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# Health, Safety & Security Review

VOLUME 4 | ADIPEC SPECIAL 2018

## Middle East

## OIL & GAS SAFETY

in focus at ADIPEC

### INSIDE...

Fire-safe materials for the oil and gas industry

Flame-retardant fabrics

Countering oil and gas cyber security threats

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News • Security • Safety • Training • Equipment • Innovations • Events

## OUR SOLUTIONS:



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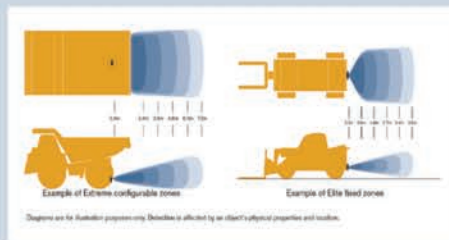
TAG-BASED PROXIMITY WARNING & ALERT SENSOR



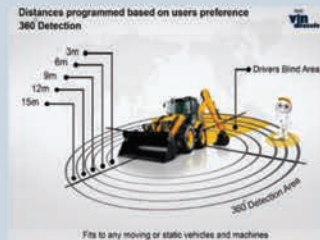
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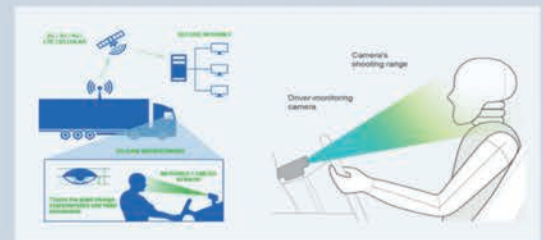
## How it works:



RV107 PROXIMITY WARNING SENSOR



TAGBASED PROXIMITY WARNING ALERT SYSTEM



DRIVER FATIGUE MONITOR

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## editor's note

IN OUR ADIPEC issue, we focus on safety, fire safety and security in the oil and gas sector. We look at the importance of selecting fire-safe materials and materials with good reaction-to-fire properties to prevent small fires from starting and developing with serious consequences (p27). We also look at strategies to counter oil and gas cybersecurity threats as the ongoing digitalisation of the industry introduces a new set of safety and security concerns (p28), and flame-retardant fabrics (p21). These and other issues will no doubt come under the spotlight at ADIPEC; we hope to see you there!

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## High-performance cameras from IDIS

### SECURITY

IDIS, designer and manufacturer of surveillance solutions for commercial and public sector markets, has launched a compact range of high-performance cameras and recorders.

The IDIS Compact Solution series is designed for rapid, single and multi-site roll out and allows users to mix and match analogue and IP technologies, making upgrades and system extensions simpler than ever.

The range includes a choice of price-competitive network and HD-TVI cameras and recorders, all of which are easy to install through one-click network configuration.

The line-up features four-channel compact recorders that can be conveniently desktop or wall mounted.

For users including branch managers, small business owners and security personnel, the range combines high-performance features with simple operation and a choice of client software.

The Compact Solutions range is hard-wearing, making it suitable for busy environments where reliable capture of high definition video images is important.

The DC-D4212R dome and DC-E4212WR bullet PoE cameras are perfect for confined spaces yet deliver full-HD performance in live view and playback including on remote devices such as smartphones and come with motion detection, tamper alarms, zoned privacy masking, day and night ICR and IR LED up to 20m.

A choice of four- and eight- channel IP or HD-TVI recorders allows fast and trouble-free



Image Credit: IDIS

*Packed with essential, easy-to-use and high-performance features, the Compact line-up features four-channel compact recorders that can be conveniently desktop or wall mounted.*

installation and lets installers take advantage of existing coax cabling. The IP recorders also benefit from H.264 live view which eliminates the need to upgrade hardware peripherals.

For the highest performance streaming capacity, H.265 and IDIS Intelligent Codec compression delivers bandwidth savings of up to 90 percent, ensuring smoother real-time viewing and full evidence retention.

“The innovative Compact Solution range fills an important niche in the market,” said James Min, managing director, IDIS Europe. “These are particularly neat products, combining great performance with deployment flexibility, making them a perfect choice for retail chains, the hospitality sector and countless small business applications.”

## A 20-year durability with new coating

### COATING

Sherwin-Williams Protective and Marine Coatings assures up to 20 years durability with its latest intumescent coating in the Middle East region.

The new coating dubbed FIRETEX FX6002 will offer a combination of durability and fast curing in most environments even without the need to apply a top coat, the company said. The most significant benefit of this new product, however, is the speed of curing-hard dry and handling times may be as fast as one hour, it added.

Bob Glendenning, global fire engineering manager for the company, said, “With the substantial advances we have made in intumescent coating technology, we can offer a broader range of benefits and options than ever before whether you’re an architect, a developer or an applicator. In modern construction, speed of build is critical and this product contributes to that goal.”

## Jensen Hughes opens office in Al Khobar to support Saudi Vision 2030

### SECURITY

Jensen Hughes, safety, security and risk-based engineering and consulting firm, opened its office in Al Khobar, Saudi Arabia, in October 2018.

With more than 77 offices worldwide, the company aims to grow its footprint across the globe and support the kingdom’s growth and modernisation through its safety and security expertise.

Jensen Hughes has supported many public

and private sector organisations for more than 30 years in the kingdom.

“We are excited to now have a physical presence in the kingdom through our office in Al Khobar and look forward to working closely with Saudi organisations and authorities having jurisdiction to help support the country’s Vision 2030.

“Our office opening couldn’t come at a better time for us to help meet our clients’ safety and security needs,” said Raj Arora,

president, strategy and business development, Jensen Hughes. The kingdom’s safety, security and fire protection market is estimated to be worth around US\$6bn.

Jensen Hughes provides a wide range of fire protection and life safety services, including code consulting, process and technical safety, security, industrial fire protection, environmental consulting, and emergency management and planning services, across several key industry sectors.

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## Dubai Civil Defence partners with Avaya

### FIRE SAFETY

The General Directorate of Civil Defence in Dubai (DCD) has teamed up with Avaya and ConnectIt on a digital transformation project to enhance fire response times. In particular, the project will allow DCD to upgrade its response and fire prevention capabilities to avoid allocating time and resources unnecessarily to false alarms.

The project highlights the importance of collaboration between government and the private sector to provide value-added services to citizens, and is part of DCD's ongoing efforts to support Dubai's wider Smart City strategy.

Colonel Expert Ali Hassan Al Mutawa, assistant director, General of the Dubai Civil Defence for Prevention and Protection, said, "With people's safety being our top priority, we strive to stay abreast of the industry's latest technology innovations to deliver exceptional and efficient services. Our collaboration with Avaya will



Image Credit: Avaya

The project follows a number of recent collaborations between Dubai Civil Defence and Avaya.

enable us to improve our responsiveness to fire alarms and thus enhance citizens' satisfaction and happiness."

Sheikha Na'amah Al Qassimi, general manager, Dubai and Northern Emirates at Avaya, added, "Avaya is proud to provide state-of-the-art Unified Communications and Contact Center solutions to government agencies across the UAE, allowing them to boost their public safety capabilities. We take pride in our ongoing

support to the General Directorate of Civil Defence and look forward to taking this unique cooperation to new heights in the future."

The project follows a number of recent collaborations between Dubai Civil Defence and Avaya. In 2017, the two entities launched a drone-based service using Avaya video solutions to respond more effectively in emergency situations such as fire incidents and traffic accidents.

## Equate records 50mn hours of safe work

### WORKER WELL-BEING

The Equate Group, a global producer of petrochemicals, has achieved more than 50mn continuous hours of safe work throughout its industrial complex in Kuwait.

As the owner and single operator of several manufacturing units in Kuwait, Equate's industrial complex annually produces more than four million tonnes of ethylene, ethylene glycol, polyethylene, styrene monomer, propylene, paraxylene, benzene and heavy aromatics.

Arnd Thomas, vice-president for operations at Equate, emphasised the fact that the company considers safety as crucial for its employees and fundamental for its ambitious plan to expand its businesses in the region.

Equate group global environment, health and safety director Mohammad Al-Shamary said the company has executed some of the globe's leading turnarounds (TA), focusing on setting new milestones for efficiency and operational excellence.

## MSA Safety launches new kits for 'safety at a height'

### FALL PROTECTION

MSA Safety, manufacturer and supplier of safety products, has launched a new range of fall protection kits for companies aiming to keep their employees safe at height.

