



The Catalyst



The Official Newsletter of JOIFF

June, 2009

FROM THE EDITORS

Welcome to this, the second edition of The Catalyst for 2009. As always, there is a varied mix of articles including some of our regular features in this edition.

In answer to our invitation to our Members to submit details of innovative changes and new ways of thinking of JOIFF Members in these difficult economic times, we have received information which is included in the Members Section of this edition. We invite other Members to submit their details for inclusion in future editions.

We encourage our Readers to circulate The Catalyst amongst their colleagues and interested parties and we welcome any comments.

Our policy is to bring you high quality articles on relevant technical issues and current and new developments and other happenings in the area of Emergency Services Management. In addition to The Catalyst, information relevant to Emergency Services Management is posted on the JOIFF website.

ABOUT JOIFF

Membership of JOIFF, the Organisation for Emergency Services Management is open to any Organisation which is a high hazard industry and/or has nominated personnel as emergency responders/hazard management team members who provide cover to industrial/commercial organisations. Organisations which do not fully comply with these requirements are welcome to apply for Corporate Membership of JOIFF.

JOIFF provides a forum for discussion amongst peers, accredited training specifically developed for the sectors in which JOIFF members operate and technical advice through the JOIFF Standard and the JOIFF Shared Learning network. JOIFF welcomes enquiries for Membership - contact the JOIFF Secretariat

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NEW MEMBERS

During March, April and May 2009 the Executive of JOIFF were delighted to welcome the following new Members.

Full Members

Ess Safeforce, Northamptonshire, England represented by Greg Peckover, Manager Confined Space Safety and Rescue. Ess Safeforce are providers of confined space training in the UK and overseas and they also offer sales/hire/service of safety equipment.

GS Caltex Corporation Safety Team, Jeollanam-do, South Korea, represented by Kyeong-Wan Kim, Inspector. GS Caltex Corporation is a major Korean producer of petroleum products. The Safety Team of full and part time emergency responders provides fire training and emergency response to the Company.

Offmain Consultants BV, Rotterdam, The Netherlands, represented by Johan Luijks, General Manager. Offmain Consultants employs a number of full and part time

emergency response personnel and offers development and fulfillment of training focused on industrial, offshore and maritime incident management, as well as consultancy for incident management.

Rural Metro Emergency Management Services, Pietermaritzburg, South Africa represented by Lenny Naidoo, Chief Fire Officer. Rural Metro is an Emergency Management Services Provider that provides Operational Firefighting Services for Cities and Industry, Disaster Management Services, Training of Professional Firefighters and Industrial Firefighters and Risk Assessment.

Tüpraş Petroleum Refineries, Kocaeli, Turkey represented by Kamil Murat Onat, Chief Fire Officer. The Group's principal activity is production and marketing of petroleum and petrochemical products. It operates four refineries as well as a petrochemical facility, a sea transportation company and a distribution company. The emergency response capability is provided

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by a team of full time emergency response personnel.

Corporate Members

Eco Fire Solutions Ltd., Brighton, England, represented by Rob Miller, Director. Eco Fire Solutions Ltd. are part of the Masterfire Group of Companies, providing eco fire products including a new type of foam which has been EN certified and has WGK1 European environmental certification.

Firetrace International, Salfords, England, represented by Nick Grant, General Manager. Firetrace International manufactures pre-engineered fixed automatic fire detection and suppression systems for small enclosures, engines and equipment.

GAIST, West Yorkshire, England, represented by Steve Birdsall, Managing Director, Nick Kitchin, Chief Executive Officer and Fiona Birdsall, Marketing Support Manager. GAIST design and build Emergency Management systems with local councils and Emergency Services. GAIST specialise in collaborative technologies and Incident Command Systems currently undergoing research with several UK universities in the field of resource management and personnel tracking at incidents.

Iturri UK Ltd., Oxfordshire, England, represented by Eddie Impey, United Kingdom Sales Manager. Iturri UK are part of the global Company Iturri who have a presence

in 4 Continents manufacturing and selling Personal Protective Equipment and Fire Appliances.

Scott Health & Safety Ltd., Skelmersdale, England, represented by Phil Large, Marketing Manager Europe, Middle East and Asia, and Tony Pickett, Supplied Air Product Manager. Scott

Health & Safety are global manufacturers of Personal Protective Equipment with manufacturing sites in the UK, USA, Finland, Australia and China. Scott manufacture SCBA, escape sets, powered respiratory protection including full and half face masks, TI Cameras and gas detection equipment and head and sensory protection. Internationally known Scott brands include "Protector", "Sigma", "ELSA" "Flite" "Tornado," "Phantom" and "Sabre"

Sofileta Advanced Textiles, Jallieu, France represented by Thierry Lanier, Department Manager and Colin Clark, UK. Sofileta Advanced Textiles is a wholly integrated FR fabrics manufacturer, weaving, dyeing and finishing and laminating woven fabrics for use by wearers in Fire, Military, Police, Industrial, Aviation and racing drivers.

We look forward to the involvement of our new and existing Members in the continuing development of JOIFF.

