2003, Issue 1

The Catalyst

The Official Newsletter of JOIFF March 2003

www.joiff.com

From the Editors

This edition begins the third year of The Catalyst and it is our aim during 2003 to continue to bring you high quality articles on new developments and other happenings in the area of Emergency Services Management. In addition to The Catalyst, current information relevant to Emergency Services Management is also posted on the JOIFF website which is under continuous development. We welcome the inclusion of the new Technical Matters page on the website and congratulate Kidde/Angus as the first contributor with their INFOAMATION Page. The overall aim is that the JOIFF website and The Catalyst will complement each other in providing "State of the Art" detail and information to Members of JOIFF and those working in and with High Risk Industry. Check out the website and we welcome your comments on both The Catalyst and the website.

In this edition, we have detail of the forthcoming JOIFF Annual General Meeting which will take place during the International Fire Expo in May 2003. Guido Vliegen of Ten Cate, one of the Sponsors of JOIFF, has written an interesting and important article on the hazards of static electricity, Jon Brittain of Kidde, another of the Sponsors, has prepared an interesting article on Underwriters Laboratories and Tim Carew, has written an introduction to the importance of hydrant testing. We look forward to further articles on this subject from Tim who is a recognised International expert in this field.

In the United Kingdom, National Vocational Qualification (NVQ) Training is well known. Competency Based Training is an NVQ type of Training which is in widespread use in Training personnel in many areas of High Risk Industry with the general exception of the training of Emergency Services personnel. In this edition we publish an article on a new NVQ style Competency Based Training Programme developed by Fulcrum Consultants for Emergency Services personnel.

Our regular features - New Members Column, Reactor Column, Training Notes - are also included in this edition and we sincerely thank our advertisers without whose support, we could not function.

We look forward to your continuing support.

About JOIFF

JOIFF, the Joint Industrial Fire Forum, the Organisation for Emergency Services Management in High Risk Industry, is a grouping of Companies, represented by their Emergency Services Manager - or equivalent position - and nominated Deputies.

For the purposes of JOIFF Membership, a High Risk Industry is considered to be any Industrial / Commercial Organisation that is engaged in processing, storage, handling and/or transport of high risk materials and that has nominated personnel as Occupational Firefighters /Emergency Responders.

Associate Members of JOIFF are Organisations or Individuals who do not comply with the requirements for Full Membership but who share the same interests.

JOIFF provides a forum for discussion amongst peers, accredited training, information dissemination and technical advice.

JOIFF welcomes interest from suitable Organisations who wish to become Members or Associate Members - contact the JOIFF Secretariat, details on the back page.

JOIFF Ltd. Registration number 362542.

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New Members

During the past three months, the Executive of JOIFF were pleased to welcome the following new Associate Member:

Leader Group UK,
represented by Neil Woodley, Sales Manager with Evelyn Hughes as Deputy. Leader Group U.K. Ltd are the U.K. division of Groupe Leader, the leading European supplier of specialised equipment to the fire fighting industry. The product range covers Positive Pressure Ventilators (PPV), the highly regarded TFT (Task Force Tips) nozzles, both fixed and portable ground monitors, (example, the Petrojet fixed and the Partner portable) both in static and oscillating form, Fluorocarbon free environmentally safe foams, nozzle adaptors for use with such foams, the Pyros environmentally friendly fire training module, plus a wide range of additional ancillary equipment.

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

Static Electricity- An explosive issue.

Guido Vliegen. Ten Cate Protect.

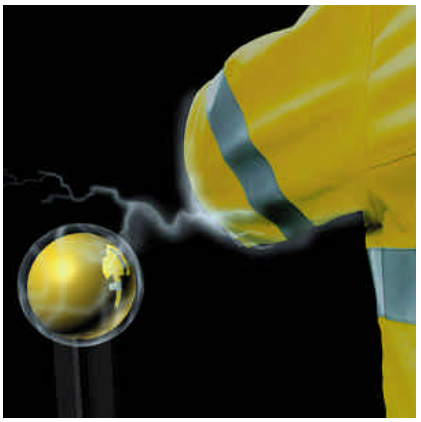
Safety specialists have an explosive issue on their hands. Awareness of the hazards of static build-up in flammable or explosive areas is on the rise with safety engineers in many areas of industry and in rescue operations. However, the fundamentals associated with potentially hazardous static discharges are highly technical and difficult to understand. Nowadays, many professionals that have to choose protective garments and determine relevant safety procedures are faced with difficult technical issues as fabric technology advances.
The purpose of this article is to clarify the technical background in terms that are easy to understand and provide guidance for choosing the right garments and safety procedures.