The new kits offer a simple 'off the shelf' fall protection solution and are an extension of the V-Series portfolio that extends the range of user-focused personal protective equipment (PPE).

They are designed to provide the equipment typically required across different working environments, simplifying the decision-making process for health and safety managers, contractors and even end users. All the employee has to do is evaluate individual scenarios to ensure that the chosen kit is suitable for a particular site or work.

These kits are tailored for scaffolders, construction workers,

maintenance workers and workers using mobile elevated work platforms (MEWP). All kits are equipped with their own lightweight rucksack for easy transportation.

Nigel Evens, strategic account and channels manager for Europe, said, "When lives are at stake, we understand how important it is for our customers to have the absolute best fall protection measures in place. For us it's all about integrity – of our products and how we do business in a way that supports the industry and meets customer needs."

"With these kits, we've taken the hard work out of the buying process, simplifying fall protection for our customers by combining the relevant products needed to help keep workers safe in different working scenarios, subject to risk assessments for each project," he added.

## → events calendar 2018-19

### November 2018

12-15	<b>ADIPEC</b>	ABU DHABI	www.adipec.com
17-19	<b>MEFSEC</b>	CAIRO	www.mefsec.com
26-29	<b>The Big 5</b>	DUBAI	www.thebig5.ae
27-28	<b>4th Annual HSE Forum</b>	DUBAI	www.hse-forum.com

### December 2018

3-5	<b>Egypt Defence Expo</b>	CAIRO	www.egyptdefenceexpo.com
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### January 2019

20-22	<b>Intersec</b>	DUBAI	www.intersecexpo.com
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### February 2019

15	<b>Kuwait International HSE Conference &amp; Exhibition</b>	KUWAIT	www.dmgenergyevents.co.uk
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*Readers should verify dates and location with sponsoring organisations, as this information is sometimes subject to change.*

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# Focusing on all aspects of safety and security

More than 1,300 exhibitors from 59 countries, including 18 of the world's top 20 commercial security providers, are set to participate at Intersec 2019, which takes place from 20-22 January at the Dubai International Convention and Exhibition Centre.

The annual event, organised by Messe Frankfurt Middle East, covers the seven sections of Commercial Security; Fire & Rescue; Perimeter & Physical Security; Safety & Health; Homeland Security & Policing; Information Security; and Smart Home & Building Automation.

It enjoys the support of long-standing Government partners such as the Dubai Police, Dubai Civil Defence, Dubai Police Academy, Dubai Municipality, and the Security Industry Regulatory Agency (SIRA). A number of new international partners are coming on board, such as the Kuwait Fire Protection Association, the Royal Society for the Prevention of Accidents (ROSPA), the Institution of Occupational Safety and Health (IOSH) and the National Examination Board in Occupational Safety and Health (NEBOSH).

*The show covers all areas of health, safety, fire safety and security.*

It takes place as the Middle East market for commercial and cyber security, fire protection, smart home solutions and drones, worth a combined US\$7bn in 2018, is set to grow to US\$16.4bn in 2024, according to analysts 6WResearch.

Plans for a new three-day conference format are also underway, bringing together equipment manufacturers, integrators, consultants and services providers with regulatory agencies and government authorities.

“A three-day Intersec Future Security Summit will raise key issues on Artificial Intelligence, security integration, emergency preparedness and response, data protection, IoT and much more,” said Intersec’s show director Andreas Rex. “A range of practical workshop sessions are also being organised for security managers to support skills development, professional

expertise on security risk intelligence, threat identification, and disaster management.

“The SIRA Forum will also return with the latest updates in security law and industry regulations in Dubai, while a one-day Fire Safety and Protection Conference will involve authorities, fire chiefs, engineers, fire fighters and emergency response professionals.”

Returning popular features include the Drone Zone, an Outdoor Demo Area, a Smart Home Pavilion and the Safety Design in Buildings Pavilion.

More than 150 exhibitors will be participating for the first time, while Canada, China, Czech Republic, France, Germany, Hong Kong, India, Italy, Korea, Pakistan, Russia, Singapore, Taiwan, UK, and the USA comprise the 15 country pavilions. ❖

*Further details are available at: [www.intersecexpo.com](http://www.intersecexpo.com).*



# intersec

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messe frankfurt



# HSE high up the agenda at ADIPEC

The Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC) and its host, the Abu Dhabi National Oil Company (ADNOC) are set to welcome 110,000 attendees from 12-15 November at the Abu Dhabi National Exhibition Centre.

**“Health and safety will once again feature strongly”**

*ADIPEC will host more than 2,200 exhibiting companies*

**H**eld under the patronage of H.H. Sheikh Khalifa Bin Zayed Al Nahyan, President of the United Arab Emirates, ADIPEC is one of the world’s largest, most important and influential oil and gas events that brings together industry stakeholders and experts to share knowledge and exchange ideas on a brighter future for the energy sector.

From operating companies to the international supply chain and those at the forefront of technological advances, ADIPEC 2018 is set to host more than 2,200 exhibiting companies and 28 exhibiting country pavilions that will showcase thousands of products, services and solutions across the 155,000 sq m of floor space. With 15 dedicated exhibition halls, ADIPEC will bring together 41 NOCs and IOCs, along with the decision

and policy makers that shape the future of the oil and gas supply chain. ADIPEC 2018 will also see a launch of three new dedicated exhibition zones, covering Digitalisation in the energy sector, Heavy Machinery and the Commercial Dive Zone, hence proving to be the convening force behind tomorrow’s oil and gas partnerships.

Hosting more than 100 ministers, CEOs and global oil and gas business leaders as speakers, ADIPEC brings together the companies, decision and policy makers that shape the future of oil and gas supply for four days of focused business dialogue and knowledge transfer, addressing today’s energy challenges and defining tomorrow’s hydrocarbon landscape.

Health and safety will once again feature strongly. The Technical Conference will include

sessions on HSE culture and human factors; HSE innovation in environment protection; Managing the environmental footprint; HSE achieving Zero – where the social brain, human factors and culture meet; HSE process safety and asset integrity; and Managing process safety through effective integrity management.

There will also be a C-suite dialogue addressing the rising cyber and infrastructure vulnerabilities of critical oil and gas assets and promoting Government and industry stakeholder cooperation to identify and protect physical and cyber vulnerabilities, ensuring continuous protection of oil and gas fields, refineries, plants, pipelines, rigs and vessels. ❖

*For further information see the website at [www.adipec.com](http://www.adipec.com).*

# High acclaim for inaugural Kuwait Health, Safety & Security Forum

More than 100 delegates attended the highly successful inaugural Kuwait, Health, Safety & Security Forum, held on 24-25 September at the J.W. Marriott, Kuwait City under the patronage of His Excellency Dr Basel Hamoud Hamad Al-Sabah, Minister of Health Kuwait.



Image Credit: Alain Charles Managed Events

**“Over the two days, delegates were treated to thought-provoking presentations and participated in lively debates”**

*More than 100 delegates attended the thought-provoking event.*

The event, researched and developed by Health, Safety & Security Review Middle East Magazine, was endorsed by the Ministry of Health, Kuwait and supported by the Department of Occupational Health, Ministry of Health Kuwait, Kuwait Society of Occupational and Environmental Medicine, International Powered Access Federation (IPAF) and the World Safety Council.

Bringing together HSE and

security professionals, policy makers, regulators and solution providers, the Forum provided a platform for discussion and debate on critical issues and industry challenges, as well as updates on the latest market and regulatory developments in Kuwait. The event was chaired by Prof. Mohamed Kamel - Ministry of Health, Kuwait.

Over the two days delegates were treated to thought-provoking presentations and

participated in lively debates on topics including working at height, implementing safety standards, physical trauma versus psychological trauma, staying calm in a crisis, and achieving process safety excellence. As well as addressing everyday health, safety and security challenges, the forum provided a platform for the presentation of the latest solutions, giving attendees a rich networking and learning experience.

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Occupational health and worker wellbeing received a strong focus. Giving the keynote address on wellbeing in workplaces via occupational health services, Prof. Mohamed Kamel commented,

“A healthy workplace is where workers and managers collaborate to use a continual improvement process to protect and promote the health, safety and well-being of all workers and the sustainability of the workplace... a healthy workforce is a prerequisite for sustainable development and social wellbeing and a major social determinant of health and equity.” He gave some tips on achieving worker health and wellbeing and concluded, “You cannot be a safe worker if you are not a healthy worker.”

