

THE CATALYST

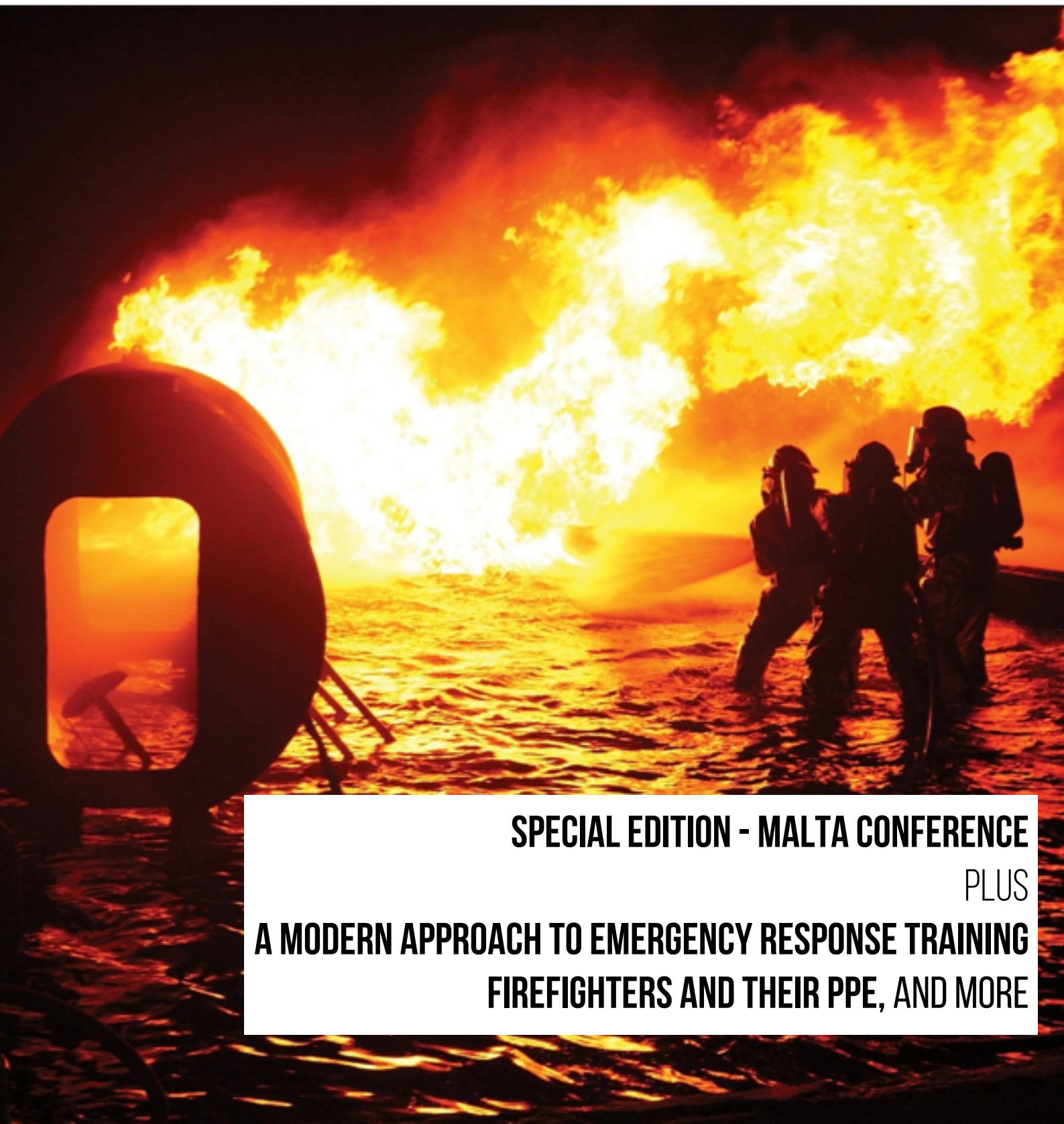
Q4 2018



JOIFF

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**THE INTERNATIONAL ORGANISATION FOR INDUSTRIAL
EMERGENCY RESPONSE AND FIRE HAZARD MANAGEMENT**



SPECIAL EDITION - MALTA CONFERENCE

PLUS

**A MODERN APPROACH TO EMERGENCY RESPONSE TRAINING
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ABOUT JOIFF

Full Members of JOIFF are organisations which are high hazard industries and/or have nominated personnel as emergency responders/hazard management team members who provide cover to such organisations. Corporate Members of JOIFF are organisations that do not meet the requirements of Full Membership but who provide goods and services to organisations in the High Hazard Industry.

JOIFF's purpose is to prevent and/or mitigate hazardous incidents in Industry through its 3 pillars:

- **Shared Learning** – improving risk awareness amongst our members
- **Accredited Training** – enhancing operational preparedness in emergency response and crisis management.
- **Technical Advisory Group** – raising the quality of safety standards in the working environment of High Hazard Industry

JOIFF welcomes enquiries for Membership - please contact the JOIFF Secretariat for more information.

JOIFF CLG is registered in Ireland. Registration number 362542. Address as secretariat. JOIFF is the registered Business Name of JOIFF CLG

ABOUT THE CATALYST

The Catalyst is the official emagazine of JOIFF, the International Organisation for Industrial Emergency Response and Fire Hazard Management. Our policy is to bring you articles on relevant technical issues, current and new developments and other happenings in the area of Fire and Explosion Hazard Management Planning (FEHMP). The Catalyst is published quarterly - in January, April, July and October each year. Readers are encouraged to circulate The Catalyst amongst their colleagues and interested parties. The Editors welcome any comments – please send to joiff@fulcrum-consultants.com

In addition to The Catalyst, information relevant to FEHMP is posted on the JOIFF website.

Disclaimer: The views and opinions expressed in The Catalyst are not necessarily the views of JOIFF or of its Secretariat, Fulcrum Consultants, neither of which are in any way responsible or legally liable for any statements, reports or technical anomalies made by authors in The Catalyst.



If you have a request for an article or advertising to be included in the Catalyst, please contact the JOIFF Secretariat, details below.

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SOME INDUSTRIAL INCIDENTS THAT TOOK PLACE DURING THE THIRD QUARTER OF 2018

Germany: Explosion at Bayernoil Refinery
Injures Eight

India: 45 injured in fire at Bharat
Petroleum Mumba

Italy: Bologna, Motorway Accident BLEVE
of LPG Tanker Three Deaths

Malaysia: 150 fire-fighters battling three
crude tank blaze

Nigeria: 9 Dead and 54 Cars Set Ablaze in
Oil Tanker Incident Lagos.

Hot Tapping of Pipelines Causes
Community Damage

UK: Crews tackle blaze at major oil
refinery in Cheshire

USA: PG&E Activates Emergency
Operations Centers to Support Wildland
Fire Response.


Worker dies from injuries in W

Note from the Editor.

Most reports of incidents that occur, some of which are listed here, are familiar. After all major incidents, recommendations are made but how many of the recommendations are implemented? How many are forgotten over time until another similar incident occurs?

JOIFF shares valuable information with its members aimed to improve the level of knowledge of Emergency Responders and to work to ensure that members benefit from the misfortunes of some to educate against the same mistakes being repeated. Industry needs to ask is it doing enough to educate Industry so that incidents such as these will either not be allowed happen again, or if they do they can be effectively dealt with.