Tiny sparks - big consequences

Not many people working in areas where flammable or even explosive gases or substances are present are aware that by simply moving around they can start a fire. Not only highly explosive gases such as carbonsulphide (C2S) or hydrogen (H2) can be ignited by a static discharge. Also frequently used fuels such as natural gas, propane, kerosene and ordinary petrol can be set alight by small sparks.
Two recently published cases were about accidents at gas stations in the USA. In Spartanburg (Virginia) a woman's dress caught fire after fuel vapours ignited due to a static discharge from the filling pistol.
At Lackland air force base in San Antonio, Texas a discharge sparked a fire injuring a man while he was filling a gas container. The 56-year-old was admitted to hospital with third degree burns to his legs.

What is static electricity?

In simple terms, static electricity is a surplus or shortage of electrons in or on an object. Electrons are negative charges. Therefore in case of a shortage it is a called a positive charge, in case of a surplus the electrons create a negative charge.
Simple rubbing of two surfaces and then separating them creates static electricity. The "tribo-electric charging" of the body and clothing cannot be avoided as it happens whenever people move: walking, sitting, moving the arms, etc. For instance, when standing up from a chair, you can easily raise the body voltage from 0 to 20,000 volts in less than a second.
The charge is called "static" because the electrons are not moving; i.e. there is no flow or current. As long as the charge remains static, there is no hazard. It will be potentially dangerous when the person moves close to a differently charged object. The charge can suddenly "jump" out in the form of a spark. Most people will remember sparks jumping off their finger when touching for instance a metal doorknob - even other people.



Normal textiles in a dry environment are insulators, which means that the electrons making up an electric charge do not move. Textile fibres made from cellulose fibres such as cotton and rayon can absorb humidity and become conductive, so a charge can move around through the fabric.
More importantly, the human body is conductive and has high electrical capacitance, which means that it can store a big charge (many electrons) which can move around quickly. This is especially hazardous when the full charge jumps out of the body in one

strong spark.

How to control static electricity?

Since static charging cannot be avoided, the question to be answered is: "How can the risk of a potentially hazardous discharge be reduced?"
The first line of defence against static discharge is to connect the body to ground. When a charge is generated, the electrons can flow out of or into the body and garment without doing any harm.
A reliable method for grounding the body is by means of a conductive wrist strap connected to ground with a wire. Such wrist straps are widely used in production of electronics, where sparks can damage the micro-electronic circuits that are being handled.
For obvious reasons a wrist strap is impractical for people that need to move freely, for instance in rescue services, at utilities or in the chemical and petrochemical industry. The most common method of grounding is therefore the use of electrically conductive footwear, where possible in combination with special conductive floors. This method of grounding is however much less reliable than a wrist strap. Dust or dirt under the soles of the shoes can easily interrupt the electrical connection to ground. If a special conductive floor is not available the reliability of grounding outright is questionable. Many examples where grounding is difficult to provide can be given: technicians doing maintenance work of gas pipes, truck drivers distributing petrol, firemen, ambulance personnel at road accidents are often working ungrounded.

Anti-static garments

Garments that are worn in explosion sensitive areas require special anti-static properties. There are several types of anti-static properties.

Surface conductive fabrics: In the past the only mechanism available to reduce the risk of static discharge in garments was to make the garment or fabric conductive (i.e. low surface resistivity), so that an electric charge could flow quickly to ground. This type of conductive fabric conforms to the European norm EN1149-1 and usually contains metal fibres or surface conductive carbon fibres. When this type of fabric is used, then the garment seams will need to be made conductive as well to ensure conductivity throughout the garment.
This anti-static mechanism functions quickly and effectively, but only if there is a connection to ground. If this connection is interrupted, then the conductivity increases the risk of a strong incendiary discharge. Because of the low electrical resistance, the full charge in the body and/or garment can jump

out in an instance as a dangerous high-energy spark.

Inductive fabrics: A better way to reduce the hazards of static discharge is the use of fabrics containing core conductive fibres. These anti-static fibres are usually made from polyester or polyamide, but have a conductive core with carbon or metal. The cross-section of the fibre resembles a normal electrical wire, although much smaller in diameter. A draft test method for these fabrics was recently published: prEN1149-3.
Although the surface of the fabric is not made conductive, the fabric is given the ability to absorb electrical charge and transport it to ground. The charge is absorbed by a mechanism called induction. If a charge appears in the body or on the fabric, an opposite charge is induced in the fibre core. As a result, the charge is locked inside the fabric and will not easily jump out as a strong spark, even when the connection to ground is be interrupted.