Other eminent speakers on the first day included Professor Harri Vainio, Dean, Faculty of Public Health, Kuwait University; Jason Woods, Middle East and India Representative, IPAF; Mohammad, Chief Technical Officer, KARAM; Nasser Al Buhairi, Chief Security Officer and Head of Emergency Coordination Unit, Kuwait Oil Company; Dr. Musaed Al Najjar, Head - Asian Region, International Police Science Association; and Gary Hicks - General Manager, EVAC+ Chair International Ltd. There was a panel discussion on implementing safety standards, which garnered much participation.

Dr. Sajed Al Abdali, medical department leader, EQUATE Petrochemical Company gave the opening keynote address on Day Two, on corporate wellness and happiness programmes. He outlined the benefits of happiness at work, which include better job



Dr. Sajed Al Abdali, medical department leader, EQUATE Petrochemical Company, gave a keynote address.

performance, increased job satisfaction and morale and more interaction between teams.

**Benefits of corporate wellness and happiness programmes**

Giving his own recipe for happiness he said, “Happiness is the state of positive activity.” Companies with happy employees outperform the competition by 20 per cent, procure 37 per cent greater sales and are 12 per cent more productive, he noted.

“A strong company wellness programme that is implemented with the holistic needs of people in mind, has the power to make employees happier,” he added. Company wellness programmes improve employee health behaviours, reduce elevated health risks and reduce healthcare costs, he said, following which he outlined some steps to build

corporate wellness programmes.

Mazharuddin Shaikh from ASSP Kuwait spoke about achieving process safety excellence through e-Moc systems. Eng Hassan Al Fadhli, representing the Ministry of Interior, Environmental Police, Kuwait, spoke about the role and responsibilities of Environment Police in maintaining a healthy environment. Dr. Ivan Ivanov, from the WHO Headquarters, Geneva, addressed the critical topic of Global Initiatives on Health, Safety and Environment for achieving the Sustainable Development Goals. Dr. Shaikha Alfajjam, Head of the Shauiba Industrial Center, Kuwait spoke about protecting workers from climate change effects. The panel discussion, with the theme “Respect the unexpected” stimulated participation from all the attendees.

The two-day exclusive forum featured an exhibition which showcased innovations in safety, security and evacuation, with sponsors including Safety Fire Experts Co, KARAM, Evac+Chair International and G4S Kuwait.

Delegates commended the high standard of the presentations and panel discussions as well as the “outstanding” networking opportunities.

“It was a great information platform, the event was well managed and the selection of topics was good,” commented one delegate.

“It was a great experience... a lot of new information learned,” said another.

“It was a pleasure to participate in such a great event. Look forward to more!” was another comment, echoed by many others.

Plans are already underway for a follow-up event in 2019. ❖

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# Helping to deliver safety across the GCC

The Fourth Annual Health, Safety & Security Forum is set to take place from 27-28 November in Dubai, under the patronage of the Ministry of Health & Prevention and with the support of ADNOC, Emirates Authority for Standardisation & Metrology, Emirates National Accreditation System and the World Safety Council.

The latest in the highly successful event series will be a debate driven platform for valuable insights into effective health and safety programmes. It will highlight best practices, process improvements, technology advances and innovative applications to enhance HSS performance in the UAE. In addition, the summit will endeavour to align world class principles with local industry requirements.

Topics this year include occupational health in the era of big data; preventing accidents caused by falling from height; crafting a behavioural change strategy; creating a resilient and productive workforce by investing in employee health; dealing with fatigue; managing security risks in the oil and gas industry; the transformational role of operational excellence systems; and using video to detect abnormal behaviour.

Speakers will include Dr Ola Mira, head of Environment & Occupational Health & Safety, Ministry of Health, UAE; Raed Al Marzooqi, head of section, occupational Health and Safety, Dubai Municipality; Jorge Manuel Miranda Dias, professor,



Image Credit: Alain Charles Managed Events

Electrical and Computer, Engineering Department, Khalifa University Abu Dhabi; Farah al-Ansari, head – Airport Security, Dubai Airports; Dr Mohammed Aref, OSH expert, Ministry of Human Resources & Emiratisation; Dr. Waddah S. Ghanem, senior director - Sustainability, Operational and Business Excellence, ENOC and Dr Rebab Al Ameri, director – national Accreditation System, Emirates Authority for Standardization & Metrology.

Following their very well-received presentations at the Kuwait Health, Safety & Security Forum held in September, Dr Sajed Al-Abdali, medical department leader, Equate Petrochemical Company, will share his thoughts on corporate wellness and happiness

programmes, and Jason Woods, Middle East and India Representative IPAF will address the topic of working at height.

Harnessing technology will feature strongly at this year’s event. The role of artificial intelligence and robots will be discussed, along with leveraging data technologies and analytics to improve HSE performance. The use of UAVS to inspect hazardous locations, VR as a learning tool and the effective use of wearable technology to prevent accidents will also come under the spotlight.

Highlights of the event will include a mock evacuation fire drill to prepare for emergencies, and a mock investigation process led by lawyers Clyde & Co, a hit at the 2017 event. ❖

[www.hse-forum.com](http://www.hse-forum.com).

“Highlights will include a mock evacuation drill to prepare for emergencies and a mock investigation process led by Clyde & Co, a hit at the 2017 event.”

A panel session at the 2017 forum.





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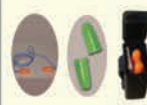
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# Mining HSE opportunities

The Fujairah Government is taking major steps to ensure maximum dividends with minimal environmental hazards.

**In Fujairah, the mining industry plays a significant role in its economy and with many investment opportunities that the sector provides, the HSE challenges that come with it cannot be underestimated.**

**T**he construction market is a key driver of the UAE's economy. Despite a slump in the oil and gas price for the last few years, the sector has remained resilient due to a strong mining industry across the country and has been fuelled by spending on mega infrastructure projects across the UAE; as a result the quarrying and aggregates industry has continued to grow year-on-year. With this growth, new regulations have been imposed to ensure that quarries are investing in the latest solutions to ensure a minimal impact to the environment and surrounding communities.

Health and safety is a priority sector in the UAE owing to rapidly evolving industries like construction, oil and gas, mining, shipping and commercial.

In 2017, the UAE released the new health and safety diktat to help improve workplace safety as well as ensure fewer job-related accidents. It would be safe to say that the country has long been the frontrunner of ensuring highest standards of workplace safety combined with world-class technology on par with other

countries globally.

As capital Abu Dhabi and the financial capital Dubai continue to build their standards of HSE, the Fujairah Government is also joining the leaders to bring in safety compliance to boost both worker wellbeing as well as revenue generation.

Located in the eastern coast, Fujairah has gained prominence in the Middle East for trading, storage and bunkering of goods from across the globe, making it also the second largest bunkering port in the world. This is what makes health and safety so much more important in Fujairah.

Fujairah, in particular, is endowed with abundant natural resources such as copper, magnesium, chromite and limestone. Recently, the UAE Federal Government announced the investment of US\$913mn for the mining and quarrying section across the country, 85 per cent of which has been allocated to Fujairah Natural Resources Corporation (FNRC).

*Health, Safety & Security Review Middle East* spoke with Dr Hithame Elkhodry, IMS advisor and HSE engineer at

FNRC about both the federal and emirate's government support to boost the mining sector.

The FNRC was established as an independent entity by Emiri Decree No. 1 of 2009, issued by the Ruler of Fujairah, and is the supervisory body for Fujairah's mining and quarrying industry. It also conducts studies and geological surveys to develop rock and mineral sectors and exploit the natural resources of the emirate.

Created to oversee the mining activities in the emirate and support the sector with technical know-how from experts, Dr Elkhodry said that the Fujairah government and the Ruler have since given full support to build the mining sector with the latest technologies and with utmost importance to health and safety in the sector.

For the emirate, mining plays a significant role in its economy and with many investment opportunities that the sector provides, the health challenges that come with it cannot be underestimated.

"Mining can play a detrimental role in the environment. For instance, one such problem is the

dust. We are trying to tackle the dust that is a byproduct of the activities taking place everywhere in Fujairah. And the exposure to dust in mining and quarrying continues to be a major risk to the health of workers. At FNRC, we monitor this hazard 24/7 and our competent advisors find immediate solutions to face these impacts.”