Our employees fight fire and so do our products

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I am working with product
development at Fomtec.
This picture is from a fire
test in Sweden. Follow us
if you want to find out more
about me, the Fomtec way
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NEW MEMBERS / THIRD QUARTER 2018

During July, August and September 2018, the JOIFF Board of Directors were pleased to welcome the following new Members.

FULL MEMBERS

Eastern Emergency Response Services Ltd. Mayaro, Trinidad and Tobago, represented by Larry Modeste, Fire Chief and Dwight Lewis, Operations Manager. Eastern Emergency Response Services Ltd. provides ambulance services, hazmat response, fire and rescue response, confined space and high angle rescue and equipment maintenance.

Navigator Terminals Seal Sands Ltd., Middlesbrough, United Kingdom, represented by Dave McCulloch, UK SHEQ Manager.

Navigator Terminals is the UK's largest independent bulk liquid storage provider and stores high hazard chemicals, crude oil and motor spirit at four upper tier COMAH sites across the UK

Securitas Itfaiye Hizmetleri A.S., Ankara, Turkey, represented by Uğur Yertut, General Director. Securitas Itfaiye Hizmetleri A.S. have a large team of full time and part time emergency responders who provide firefighting services in industrial facilities.

CORPORATE MEMBERS:

US Fire Pump, Louisiana, United States of America, represented by Bob Gliem, Technical Director and Melissa Thibodeaux, Executive Assistant. US Fire Pump has developed fire pumps and firefighting systems that bring big water flow to the most extreme fire emergencies. With sufficient engine power and a pressurized water system, performance will exceed

10,000+ GPM (37,854 LPM). US Fire Pump also provides a complete customized firefighting solution from a wide range of emergency response equipment such as hydraulic submersible pumps, remote track monitors, trailer deck guns and hose recovery vehicles to meet the exact performance needs of any facility or fire department.

INDIVIDUAL MEMBERS

During Q 3 2018, the Directors were also happy to welcome **Jerry Krijn, Beesel, Germany** and **Christian Bandholm, Horsens, Denmark**. Jerry Krijn was product manager on foam concentrates and foam systems specialising in firefighting foam concentrates and fixed firefighting systems. He is a member of National working groups on foam concentrates and foam systems a member of the fixed firefighting installations workgroup of NEN Delft (standardisation institute) and a member of CEN TC 191 WG3 committee (EN 1568 part 1-4). Christian Bandholm Horens graduated as a civil engineer from Aalborg University and is a fire safety engineer specialising in fire and preparedness, focusing on pre-incident planning, risk analysis and risk mitigation. He trained as an Industrial Fire Brigade Incident Commander for petrochemical and tank farm industries and is an advisor for municipalities and public companies in relation to fire and safety, participating in the preparation of national legislation in the field of gas storage

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

JOIFF GUIDELINE ON FOAM CONCENTRATE.

Due to increasing regulatory requirements and changes in the manufacture and use of foam concentrate, there have been major changes in the Foam market since the publication of the JOIFF Guideline on Foam in 2010 and last year, JOIFF decided to revise the 2010 Guideline to reflect current Good Industry Practice.

JOIFF is pleased to announce that the revision has now been completed and is published as JOIFF Guideline on Foam Concentrate.

The revised Guideline provides information and background detail which JOIFF hopes will enable Users of foam concentrate to make informed decisions as to the most suitable type(s) of foam concentrate to use for the protection of their facility, the persons working and contracted in it and the surrounding communities and environment.

Subjects covered in the revision include

- **Part 1:** The purchasing process a number of tables list questions that the purchaser might consider asking before making a decision to purchase foam concentrate.

These questions cover detail such as Risk Assessment and level of protection required, information on availability, certification and testing, care and maintenance and delivery and guarantee considerations.

- **Part 2:** Selection and Test requirements
Safety Data Sheets, production and quality control considerations.
- **Part 3:** Environmental Aspects.
- **Part 4:** Management of stock
Management system, storage, inspection and testing, induction accuracy and record keeping.
- **Part 5:** Sampling and Testing.
- **Part 6:** Compatibility
- A number of Appendices of useful information.

In the spirit of JOIFF's pillar of Shared Learning, the JOIFF Guideline on Foam Concentrate is available for free download from the JOIFF website at www.joiff.com





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A MODERN APPROACH TO EMERGENCY RESPONSE TRAINING

by Daryl Bean MJOIFF

Editor's note: Daryl Bean is a regular contributor to The Catalyst and during 2017 we published the first 3 of his articles in this series – "Setting the Standards" in the Q2 April, 2017 edition, "Examining the Roles and Responsibilities of the Instructor" in the Q3 July 2017 edition and "Training for Success" in the Q4 October 2017 October edition. These articles can be accessed in the editions of The Catalyst that are on the JOIFF website.

It's easy to get carried away with generating a lot of thoughts, exposing those thoughts to learned readers and letting it go at that. Herein we get the nice reads that are interesting and only occasionally lead to further investigation and/or conversation. When we come to training the variables are so extensive and topics numerous a useful, continuous conversation may get lost. In this case before going forward I would like provide a summary of what was covered in the first three articles in this series as a reminder and a stimulus for future debate.

In "Setting the Standards" I looked at the purpose of the training considered and how to qualify it to meet the training needs. There are many standards available that purport to cover all the requirements for the industrial fire brigade that some are taken as is, "off-the-shelf" as it were without question and adopted as the default company policy. As the training I propose will be based on the governing standards, the importance of understanding what they are, how they are developed and maintained, the adoption policies from the authority having jurisdiction in the event of changes and their interpretations cannot be undervalued.

The key to ensuring capability of meeting the mandate for emergency response is through using the correct governing standards. Adoption of a standard could be as a conformance to statutory requirements or determined by the authority having jurisdiction which may even be a commercial entity. Historically the standards designed to meet the needs of the domestic (local authority or structural) fire service were employed as they were seen and promoted as the benchmark for fire-fighting. This includes the tactics and techniques, training, equipment and the logistics in

support of those standards. Today we see this still as the case where domestic/structural firefighting standards are being the requested standard for training programs to be developed for industrial response. The needs of industry leads to specialization in managing response which cannot be wholly addressed by the historical standards and different more relevant standards exist to meet those demands.

The determination and adoption of the governing standards must be part of a collective approach, driven to ensure that the interests of the relevant stakeholders are understood, met and promulgated as well as sustainable. Non-inclusion of relevant stakeholders creates interpretation and communication gaps which can extend into emergency response procedures, operations, training and community support, leading to threats to sustainability. Inclusion of the stake holders gains the understanding and assists with support necessary to create and maintain a competent response capability in the midst of other asset demands; personnel, training time and budget requirements for training and equipment. The relationship between the emergency responders and the asset managers or owners in a mutual understanding of the need to maintain a competent standard is significant as the main output from the emergency responders is assurance, which is intangible. A community of understanding greatly enhances the success of interoperability during responses and the support facilities employed.

Any adopted standard needs the resilience to adapt to changes and the capability of being maintained by the facility without a wholesale overhaul. As industry becomes more specialized, hazard management more defined, emergency response standards are being

created or amended to address targeted risk. Herein lies the responsibility of those tasked with incorporating standards as the ideal standard or interpretation of a standard may not be immediately evident during their initial investigation. Consultation with the standards creators, other facilities using the standards and other professional bodies who use the standards or who may offer qualified opinion helps in gaining a better understanding for an informed decision. A resilient standard which is transparent and supported by the stakeholders gives motivation to the emergency responders, leading to a more positive environment and commitment to the policy.