Corona discharge: Some inductive fabrics are engineered to avoid high fabric charges by using a third mechanism in addition to conduction and induction. This third mechanism is corona discharging. The anti-static fibres in the fabric act as a kind of antennas in order to exchange electrons with the surrounding air without risks. This happens when the voltage inside the fibre reaches a given level and defines the maximum charge inside the fabric
The effect can be tested on ungrounded fabric by special hydrogen explosion testing - BTTG UK is the Test Laboratory that developed this test and can carry it out.
Inductive fabrics reduce the likelihood of ignition due to a spark, when connection to ground is interrupted. This is why inductive fabrics are usually safer than surface conductive fabrics. Measures for grounding remain necessary as the first line of defence!

About the author:
Guido Vliegen is active in the marketing and development of personal protective fabrics. As such he is involved in Safety Management and the revision of protective product standards. He is currently employed as Commercial Director at Ten Cate Protect bv in The Netherlands

Competency Based Training - an NVQ style of Training for Emergency Services Personnel.

Competency Based Training works from the premise that a suite of competencies relating to a job role or learning objectives have been identified and verified and is based on the achievement of these competencies. Competency Based Training, which is required for technical skill acquisition, builds in measurement of ability and is considered core to the successful application of learning in the workplace, thus ensuring that the trainee has the ability to carry out the job to a specified standard. Competencies need to be established, which are based on the actual structure of work within a particular role and which define what people actually need to be able to do at their workplace and to what standards they should do it. Only when it has been confirmed by verified assessment that the person has achieved these competencies, can it be said that that person is competent to effectively do the job.

The most effective form of Competency Based Training is a combination of site-specific and non-site specific Training, where core content is developed and built upon to address site-specific issues. Competency Based Training that is site-specific increases interactions between the Training Provider and the Organisation in which the Training is taking place and therefore results in clearer goals and more relevant content for Training. It also provides opportunities for Trainees to engage in specific experiences which increases Students' potential to develop knowledge and skills which can be transferred to the workplace. Training Emergency Services Personnel falls into the category of such technical skills acquisition and site-specific Competency Based Training is therefore a highly effective form of Training for such personnel.

Critical to the control of the credibility, integrity, quality and efficacy of Competency Based Training is having in place at all stages of the Training process, procedures of assessment and evaluation. A further key requirement of such Training, which is also a requirement of Health and Safety and Quality Assurance Systems, is transparent traceability through a system of record keeping at all stages of the Training process.

Competency Based Training by its nature is not a "one-off" exercise - it must be an on-going and evolving System which takes into account new legislation, technologies, procedures and practices as well as providing personal development opportunities for each person involved in the Programme. When the initial core competence is achieved, the highest Standards of performance can only be maintained by a programme of Continuous Professional Development (CPD), which is the systematic maintenance, improvement and

broadening of knowledge and skills and the development of personal qualities necessary for the execution of professional and technical duties by those employed in an Industry. CPD includes refresher Training, the acquisition of new knowledge and development of more skills not only to keep up-to-date with new legislation and practices but also with current job related changes and issues. It also provides the opportunity for career development.

Fulcrum Consultants have developed a Competency Based Training Programme for Occupational Firefighters which sets out the overall Learning Objective divided into Units and Elements and establishes competencies to be achieved in each Unit. The Programme is based on site-specific issues to enhance the efficiency of the Operators in providing protection to the site in which they are employed and to ensure that s/he can demonstrate a full understanding of the site and its processes. The Programme is accredited by the Institution of Fire Engineers. Each Student participating in the Programme is issued with their own individually numbered Training Portfolio which includes detail of each Unit and Element and provides a comprehensive and clear record of the Student's progress. In order to achieve the overall Learning Objective, each individual must complete the full Programme and demonstrate that s/he has the ability to carry out all the competencies to achieve qualification.

An assessment system is incorporated at all stages of the Programme - Programme Content, Instructors, Site and Verifiers. The Programme Content is accredited by JOIFF, The Organisation for Emergency Services Management and by the Institution of Fire Engineers. Successful Students will receive JOIFF Certificates of Qualification as an Occupational Firefighter and as a Breathing Apparatus Wearer and if they opt for Student Members of the Institution of Fire Engineers, they will also receive the Certificate for the IFE Preliminary Examination. This certificate is the first step in the path towards a career in Fire Engineering.

Instructors in the Programme must be JOIFF accredited. The minimum requirements are:

- hold current Certification as a JOIFF accredited Team Leader and
- a JOIFF accredited Train the Trainer or equivalent qualifications.

Organisations are encouraged to have their own personnel qualify as JOIFF accredited Instructors, but if this is not possible, Fulcrum Consultants maintain a list of suitably qualified and experienced personnel who can carry out the Instruction. Whilst Training Methodology is not specified, the Programme is designed so that blended training solutions encompassing cognitive and behavioural learning must be used in attaining the competencies to the required standard.

The site on which the Training Programme will take place must also be accredited for the type of Training that will take place. A Fulcrum Consultants Verifier will carry out an initial visit to the site and will assist the Customer interface to ensure that suitable accredited facilities and equipment are in place prior to the commencement of Training.