FNRC takes HSE very seriously and this is supported by the latest technological advancements that the organisation adopts.

One such is the use of drones to monitor the dust hazards. Designed and manufactured locally in the emirate, FNRC also uses the drones for firefighting operations. “This is the first time anybody is using drones in



Dr Hithame Elkhodry

firefighting operations. I believe we are leading the way.”

FNRC is not only responsible for HSE practices in the emirates but the organisation also supports and encourages companies and other local government departments to

monitor and create safety initiatives across Fujairah. Dr Elkhodry stated that with clear HSE rules for the mining sector, FNRC helps local and international companies monitor and operate in a safe way.

FNRC also regularly conducts

training programmes for its employees and quarrying companies for managing environmental concerns in the sector. As an HSE advisor in FNRC, Dr Elkhodry plays an instrumental role in advising on all the HSE aspects regarding mining and related sectors including strategies for emergency and evacuation plans and methods.

Technology has played a massive role in aiding FNRC’s operations across the emirate. “We cannot undermine that technology has helped develop the mining sector as well as improved HSE standards in the emirate. We have technology to rescue people, monitor hazards, and defend the nation.” ❖

Image Credit: FNRC



# GO FOR ZERO

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# Monitoring compressor air quality

BAUER KOMPRESSOREN's new B-DETECTION PLUS provides continuous monitoring of breathing air quality.

**“BAUER KOMPRESSOREN's B-DETECTION PLUS provides operators with the maximum security concerning health and legal liability issues.”**

*Applications such as firefighting and diving can benefit from the pure air quality assured by the B-DETECTION PLUS*

The online gas measurement system B-DETECTION monitors the quality of the breathing air you produce, measuring CO, CO<sub>2</sub>, O<sub>2</sub>, as standard and offering options for absolute humidity and residual oil (VOC).

Automatic, continuous and ultra-reliable.

The B-Control is available in two versions:



Image Credit: BAUER

The B-DETECTION PLUS provides continuous monitoring of air quality

B-DETECTION PLUS is, full integrated to the compressor and B-DETECTION PLUS s, stand-alone, for wall mounting.

The B-Control compressor control unit enables you to monitor compliance with the limit values of the DIN EN 12021:2014 Breathing Air Standard at all times.

If the limit values are exceeded, the control unit displays a visual warning and shuts down the system before contaminated air can pass into the cylinders being filled.

An automatic flush valve (optional) discharges contaminated air to the outside without interrupting operation of the system.

Any infringement of limit values are logged in B-CONTROL MICRO system and can be easily exported as an excel file using standard SD card.

Measurement uses high-quality smart sensors with continuous self-check function, assuring users that they can rely on the accuracy of measurement results. An optional



Image Credit: BAUER

THE B-APP Smart Phone Interaction.

humidity membrane can be added to maximise sensor life.

The new B-APP sends all current gas measurement data to your smartphone, enabling you to check the quality of breathing air going into your cylinders at all times.

BAUER KOMPRESSOREN's B-DETECTION PLUS provides operators with the maximum security concerning health and legal liability issues. ✦

# Fabrics for the oil and gas industry

Carrington will be celebrating the launch of a new Middle East venture at ADIPEC, to satisfy the growing demand for technical fabrics in the oil and gas industry.

Image Credit: Carrington

**“The demand for these types of technical fabrics in the Middle East oil and gas industry has been growing in recent years”**

**C**arrington Textiles is celebrating the launch of its new distribution centre in the UAE, by exhibiting a range of highly technical fabrics at ADIPEC.

As Europe’s largest producer of flame-retardant (FR) fabrics, Carrington has pioneered innovations in protective workwear, which have added several layers of protection in workers’ garments. These developments are helping to keep employees safe from the multi-faceted hazards that workers are commonly exposed to in the oil and gas industry.

Flametuff 250 AS is one of a range of FR fabrics which will be showcased by Carrington at ADIPEC. This fabric provides all the standard flame and heat protection you would expect from a flame-retardant material, as well as containing antistatic properties that limit the chance for worker’s clothing to be responsible for causing a spark in a refinery. The optional Splashgard finish, meeting EN 13034 standards, repels oil and chemicals.

What makes products like Flametuff stand out is that they offer a high level of protection without asking workers to



*Carrington’s fabrics help to keep workers safe from the hazards they are exposed to in the oil and gas industry.*

compromise on their comfort. This is a significant consideration in a geographic region where employees also need to contend with hot and humid conditions. Traditionally, safety garments have been renowned for their blocky silhouettes that restrict worker movements, but Flametuff has managed to pack a lot of protection into a lightweight material, allowing garment manufacturers to create clothing that offers the wearer considerable freedom when working.

It also contains 12 per cent

high tenacity nylon in the blend, which increases abrasion resistance and tear strength whilst retaining the essential comfort properties of cotton. Furthermore, by meeting accreditations such as NFPA 2112 after 100 washes, Flametuff 250 AS provides guaranteed flame retardancy for the lifecycle of the garment.

The longevity of these products is helping Carrington to achieve its ambition of offering the highest level of protection in the most sustainable way possible, good news for companies looking to source high quality fabrics that offer a strong return on investment.

The demand for these types of technical fabrics in the Middle Eastern oil and gas industry has been growing in recent years. This has encouraged Carrington to embark upon a joint venture with Lal’s Creations in Sharjah, UAE. This partnership will allow Carrington to enhance its current distribution capabilities, working with an on-the-ground partner to satisfy customer demand faster. ♦

**Carrington will be showcasing several FR garments on Stand 8534 at ADIPEC.**

*A long-time supplier of specialised products to the region’s defence industry, Carrington is looking to share its expertise in multi-functional materials with the region’s oil and gas industry.*



# Creating an effective safety culture

Image Credit: Adobe Stock

Following the DEKRA Middle East Safety Forum 2018, Daryl Wake, senior consultant at DEKRA Organisational Reliability Ltd, discusses with Health, Safety & Security Review Middle East about the role of leadership in promoting an organisational culture that is supportive of outstanding safety performance.

**“To enhance employee engagement we have helped more than 3,500 companies globally to implement our Behavioural Accident Prevention Process™ (BAPP™) technology with remarkable results.”**

Daryl Wake

*The UAE is the number one construction sector in the Middle East.*

**HSSRME: Can you provide an overview of workplace safety compliance in the UAE?**

Daryl Wake (DW): Both at a federal and emirate level, there are workplace health and safety regulations in the UAE. These are the minimal requirements for organisations to meet and to comply with these standards and organisations are required to provide appropriate awareness and support. Furthermore, to raise standards many companies in UAE endeavour to implement international standards such as ISO45000 (formerly OSHAS 18001).

From our 20 years’ experience in the GCC region, we see that many organisations have the absolute intent to be compliant but sometimes there is a lack of

understanding of the safety leadership skills needed to move beyond compliance to commitment.

Forced compliance is not the solution. Willing compliance and commitment is the desired outcome and this is achieved by authentic leadership at all levels including frontline supervisors. It taps into personal values and one’s personal motivations to exhibit care for others and for the work being done. In essence, it hinges on front line workers exhibiting helpful safety behaviours because ‘around here, it’s just who we collectively are... even when we know no one is looking’.

Willing compliance and commitment is possible to achieve by line managers rolling

up their sleeves and spending time observing the work being done and giving feedback on it directly in the moment (be it success or guidance feedback).

**HSSRME: What are some of the common workplace problems in the UAE and how has DEKRA helped organisations to overcome these?**

DW: The most common workplace challenges affecting safety performance which we normally encounter are – Leadership, Culture and Employee engagement.

After 40 years of safety research and field experience, DEKRA has established the paramount role of leadership in creating an organisational culture that is

actively supportive of outstanding safety performance — a culture which “makes it easy for people to do the right things”. To create such a culture, leaders must personally and purposefully take action to influence the organisation’s Enabling Safety Systems (HSE Management Systems) and Sustaining Organisational Systems (HR / People Systems) to eliminate exposure to hazards at the working interface (e.g. the sharp end – coal face). As an example, an organisation can have a great policy such as “If an employee gets injured, the line gets stopped.” It may even be in the performance goals for supervisors that the line gets stopped. But if the culture is such that everyone knows you don’t stop the line if it’s minor... The line is not going to be stopped. Culture overrides everything. Our philosophy is that leaders own and create the culture.