BEST PRACTICES FOR MAINTAINING THE INTEGRITY OF FIXED FIRE FIGHTING SYSTEMS

By Jeanne van Buren

All fires except those caused by a deliberate act and lighting occur when all other previous lines of defence (LOD) are breached. If a fire occurs we must be able to rely on either mobile or fixed fire fighting equipment. Use of this equipment is the final LOD to mitigate the effects and/or prevent incident escalating into a major disaster.

As we rely so much on this final LOD we should expect that such systems are submitted to a live test on completion and at least an annual live test in order to secure the operability of the system. The requirement for periodic live tests should be incorporated in the design of the system. Otherwise operators may reject these tests due to the adverse consequences of these tests. Almost all industrial activities except industrial fire fighting have gone through important innovations. By implementing requirements to enable more live testing of fixed fire fighting systems this can change and improving the reliability of the systems at the same time while the costs to do this are a fraction of the damage caused by a failing system. This approach should however be supported by all stakeholders. If operators, insurers and authorities keep ignoring the benefits of live testing of systems, suppliers and contractors will not be inclined to incorporate this option in the scope of their work.

The reliability of the system can be further improved by inspecting, testing and maintenance of system

components. This is also known as the ITM approach, which can also be used to extend the time between two live tests. This process starts with defining the system boundaries and identifying the (critical) system components, including the water supply lines, of the system. Critical components are the components which will result in a functional failure of the complete system if the component fails. We can deviate between two sorts of component failures:

1. Revealed failures

These can be either visually detected or by a DCS system. In process systems these can in fact be measured by the DCS (Distributed Control System). Except for detection systems and water supply pumps other fixed fire fighting components of the fixed fire fighting equipment are however rarely connected to the DCS.

2. Unrevealed failures

These can only be detected by measurements and tests. More complex fixed fire fighting systems are potentially more prone to unrevealed failures.

Well planned ITM-activities, provides the option to test and inspect components while maintenance is carried out. ITM should only be carried out by staff which is trained and qualified to this work. The required ITM frequency for most, but certainly not all system components are listed in NFPA 25. For instance inspection frequency of a carbon steel water supply line



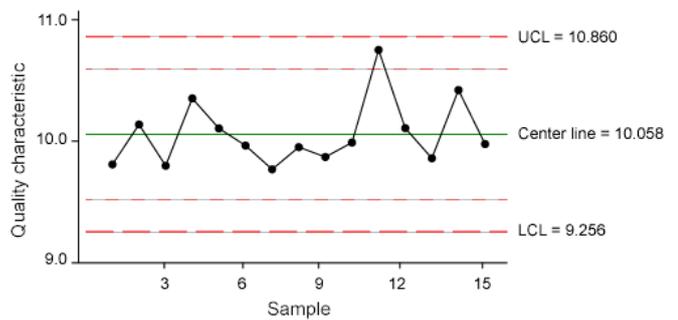
should not be overlooked by the operator if it is not listed in the NFPA. If the supplier of specific components of the fixed fire fighting system lists a more stringent ITM frequency than the NFPA, this supplier's frequency is applicable.

NFPA has chosen to give each part of a component the same ITM frequency as was the component even though this is a rigorous approach.

All results from ITM activities should be logged and submitted to a progress analysis. Control or Shewart charts (see example in figure 1 below) are a simple but effective tool if the ITM results in data which have to be monitored to determine if the ITM frequency has to be adjusted or when preventive replacement of a component is relevant.

A lot of consideration has been taken into account setting the ITM frequencies listed in NFPA 25. They are based on the fact that a system should have at least 99% reliability if called upon only once every 50 years. This corresponds with a SIL 2 classification.

In industrial application SIL classification (Safety Integrity Level) is used to define the relative level of risk-reduction provided by a system or instrument.



There are 4 SIL classes which are based on potential effects of the incident or Risk Reduction Factor (RRF) if the LOD does not perform as expected the reliability and reliability of the system or Probability of Failure on Demand (PFD) show in Table 1, below.

To achieve a given SIL, the device must have less than the specified probability of dangerous failure and have greater than the specified safe failure fraction. These failure probabilities are calculated by performing a Failure Modes and Effects Analysis (FMEA). The actual targets required vary depending on the likelihood of a demand, the complexity of the device(s), and types of redundancy used.

Most operators have improved their cost/benefits by turning into a mean and lean organisation. Optimising the ITM frequency can be part of this process. Adopting a lower ITM frequency than listed in NFPA 25 or by the supplier of the component should only be incorporated after careful analysis. The type of potential failure determines the method which should be used to review the option for lowering the ITM frequency.

There are three methods which can be applicable:

- If the reliability of the system is involved – Safety Instrumented Function (SIF) should be used. SIF is part of the SIL methodology. Example – integrity of functionality throughout the incident. Will the system survive the first stage (heat exposure) or initiating cause (explosion, deflagration) of the incident? But the sum of Probability of Failure on Demand (PFD) of each part of a component should be less or equal to the required PFD for the system.

$$PFD_{\text{foam supply}} = PFD_{\text{valve}} + PFD_{\text{bladder tank}} + PFD_{\text{proportioner}} + \text{etc.}$$
- If corrosion (including microbiological influenced corrosion or MIC) is the major concern for a system component – Risk Based Inspection (RBI) should be used. Example – water supply lines are sensitive to corrosion.
- If loss of functionality of a system component is the major concern – Reliability Centred Maintenance (RCM) should be used. Examples – the integrity of a membrane in a bladder foam tank and the hose of a coflexip system used in floating roof tanks.