We often see the emergency response capability of a facility under scrutiny during times when the economic margins are tight, with the objective to recover economic positions by limiting expenditure in this area. As of this writing this process is known by the author to affect a couple of companies. The effect on the emergency response capability in respect to training is not yet determined.

Further discussions will reference standards directly and indirectly to develop discourse on interpretation and the effect on all facets of the emergency response.

The next article "Role and responsibilities of the instructor" was an expose of sorts looking at the relationship between the instructor and the adult learner, juxtaposed against the general classification of learner encountered in this field. An important factor featured through the expose was the view of behaviours, as reflected through the expectations of the adult learner as defined by Reese and Walker (2003) which identified four expectations of adult learners;

1. The expectation to be taught and learn
2. To work hard
3. The work is related to the vocation
4. To be treated as adults

Each identified expectation was related against an instructor delivering to the adult industrial fire fighter understanding some current values. By understanding the values exhibited against these expectations one can become a more effective instructor.

The learning environment has changed and continually changes. Certainly, within our industry, we are experiencing the need to use this information with training becoming more global, culturally diverse as well as changes in educational techniques taught to younger generations. The "Learning Pyramid" was described as a means for the instructor to understand the employment of more senses in the adult student learning. Other aspects of the instructor role is ensuring the training delivered is what's expected. Understanding of learning outcomes and the referenced standard whether developed in line with regulatory requirements or company specific is vital. Achieved competency, reduced training times, budgets, training centre reputation all are impacted by the instructor's ability to deliver what is expected. Station training can be affected which is viewed by increased competency. We can look at this point if we find stagnation in the progression or regression of the skills of our teams.

The ability to listen objectively to the opinion(s) of the students in support of enhancing learning through confidence building was stated. Here is a characteristic which takes time and skill in developing but pays dividends with the adult learner as it gives value to their experience and encourages participation.

The adult learner expectation to "work hard" evoked interesting debate and some opposing opinion but all constructive. The notion of "work hard" normally is linked with difficulty and limit of physical exertion. Whilst the importance of physical fitness is not disputed and training with the outcome to evaluate the stamina of the responder is expected, the concept of "work smart," developing situational awareness to focus energy effectively was floated. This paradigm will be explored in the future.

The communication relationship between the instructor and the learner was presented through the Transactional Analysis, theorized by Eric Berne (1968) which classifies three emotional "ego" states (Parent/Adult/Child) and looks at the communications lines between them in developing effective relationships including in the classroom between the instructor and the learner. How the instructor relates to the adult learner, the behaviour, plays an important role in establishing the most positive environment for learning. The skill to improve this relationship can be learned as part of continual development for the instructor with observation and feedback; however, as intimated it will require a knowledgeable and capable to provide the effective feedback.

Moving forward the role of the instructor will become predominant in ensuring quality training delivery under a variety of circumstances, ideal and not ideal. Opinions discussed will be a combination of learned experience and researched training instruction.

The third article in this series, "Training for Success", centred on the training plan by giving it a fundamental goal to enable the team to succeed. As innocuous as it sounds the efforts given to prepare have no other purpose than to have us "get the job done." Using the example of a training process for professional sports team, the article gave an example of a progressive approach to accomplishing the tasks, engaging specified elements required for mitigation. There is a commonality to responding to an emergency and battling an opponent on the field of play. Preplanning, offensive; defensive strategies, gaining control, hazard reduction, these terms can be applied to both emergency response and sports. Taking the modular approach used by sports a five-stage plan incorporating five stages was developed:

- Procedures
- Hazard and risk familiarization
- Walk-through exercises
- Full speed evolutions
- Drills

Responding to an emergency, while practical in nature, is backed-up by defined parameters designed to protect primarily the assets of the "owner" whether governmental or private entity.

- What are we training for?
- What are we training to?
- What are my (sic) responsibilities and those of my team?
- What are the roles of the relevant stakeholders in mitigation of the emergency?



A MODERN APPROACH TO EMERGENCY RESPONSE TRAINING CONTD.....

Pre-incident planning provides the knowledge and along with the procedures, develops strategies and potential tactics for known hazards. The second stage of the training programme concentrates on:

- Identifying and taking the guess-work out of the hazards and potential risks encountered.
- Measuring the emergency response procedures against the risks which may lead to required changes.
- Highlighting response capabilities, nearest forward positions, water supplies (primary and secondary), equipment and other resources needed (combined with measurement of the procedures).
- Establishing targets for practical evolutions.
- Generating discussions amongst the team in their roles, enhancing teamwork and proficiency.

The practical portion is broken into two phases; walk-through exercises and full speed evolutions. The walk-through exercises give a chance to practice and gain competence and confidence in the response at each phase. Here the opportunity is taken to take the procedures and pre-planning and develop individual and team skills at as many operations as practicable for the role.

The use of equipment is confirmed, any questions and misinterpretations are answered or corrected at this point.

The aim for the full speed evolutions is to measure the operations against the defined criteria; the plan and/or regulatory standards. At this point the responders will be capable of performing in their operational role which should be conducted under variable circumstances including time of day should that be within the response criteria.

Many responders look at a drill from the view that may not be looked at as getting the most from the experience. Used differently it may in fact be a valuable tool. In the context of

training for success, a drill is the final step of the process. It is used for assuredness; with the objective either achieved or not achieved. The drill in this context is not training; it is confirmation of the training process. With that in mind to review two highlighted opinions of the drill:

- A drill must be honest and unambiguous; interpretations must be similar between drill coordinators and responders as an assurance of a true assessment of the emergency simulation
- Should the aim of the drill be a negative conclusion, this must be promulgated to the operators in advance or the result will not be in the best interest of developing confidence within the emergency responders which is the total opposite of the aim of the training process.

Evaluating the effectiveness of action plans and means to improve competency and capability may involve at least one of the points above. The interest will be how that is reflected throughout a diverse community within a global, commercial industry. Further submissions will address live fire training and the effect of newer technology.

Editors note:

Daryl Bean MJOIFF is the Offshore/Industrial Curriculum Manager at the Serco International Fire Training Centre, Darlington, UK and manages the delivery of regulated or accredited and bespoke training specifically for the offshore, industrial and maritime environments, including theory and/or practical based content and consultation.

Daryl's career covers 37 years, spanning many disciplines including aviation, structural, HAZMAT, EMS and he presently maintains membership in the NFPA. For more information contact Daryl at dbean@iftc.co.uk, or by telephone + 44 1325 333317. For more information on the Serco International Fire Training Centre visit www.iftcentre.co.uk.



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NEWS FROM JOIFF ACCREDITED TRAINING PROVIDERS

The Catalyst congratulates the following Training Providers who during Q 3 2018, underwent a robust audit and were awarded JOIFF accreditation.