Our normal approach when working with our clients is to first understand what is either helping or hindering their organisation. One of the solutions that we offer is the Organisational Culture Diagnostic Instrument (OCDI) that is predictive of safety performance. OCDI scores allow the organisation’s leaders to benchmark how their organisation ranks in comparison to hundreds of organisations and identify appropriate targets for improvement.

Additionally, we support leaders to understand the importance of their role in impacting organisational culture. Our comprehensive Leading with Safety™ methodology, enables leaders to demonstrate safety leadership best practices and activate a transformative and authentic leadership style founded

on a passion to achieve a culture that supports zero injuries.

To enhance employee engagement we have helped more than 3,500 companies globally to implement our Behavioural Accident Prevention Process™ (BAPP™) technology with remarkable results. The BAPP™ system engages employees at all levels in the continuous improvement of safety by focusing on the working interface; that is, the interaction of all the factors that influence injury causation: conditions, management systems, and the things people do. This process helps organisations to internally assess and leverage the working interface to achieve real and lasting safety improvement.

### **HSSRME: What is meant by ‘Behaviour Based Safety Isn’t Dead (it’s just completely different)’ and how so?**

DW: There are those that say ‘BBS’ has run its course or it has been misused and such. There is truth is that BBS has been misused at times, however recent independent research undertaken by the University of Cambridge has proved that a behavioural approach, and in particular DEKRA’s Behavioural Accident Prevention Process™ (BAPP™) technology is a robust way for organisations to reduce the exposures that cause injuries. While we did the work to put the data together, we have been very excited to have the independent verification of the University of Cambridge.

We have learned that a behavioural approach amplifies improvement in injury performance when:

- Observations are coached, and a strategy of focused observations based on exposure

and historical data is used

- Rather than everyone in the organisation undertaking observations, the group of observers should be big enough to have impact but small enough to keep highly functional
- Observers are highly effective in the conversation they have and the data they gather
- Organisations rotate the group of observers to keep them refreshed and energised
- Organisations have observers who specialise in areas where they know the job and the exposures (e.g. it is best to have electricians observing electrical tasks)
- High-quality details are collected and data is used to remove problematic behavioural issues

In consolidating these findings, the vision for excellence in ‘Exposure Based Safety’ (EBS) is to have a small, rotating and specialised group of ‘firefighters’ (Observers) who are of a size that the organisation can support, coach, and mentor to keep the EBS process effective in removing exposure, reducing injury rates and bring about culture improvements.

### **HSSRME: What are some of the interventions that can help prevent serious injuries and fatalities (SIF) in the workplace?**

DW: A fundamental concept in occupational safety for many decades has been Heinrich’s Safety Triangle. This simply says that the frequency of injuries goes down as severity goes up – i.e. there are more medical treatment cases than lost time cases, and more lost time cases than fatalities. The Heinrich

Safety Triangle has been interpreted by the safety community as telling us that if we reduce the number of less severe injuries, we will reduce the number of more severe injuries as well – ‘shrink the bottom of the triangle and you shrink the top’.

However, national data over the past 10 years shows medical treatment injuries steadily declining, but fatalities remaining level. This is inconsistent with how the Heinrich Triangle has been interpreted and raises questions about its validity.

Recent DEKRA led studies have concluded that there are several very specific SIF interventions that really can make a difference. Some of these being:

- Life-Saving Rules (LSR’s) – Organisations should be judicious about which rules they select and how many are selected for the organisation as ‘one list does not fit all’.
- Infield verification of Critical Controls – Atul Gawande makes a compelling argument in his book ‘The Checklist Manifesto’ that breaking down complex, high-pressure tasks into small steps can radically improve everything from airline safety to heart surgery survival rates.
- Pre-task risk assessments – We have found that collaboration, involvement and expertise is key with pre-task risk assessment.
- Incident Management handling processes – Our research has highlighted that SIF incidents have different causes than those that are less severe. It is estimated that only 21 per cent of lower severity incidents have SIF potential. Organisations need to re-evaluate their Incident Investigation protocols. ❖



# Video technology for better fire monitoring

Image Credit: Bosch

Hakan Ozyigit, regional director at Bosch Building Technologies, Middle East, explains how video technology can facilitate early detection of fires.

**“Environmental factors such as dust and humidity can create false alarms or clog the detector. This is where applying video-based detection technologies, which use intelligent video analytics, is critical in the early detection of flames.”**

*Bosch's AVIOTEC systems feature patented algorithms that reliably detect smoke; Intelligent Video Analytics (IVA) that make them suited for automated surveillance tasks and add a customisable verification period to avoid costly false alarms.*

**S**afety is one of the cornerstones of the UAE's Vision 2021, which aims to diversify the economy of the country and accelerate its transition to a knowledge-based economy.

In line with Vision 2021's goal of making the UAE among the safest nations in the world, the Ministry of Interior is implementing a fire and safety monitoring system where more than 150,000 vital buildings and facilities in the country directly linked to a smart fire safety system of the Civil Defence department, where fire warnings will be sent automatically to an operations room, round the clock.

The unique system identifies the specific type of emergency and its exact location, and also provides critical building intelligence. These features enable the Civil Defence to deploy the

right personnel and equipment to the right place, in the shortest time possible. It is based on a public-private partnership model between the UAE Ministry of Interior and Injazat Data Systems. To ensure that the system achieves maximum impact, it requires the wider private sector to support with adequate innovation whilst ensuring building safety, and protecting life and property.

In most buildings across the world, conventional fire detection systems are constrained by smoke detection technologies. They may feature several other tools such as spot-type ionization and photoelectric detectors, aspirating smoke detectors and linear projected beam-type smoke detectors. However, what reduces their effectiveness is the time required for the smoke to reach the detector.

Environmental factors such as dust and humidity can create false alarms or clog the detector. This is where applying video-based detection technologies, which use intelligent video analytics, is critical in the early detection of flames – as the camera can detect a fire as soon as the smoke enters its field of view and thus does not require the smoke to physically make contact with the sensor.

Using video pre-empts the need to install and operate optical flame detectors. As a result of their dual benefits, video monitoring systems will deliver significant time and cost savings by reducing false alarms. In most video systems, false alarms are often triggered by changes in light and movement. The systems will have to go through some level of machine learning to understand the semantics and



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Image Credit: Shutterstock - Copyright SanchariRat

context through deep learning algorithms for computer vision, to prevent these occurrences.

Bosch's AVIOTEC systems feature patented algorithms that reliably detect smoke; Intelligent Video Analytics (IVA) that make them suited for automated surveillance tasks and add a customisable verification period to avoid costly false alarms. The flame characteristics of different fires are understood by the system, making flame detection through intelligent video analysis as reliable as smoke detection. Both fire and surveillance alarms

will be transmitted via network and/or relay.

Furthermore, AVIOTEC cameras are capable of operating in low-light conditions, can cover large spaces and require minimal maintenance. It is also a scalable solution, ranging from a single camera to a networked system of distributed cameras with a central console and management system. It can relay alarms to an existing fire alarm panel or transmit them via Ethernet to the monitoring centre – or a mobile device. Receiving high-definition video images in real time can

**“It is important to have the systems in place that can detect and ensure the reliable differentiation between disturbances and real fires.”**



Image Credit: Bosch

*Hakan Ozyigit, regional director at Bosch Building Technologies, Middle East.*

advise any fire-safety teams in their tactical approach and gauge the situation even before they arrive at the scene of the emergency. AVIOTEC IP starlight 8000 cameras are also able to detect unusual movements, as well as blocked aisles or emergency exits, thus increasing safety and operational efficiency.

As evidenced by numerous headlines in the news these days, fire risks should not be taken lightly – with all the ramifications for property and human life. Keeping in mind the construction boom in the region, it is important to have systems in place that can detect and ensure the reliable differentiation between disturbances and real fires, so that valuable resources are optimised and used most effectively. ♦

*Bloomsbury has developed guidelines and recommendations for appropriate fire safety documentation requirements for materials covering various products and applications within the industry.*

# Choose right, prevent fire

Anne Steen-Hansen and Karolina Storesund from Bloomsbury Fire Security discuss the importance of fire-safe materials, and the use of materials with good reaction-to-fire properties, to prevent small fires from starting and developing with serious consequences.