The previous explanation on the use of ITM to improve reliability of fixed fire fighting systems may look to be complex, but most operators already use this approach to create the most effective setup for ITM of all process equipment on their site. The Fire Services, where the author of this article works, were fortunate to learn more on ITM from two brilliant professionals of who organize and provide classes for a global organization on this topic. Although somewhat dated in 1999 the US Department of Defence has setup a system for their most common fixed fire fighting systems with lower ITM frequencies than listed in NFPA 25. The document which describes the

Class	Potential effects	RRF	System reliability %	PFD
1	Slight – no deaths	10-100	90,00 - 99,00	0.1 – 0.01
2	1 death	100-1000	99,00 – 99,90	0.01 – 0.001
3	> 1 death	1000-10.000	99,90 – 99,99	0.001 – 0.0001
4	Catastrophe	10.000-100.000	> 99,99	0.0001 – 0.00001

Table 1.



results of this process can be downloaded from the Internet using the following link:

<http://tinyurl.com/qhp6uk> Or purchase a hardcopy of the document from the National Technical Information Service, listed on the same webpage. The title of this well documented process is “Risk Based Reliability Centered Maintenance of DOD Fire Protection Systems”.

Editor's Note: Jeanne van Buren, a regular contributor to The

Catalyst, is a Safety specialist working with the Rotterdam-Rijnmond regional emergency response organisation in The Netherlands. She has a BA in Process Engineering, Chemical Engineering, Applied Chemistry and Environmental Engineering and an MSc in Environmental Quality Management as well as Risk Crisis and Disaster Management. She is currently carrying out a PhD research into integrated fire safety during the life cycle at SEVESO sites.

PPE CORNER

The way that an item of Personal Protective Equipment (PPE) is cleaned during its lifetime, is important to its length of useful life and its protective performance throughout that life. Suppliers of PPE are required to provide recommended cleaning instructions for any item of PPE provided and usually, these cleaning instructions are very detailed and specific.

If an accident occurs during which injury to or death of a wearer occurs, the items of PPE worn by the victim will unquestionably form part of any investigation. At this stage the manufacturer/supplier of the items of PPE concerned will become involved and one of the first questions that will be asked is likely to be “How was the PPE cleaned ?” If the actual cleaning that took place differed at any time from the cleaning instructions provided by the manufacturer/supplier, this will open a major route out of liability for them.

What protection does a User have with regard to this type of occurrence?

Some Users don't take the time or trouble to read the cleaning instructions provided with PPE on delivery. In practice, on many occasions it is not surprising that the User does not read the instructions, because some of the instructions provided with items of PPE are massive tomes with lots of small print, technical sentences and “get-out clauses” that favour the manufacturer/supplier by a User's expected omissions. Despite any complexities in information supplied in this case unless the User has made representation to the manufacturer/supplier on receipt of this information, it is likely that the User has little or no defence on this point – they didn't follow the instructions laid down by the Manufacturer, so they must accept the consequences.

Other Users will diligently read and follow the instructions but perhaps local circumstances where the PPE was used may not have allowed the cleaning instructions to be followed to the letter. For example, where local water supplies are used to clean, the User has no control over the chemicals and organic matter that are in the water and these may have an adverse effect on some parts of the PPE. Another example is where the manufacturer recommends that branded cleaning agents should be used and in certain parts of the World these agents may not be available. So

the manufacturer/supplier has a strong case in that the cleaning instructions were not followed as written.

The result in both these cases is usually the “man who pays the piper” i.e. the User, does not “call the tune”, the manufacturer/supplier who has been paid to provide the PPE does.

Can this situation be reversed ? Can the User, the person who pays the money, block the “opt-outs” that the person who is being paid to provide goods may have, due to something done or not done by the User, either intentionally or unintentionally ? The answer to both questions is YES.

Cleaning and maintenance of PPE is something that happens as a result of exposure in the work place and therefore it is something that should form part of the User risk assessment in their choice of items of PPE. The principals of Risk Assessment are initially to identify all risks and where possible remove them from the work place. When risks cannot be avoided or cannot be sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organisation, action must be taken to protect against exposure to those risks.

In the context of cleaning PPE, this can be extrapolated as follows:

If as standard operating practice all PPE is cleaned in a central location e.g. a Fire Station, this can be regarded as an environment where the risks of exposing PPE to cleaning procedures can be controlled, and so discussions should take place with the supplier of the PPE and procedures should be adopted that are agreeable to both parties. If, for whatever reasons, the User does not agree with certain of the requirements being requested by the supplier this should be listed as an exception and included in the User specification for purchase. i.e. a condition of purchase that the supplier must meet.

If the PPE is used in locations where there is no facility for controlled cleaning, the conditions of local cleaning should be stated in the User specification for purchase as part of the conditions of purchase that the supplier must meet.