IRKUTSK NATIONAL RESEARCH TECHNICAL UNIVERSITY, IRKUTSK, RUSSIAN FEDERATION



From left to right:

Vitaly Baranov, AST Astrakhan. Gerry Johnson, JOIFF Director of Standards of Training and Competence, Nikolay Buglov, Director of OGE Research and Training, Irkutsk National Research Technical University, Svetlana Shumkova, Deputy Director of OGE Research and Training, Kseniya Shumkova, Specialist, Translator and Petr Grib, Instructor

CPK NK ROSNEFT NKI, NEFTEYUGANSK, RUSSIAN FEDERATION



From left to right:

Vitaly Baranov, AST Astrakhan. Gerry Johnson, JOIFF Director of Standards of Training and Competence, Maxim Lopatin, Rector, CPK NK "Rosneft" NKI

HHSL SAFETY SYSTEMS LTD. COUVA, TRINIDAD



From left to right:

Satesh Ramjass, General Manger HHSL Safety Systems Ltd., Holly-Ann Duncan, RT Admin, Victoria-Ann Seetal-Isaac, Claire Agna Da Costa Vieira, Director Administration, Herman Anthony Vieira, Managing Director, Gerry Johnson, JOIFF Director of Standards of Training and Competence, Sue-Anna Seetal - HSEQ Admin, Alec Feldman, JOIFF Director, Usha Maharaj-Mohammed, HSEQ Co-ordinator

A current list of JOIFF Accredited Training Providers is on the Training page of the JOIFF website www.joiff.com and JOIFF accredited courses offered by JOIFF accredited Training Providers are published in each edition of The Catalyst and on the Training Programme in the JOIFF website.



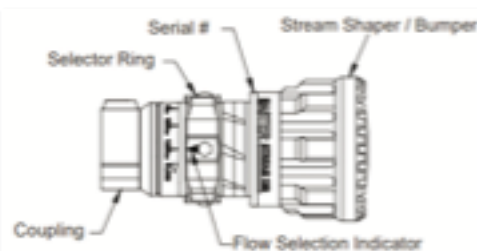


TFT's new 152mm (6") VORTEX... Industrial flow with a twist

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Raising the standard for Master Stream nozzles



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The Tsunami Monitor allows you to deliver high volumes of water in the most challenging industrial hazards.

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FIREFIGHTERS AND PPE – PROTECT YOURSELF

There is a big gap between the public perception of what an emergency responder faces when fighting a fire and the reality of such an event. Being a firefighter is not running through fire saving people, it usually involves crawling through thick, hot, flammable and blinding smoke which is increasingly toxic, encapsulated in heavy Personal Protective Equipment (PPE) that because of the working environment is understandably non-breathable equipment.

Despite the evidence regularly being collected from all over the World that firefighting is a most dangerous profession, many do not yet accept that firefighters as a working group are the most likely to contract serious and fatal illnesses because of their work and they pose strong opposition that this is the case. Multiple exposure to different toxic and carcinogenic substances is a regular hazard of their work and multiple routes of exposures through inhalation and skin absorption and contaminated PPE increase the risk to Firefighters in getting several different types of cancers and other serious illnesses.

The proportion of cancer deaths for firefighters has been growing steadily from the 1970s to the present, parallel with the increasing use of synthetics and plastics in homes and buildings.

Manufacturers of PPE and myriads of health and safety experts point to advances in the manufacture of PPE to praise the reducing weight, the breathability, the absorption to aim for body heat reduction etc. but it is a practical fact that regardless of all the efforts to protect the bodies of firefighters who regularly work in these hazardous conditions, visible and non-visible residues of all sorts are deposited on the items of PPE worn as a result of the behaviour of the heated and burning materials in a fire.

The reason for PPE to be worn is to allow persons to work safely in environments where without the PPE they would not be able to work safely. Current Good Industry Practice in the use of PPE which in many Countries is a legal requirement is that PPE must provide adequate protection against the risks against which it is intended to protect and it must be designed and manufactured so that in the foreseeable conditions of use for which it is intended, the user can perform the risk-related activity normally whilst enjoying appropriate protection of the highest level possible. In use, the PPE of firefighters during firefighting is regularly polluted with products of combustion which are

extremely hazardous to health and life and so it has to be concluded that the current PPE used by firefighters during firefighting is not suitable and change is necessary. It is not likely that this is going to happen for a long time if at all, so firefighters and those responsible for their health and safety must take necessary action to ensure that exposures are kept to a minimum.

It is impossible to completely eliminate the risks but wearers of PPE can take steps to minimise the risk of exposure to the products of combustion through safe working habits but these will require changes in behaviour, attitudes and culture. These steps include

On the fireground:

- Perform field decontamination as soon as possible to remove as much soot and particulates as possible from the PPE.
- Remove PPE and place in bags.

On return to the station:

- Each person who was on the fire ground should shower and clean themselves from head to toe and change into clean clothing from the skin out.
- Because of hidden chemicals and carcinogens, every fire should be considered a hazardous material (HazMat) incident and fire exposures should be documented in the personal files of the firefighter so that any consequences can be traced.
- Clean the cab of the appliance using a suitable method of cleaning. For example, cease what is currently a widely used practice in cleaning the inside of cabs in fire appliances by the use of an air hose which means that all the particulates including the dangerous toxins and carcinogen particulates become airborne around the whole station.

These are messages that have been published in The Catalyst over a number of years but they are messages that can save reduce injury and exposure to illness and save life so they need to be repeated again and again so that emergency responders do not become complacent in protecting themselves against these massive risks.



NEWS FROM JOIFF ACCREDITED TRAINING PROVIDERS



INTERNATIONAL SAFETY TRAINING COLLEGE, MALTA NEW JOIFF ACCREDITED COURSE: ROAD TRAFFIC COLLISION TECHNICIAN

International Safety Training College, Malta, earlier this year requested JOIFF to accredit a new training course. This was a Road Traffic Collision Technician course and to be held over a five-day period. After submission to JOIFF and with a few amendments requested, accreditation was granted. The course had earlier in January been delivered to Kuwait Fire Service and had been extremely well received.

ISTC for some years have delivered training to Wintershall, Libya in the form of fire team leader, fire team member, emergency management and train the trainer courses. Whilst discussing further training with their Senior HSE engineer, it was identified that there was a need for their emergency response team members to possess RTC rescue skills as had been illustrated when a member of staff had been injured in a road accident whilst travelling on site. Following this discussion and working closely with Wintershall a series of four courses was delivered at

ISTC between 28 June 2018 and 24 July 2018.

The course delivered was JOIFF accredited and was again well received by the delegates from each of the four courses. All the Wintershall staff fully involved themselves in every aspect of the course both theoretical and practical. The latter elements being quite challenging during the hot Summer months in Malta. The course covered many areas of RTC rescue and in particular the following aspects of the Crew Approach: -

1. Safety and Scene Assessment
2. Stability and Initial Access
3. Glass Management
4. Space Creation
5. Full Access
6. Immobilisation and Extrication

During the theoretical sessions delegates covered vehicle construction, cutting techniques and particularly new vehicle technology and the hazards it presents to the rescuer. The whole focus of the course

being to develop a safe, casualty centred, time effective rescue.

During the training discussions were held on how certain skills and techniques could be carried out in remote areas such as the desert where more often than not crews would be working off-road.

Delegates were encouraged to get as much hands-on experience with the equipment as possible and also during the course each person took charge of an incident to better develop their understanding of creating a rescue plan dependent upon the injuries of the casualties.

At the end of each course a debrief was carried out and a great number of learning points were identified by the delegates. The feedback was excellent and we at ISTC are very proud of not only the way the course was delivered but also the enthusiasm and participation of all the Wintershall staff involved.