**T**he consequences of fire in the petroleum industry can be very large. Fires on offshore facilities can start in several types of equipment and sites. An analysis of the 985 fires registered in the Norwegian Petroleum Safety Authority's database between 1997 and 2014 showed that approximately 67 per cent of the incidents were registered as fires or explosions that did not involve hydrocarbons. About one-third of the fires happened in the ancillary systems, which cover a wide range of functions. Six of the 985 events were categorised with the highest severity level, with a great potential for serious accident or fatalities – three of those occurred at offshore facilities. Sixty-six of the fires took place in living quarters.

This shows that serious incidents related to fires do not occur very often. However, some of the reported incidents could have developed into fires with disastrous consequences. This stresses the need for continued efforts to increase the safety and to focus on the barriers that prevent escalating events. The right choice of materials in components, construction and furnishing is an important barrier to prevent the fires from starting, and prevent small fires from developing into larger fires that will be

difficult to control.

The HSE regulations in the Norwegian petroleum sector are primarily performance-based. The materials used on the Norwegian continental shelf must meet the fire safety requirements given in the facilities regulations. These regulations give requirements to the performance of materials and the related guidance documents describe acceptable methods for documentation of reaction-to-fire properties. The facilities regulations describe important principles in the selection of materials in or on plants, and the guidelines specify which test methods should be used to document the fire properties. This list of test methods has not been updated in many years, it contains several outdated methods, and several of the references do not set criteria for approval of products.

RISE Fire Research AS (former SINTEF NBL AS and SP Fire Research AS) published recommendations about how to interpret the regulations and other specifications (e.g. the NORSOK standards) in 2008, which have been frequently used within the industry. These recommendations for testing and documentation are now updated. They include references to new and updated test standards and are published in English. The

recommendations can also be useful for other industrial applications of combustible materials all over the world, both for on and offshore plants.

RISE Fire Research AS is in close dialogue with industry and suppliers about the documentation, test methods and criteria to be used for installations in the North Sea. It helps the parties to meet the regulations, and to maintain a satisfactory level of fire safety. It is up to operators to determine which documentation they will require for different products, based on requirements given in the facilities regulations and the NORSOK-standards. The company has developed guidelines and recommendations for appropriate fire safety documentation requirements for materials covering various products and applications within the industry. The recommendations are based on an assessment of the fire risks in different areas of offshore installations, combined with our knowledge of materials' reaction-to-fire properties, as well as knowledge of how selected test methods can be used sensibly.

The report "Recommendations for the documentation of the reaction-to-fire properties of materials offshore" can be downloaded at [risefr.no](http://risefr.no). ♦

# Countering oil & gas cybersecurity threats

The ongoing digitalisation of the oil and gas industry has introduced a new set of safety and security concerns that will need to be carefully managed. Schneider Electric has some advice.

Cyber-attacks cost companies worldwide an estimated US\$300-400bn each year in unanticipated downtime, and that number is projected to increase sharply. When a plant shuts down unexpectedly, it takes three to four days to get everything started up again. These are sobering business continuity-related lost revenue numbers.

The more connected nature of oil & gas operations, driven in large part by the Industrial Internet of Things (IIoT) and related digitalisation trends, although beneficial to bottom lines, introduces an element of cyber-risk that should be addressed. Cybersecurity is now a cost of doing business. The question is, what is the optimal approach?

When considering the issue of cybersecurity and its impact on business continuity, several types of threats come into play. The first is the exposure of employees to outside emails. More than 400 businesses every day are exposed to email “spear-phishing” schemes draining US\$3bn from businesses over the last three years. The percentage of emails that contain potential business disrupting malware today stands at one in 131, the highest rate in five years.

A second issue involves attacks

by organised groups on critical infrastructure. Oil & gas facilities are increasingly considered critical national infrastructure. As such, they are targeted not only by malevolent individuals but also by organisations that use cyberattacks as weapons to be used to weaken nation states and other global institutions.

A third element to consider is the proliferation of mobile devices. Cell phones, tablets, laptops and thumb drives in the hands of practically every oil & gas industry employee worldwide creates a need for the development of more modern and robust security policies. The added connectivity of these devices makes it easy for outsiders who guess or steal passwords to penetrate the control environment.

Fortunately, there are several steps that oil & gas companies can pursue in order to minimise the threat to cyberattack-driven disruptions to business continuity:

- Building firewalls to keep outsiders from entering the corporate network and gaining access to control systems. This will work in environments where entry points into the system are somewhat limited. However, in an IIoT world, cybersecurity will need to be built into every control system

hardware and software component, protecting every node that has computing capability.

- A gradual approach to strengthening cybersecurity infrastructure. Responsible control systems manufacturers are now designing cybersecurity into every module they build and deliver so that clients don't have to concern themselves with building in cybersecurity after they purchase a new product.
- The education of employees. A cybersecurity-aware culture needs to be developed within oil & gas organisations to help employees understand or appreciate the main risks, so that operations can be run in a secure manner (including basic password management or changeover management).

Such an environment should audit and enforce cybersecurity best practices on a consistent and effective basis, utilising available supervision and detection tools, so that exposure to risk can be minimised. The priorities of the IT and industrial control departments need to be aligned. Employees and vendors coming in need to be aware of the security policies or risk being denied access to sensitive equipment and operations software. ♦

“Such an approach should audit and enforce cybersecurity best practices on a consistent and effective basis”

## Packline Materials Handling introduces new roll handling equipment with powered drive

New to Packline, the roll lifting equipment with powered drive has been designed to meet criteria where the minimum amount of physical effort is required to provide precision manoeuvrability of the roll lifting machine with both forward and reverse drive. Constructed from stainless steel, this roll handling equipment is suitable for clean room environments and food processing industries.

The gas strut suspension system ensures that the powered drive wheel always maintains full contact with the floor. The powered drive wheel is made from polyurethane so ensuring suitability for clean room and high-risk applications.

The powered drive uses the roll lifter's 12-volt battery as its power source and has numerous and advanced built-in safety features including:

- Keyed E-Stop for the main 'on and off' switch control.
- A controlled activation system where the tiller is lowered slightly so that the activation micro-switch button can be used to power the drive system.
- An anti-trap safety device so that the operator cannot be trapped between the machine and a wall of similar solid object.

### Benefits and features:

- Easy and safe ergonomic handling by a single operator.
- Full and precise maneuverability for ease of operation with minimal effort.
- Suitable for high risk and hygienic applications.

- The possibility of retro-fitting to existing roll lifting machines.
- Quick and easy removal and replacement for cleaning and servicing.
- Low maintenance.

The powered drive unit is a 'bolt-on' addition to the roll lifting machine and can be easily removed and refitted, as required.

This stainless steel roll lifting machine is suitable for use in the following industries such as food; drinks and beverages; dairy; pharmaceutical; medical; chemical and FMCG (Fast Moving Consumer Goods).

For further information on the roll lifting equipment with powered drive, or the full range of lifting and handling equipment, please contact Packline Materials Handling. For a full list of worldwide distributors please visit [www.packline.co.uk](http://www.packline.co.uk).



Image Credit: Packline Materials Handling

The new roll handling equipment.

## HANDYLINE - Temporary Horizontal Lifeline from KARAM

### FALL PROTECTION

Falls from height are the second most common cause of major injury in the industrial workplace, therefore fall protection systems should be the highest priority for the workforce.

KARAM offers HANDYLINE, the Temporary Horizontal Lifeline - Horizon PN 4001- to protect workers working in the horizontal plane who may not have continuous access to suitable anchorage points.

The innovative design allows the user to quickly install and dismantle the lifeline.

The retractable lifeline is simply pulled out for installation up to the required length and retracted back with the built in winch into an easy to carry case which eliminates large and bulky coils of cable that

are difficult to set up and store.

### Features include:

- Housing made up of durable and high strength polymer
- Horizontal lifeline system easy to install, remove and store
- Lightweight and portable design
- Has inbuilt winch for easy retraction of rope back into the housing/case for fast, simple and safe dismantling
- Inbuilt shock absorption mechanism to limit the impact forces during fall arrest
- Molded handle for easy carrying
- Can be used by maximum of two users simultaneously
- Comes with Hook PN 162 with load indicator at attachment end.



Image Credit: KARAM

### Advantages include:

- Compact, easy to carry and install
- Required length of wire can be easily retracted out of the housing
- Has a tension indicator to indicate required tension in the line
- Padded handle for easy transportation
- Impact indicator on the hook turns red in the case of a fall.

# Transporting a fully assembled capping stack by air

Oil Spill Response Limited (OSRL) has announced enhanced air freight capability for capping stacks.