By adopting these practices, the User, who is the key to any purchasing decision, is protecting himself/herself from possible issues that might arise in the future.



PROTECTIVE SOLUTIONS IN ATEX ENVIRONNMENTS

By Karin Klein Hesselink

Working in an ATEX environment includes a lot of risks. The wearing of proper PPE is very important, but which types of fabrics solutions are suitable for these working areas? Taking all risks into account, this needs an integral method of working.

What is ATEX?

If we talk about ATEX environments, we mean areas with potential explosion risks. This could be dust explosions but also explosions caused by flammable liquids. Literally ATEX stands for ATmosphere EXplosive. For an explosion three elements need to be present; oxygen, fuel and an ignition source. Examples of ignition sources are flames, gasses, electrical spark, static electricity, mechanical friction or a chemical reaction.



In the Netherlands, more than 40,000 companies have one or more working areas with an explosion risk that could be caused by electrostatic discharge. The petrochemical industry, wood industry and plastic industry are faced with hazardous substances, sawdust or sharps that can cause electrostatic discharge. Also the gas production and gas distribution industry have potential explosion risks.

PPE in an atmosphere with potential explosive risks

Next to restrictions for equipment and security systems used in explosive atmospheres (Directive 94/9/EC, ATEX 95), there are also restrictions for working environments. The European Directives for Health and Safety of Workers at Work (Directive 89/391/EEC) includes minimum requirements for improving the safety and health protection of workers potentially at risk from explosive atmospheres (Directive 1999/92/EC). This directive is better known as ATEX 137. Since July 2006 all working areas must comply with these minimum requirements. Personal protective equipment (PPE), including safety garments, worn in explosive atmospheres must be made of materials which cannot lead to electrical discharge and can cause an electrical spark (Appendix II article 2.3). Unfortunately ATEX 137 does not mention other special criteria or requirements for safety garments.

This causes some misunderstanding by end users and in the market for PPE.

Health and safety are fundamental rights of workers. In the PPE Directive (Directive 89/686/EEC), the European Commission has registered the minimum requirements for personal protective equipment. This directive refers to the different European Standards we know for protective clothing. Heat and flame protection, liquid chemical protection, high visibility clothing of antistatic properties are examples of subjects of European Standards for protective clothing. CEN and ISO, under mandate of the European Union are justified and responsible for editing the technical norms. As well as requirements for materials used in the protective clothing, there are also requirements for the garment design.

The valid standard for electrostatic risks is the EN 1149-series:



- EN 1149-1 Test method for measurement of surface resistivity;
- EN 1149-3 Test methods for measurement of charge decay;
- EN 1149-5 Material performance and design requirements (based on test Method EN 1149-1 and/or EN 1149-3)

EN 1149-5-1-3 garments are meant to avoid explosion risks caused by the wearer.

Because of the different antistatic solutions in the market, different test methods are developed. Materials according to EN 1149-1 are e.g. metal fibers like Bekinox (TenCate Tecashield® containing Nomex® III Bekinox). Materials according to EN 1149-3 are based on core conductive fibers like P140 (Nomex® Comfort) or Static Control™ solutions (e.g. TenCate Tecasafe® Static Control™)

Independent institutes are able to test the materials and judge if the design is suitable for the purpose. The EN 1149- standards are suitable for material tests and not for complete garment systems. Unfortunately European antistatic experts have not yet been successful in developing a scientific garment test which is reliable.

Of course, only wearing antistatic clothing is not enough to prevent explosion risks caused by the wearer. As in many other working circumstances the garment should be one part of the total protective ensemble. Other examples of PPE are safety shoes, safety glasses and safety gloves. The risk assessment must provide the information as to against what risks the workers needs to be protected.

In working environments with explosion risks, generally there are more potential risks present, like heat, flames, liquid chemical splashes. In all cases sufficient advice of the best protective materials and design based on the risk assessment is a must!

It is very important to never lose sight on this risk assessment. The end user must make a deliberate choice



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on materials and garments to protect their workers. The PPE risk assessment of the JOIFF handbook (available for free download from the JOIFF website www.joiff.com) is a very sufficient tool to prioritize the different risks. With this tool an adequate selection of materials, garment designs and other protective equipment can be made.

Editor's Note:

Karin Klein Hesselink is end use Marketing Manager, Industrial Safety in JOIFF Member TenCate Protective Fabrics and specialises in advising end users on the choice of material that will best suit their requirements. Karin is an active participant in ETSA and CEN. Karin can be contacted at k.kleinhesselink@tencate.com

MEMBERS SECTION.

News from JOIFF Members:

Dr. R. Aivazi of JOIFF Member Corporation FPEC, Japan has contacted us to tell us of their development of a new software for simulating the function of Nozzles that they have recently introduced on the Global Market. The software pack is called Nozzler Series, and it consists of three modules: FoamNozzler, WaterNozzler, and SprayNozzler.