JOB VACANCIES EQUIPMENT

INCIDENT



OPERATOR



The Catalyst is pleased to offer to JOIFF Member organisations seeking to recruit professionals in the Fire and Emergency Response Sector the facility to advertise such vacancies in The Catalyst. The Catalyst is published once every quarter.

Send details to JOIFF Secretariat joiff@fulcrum-consultants.com



INTERNATIONAL SAFETY TRAINING COLLEGE, MALTA

The International Safety Training College (ISTC) currently operates from its leading centre in Malta, providing consultancy and training to the highest professional standards in firefighting, emergency response, disaster management, offshore and marine survival, fire safety, health & safety and first aid.

Our Training Facilities

ISTC is Malta's distinguished training centre focusing upon emergency response, disaster management, health, safety and the environment. The unique training facilities offered by the company have been specifically designed to satisfy the learning outcomes required for the aviation, oil and gas, and marine industries, amongst others. These facilities are contained within a large incident ground where risk critical training is undertaken on a daily basis.

The Maltese Islands

Located at the southern tip of Italy and just over 316 square kilometres in area, the Maltese Islands lie virtually midway between Europe and North Africa. The archipelago comprises Malta, Gozo and Comino. The main island, Malta, is 27 kilometres long and measures 14.5 kilometres at its widest point. It takes just 45 minutes to cross Malta, reducing commuting times and increasing leisure time. Malta enjoys a typical Mediterranean

climate with average temperatures ranging from 12 degrees Celsius in winter to 30 degrees Celsius in summer. It enjoys around 300 days of sunshine a year. During your visit you can enjoy local sites of interest relating to attractive beaches, intriguing 7000 year old history and thriving nightlife. Whilst you're at it, make sure you try our local traditional cuisine.

Onsite Training

Our highly skilled consultants can travel onsite and carry out personalised consultancy service such as design and testing of emergency and disaster management plans, training needs analysis and subsequent training delivery, risk assessments, and health & safety audits.

Our Courses

We combine state-of-the-art facilities at our large fire ground with highly trained and experienced personnel who are dedicated to imparting their expertise.

Amongst other courses, we provide tailor made and accredited training specialising in Industrial Fire Fighting, Emergency response, Civil Defence, STCW Marine Safety and Aviation.

A full course schedule and further information can be viewed on <https://www.istcollege.com.mt/courses/course-schedule/> or by contacting our sales office on enquiries@istcollege.com.mt.

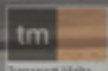
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MALTA

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2ND INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE

CORINTHEA HOTEL & SPA - 29 - 30 OCTOBER, 2018 - MALTA

CONFERENCE SCHEDULE

28TH OCTOBER 2018:

Welcome Drinks Reception

Hosted by JOIFF & JCI

29TH OCTOBER 2018 - DAY 1

Ageing Assets – Use Beyond Expected Life
(Environmental Pressures, Global Warming, Cleaner Production, etc.)

- 08h00 – 08h45: Registration
- 08h45 – 09h00: **Randal Fletcher** Opening Session and Welcome
- 09h00 – 10h15: Keynote: **Admiral Thad Allen**: *Leadership, Response Management, interagency cooperation, Lessons learned Deepwater Horizon, Hurricane Katrina Rita And Other significant events*
- 10h15 – 11h00: **Brad Byczynski**: *DeepWater Horizon, other Incidents, Corporate leadership, managing competing agenda's, delivering excellence amidst chaos*
- 11h00 – 11h30: Networking & Comfort Break
- 11h30 – 12h15: **Steve Hamblen**: *A view from the Line, Translating policy and strategy to execute at the line, environmental impacts management Deepwater Horizon*
- 12h15 – 13h00: **Varadendra Koti**: *FEHMP, in the Largest Refinery in the world. Strategy and practical applications and challenges*
- 13h00 – 14h00: Lunch
- 14h00 – 15h15: Keynote: **Mark Scoggins**: *Corporate governance, integration to the the line and impacts and implications legal and otherwise*
- 15h15 -16h00: **Gary McFadden**: *The criticality of process safety to minimise impacts of potential major accident hazards. The application of preventative and mitigative barriers.*
- 16h00 -16h30: Networking & Comfort Break
- 16h30 – 17h15: **Kevin Deveson**: *Gaining JOIFF credentials for emergency responders from a multi-disciplined team.*
- 17h15 – 18h00: **Kevin Westwood**: *Drone technology , an disruptive technology providing situational awareness through application of multiple sensors enhancing decision capabilities.*
- 18h00-18h15: **Randy Fletcher**: Closing remarks



2ND INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE

CORINTHEA HOTEL & SPA - 29 - 30 OCTOBER, 2018 - MALTA

CONFERENCE SCHEDULE - DAY 2

30TH OCTOBER 2018

The Future Challenge: Innovation; Application & Technology – Looking Forward From The Present

- 08h30 – 08h45: Registration
- 08h45 – 09h00: **Randal Fletcher** Opening Session
- 09h00 – 10h15: Keynote: **Jose Torero**: *Translating fire science and engineering theory into real world solutions for the built environment and high hazard industries*
- 10h15 -11h00: **Jeroen Konijnenberg and Raymond Bras**: *Delivering a world class Public Private Partnership, emergency Response Service Meeting today and tomorrows challenges. Practical lessons learned.*
- 11h00 – 11h30: Networking & Comfort Break
- 11h30 – 12h15: **Niall Ramsden**: *LastFire, The next generation firefighting foam- large Scale testing recent results and implications*
- 12h15 – 13h00: **Eric Lavergne**: *Latest lessons learned, Storage tank firefighting around the world*
- 13h00 – 14h00: **Lunch**
- 14h00 – 15h15: Keynote: **Commissioner Eric Yap**: *Managing the Singapore Civil Defence Force, proactively leading integration of new technology and enhancing service delivery.*
- 15h15 – 16h00: **Jim Fletcher**: *Case Study from largest single wildland fire event in recent US history. Managing across organisational authority boundaries, the art of logistics management.*
- 16h00 – 16h45: Networking & Comfort Break
- 16h45 – 17h15: **Pine Pienaar**: *Modernising Industrial fire departments – theory and practice*
- 17h15 – 17h30: **Randy Fletcher**: Closing Session



2ND INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE

CORINTHEA HOTEL & SPA - 29 - 30 OCTOBER, 2018 - MALTA

SPEAKER PROFILES

RANDAL S FLETCHER, CHAIR JOIFF, GLOBAL RESPONSE ADVISOR, BP PLC.

Conference Chairman. Topic: Managing within the unknowns. Finding and leveraging the expertise across the response functional boundaries (Response organisations, consultants, manufactures, developers, agencies, and the public). Minimising the illusions.



Randal S. Fletcher F JOIFF currently serves as the Chairman of JOIFF. He is the Global Response Advisor for BP PLC. within Intelligence, Security and Crisis Management, serving at the group level.