Throughout the Training, Verifiers visit the site to audit Training Records and verify by questioning and demonstration of technical skills, the progress and developing competence of each student and also the quality of Instruction taking place. Verifiers are carefully chosen, taking into account their knowledge, experience and achievements not only in their Technical discipline but also in their proven ability as specialist Auditors.

As each Student progresses towards qualification, Fulcrum Consultants will develop suitable add-on Modules to ensure the Continuous Professional Development of each Student, based on Customer site requirements and the ability and personal development needs of Students. On successful conclusion of each phase of a competency acquisition, the Student'sachievement will be recognised by accredited Certification.

Based on the JOIFF Training Standard for minimum hours per month, it is anticipated that for a Student without any prior knowledge of the Subject, the site-specific JOIFF accredited Occupational Firefighter Training Programme developed by Fulcrum Consultants should be completed within a period of 12 months. It should not take this long for Students who have prior experience as Occupational Firefighters, but each Student participating in the Programme must be verified as competent in the full Programme before any Certification can be issued. After initial qualification, the Training Portfolio can be used as an on-going Station refresher and recertification Programme by the addition and selection of Units and Elements.

The JOIFF accredited Competency Based site-specific Training Programme by Fulcrum Consultants is up to date to Internationally recognised qualifications, clear and easy to understand and allows training to take place at a time and pace that is suitable to the Trainee and to Company requirements.

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Hydrant Testing

Tim Carew

A fire hydrant is a valve allowing immediate connection to a water main, usually for Fire Brigade purposes. Hydrant testing is an essential part of fire protection and preparation for fire fighting. This brief article will outline procedures for hydrant testing and list equipment needed.

Testing involves four simple examinations -

- above ground examination
- below ground examination
- static pressure test
- flow and residual pressure test.

Hydrant test in progress showing typical equipment

Before discussing the procedures it is useful to consider the situation when a fire hydrant would be used at an incident. Consider a dark, wet Winter's evening when a fireman has to locate the closest hydrant to bring additional water supplies. First of all he has to find the hydrant in unfamiliar territory, most likely in darkness and possibly with smoke billowing around. Having found the hydrant he must open it and attach a standpipe to the hydrant outlet, run hose lengths back to the pumper and use his bar and key to open the valve. Every second counts in this situation.

Finding the hydrant is assisted if the cover is painted yellow and the hydrant indicator plate is clearly visible. It also helps if no obstructions such as a skip or trailer are parked over the hydrant cover. The hydrant pit needs to be free from silt build-up. Imagine the frustration of a fireman on locating the hydrant, removing the cover and finding he has to dig out layers of silt to expose the hydrant outlet. Likewise, the fireman will be frustrated if the hydrant pit is full of water as he will not be able to open the hydrant due to the danger of water supply contamination.

Hydrant flow test in progress

A static pressure test is useful to indicate the maximum available pressure. A blanking cap with an integral pressure relief valve is attached to the hydrant tester to facilitate static pressure testing. The static pressure indicates the pressure head at that hydrant but gives no indication of the available water supply.

It is the flow and residual pressure test that is really important as it indicates how much water is available for fire-fighting purposes. The Home Office Manual of Firemanship, Book 7 states that "It is therefore the pressure of a hydrant with water flowing that is the only reliable guide to its potential output".

Static pressure reading on pressure gauge

A flow and residual pressure test is carried out by attaching a hydrant tester to the standpipe outlet, opening the hydrant valve fully and recording the flow reading from the flow meter readout and the residual pressure from the pressure gauge. It is standard practice to flush the debris from the hydrant before taking the readings. It is recommended that hydrant test results be communicated to the local fire brigade. This will facilitate rapid decision-making and response from incident commander in the event of an incident at your facility.

Residual pressure on gauge and digital readout of flow.

Where a water main is very strong, it will be necessary to open sufficient hydrants simultaneously to cause the residual pressure to fall to 1.4 bar. The capacity is the total of the flow rates from each individual hydrant. Conversely, for weak mains, it is important not to allow the residual pressure drop too low because of the very real danger of collapsing the water main if negative pressures are created. A further problem caused by negative pressures is the potential to draw in untreated water into the supply. Many fire brigades will operate with a residual pressure as low

as 0.4 bar though many jurisdictions require a minimum residual pressure of 1.4 bar to be maintained.
Equipment necessary for carrying out hydrant tests consists of

- a standpipe,
- a bar and key
- a hydrant tester.