We are advised that the advantages of the Nozzler Series are numerous including that the trajectory curves of the stream from nozzles are displayed by 3 dimensional simulation; there is an availability of customisation of characteristics/parameters of nozzles of several manufacturers, different models, and sizes and shapes of nozzle; while simulating the nozzle's functions, changing the point of view, zoom-in and zoom-out, and pan of location of the view easily are done with the computer mouse. The Nozzler series are usable without the need of any other software; it is a user friendly software with the data-entry boxes e.g. Wind Velocity, Flow Rate of the nozzle, providing an easy interaction with the software and it is possible to print-out and store information and results of simulations, transferring data, and reading data from other sources.

Explanations on FoamNozzler, WaterNozzler, and SprayNozzler are available at Corporation FPEC's website : <http://www.fpec1.co.jp/eng/> under "Other Simulation Program" and "What's New"; and trial versions for download are available under "Download free trial" on the top-page of the website.

Corporation FPEC invites contact about their softwares or any difficulties in downloading and they would be delighted to hear views from those who are interested in discussing this programme with them.

[FPEC: Fire Protection Engineering and Consultation ; www.fpec1.co.jp/eng]

Retiring after 45yrs in the Fire Service

In the last edition of The Catalyst we reported the retirement of John Nimmo from the position of Fire & Rescue Team Leader (Chief Fire Officer) of one of JOIFF's founder Members, Das Island Fire & Rescue Service. John started his career as an auxiliary fireman in the UK in 1965, and shortly after joined BP Aquaseal, also as fireman. In January 1970 John became part of the BP Kent Oil Refinery Fire Service rising in the ranks until BP Kent Refinery closed in December 1981. John joined the Das Island Fire Service in March 1982 and served there with a distinguished career until his retirement.

John was instrumental in the development of the island's fire service, generally regarded as one of the best fire services in the Middle East. Due to the large petrochemical risk including crude storage, significant work was done by John to justify the purchase of large capacity high volume firefighting equipment with numerous foam tankers and other specialist fire appliances making Das Island Fire & Rescue Service the world class service it is today.

Das Island is situated 180 km off the coast of Abu Dhabi within the United Arab Emirates. The assets worth an estimated 23 billion dollars are protected by The Fire & Rescue Service which is unique in that no immediate external support can assist during on site incidents. Emergency response covers risks such as domestic, hydrocarbon & gas fires, road traffic collision, gas release, spillage, technical rescue, aviation fire & crash, marine fires on jumbo tankers and responding to offshore installations. The risk reflects the demands of the operation and the caliber of staff required to operate and manage the service in this remote aggressive geographical environment.

JOIFF wishes John, his wife Karen and family all the very best for the future.



John and Karen Nimmo admiring at the Red Adair Award which was presented to John at the Industrial Fire World Conference and Exhibition (USA) to honour an individual in the World who has provided a significant contribution to Industrial Fire Safety.



'STRIKING THE BALANCE-THE ENFORCEMENT OF THE REGULATORY REFORM

(Fire Safety) Order – Multiple Perspectives'

One day Conference. Tuesday, 16 June 2009. Rose Bowl Building, Leeds Metropolitan University, Civic Quarter, Leeds.

Organised by Flamerisk Safety Solutions Ltd. and PEEP's Ltd.,
in association with Leeds Metropolitan University and supported by the Institute of Fire Safety Managers.

Chair: **Phil Toase** (Former Chief Fire Officer West Yorkshire Fire and Rescue Service, Past President CFOA).

Schedule of Events:

09.30 – 10.00	Registration and coffee.
10.00 – 10.05	Chair's welcome.
10.05 – 10.20	Keynote opening address by Prof. Rosemarie Everton 'The Fire Safety Order – A Law For All Seasons?'
10.25 – 10.45	Andrew Hopkins (Browne Jacobson solicitors), 'The Lawyer's View'.
10.50 – 11.10	Tony Hough (Chief Building Control Officer, Manchester City Council), 'The Building Control Authorities' View'.
11.15 – 11.35	Craig McIntosh (Assistant Chief Fire Officer, West Yorkshire Fire and Rescue Service), 'The Enforcing Authorities' View'.
11.40 – 12.00	Louise Upton (Fire Safety Policy Unit, Department for Communities and Local Government), 'The Government's View'.
12.05 – 12.25	Phil Morris and Len Andrews (Pozzoni Architects), 'The Architect's View'.
12.25 – 13.45	LUNCH
13.45 – 14.05	Dave Hodgson and Malcolm Thomas (Property Tectonics), 'The Building Surveyor's View'.
14.10 – 14.30	Chris Hughes (Bodycote Warringtonfire), 'The Fire Engineer's View'.
14.35 – 14.55	Paul Gott (Regional Organiser, National Landlords Association 'The Private Landlord's View'.
15.00 – 15.10	Terry Inglefield (STK Associates), 'A Fire Consultant's View'.
15.15 – 15.25	Paul Westwick (Chartered Health and Safety Manager, Lifeways Community Care Ltd.), 'Domiciliary Care View'.
15.30 – 15.40	Darren Baird (Total Fire Services Ltd.), 'Another Fire Consultant's View'.
15.45 – 15.55	Rona Courtney (Contour Housing), 'A Housing Association's view'.
16.00 – 16.10	Dr Bob Docherty (Institute of Fire Safety Managers), 'The Professional Bodies' View'.
16.10 – 16.30	Question panel and Chairs closing address.
16.30	Tea and disperse.