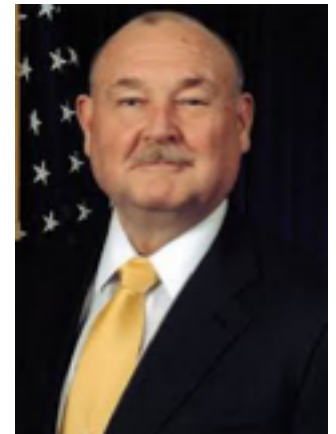
He has served within various roles and locations in crisis Management and Emergency response during his tenure including the Asia Pacific and Indian sub-continent region, Australia, and the US. He has served at every level of emergency response. Randal currently advises and assures BP's global portfolio's response capability. He has served several training organizations including the Ohio State Fire Academy, UNLV, TEEX, QFRS, CEFS and Director of the corporate training programs for BP plc. and various other locations globally. He has also served in various Business Management capacities and engineering positions, served as an Advisor to FAS, and served in the Military. He holds a degree in Organizational Management, and International Studies, including various certifications.

ADMIRAL THAD ALLEN

Talk [Oct 29, 9am]: Leadership, Response Management, interagency cooperation, Lessons learned Deepwater Horizon, Hurricane Katrina Rita And Other significant events

Thad Allen retired from the Coast Guard in 2010 as the 23rd Commandant. He currently serves as Senior Executive Advisor at Booz Allen Hamilton where he supports government and commercial clients in cyber security, energy and the environment, navigation systems, emergency response, and crisis leadership.

He is a nationally recognized expert in disaster response and an advisor to government leaders. He was the lead federal official for the responses to Hurricanes Katrina and Rita and the Deepwater Horizon Oil. He also directed Coast Guard operations in the wake of the 9/11 attacks and the Haitian Earthquake. A 1971 graduate of the Coast Guard Academy, Admiral Allen also holds Master Degrees from The George Washington University and MIT Sloan School. He is a member in the Council on Foreign Relations and a Fellow in the National Academy of Public Administration. He serves on a number of federal advisory committees and holds the James Tyler Chair at the Admiral James M. Loy Institute for Leadership at the Coast Guard Academy.



MARK SCOGGINS, SOLICITOR ADVOCATE

Talk [Oct 29, 2pm] : Corporate governance, integration to the the line and impacts and implications legal and otherwise

Mark is a graduate of Cambridge University and a Solicitor Advocate (formerly barrister) based in the City of London since 1983. His principal practice is the defence of organizations and individuals in the emergency services sectors which include chemical, transport, waste, water and construction; in regulatory and civil claims, particularly health and safety; and environmental and catastrophic personal injury or death. He represented Thamas Trains at the public inquiry into the October 1999 collision near Ladbroke Grove. In 2003 Mark handled the successful Old Bailey defence of Metropolitan Police Commissioner Sir John Stevens and his predecessor Lord Condon on all charges brought against them by the HSE arising out of roof falls suffered by patrolling officers.

Appointed by Balfour Beatty on the October 2000 derailment at Hatfield, in July 2005 helped win the acquittal of its rail division on all corporate manslaughter charges it faced over the incident, and in July 2006 succeeded on its appeal against sentence for admitted health and safety failings. Mark also represented the Metropolitan Police in a health and safety prosecution brought to trial in October 2007 over the fatal shootings of Jean Charles de Menezes at Stockwell station. He is a regular visiting lecturer to the College of Policing.

2ND INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE

CORINTHEA HOTEL & SPA - 29 - 30 OCTOBER, 2018 - MALTA

SPEAKER PROFILES

ERIC YAP COMMISSIONER SINGAPORE CIVIL DEFENCE FORCE

Talk [30th Oct 2pm] : Managing the Singapore Civil Defence Force, proactively leading integration of new technology and enhancing service delivery.



Eric was appointed by the Government to be the Commissioner of the Singapore Civil Defence Force (SCDF) in February 2012. In his 24 years of service, he helmed a variety of key appointments such as SCDF's Director of Operations, Division Commander and Fire Station Commander. Earlier in his career (1995-97) he spent 3 years as an Assistant Director in the Ministry of Home Affairs (MHA) developing national crisis preparedness policies and programmes. In 2008, he returned to MHA as the Senior Director of the Homefront Security Division. Eric was then responsible for developing national security strategies and managing the implementation of security measures and capability development for response to any crisis situation across the Government.

Prior to his present appointment, Eric was the Senior Director of Emergency Services in SCDF between 2010 and 2011. That office oversaw all aspects (covering policy development, training and operations) of emergency services provision (i.e. fire-fighting, rescue, Hazmat, unconventional threats and EMS) in Singapore.

Eric graduated from the UK in 1993 with a BA degree (1st Class Hons) and in 2000, he was appointed as a Foreign Fellow under the US Fulbright Program and graduated with MA degree from Emerson College, Boston, USA, in 2001. He is also a graduate of the Stanford Executive Program 2009, Graduate School of Business at Stanford University. Eric was conferred the Republic's State honours of the Public Administration Medal (Bronze) and (Silver) by the President in 2004 and 2012

JOSE TORERO, CHAIR IN THE DEPARTMENT OF FIRE PROTECTION ENGINEERING AND DIRECTOR OF THE CENTER FOR DISASTER RESILIENCE IN THE DEPARTMENT OF CIVIL AND ENVIRONMENTAL ENGINEERING AT THE UNIVERSITY OF MARYLAND (USA) (EXPERT WITNESS GRENFELL HIGH RISE INCIDENT.)

Talk [Oct 30 - 09h]: Translating fire science and engineering theory into real world solutions for the built environment and high hazard industries



Jose Torero was formerly the Head of the School of Civil Engineering at the University of Queensland. He is Fellow of the Royal Academy of Engineering (UK) since 2010, the Australian Academy of Technological Sciences and Engineering and The Royal Society of Edinburgh (UK). Jose held the BRE/RAE Chair in Fire Safety Engineering and directed the BRE Centre for Fire Safety Engineering from 2004 to 2012. He was co-Chair of Fire Safety at the Council on Tall Buildings and Urban Habitat. He was the Editor-in-Chief of Fire Safety Journal and a member of the editorial board member of numerous journals including Fire Technology and Progress in Energy and Combustion Science. Torero has contributed mainly to the fields of combustion and fire sciences. His research work is in fire dynamics, flame spread, smouldering, combustion in microgravity, smoke detection, protection and suppression systems, and professional education in fire safety engineering. Since moving to Edinburgh in 2001 he has developed expertise in the behavior of structures in fire and the use of combustion to remediate contaminated land.

2ND INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE

CORINTHEA HOTEL & SPA - 29 - 30 OCTOBER, 2018 - MALTA

SPONSOR PROFILES

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We also produce a range of Fluorine Free-Foams for both Class B Hydrocarbons and Polar Solvent fire extinguishing, Class A Foams and wetting agents as well as numerous protein foam extinguishing agents. We also manufacture "Ready To Use" agents for extinguishers and Specialist Extinguishing Systems. Our wide range of services such as 24-hour emergency service,

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customer loyalty complete the portfolio. For more information please contact Jan

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Bristol Fire Engineering Vehicle Manufacturing Division is a business unit of the Concorde-Corodex Group, a multi-disciplinary company headquartered in the United Arab Emirates. Based in Abu Dhabi Bristol produces a range of emergency response products including Pumpers, Tankers, Rescue Trucks, Rapid Intervention Vehicles, Euro- and US standard Ambulances as well as bespoke designs that includes, amongst others, Command, Hazmat and Media Relations Vehicles, Mobile Clinics, Outside Broadcasting Trailers and Bomb Squad units.