Oil Spill Response Limited (OSRL) has successfully completed an air transport test flight of a fully assembled subsea capping stack for the first time.

The newly demonstrated expertise has the potential to significantly reduce capping stack mobilisation times, and represents the realisation of a major objective for OSRL and all those involved in its Subsea Well Intervention Services (SWIS).

Matt Clements, OSRL's director of SWIS, said, "At OSRL, part of our mission is to constantly identify new ways to better support our members and adapt to their changing requirements through new technology, equipment and processes. From our leading role working with the Subsea Well Response Project (SWRP), to the recent development of our Offset Installation System for subsea wells, to today and the realisation of another major achievement, we are continuing to lead and demonstrate the value we provide to our members and the

**"The number one priority is stopping the flow of hydrocarbons as quickly as possible."**



*The air-freightable capping stack.*

wider industry."

OSRL worked with our Subscribers Technical Advisory Forum (STAF) to understand members' requirements, looking at various options to reduce capping stack mobilisation response times, including an assessment of existing alternative air freight capping stacks and new-build proposals.

A STAF working group, led by BP, was established to investigate and develop the best technical solution for the AFCS project with OSRL. The recommendation from

the STAF's investigation conveyed that expediting mobilisation of the existing best-in-class OSRL Capping stacks, developed under the SWRP, was the preferred solution. Key for the members was the compatibility of the OSRL capping stacks with the extensive suite of tooling, including the Containment Solution and Offset Installation System, also offered through OSRL.

After an extensive logistics study by Chapman Freeborn, looking at the members' areas of operations, the AN-124 was chosen as the

most suitable airframe due to its payload, self-loading / off-loading capabilities and availability on the European spot market.

To facilitate the movement of the capping stack in a single operation, OSRL worked with L+M to design and fabricate a bespoke frame, with support from Trendsetter as the original equipment manufacturer (OEM) for the capping stacks. Both Antonov Airlines and Volga Dnepr reviewed and approved the combined skid/capping stack design and physical load for flight.

Chris Lund, technical manager for OSRL's SWIS team, added, "When every minute counts, the number one priority is stopping the flow of hydrocarbons as quickly as possible. The ability to transport a fully assembled capping stack by air is a critical development for the industry. Sea transport remains the most likely mobilisation option for the majority of well sites, which is why we have four capping stacks strategically located in key upstream regions – fully assembled at storage bases with direct quayside access. But for wells in more remote areas, and for members looking to secure drilling licenses in new or remote exploration locations, this is a vital addition to our subsea capping and containment offering." ♦

# Intelligent wearables from Honeywell

## WORKER WELLBEING

Honeywell has introduced intelligent wearables using augmented reality technology that provides on-the-job assistance to enable field workers to be more productive and safe, with the motto 'Every worker is the best worker and every day in the field is their best day'.

Targeted at the process control industries, the device is 100 per cent hands-free, clips on to hard hats and is voice activated, with a built-in camera and eye-piece. It enables access to expertise on demand, step by step execution guidance, technical documentation and real time data.

Speaking at the Honeywell Users Group (HUG) EMEA conference in October Annemarie Diepenbroek, global product leader for Honeywell's Connected People portfolio explained, "Automation and technology have transformed the process industries, but field



Image Credit: Honeywell

Honeywell's new technology uses the latest in handsfree mobile computing, augmented reality, Industrial Internet of Things (IIoT) and mobility software.

workers are not benefiting from these improvements. But this is all going to change. We have been working for two years on an intrinsically safe solution called Honeywell intelligent wearables, and have accelerated this programme because our conversations in the field have indicated there is real demand for

a hands-free device.

"When you need information in the moment, whether you're WiFi-connected or not, you can access information on demand. If wants to report or seek advice on a situation or performing a procedure you can just turn it on with your voice, video call an expert or access technical

information digitally. You might want an expert to check if you've performed a procedure correctly or give you some guidance if you're not sure how to do it. It can save a lot of time if you are performing a task you are not 100 per cent familiar with, as well as improving safety.

"It's an exciting time for field workers and for Honeywell."

Honeywell's new technology uses the latest in handsfree mobile computing, augmented reality, Industrial Internet of Things (IIoT) and mobility software. It combines the RealWear HMT-1Z1 handsfree wearable computer with Honeywell's Movilizer platform, an industry-leading, cloud-based workflow solution, to support field service operations, specifically in hazardous locations. While the device is WiFi-enabled, all the apps inside can work offline as remote workers may not always have WiFi access.

# Pelican Products to showcase safety lighting solutions at ADIPEC

## LIGHTING

Pelican Products, manufacturer of advanced portable lighting, will be showcasing a selection of its safety certified lights on Stand CN134 at ADIPEC. The company offers more than 60 lights with European ATEX Certification (Zone 0 and Zone 1) and US safety approvals.

In a potentially hazardous environment, using an appropriately approved light is vital. Pelican safety torches and RALS are designed for professionals working in oil and gas refineries, offshore platforms, fire brigades, mining, petrochemical, pharmaceuticals or other high-risk industries.

Safety-approved torches and headlamps - Pelican offers an extensive range of torches

and headlamps with safety approvals. They comply with the highest standards of the ATEX Directive 2014/34/EU and meet the IEC (International Electrotechnical Commission) requirements.

From bright lamps to powerful next generation LEDs, these safety-approved lights include models featuring up to 392 lumens and a run time of up to 98 hours. The latest additions to this range are the revolutionary 3315RZ0 and 3315RZ0-RA rechargeable LED torches with a life expectancy of over 2,000 cycles, four times more than the 500 cycles that batteries usually last.

New 3345Z0 with automatic light sensor - The automatic light sensor in the 3345Z0

examines the ambient light/proximity and instantly adjusts its lumens to the most effective level. Now users can read pressure gauges close up or hundreds of metres away, without worrying about manual power settings. The automatic light sensor also makes the 3345Z0 one of the company's most energy efficient torches, preserving power and stretching battery life. The secondary flood beam illuminates potential trip hazards like loose cables, while the primary spot beam brightens long tunnels. The integrated clip can be mounted to a safety vest for hands-free lighting. With the ATEX Zone 0 (Cat.1) safety certification and a full-time battery level indicator it is ideal for use in hazardous areas.



العمال في الشرق الأوسط يتعرضون لظروف بيئية قاسية

الخمسين لشركتنا مع شركة التميمي للتجارة والصيانة، والتي تتضمن التوقيع على مذكرة مشتركة تختص برؤية الأعمال المشتركة لتصنيع ملابس العمال بالمملكة العربية السعودية. كما تعبر شركة المسعود للنفط والغاز عن مثال آخر للشركات التي تعاوننا معها لعقود بغرض التوزيع وتقديم الخدمة لعملائنا الرئيسيين في جميع أنحاء دولة الإمارات العربية المتحدة.

وإلى جانب شبكة شركائنا، يوجد لدينا مكتب للمبيعات والدعم يقدم خدمات متكاملة في دبي، وكذلك مركز للتوزيع والتجهيز يقع في المنطقة الحرة بجبل علي. هذه المجموعة من الإمكانيات تضمن التسليم في الوقت المناسب، وتقديم خدمات مستجيبة لعملائنا في جميع أنحاء الشرق الأوسط وأفريقيا وجنوب شرق آسيا. كما أننا نعمل على إضفاء الطابع الشخصي على الخدمات من خلال الاستعانة بخبراء محليين يوجهون العملاء عبر خيارات معدات الوقاية الشخصية. هذا بالإضافة إلى نشر فرق الدعم الإقليمية لحل أية مشكلات خاصة بالمنتج محليا في سبيل تقليص وقت التعطل.

بالإضافة إلى ذلك، نعمل أيضا على زيادة عدد متاجر التجزئة، بحيث يستطيع عملاؤنا المشاركة والتمتع بعلامة ريد وينج التجارية مباشرة. فهذه المتاجر تقدم جميع عروض معدات الوقاية الشخصية، والتي تشمل الأحذية مخصصة الغرض، وملابس العمال المقاومة للحريق، ونظارات الحماية، والقفازات، ومعدات الوقاية الشخصية الأخرى. وفي ٢٠١٨، افتتحت شركتنا متجرا جديدا في دبي، مما عزز حضورنا في الإمارات العربية المتحدة. وسنفتتح قريبا متجرا جديدا في البحرين، مما سيضيف إلى بصمتنا في تجارة التجزئة بالشرق الأوسط، هذا إلى جانب المتاجر في المملكة العربية السعودية وعمان والكويت. إن نظرنا للمستقبل بالشرق الأوسط مشرقة للغاية، خاصة فيما يتعلق بصناعة الطاقة، وسوف نواصل ضخ استثمارات ضخمة في المنطقة.