CPD by the Institute of Fire Safety Managers of 5 hours.

There will also be a poster exhibition at lunch followed by parallel sessions from students in fire studies from various universities, programme to be announced via Dr Andrew Platten, Leeds Metropolitan University.

Cost per delegate: £200 (including buffet lunch and refreshments) inclusive of VAT.

To register, please send a cheque made payable to Flamerisk Safety Solutions Ltd. with your name, address and contact details to:- Sharon Lawrence (Flying Changes PA), 3 Woolton Close, Bryn, Wigan, WN4 0LT
Tel: 01942 718488; Fax: 08702 853114,; E-mail: sharon@flyingchangespa.co.uk

PRESS RELEASE: TYCO TAKES FIRE PROTECTION TO THE NEXT LEVEL

By John Allen



The recent merging of Tyco Fire Suppression and Tyco Building Products into a single, focused business entity is having a major positive impact on the provision of fire safety. It enables the business to provide unrivalled integrated fire safety solutions across commerce and industry.

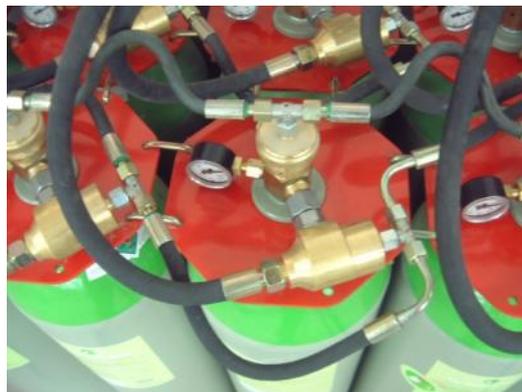
Today's fire safety expectations, the need to comply with ever more stringent legislation, the customer's desire for sustainability, and the commercial imperative for acceptable whole-life cost solutions can truly be met by few organisations. It demands top-performing brands to meet every fire safety challenge, technical expertise and understanding, cross-border logistic support and a commitment to consistently deliver dependable fire safety solutions and world-class service achievement.

solutions that meet the most stringent international standards.

To support such an impressive portfolio of systems for residential, commercial and industrial applications, public sector and institutional buildings, and onshore and offshore gas and petrochemical installations, Tyco has continued to invest heavily both to enhance its existing technology and bring new solutions to the market that deliver greater performance and greater value-for-money. This is matched by an ongoing investment in an expanding logistics and distribution network to ensure that all Tyco customers receive the industry's fastest response and order turnaround. The same can be claimed for training and the provision of training centres of excellence.



Sapphire Discharge Blue



i3 Advantage 4



Aquasonic Discharge

By bringing together two highly successful businesses, Tyco has made more readily available a portfolio of market-leading brands in both water-based and chemical fire suppression. These include Tyco's core sprinkler market products covering all existing hazards, supplemented with new sprinkler product designs for emerging fire protection requirements and challenges, as well as brands such as the AQUASONIC™ water-atomising fire suppression system, the QUELL™ sprinkler system, the HYGGOOD® SAPPHIRE® and i3 ADVANTAGE™ clean suppression agents, SKUM™ foam hardware and proportioning systems and the TOTAL® range of portable fire extinguishers. The Tyco Fire Suppression & Building Products offering also encompasses GRINNELL® mechanical grooved fittings and the new GRINNELL G-PRESS fittings, BLAZEMASTER® sprinkler system pipes and fittings, and the UNISTRUT® metal frame and support systems.

This line-up uniquely enables Tyco to meet each facility's entire fire safety needs. In so doing, this ensures that the site's fire plan has both integration and integrity. Integration in the sense that every risk has been addressed, and integrity through the use of sustainable

Innovative Solutions

The determination to create innovative answers to fire safety challenges that offer unique life and property saving benefits has resulted in many Tyco systems being acknowledged as industry benchmark solutions. AQUASONIC, for example, has been described as "a revolution in Class B fire protection". It is a total flooding, water-atomising fire suppression system designed specifically to protect against flammable liquid hazards in machinery spaces, combustion turbine enclosures, generator enclosures, and flammable liquid stores. Compared with typical water mist systems on the market, AQUASONIC produces a higher volume of smaller water droplets and projects them further. It uses non-toxic and readily available water and nitrogen as the extinguishing media.

QUELL is another example. It is a sprinkler system that was developed for cold stores and unheated warehouses and distribution centres and is designed to have the minimum impact on the storage facility itself and the stored goods. It provides for the protection of high-stacked storage and, significantly, does not use expensive antifreeze that potentially can leak and damage the stored commodities.



JOIFF

The commitment to providing the market with long term, environmentally sensitive solutions was clearly demonstrated with the launching of the HYGGOOD SAPPHIRE and, more recently, the i3 ADVANTAGE clean agent suppression systems. SAPPHIRE uses 3M™ Novec™ 1230 Fire Protection Fluid that is stored in cylinders as a low vapour pressure fluid that, when discharged, converts into a colourless and odourless gas. Thanks to its negligible impact on the environment, insignificant global warming potential, zero ozone depleting potential and a remarkably low atmospheric lifetime, it is now widely acknowledged to be the worthy successor to the now banned Halon 1301.