Located in the petroleum rich Gulf region, Bristol's product range also includes a number of solutions for Petrochemical, Oil & Gas emergencies. Amongst these count multi-medium Industrial Pumpers, Foam Tankers, Hose Layers and swap-body logistical support POD's, to name a few. A particular achievement by Bristol is the fusion of a US-style heavy industrial pumpers onto a cab-over commercial chassis' putting it in a league all of its own. Bristol is also the proud representatives of prestigious brands like Bronto Skylift, Ziegler, Williams Fire & Hazard Control and Ambulanz mobile.

The word 'BRISTOL' in a bold, red, sans-serif font.

AUXQUIMIA

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AUXQUIMIA has, with over 30 years' experience in the market and a strong commitment to innovation and research of new solutions, become a leader in the production and marketing of foam concentrates in domestic and international markets. The premium quality of our products along with our large production capacity allows us to be a regular supplier to major international companies in many industries including fuel storage, petrochemical, chemical, marine, aviation, energy, automotive, mining, military services and many other sectors.

During the ongoing process of changes in standards coming from environmental concerns, AUXQUIMIA has been able to adapt its products to new regulations with top performance products, which is critical for industries like Oil&Gas and Petrochemical.

Furthermore AUXQUIMIA has started years ago to develop all their formulations with "C6 fluorocompounds" fulfilling the 2010/2015 EPA PFOA Stewardship Program, in the aim of achieving top-

performing products with them minimum environmental impact.

AUXQUIMIA also provides technical advice, analysis of foam concentrates and foam quality tests in firefighting systems.

Contact us via our website.



2ND INTERNATIONAL FIRE & EXPLOSION HAZARD MANAGEMENT CONFERENCE

CORINTHEA HOTEL & SPA - 29 - 30 OCTOBER, 2018 - MALTA

SPONSOR PROFILES

DAFO FOMTEC

[HTTPS://WWW.FOMTEC.COM](https://www.fomtec.com)

Dafo Fomtec is an independent Swedish manufacturer of fire fighting foam concentrates and foam equipment. Our product range covers all types of synthetic as well as protein-based foams for all markets.

Dafo Fomtec is a global supplier with customers on all continents and in all market sectors. Our products can be found in use in petrochemical plants, airports, armed forces, ports, offshore, civil defence and many other sectors in over 50 countries. Our global business is supported by a wide range of international approvals such as UL 162, FM 5130, EN 1568, ICAO, ISO 7203, IMO, Milspec. and MED. You can contact us for more information via our website.



FERRARA FIRE APPARATUS

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Ferrara Fire Apparatus is a premier manufacturer of fire trucks and emergency response vehicles offering a full line of pumpers, aerials, industrial, wildland, and rescue apparatus. Working hands-on with both municipal and industrial fire departments, the Ferrara team thrives on diagnosing departments current apparatus limitations and response needs to custom design the perfect fire apparatus solution that will stand the test of time.

Taking crew safety and apparatus durability very seriously, Ferrara uses a fine-tuned construction process and heavy duty materials to build the strongest fire trucks in the industry. We offer a custom chassis line that has exceeded all safety and strength test making them the safest available. Combined with our extruded aluminum fire bodies, Ferrara's trucks are engineered to stand the test of time.

With over 6,000 fire trucks being delivered around the world, we are excited for the opportunity to meet new fire departments and develop new relationships with the personnel who valiantly serve our communities. We take great pride in providing exceptional fire trucks that make a difference in people's lives daily. Contact us via our website.



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US Fire Pump also specializes in providing a complete customized firefighting solution. A wide range of emergency response equipment such as Hydraulic Submersible Pumps, Remote Track Monitor, Trailer Deck Guns and Hose Recovery Vehicles are available to meet the exact performance needs of any facility or fire department. Find out more about us on our website.



JOIFF EXTENDS THANKS TO ALL THE SPEAKERS AND SPONSORS MENTIONED ABOVE.

WE LOOK FORWARD TO A GREAT CONFERENCE AND WILL REPORT BACK TO Y'ALL IN THE NEXT ISSUE OF THE CATALYST.



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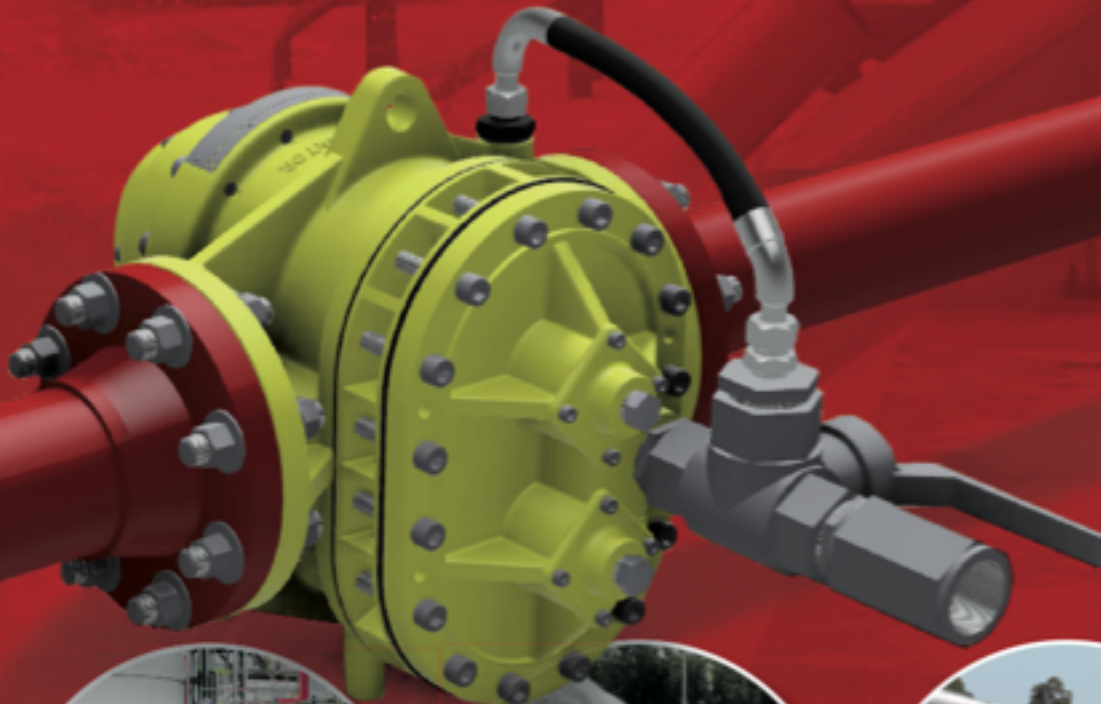


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PART OF ABERDEEN INTERNATIONAL AIRPORT

JOIFF ROLL OF HONOUR



JOIFF is delighted to congratulate the following people who were awarded JOIFF qualifications during July to September 2018.

DIP JOIFF

Laurika Loots Dip.JOIFF

Cape Town Refinery, Chevron South Africa (Pty) Limited, South Africa



Laurika Lona Loots writes for The Catalyst: "My career in the health and safety services started long before I was of the age to be employed, this dream started as a result of my late father who was a deputy chief traffic officer. In 1999 I was appointed as a control room operator at Empangeni Protection Services, after which I pursued my career as an ILS paramedic with Netcare 911.

During my employment with the medical services I developed a passion for firefighting, though challenging, I managed to combine my passion for both fields in 2007 through the completion of Fire Fighter 1 and 2 as well as HAZMAT Awareness and Operational. Since commencing my studies in this field I have never looked back.