A hydrant tester incorporating a pressure gauge and a flow meter is the most suitable equipment for carrying out flow and pressure tests on hydrants. Ideally, the hydrant tester should

- attach to the standpipe using standard fire-fighting fittings
- not restrict the flow of water from the hydrant.
- be robust enough not to be damaged by the debris typically found on opening of most hydrants.
- not have any type of mechanical protrusion into the water stream.
- give the flow reading as a number in litres/min on a digital readout so as to minimise errors introducible when reading charts and tables or performing post-test calculations using formulae.

A pressure gauge of bourdon type having maximum range twice that of expected static pressures and 0.2 bar graduations is suitable. A flow meter of electromagnetic type would be most suitable as

- it has no mechanical moving parts
- is very robust
- has a wide dynamic range
- has a digital readout
- is inexpensive
- holds its calibration over time.

All pressure gauges and flow meters should be calibrated at least every 12 months, or more frequently depending on use. It is essential that fire-extinguishing equipment be carefully maintained to ensure instant readiness when required. Maintenance is neglected at peril to the lives of the occupants of the premises and at risk of crippling financial loss.

All photos courtesy of Essex County Fire and Rescue Service.

About the author:
Tim Carew graduated from Dublin City University with a Masters degree in Electronic Engineering. Having worked in Japan for several years in fields of flow measurement and flame detection he progresses these interests now with TSI Ltd in Ireland.

REACHING THE PARTS OTHER FOAM STANDARDS CAN'T

Jonathan Brittain, Kidde Products

You are about to invest in a new Class B fire fighting foam, but how do you know that it will actually work in an emergency? You could take a supplier's word for it, but a better approach is to make sure it has been independently tested to a relevant standard. That is where Underwriters Laboratories (UL) Inc. comes in!
UL is an independent, not-for-profit organisation that routinely tests thousands of consumer and industrial products for public safety. Based in the United States, it has a worldwide reputation as the leading third-party product safety testing and certification organisation.

No Nonsense

UL tests foams in accordance with the UL 162 Standard for Foam Equipment and Liquid Concentrates. The first edition of UL 162 was published in 1960. Over the years it has evolved through a number of revisions into the most thorough and respected foam standard in the world. The latest edition, the seventh, became effective in 1994. The secret of its success lies in the fact that it is based on common sense principles related to the way foam is actually used. A basic UL premise, for example, is that there is no point in testing a foam concentrate in isolation when in the real world it is going to be used with various types of foam-making equipment. That is why UL always tests foam concentrates in combination with foam proportioning and discharge devices. In fact UL is so thorough it even tests the containers the foam is supplied in!

Immaculate Induction

Another UL test inspired by real-life assesses the ability of a foam to proportion properly. To pass this test the induction rate must be 1-1.3%, 3-4%, or 6-7%. UL even has a proportioning test specially developed to simulate winter conditions in which the amount of foam proportioned at its minimum storage temperature must not be less than 85 percent of that proportioned at normal temperatures.
A foam may proportion accurately, but can it be relied on to perform satisfactorily through different types of discharge device? To answer this question UL has developed a series of specialist test procedures for nozzles, foam chambers, rimseal pourers, subsurface foam injection equipment, and sprinkler heads.

Check The Spec

Will a foam produced by these various combinations of equipment actually extinguish a fire? The important point about the UL fire test is that it is very tightly specified. Detailed instructions are included on equipment construction and set-up, test fuels, and methodology. For example, the saltwater used in the fire test (many facilities have saltwater in their fire ring mains) must comply with an ASTM standard. This detailed and

scientific approach is important because it minimises dependence on operator skill and ensures that test results are reproducible at different locations.

Secure Route

A foam might put a fire out, but can it keep it out? If you have depleted your foam stocks by putting out a fire, the last thing you want is a foam with poor post-fire security that will allow the fire to re-ignite and burn back. That's why UL carries out a rigorous burn back test in which the foam blanket must not re-ignite, candle, flame, or flashover when a lighted torch is moved over it. Furthermore, a flame introduced into the foam blanket must either be extinguished or restricted from spreading.

Follow-Up Service

Once a foam is UL Listed, UL does not forget about it. UL field representatives located worldwide make periodic, unannounced visits to each manufacturer's production facility to check that products continue to meet the standard. They check samples of the product again and again, year after year. If a product no longer complies, the manufacturer is required to remove the UL Mark from its product. This is important because it prevents unscrupulous foam manufacturers from submitting special grades of product to pass the test and then supplying lower grades to their customers afterwards.

Liquid Assets

It is foam manufacturers that pay UL to carry out this test work, whether their products pass or fail. Foam manufacturers make this major investment because they want to achieve global acceptance of their products, but it does inevitably mean that UL Listed products are not the cheapest on the market. However, it is possible to purchase cheaper products which are not UL Listed if independent certification is not required.

Net Benefits

Foam products which pass UL 162 are listed on the internet at the UL web site. Simply go to www.ul.com, click on Certifications, type in the Company Name, and an up-to-date set of Listings will appear. They are also published in the UL Fire Protection Equipment Directory which is updated annually and can be purchased on-line for $45 at www.comm-2000.com.