The i3 ADVANTAGE inert gas system couples exemplary environment credentials with measurable installed savings. It incorporates unique patented constant-flow valve technology that significantly enhances the system's performance by eliminating the need for high-pressure pipework, reducing the requirement for room venting,

Building Products

This same focus on providing the industry with new solutions to old problems is much in evidence in the building products offering. The offering is so comprehensive that the Tyco Fire Suppression & Building Products catalogue now contains literally hundreds of products including: sprinklers, nozzles and accessories; alarm valves; general purpose valves; measuring and electrical devices; CPVC pipes and fittings; flexible hose, welding outlets and threaded fittings; sprinkler support products; grooved products; and fire hose and connections.

GRINNELL long ago established its reputation for providing reliable grooved fittings that speed-up sprinkler, heating, air conditioning and ventilation system installation and reduce the overall installation cost. The latest development is G-PRESS, a new press-fitting range designed for sprinkler branch-line installation.

UNISTRUT is another Tyco Fire Suppression & Building Products brand that has evolved as market expectations and the need for faster and more versatile solutions have



FJM-EL Monitor



GPress



Portable Fighting Fire

lowering installation costs and reducing room turbulence on agent discharge.

However, the focus has not been entirely on total flooding fire suppression. In the past couple of years the TOTAL range has won a significant share of the portable fire extinguisher market. This has been achieved – in the face of tough international competition – through a focus on build quality, the breadth of the product range and the introduction of several special hazard models.

Such has been the success of SKUM foam hardware and proportioning systems that solutions pioneered by SKUM are now established internationally as industry-preferred solutions, particularly in the high-hazard petrochemicals sector. Recent additions to the hardware offering have included a number of groundbreaking, remotely controllable fog / jet monitors and high-expansion foam generators. This equipment is frequently teamed-up with a range of alternative TOWALEX®, SABOFOAM HYDRAL® and FINIFLAM® concentrates.

become evident. While the original Unistrut Metal Framing system still provides a quick, economical and easy way of building both the temporary and permanent structures required for electrical, mechanical and industrial services, the brand's portfolio has evolved to include a number of cable management solutions and sophisticated metal framing systems.

Editor's note: John Allen, EMEA Marketing Director at Tyco Fire Suppression & Building Products, is an engineer by training. He joined Tyco in 2006, having worked at senior marketing and general management level in a number of leading fire detection and alarm companies. Further information on John's article is available from Tyco Fire Suppression & Building Products by telephone on +44 (0) 161 875 0402, by fax on +44 (0) 161 875 0493, or via email at marketing@tyco-bspd.com

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THE INSTITUTE OF FIRE SAFETY MANAGERS (IFSM)

Report by Secretary General Bob Docherty

The first technical meeting of IFSM for 2009 took place at Staffordshire Fire and Rescue Service HQ on 19 March 2009. IFSM President Dave Price welcomed all and Assistant Chief Fire Officer Heather Grossman gave a welcome address on behalf of the Chief Fire Officer.

David Burdus spoke on access and means of escape for disabled people. David is a wheelchair user and his company advises on all aspects of access for the disabled. His presentation focussed on access and means of escape for those who are disabled and he recommended that people who are planning means of escape and dealing with disabled people should not be reluctant in asking those people directly about their disability, how it might affect them and what they felt would be the best way in dealing with their own means of escape and formulating their personal emergency evacuation plans (PEEPs).



David Burdus makes his point to members about means of escape for the disabled

Peter Barker from Chiltern International Fire gave a presentation on the technical aspects of fire resisting doors (including glazing) and their testing.



Peter Barker starts his presentation on fire doors

Howard Myers, accompanied by his fire investigation dog Kylie, told the meeting of life as a forensic and fire investigation expert both in the USA and the UK. He explained about the training that Kylie and other fire dogs have to undertake.



Kylie the fire dog steals the show from Howard Myers and Chairman for the day, Bob Docherty

Brian Foster from Hush Button concluded the proceedings with an outline of the new fire alarm silencing system integrated into a fire detection and fire alarm circuit. It had been manufactured with the aim of reducing false alarms and unwanted fire calls in environments where these may be common.

IFSM President Dave Price thanked all the speakers and the technical meeting was followed by a Members meeting. The IFSM fire risk assessors register is expanding and the President encouraged both members and non members alike to apply for registration as accreditation for fire risk assessors is most desirable. Representatives from the Institute will be meeting members / representatives from the Government, Welsh Assembly and Scottish Parliament over the next few months to discuss the best way forward with this issue to achieve the Institute's goal of a national fire risk assessors register.

Membership of the Institute is growing and the membership process had been streamlined to ensure speed of processing, membership renewals and updating of the membership data files. A new Membership grade has been introduced for Affiliate membership for Companies and a further new development was the update of the Institute's website with a complete remodelling to be carried out mid year.