I have been employed at Chevron Refinery Cape Town since January 2014 and had the opportunity to grow with the company as this was a newly developed Fire Department.

In 2017 we were introduced to JOIFF, a spectacular opportunity to increase awareness and knowledge in all fields concerning fire fighting. I grabbed this opportunity with both hands and started with my journey to complete this diploma. I endeavour to complete JOIFF Technician in the near future to further improve my knowledge and skills in my chosen career field."

Rowland Lee Minnie Dip.JOIFF

Cape Town Refinery , Chevron South Africa (Pty) Limited , South Africa



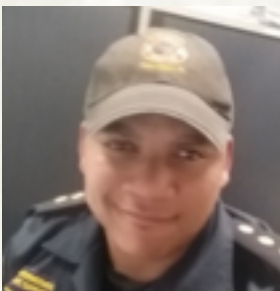
Rowland Lee Minnie writes: "I started working at Chevron Cape Town Refinery August 2008 as a Process Operator. I joined the Shift emergency response team and started with training in firefighting which included Advanced petrochemical firefighting. In 2014 a great opportunity came my way to join the Chevron Cape Town Refinery Fire Department.

From 2014 to 2017 it was full commitment to get all required Fire Fighting Qualifications including, Fire Fighter 1 & 2, Hazmat Awareness & Operations, High Angle 1 & 2, Basic Ambulance Assistant, SAQCC etc.

In 2017 I got the opportunity to do my JOIFF Diploma. Again, it was full commitment to finish all required Units in time for submission. I really enjoyed doing the JOIFF Diploma because it's focused on the Petro Chemical environment and not your normal environment. In August this year I was rewarded with my JOIFF Diploma and I am very proud to say that I did my Dip. JOIFF."

Jonathan Pienaar Dip.JOIFF

Fire Officer Cape Town Refinery, Chevron South Africa (Pty) Limited, South Africa



Jonathan Pienaar writes: "I started in the emergency service in January 2003. I was part of the City of Cape Town municipality fire & rescue brotherhood before I left to join Chevron Fire Department, to specialize in petro-chemical firefighting, in January 2014.

Currently I am employed as a Fire Officer at Chevron Refinery. My daily schedule includes maintenance of all fire equipment, inspection of all fix installation fire protection devices, fire & safety training to refinery personnel with evacuation drills, conduct risk assessments and rescue plans for high hazardous activities and respond to all fire, rescue & medical related incidents.

I enjoy learning and expanding my knowledge in the firefighting arena. I successfully completed my JOIFF diploma and now looking forward to register and complete the JOIFF Technician programme."

Also successful in the JOIFF Diploma during the past quarter:

Mike Dwyer Dip.JOIFF, Queensland Fire and Rescue Service Tactical Training Unit, Australia

JOIFF ROLL OF HONOUR



JOIFF TECHNICIAN



Ewen Duncan Tech, JOIFF

Williams Fire and Hazard Control , United States of America

Ewen Duncan has been involved in the fire protection industry for the past 32 years, starting his career at ICI Grangemouth, Scotland, as an apprentice fireman. Ewen quickly progressed to leading fireman in charge of a duty shift. After sixteen years at ICI Grangemouth, Ewen "headed south of the border" to Sembcorp Utilities as a site protection Officer, and then he was promoted to Crew Commander serving at Wilton, Billingham and North Tees fire stations.

An opportunity arose for Ewen to further extend his knowledge and experience and he was recruited by Das Island Fire & Rescue Service, United Arab Emirates., as Lead Fire Training Officer (DO) in charge of the training centre and by natural progression he was successful in

being promoted to Section Leader (Deputy Chief) upon the retirement of John Nimmo FJOIFF. An offer then came from world renowned Williams Fire & Hazard Control, located in Texas for a position as European manager and Ewen was appointed and has been in that position for the past nine years.

Since that appointment, Ewen has travelled the world undertaking fire protection education, training and on occasions emergency response.

Ewen commented "It has been an honour and a privilege to have worked with so many talented fire professionals over the years, I am in debt to all past and present for your support, guidance and direction in my personal development and career."

Ian Kirkup Tech, JOIFF

Chief Fire and Rescue Officer, ADNOC Onshore Oil, United Arab Emirates

Ian Kirkup Tech JOIFF started his career in 1990 with Durham & Darlington Fire and Rescue Service attaining the rank of Watch Manager B where he served for 21 years responsible for management of an operational fire/ trauma response crew of 15 fire fighters and 4 crew managers serving 120 square miles of community, road and rail risks and 2 tier one industrial site's.

Ian transferred to the industrial sector in 1999 until 2011 with Sembcorp Utilities Teesside (now Falck Emergency Response Europe) attaining the position of Station Commander responsible for managing, leading, developing and coaching fire crews covering all of the GBP sterling £14 Billion of assets on the Company's 3 Teesside sites, which included 20+ top tier COMAH sites for all aspects of Emergency Response and routine maintenance.

In 2011 Ian given the opportunity to work overseas in the Middle East where he is presently Chief Fire Officer/Emergency Response Team Leader at ADNOC Onshore Oil Company, coordinating and managing the operations of ADCOP's emergency response department and operational resources within the terminal pipeline division.



JOIFF LEADERSHIP 1 - TEAM LEADER

Sergey Zelenkov, Emergency Rescue Service Team Leader

Health, Safety & Environment Department, LUKOIL Mid-East Ltd., West Qurna 2 Project, Basra, Iraq

Having completed the JOIFF Diploma in March 2018, Sergey Zelenkov started working on the programme Leadership 1 (Team Leader) which he successfully completed in September.

The Catalyst and the Directors of JOIFF extend congratulations to all those mentioned above.

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Our know-how is protected by several patents in Russia and abroad, including USA, China, UK, France, Germany, Italy, Canada and other countries.

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H2K THE NETHERLANDS

Foam School 2019
Vernon, France (5 days) 1-5 April 2019

Website: www.h2k.nl Email: info@h2k.nl
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Industrial Fire Brigade Incident 19 - 23 Nov 2018
Commander Course (IFBIC) 5 days 10 - 14 Dec 2018

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Industrial Fire Team Member (IFTM) 10 days 10 - 21 Dec 2018

Rotterdam, The Netherlands
www.falckfireacademy.com Email: fireacademy@falck.com
Tel: +31 181 376 666



THE INTERNATIONAL FIRE TRAINING CENTRE

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www.y-marineservices.com
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Firefighting Foundation 10 Days 18 Feb - 1 March 2019
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Fire Team Leader 5 Days 11 - 15 Feb 2019
Road Traffic Collision Technician 5 days 4 - 8 Feb 2018

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DIARY OF EVENTS

October

- 2 - 4 Fire and Disaster Asia, Singapore
- 28 JOIFF CLG 2018 AGM, Malta
- 29 - 31 JOIFF International Fire & Explosion Hazard Management Conference, Malta

November

- 6 - 8 Expo Protection, Paris, France
- 10 - 16 Conference on Forest Fire Research, Coimbra, Portugal
- 12 - 15 Abu Dhabi International Petroleum Exhibition & Conference, Abu Dhabi

December

- 5 - 6 Kuwait Fire and Safety Summit , Kuwait

2019

June

- 24 - 25 JOIFF Africa FEHM Conference, Secunda, South Africa

2020

November

- JOIFF Health Wellbeing and Environment Conference, UK

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.

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