Bottom Line

When it comes to fire fighting foam, no other foam standard has such a consistently good track record as UL in separating the wheat from the chaff. Poor quality products either fail or, more commonly, are not even submitted by their manufacturers. UL provides proof of performance, the ultimate reassurance for foam buyers. Add UL Listing to your foam purchasing specification today and you won't regret it!

About the Author
Jonathan Brittain joined Angus Fire in 1989 as Product Manager for foam concentrates. Today he works for Kidde Products responsible for the marketing communications of Angus Fire, Kidde Fire Protection, Ginge-Kerr and GW Sprinkler products.

BE SERIOUS, PLEASE!

A duck walks into a bar and orders a beer and a ham sandwich. The bartender looks at him and says, "But you're a duck." I see your eyes are working," replies the duck. "And you talk!" exclaims the bartender.
"I see your ears are working," says the duck, "Now can I have my beer and my sandwich please?"
Certainly," says the bartender, "Sorry about that, it's just we don't get many ducks in this pub. What are you doing round this way?" "I'm working on the building site across the road" explains the duck. So the duck drinks his beer, eats his sandwich, pays and leaves.
This continues for two weeks. Then one day the circus comes to town. The ringleader of the circus comes into the pub and the bartender says to him, "You're with the circus aren't you? I know this duck that would be just brilliant in your circus - he talks, drinks beer and everything!" "Sounds marvellous" says the ringleader, "Get him to give me a call." So the next day, the duck comes into the pub. The bartender says, "Hey Mr. Duck. I reckon I can line you up with a top job paying really good money!" "Yeah?" says the duck, "Sounds great, where is it?" "At the circus" says the bartender. "The circus?" the duck enquires. "That's right," replies the bartender. "The circus? That place with the big tent? With all the animals? With the big canvas roof with the hole in the middle?" asks the duck. "That's right!" says the bartender. The duck looks confused and asks, "What do they want with a plasterer?"

"For fire taking place in any house from which flames issue not, the householder after the fire is extinguished is liable to a fine of twenty shillings. If flames be visible externally, the fine is forty shillings. Any person answerable for the burning of a street shall be arrested, cast into the middle of the fire or pay a hundred shillings."

This is a law passed in the year 1305. Reproduced from the Calendar of ancient records of Dublin, Ireland. Courtesy of the Museum in Dublin Fire Brigade's Training Centre.

MSA and CGF GALLET join forces for the future

In May 2002, MSA (Mine Safety Appliances) company has officially completed the acquisition of CGF GALLET in Châtillon/Chalaronne.
With this acquisition, MSA strengthens its presence in the European fire service market by adding the dominant brand of fire helmets to an already strong product line, which includes self-contained breathing apparatus (SCBA), thermal imaging cameras, portable gas detection instruments and Cairns Helmets in the U.S. MSA GALLET (the new coperate name of CGF GALLET) will continue to operate from its current location near Lyon, France, as part of MSA Europe.

"We're very excited about the transaction and bringing these two well-known and long-respected fire service brands – MSA and GALLET – together," said John T. Ryan III, MSA chairman and chief executive officer. "The creation of MSA GALLET makes us a clear global leader in fire-fighter head protection ...

The acquisition also provides MSA with significant potential to expand its reach into other markets currently served by CGF GALLET, such as law enforcement, aviation and the military", he said.

To leverage the strength and wide recognition of the CGF GALLET brand throughout Europe, their products will be marketed under the MSA GALLET name.

"We've acquired a strong brand with a distinguished reputation for quality and manufacturing excellence, but the acquisition also allows us to advance our safety technology", said Jim Baillie, president of MSA Europe.
"MSA GALLET will enhance MSA's ability to fully integrate respiratory protection products with head protection. This is particularly important in the fire service market, where the integration of fire helmets and self-contained breathing apparatus represents the next generation of safety technology."
Together we are stronger.

CGF GALLET Head protection has a new name: MSA GALLET

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MSA and GALLET:
combining their two hundred years of experience to better protect you.

[Our product Highlights on the exhibitions]

MSA NEWS

With the transaction into the MSA group, CGF GALLET has become to MSA GALLET and it will be able to reinforce its position of high quality products, innovation and internationalization. Besides, because of MSA GALLET, the MSA group will be able to strengthen its presence in the European fire service market and to expand into other markets such as the law enforcement, aviation and the military.

A few words on both companies historical:

MSA: Established in 1914, MSA is the world's leading provider of quality products and services that protect people's health and safety and the environment. The company has annual sales of about $550 million, with manufacturing operations throughout the United States and Europe, and 27 international affiliates. MSA Europe is headquartered in Berlin, Germany.

