies that support central government and local government strategies for improving community safety have seen supported collaboration of activities for promotion and education to achieve safer communities.

The role and responsibility of the Fire Risk Management Officer covers many key facets. The role has three key areas:

- Delivery of fire risk management programmes to the public in alignment with the National programme for fire risk management and applied to community fire risk management programmes and strategies for identified areas,
- Advise businesses and building owners on specific fire risk management strategies relevant to their business, conduct building inspections,
- Provide quality technical fire investigation advice and practice.

The responsibilities of the roles cover the following areas:

- Fire Safety Promotions and Community Education
- Ensure that Chief Fire Officers are provided with fire risk management advice to meet their statutory requirements to reduce the incidence and consequence of fire.
- Provide technical fire risk management advice and information to meet brigades role in providing appropriate and risk based community promotional and educational programmes.
- Work in partnership with key community groups to achieve shared community safety and fire risk management outcomes on behalf of the community.
- Business liaison and education
- Provide comprehensive advice and information to local authorities and council officials, property owners, architects, property developers, fire industry professionals, fire engineers and builders.
- Provide legislative advice in support of the Fire Service legislation, regulations and code of practices/standards.
- Provide advice and support for Evacuation Schemes that are operated by building owners. Support fire service personnel to conduct inspections and evacuation drills as required.
- Create partnerships to achieve community liaison and collaboration to support best practice fire risk management outcomes.
- Fire investigation
- Specialist fire investigation support is provided to fire service personnel when requested.
- Undertake post fire investigations as requested by the Chief Fire Officer.
- Complete post fire audits and seek to identify any deficiencies and inadequacies in building design and construction.
- Deliver training to develop fire service personnel in the required skills to complete fire investigations and data collection at incidents.

Mitchell Brown, Branch Councillor, IFE (NZ Branch)





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