The President thanked all members who attended and closed the meeting.



JOIFF DIPLOMA NOW ELECTRONIC

In the January 2009 edition of The Catalyst, it was announced that the JOIFF Executive agreed the establishment of a JOIFF Diploma. The JOIFF Diploma Course grew from the JOIFF accredited Occupational Firefighter Programme completed in 2003, which comprised some twenty-one Units of core competences for emergency response personnel. The principal of this vocational programme was that learning by the student and assessment of competence took place on the Emergency Responder's own site under the supervision of the site Emergency Services Management with external verification when completed, to ensure compliance with the required standard.

The original Programme was based on each student being issued with a hard copy Competency Based Training Portfolio which set out a structured Training Path and in which the Student's progress was tracked.

Due to demand, this Programme has been revised and extended to include National and International Standards thereby giving a JOIFF standard that can be used and recognised throughout the World. In order to make the new Programme accessible to all, it was recently transferred to electronic format on a central server, accessible through a system of different levels of passwords for the students, assessors and verifiers. This means that no matter where in the World Organisations with Emergency Response Teams are located, they can participate through the Internet in a Competency Based Training Programme which will allow their personnel to be evaluated and qualified to a JOIFF accredited standard.

The JOIFF Diploma Programme is a comprehensive programme aimed at providing knowledge and understanding to Emergency Responders across the wide range of Core Competencies needed to deal

competently with any site emergency.

The Programme comprises 24 Units in which there are over 100 elements and in excess of 700 competences. It is for the Site to determine which Units / elements / competences from the Programme are required by them, but they will have to demonstrate by Risk Assessment what they believe are not required for their site.

Those Emergency Responders who successfully complete the programme will be awarded the JOIFF Diploma entitled "Responding to Emergencies".

For further information of the JOIFF Diploma programme, contact the JOIFF Secretariat at joiff@iol.ie

"If you think that you can do it, that is confidence. If you can do it, that is competence!"

DIARY OF EVENTS — 2009

July	1st - 2nd	IFE AGM and Conference 2009 , Crowne Plaza Hotel, Glasgow, Scotland.
	16th	Flamerisk Safety Solutions Ltd. and Peeps Ltd. Conference, supported by the Institute of Fire Safety Managers. Leeds Metropolitan University, England.
August	14th – 16th	IAFC Fire-Rescue International , Denver, Colorado, USA
September	18th – 20th	International Exhibition Protection Security & Fire Safety (CAIPS 2009) Uzexpocentre, Tashkent City, Uzbekistan.
November	3rd - 6th	A +A Trade Fair Health and Safety in the Workplace , Dusseldorf, Germany.
	7th – 9th	Fire India , Goregaon Complex, Mumbai, India.
	24th – 25th	Emergency Services Show 2009 , Coventry, England

Please contact the JOIFF Secretariat with details of any event that you think that JOIFF Members might be interested in attending.

Note: The Catalyst is not responsible for the accuracy of dates and / or venues announced. This is based on information given to the Editors and is published in good faith.



JOIFF accredited training is within a Competency Based Training framework and involves not only course content, as also critical to the effective provision of training are the facilities of the training provider/training establishment and the capabilities of the instructing staff. JOIFF has developed systems of accreditation for training providers and minimum instructional requirements for Instructors. All students who successfully complete a JOIFF accredited course/programme are issued with a JOIFF Certificate of Competence which has its own unique number. Records of all successful students and the courses in which they qualify are retained. There is growing recognition worldwide of the JOIFF Certificate of Competence which is coming to be regarded as a passport to the level of

employment and rank which an emergency responder's qualifications enables and entitles them to deserve.

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The following dates have been provided by UK based JOIFF accredited training providers. If the dates are not suitable for you or your own specific training requirements are not listed below, contact the JOIFF Secretariat for details of JOIFF Accredited training providers in your Area.

Programme for 2009 - JOIFF accredited Training Establishments:

JOIFF accredited Course	Dates	Venue
3 day Occupational Firefighter	24th – 26th June 2009	Washington Hall
	5th – 7th October 2009	Washington Hall
	2nd - 4th November 2009	Serco IFTC Teesside
	14th – 16th December 2009 including night time exercise	Washington Hall
Pipeline Emergency Response Officer (PERO)	28 – 29 October 2009	Sembcorp Tees Valley
2 day Practical Firefighting	5th - 6th November 2009	Serco IFTC Teesside
Site Incident Controller	15th September 2009	Sembcorp Tees Valley
	18th November 2009	Sembcorp Tees Valley
	5th - 6th November 2009	Serco IFTC Teesside
5 day Team Leader	6th – 10th July 2009	Washington Hall
	21st – 25th September 2009	Washington Hall
	9th – 13th November 2009 including night time exercise	Serco IFTC Teesside
	23rd – 27th November 2009	Washington Hall
	18th – 22nd January 2010	Washington Hall
	12th – 14th April 2009	Washington Hall

For further information about JOIFF accredited on-Site Competency Based Training Programmes, the range of Fire Service NVQs and any other aspect of JOIFF Training, please contact the JOIFF Secretariat.

JOIFF Secretariat:

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