MSA GALLET: was founded in 1800 with the name of CGF GALLET. MSA GALLET is the European leader in fire helmets and one of the most important suppliers of anti-riot and anti-ballistic helmets for the Police and Military forces. MSA GALLET produces also high protection aeronautic helmets.
In 2001, the MSA GALLET group has made a turn-over of about 27 million Euros, which is divided up as followed:
Fire Fighting: 14.6 M Euros
Police and Military: 9.1 M Euros
Aeronautics: 0.9 M Euros

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MSA

JOIFF AGM TO BE HELD AT INTERNATIONAL FIRE EXPO

JOIFF will host its AGM at International Fire Expo, which takes place from May 19th-22nd 2003 at Birmingham's NEC. The event, which includes the Fire Industry Confederation Conference, is sure to carry more significance than before, not least because of the obvious changes to the global landscape since it last took place. Promising to be an essential diary date for the entire fire industry, it will be worth a visit for JOIFF members.

The exhibition will boast some new brand new features. For the first time, the Emergency Action Zone will provide a change in pace to an exhibition hall packed with over one hundred and seventy of the industry's leading specialists. In an outdoor setting, it will comprise of product demonstrations, and displays that impact further than fire fighting, protection and prevention. In partnership with the West Midlands Fire Brigade sprinkler demos and fire extinguisher trials will all feature prominently, along with an extrication competition, but fire visitors will also be interested in the other disciplines on offer like fall arrest demonstrations.

Another first for the show takes the form of a pavilion hosted by the Fire Fighting Vehicle Manufacturers Association, presenting visitors with the opportunity to take part in fire engine 'ride and drives'. Leading manufacturers like Dennis Fire, Mercedes Benz UK, and Volvo Trucks have already been secured and will provide brigade engineers and fleet managers with the opportunity to test-drive their latest products.

Organiser CMP Information also sees the value in building International Fire Expo's status as a global event. Several countries have already expressed a strong interest to bring in inward missions. Event manager James Blue said, "We are delighted with the support that the event is generating, and the new biennial format has ensured that most of the industry will be participating and enabled us to develop a greater range of features serving both the fire fighting and fire protection markets. I am confident it is going to be the biggest and best International Fire Expo event ever and we welcome JOIFF's backing."

International Fire Expo takes place from 19th to 22nd May 2003 at the NEC, Birmingham and runs alongside IFSEC and Security Solutions, the world's leading annual security events, ACPO The International Police Conference and Exhibition, leading event for the health and safety industry - Safety & Health Expo, and The Facilities Show.

For more information on exhibiting at the event please contact **Gerry Dunphy** on 020 8987 7724 or gdunphy@cmpinformation.com. Up-to-date to date information on the event will be posted on the website, www.fire-expo.co.uk where visitors can also pre-register for free.

The conference programme will cover the following areas:

Buildings Risk Assessment
The Safety of Fire Fighters
The term 'sacrificial building' is now becoming increasingly used. Apart from the severe burden that the loss of a building has upon both the local and national economy, the dangers to fire fighters in adopting the concept of a sacrificial building may be unacceptable.
Quality Schemes
New Fire Protection Legislation
Competency in Fire Protection

"THE REACTOR COLUMN."

Write to The Reactor, Mr. R., with comments, problems, ideas or anything at all that you would like to be heard. The Editors may decide not to print a letter or part of a letter and letters may be edited. No letter will be published unless the name and address of the Writer is given to the Editors, but names and addresses will not be published without the writer specifically requesting it.

This is a letter that we received from a Firefighter who helped in tackling the dreadful bush fires in Australian Capital Territories Canberra during January 2003.

Dear Mr. R.,

When the fires hit on Saturday I was on one of our fire pumpers as we had a total recall of staff. I was in the middle of the suburb where the fire storm hit as it came out of a pine plantation and within an hour we had about 200 homes on fire. While I was there fighting the fires and for my life my own place was going up in flames. My wife managed to get out and my son and a mate managed to save the house but we lost the garage and everything around us but the house is still standing and we are OK. A lot of firefighters have lost everything.

The tally so far is over 400 houses, 3 fire vehicles, 1 fire station 250 injured and 6 fatalities and still climbing as there are a lot of people unaccounted for. We are doing a house-by-house search with our urban search and rescue team which is taking some time as it is very dangerous.

Must go as we are gearing up for another fire front, we are all very tired but we have some help from other states here now.

Think of us

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Doing my early Spring Cleaning, I came across this article that was published in the March 1996 issue of Industrial Fire Journal, which in turn referenced its source to our own Eddie Davies, currently the Immediate Past Chairman of JOIFF.

New Firefighting Agent meets Opposition

"Could kill men as well as Fires" say Critics.