المنفذة وحتى الظروف الطبيعية التي قد تكون الأصعب في العالم. ففي منطقة الشرق الأوسط، يمثل الإجهاد الحراري واحدا من أشد المسائل تحديا خلال التصدي لها، ولا يمكن أداء ذلك إلا من خلال التصميمات الجيدة والمنسوجات الأكثر تطورا من الناحية التقنية.

ومنطقة الشرق الأوسط تحرص على اتباع معايير الجمعية الأمريكية لاختبار المواد «ASTM» ومعايير الأيزو الأوروبية «EN ISO» الخاصة بالسلامة، وتلبي هذه المعايير جميع منتجات ريد وينج المباعة في المنطقة إن لم تتجاوزها، مما يجعلها ملائمة للاستخدام بواسطة طاقم العمل في أي مكان في العالم. فاختبارنا تراعي الظروف البيئية القاسية التي يواجهها العمال أثناء أداء الوظائف، مثل الرياح العاتية والعواصف الترابية والشمس الحارقة. ومنتجاتنا من معدات الوقاية الشخصية، من الرأس وحتى القدم، توفر حماية قصوى، وتلبي احتياجات الظروف البيئية الخاصة من دون التضحية بالراحة.

• هل هناك أية خصائص تراها جديرة بالذكر بخصوص الطلبات أو المنتجات التي تحظى بشعبية خاصة في المنطقة؟

• دائما ما تأتي خصائص السلامة والأداء في المقدمة. غير أن الراحة والتصميم قد برزتا بوصفهما عاملين رئيسيين في اختيار معدات الوقاية الشخصية. وحتى مع التدريب الملائم، سيتجنب بعض العمال ارتداء الألبسة التي يجدونها غير مريحة أو غير جذابة، على الرغم من أن ذلك قد يعرضهم لأضرار. في الشرق الأوسط، قد ترتفع درجات الحرارة بشدة في الأماكن النائية والقاحلة التي تتواجد بها حقول النفط. نحن نصمم منتجات خصيصا لهذه البيئات، وندمج - بشكل متزايد - التقنيات المتقدمة في تصميمات منتجاتنا لجعل الأحذية وملابس العمل خفيفة الوزن وتسمح بالتهوية وتؤمن البرودة والراحة بشكل أكثر. ونالت هذه المنسوجات متعددة الوظائف إعجاب العمال.

ومن المنتجات ذات الشعبية، خط إنتاج الأحذية الجديد ريد وينج بتروكينج، وهو متوفر في ١٦ تصميمًا ويدمج بعض أحدث سمات السلامة وأكثرها تطورا، ويقدم حماية بمقدار ٣٦٠ درجة من الارتطام، ويتسم كذلك بوزنه الخفيف للغاية، والمرونة والراحة والمتانة. وتتوافق الأحذية مع معايير أيزو البريطانية ومعايير الجمعية الأمريكية لاختبار المواد لكي تُستخدم بواسطة العاملين في مجال النفط والغاز في منطقة الشرق الأوسط وحول العالم. وعلى النموذج نفسه، مزج نسج «فلاش جارد تي إم» الخاص بنا بين القطن والتنسل والموداك ريليك وألياف الأراميد لإنتاج أحد أخف الأقمشة وأكثرها سماحا بالتهوية، مع الحفاظ على معايير السلامة والأداء وفق تصنيف أرك للفئة الثانية من المخاطر.

• هل يمكنك أن تحدثنا قليلا عن أعمالكم في منطقة الشرق الأوسط، وكيف تبيعون منتجاتكم وتسوقونها؟ وما هي خططكم الخاصة بتطوير أعمالكم في المنطقة؟

• تعمل ريد وينج في الشرق الأوسط منذ أكثر من ٥٠ سنة، وتقدم خدماتها باستمرار كعضو ملتزم في صناعة الطاقة بالشرق الأوسط. وأثناء قيامنا بتصميم منتجاتنا واختبارها وتصنيعها، أسسنا شركات توزيع طويلة الأمد وعميقة الجذور في جميع أنحاء المنطقة للمساعدة في تزويد العمال بمعدات الوقاية الشخصية وأحذية السلامة المبتكرة. وقد احتفلنا في العام الماضي بالذكرى

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# مفكرة رجال الأعمال 2018





على مدير السلامة أن يختار ملابس العمل الملائمة للعمل والبيئة المحيطة

## معدات الوقاية الشخصية لسوق الشرق الأوسط

في هذه المقابلة، يتحدث تيتو وارين، نائب رئيس العمليات والمبيعات العالمية بشركة ريد وينج شوز Red Wing Shoes، عن سوق معدات الوقاية الشخصية في منطقة الشرق الأوسط، وخطط الشركة لتطوير أعمالها في المنطقة. وهو يقول إن الشركة تراعي في تصميم منتجاتها من معدات الوقاية الشخصية، أن توفر حماية قصوى، وتلبي احتياجات الظروف البيئية الخاصة من دون التضحية بالراحة. كما أن الشركة تعمل في منطقة الشرق الأوسط منذ أكثر من خمسين عاماً، وإلى نص الحوار:

جهات خارجية، ليس فقط لضمان إيفائها لمعايير السلامة، بل أيضاً قدرتها على تحمل أقصى الظروف. ومن الفطنة كذلك البحث عن تغطية ضمان سخية تستكمل الغرض من معدات الوقاية الشخصية، والتي تمثل مؤشراً قوياً على ثقة المصنّع في جودة المنتج.

• كيف تنظر إلى سوق معدات الوقاية الشخصية في الشرق الأوسط؟ وهل هناك أية شروط معينة خاصة بالمنطقة؟

• أغلب الشركات العاملة في قطاع الطاقة بالشرق الأوسط تعمل على تطوير ثقافة السلامة باعتبارها أولوية قصوى، مما يجعل المنطقة سوقاً رائجة لعروضنا الخاصة بمعدات الوقاية الشخصية. ولأجل ذلك، بدأت شركة «ريد وينج» في ممارسة نشاطها التجاري بالمنطقة منذ ١٩٦٨. وإننا نتوقع استمرار قوة الطلب على المنتجات المصممة خصيصاً لهذا الغرض، والمنتجات الصناعية الرائدة. كما يجب أن تعكس هذه المنتجات الاهتمام ببيئة العمل؛ بدءاً من الوظائف

• ما هي العوامل الرئيسية التي يجب وضعها في الاعتبار عند اختيار ملابس السلامة للعمال؟  
• التوعية بشأن أهمية معدات الوقاية الشخصية لضمان سلامة العامل أثناء أداء الوظيفة، ليس معناها مجرد توعية مسؤولي الصحة والسلامة بشأن توفر السلامة المطلوبة في بيئات العمل الفريدة، ولكنها تعني أيضاً توعية الأفراد، الذين يرتدون معدات الوقاية الشخصية كل يوم، بخصوص الأهمية الشاملة للأحذية الواقية وملابس السلامة وأهمية ارتدائها بشكل صحيح. وبطبيعة الحال، يكمن العامل الرئيسي، الذي ينظر إليه مديرو السلامة عند اختيار ملابس العمل الواقية، في اختيار أدوات تحقق أعلى مستويات الجودة والأداء للمحافظة على أمن الموظفين وإنتاجيتهم. ومن الضروري أن يختار مدير السلامة ملابس العمل المناسبة التي تعكس الوظيفة المنفذة، والبيئة التي سيتعرض لها العامل والملابس. ويجب تجهيز الطاقم بمعدات الوقاية الشخصية التي تخضع لاختبارات معملية صارمة ومستقلة، ويتم إجراؤها من قبل

# في هذا العدد ...



## مقابلة

معدات الوقاية الشخصية لسوق الشرق الأوسط

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# تنتشر العصبية والسلامة والأمن

ADIPEC Special 2018

الشرق الأوسط

## معدات الوقاية الشخصية لسوق الشرق الأوسط

العوامل الرئيسية التي يجب أخذها في الحسبان عند اختيار ملابس العمل  
ومعدات الحماية الشخصية.

موضوعات ثابتة : السلامة - الأمن - التدريب - المعدات - فعاليات - ابتكارات