Recently announced is the discovery of a new Firefighting agent. Known as WATER - Wonderful And Total Extinguishing Resource - it is claimed to augment rather than replace existing agents such as dry powder and Halon, which have been in use from time immemorial. It is particularly suitable for dealing with fires in buildings, timber yards and warehouses. Though required in large quantities, it is fairly cheap to produce and it is intended that quantities of about a million gallons should be stored in urban areas and near other installations of high risk, ready for immediate use. BCF and Powder are usually stored in sealed containers under pressure but it is intended that WATER will be stored in open ponds or reservoirs and conveyed to the scene of the fire by hoses and portable pumps.

The new proposals are already encountering strong opposition from safety and environmental groups. Professor Dr Glan has pointed out that "if anyone immersed their head in a bucket of WATER, it would prove fatal in as little as 3 minutes".

Each of the proposed reservoirs will contain enough WATER to fill half a million two gallon buckets. Each bucketful could be used a hundred times, so there is enough WATER in one reservoir to kill the entire population of the UK. "Risks of this size" said Dr. Glan "should not be allowed, whatever the gain". "If the WATER were to get out of control, the results of Flixboro or Seveso would pale into insignificance by comparison. What use is a firefighting agent that could kill men as well as fires ?"

A Local Authority spokesman said that he would strongly oppose planning permission for the construction of a WATER reservoir in his area unless the most stringent precautions were followed. "Open ponds are certainly not acceptable" he commented. "What would prevent people falling into them ? What would prevent the WATER from leaking out ? At the very least the WATER would need to be contained in a steel pressure vessel surrounded by leak- proof concrete walls."

A spokesman from the Fire Brigades said that he did not see the need for the new agent. "Dry Powder and BCF could deal with most fires" he said. "The new agent would bring with it risks, particularly to firemen, greater than any possible gain. Did anyone know what would happen to this new medium when it was exposed to intense heat ? It has been reported that WATER was a constituent of beer. Did this mean that firemen could be intoxicated by the fumes ? "

The pressure group Friends of the Word said that they had obtained a sample of WATER and found it caused clothes to shrink. "If it did this to cotton, what would it do to men ?" they asked.

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As always, the NFPA Journal makes interesting reading but one report in the January / February edition recently circulated is of real significance to the direction of Standards and Codes in the future.
A resident of a sparsely populated Texas community posted on his website a building code that his and a neighbouring community had adopted. The Code

writers demanded that he take it down and he refused claiming that as the communities had adopted the code by reference into law, it had entered the public domain and could be copied by anyone without infringing copyright. The case went through the Court System and the current position is that the case is in the USA Supreme Court awaiting a brief by the US Solicitor General, following which it is hoped that the law on issues such as this will be clarified.

Another very interesting article in this edition of the NFPA Journal discusses the destruction of millions of dollars worth of art by the attacks of September 11th 2001. It is anticipated that property insurance claims alone will eventually reach billions of dollars in what is called by the Insurance Journal as the largest single insurance disaster in World History. Hundred of Organisations had stored their records, archives and libraries in the World Trade Centre and the Pentagon. The article reports on the huge and devastating losses of these and reports that in one Museum just south of the World Trade Centre, minutes after the first plane crashed into Tower One, the museum's fire alarm system began an automatic shutdown of outside air vents. When power was lost and the automated procedures were stopped, the museum's engineers climbed to the roof and manually closed the remaining vents, thus protecting the contents from any damage. Not even a spec of dust was discovered when the building was re-opened, because the vents were correctly closed and the water turned off.

JOIFF Training Notes

Training continues in the UK although Site commitments as a result of the Municipal Firefighters strike continue to have an impact on some Courses. Below we list the Courses booked at present for the remainder of the year. Other Courses are booked in Washington Hall for individual Companies.

If you have any Training needs which are not covered in this list, please do not hesitate to contact the Secretariat.

Programme for 2003:

Dates	Detail	Venue
April 28th - 30th	3 day Occupational Firefighter (Part Time) Course	IFTC
May 1st - 2nd	2 day Practical Firefighting Course	IFTC
May 12th - 16th	5 day Team Leader Course	IFTC Teesside
September 15th - 19th	5 day Team Leader Course	IFTC Teesside
October 6th - 8th	3 day Occupational Firefighter (Part Time) Course	IFTC
October 9th - 10th	2 day Practical Firefighting Course	IFTC
November 17th - 21st	5 day Team Leader Course	IFTC Teesside

All Courses are JOIFF Accredited.

Following recent occurrences, the JOIFF accredited Training Establishments have implemented a 4 week cancellation charge for short notice cancellations.

Further details on Modular Training on Site and on any other aspect of JOIFF Training can be obtained from the JOIFF Secretariat, Fulcrum Consultants - detail below.

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