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Health, Safety & Security Review

VOLUME 5 | ISSUE 3 2019

Middle East

PREVENT, PROTECT, PREPARE:

Delivering safety across the GCC

INSIDE...

Hearing protection

Safety lighting

Safe use of powered
access equipment



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HEALTH, SAFETY &
ENVIRONMENT
FORUM 2019

3 - 4 September 2019
JW Marriott Hotel Kuwait City - Kuwait City, Kuwait



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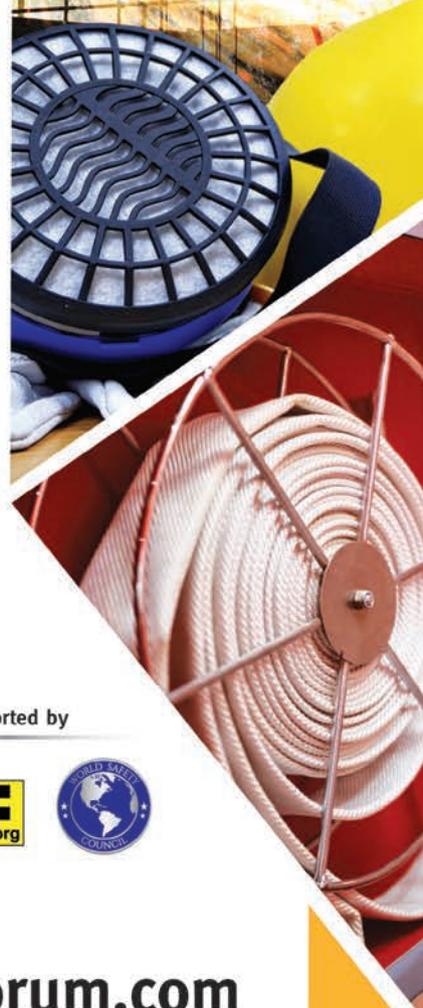


KUWAIT HEALTH, SAFETY & ENVIRONMENT FORUM 2019

3-4 September 2019

JW Marriott Hotel Kuwait City - Kuwait City, Kuwait

Prevent | Protect | Prepare



KEY TOPICS



- Process Safety - New frontiers
- Protecting workers with the aid of 3D modelling
- Safety in Construction Sites - Working at Heights
- HIA (Health Impact Assessment)
- Waste Minimizing and Management in Kuwait
- Ergonomics - Eliminating discomfort and optimizing performance
- Risk Management
- Environmental Contamination by Industrial Activities
- Indoor Air Quality and Outdoor Air Quality
- Defensive Driving and Road Safety

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editor's note

IN THIS ISSUE, we report on our Bahrain Health, Safety & Environment Forum, which provided a platform to discuss a wide range of issues from working at height to health and wellbeing. The highlight was a first of its kind mock evacuation drill, a collaboration between Babco and Bahrain Civil Defence / Fire Brigade (p10). Our highly successful series of HSE Forums continues with events in Kuwait, Oman and Dubai taking place before the end of the year (p15-17). We look at the latest technologies for hand protection (p26), provide advice on the selection of hearing protection devices (p24) and discuss managing evacuation risk in buildings (p20).

Louise Waters, Editor

Editor: Louise Waters

Email: louise.waters@alaincharles.com

Editorial and Design Team: Prashanth AP, Miriam Brtkova Praveen CP, Manojkumar K, Abhishek Paul Nonalynka Nongrum, Samantha Payne, Rahul Puthenveedu and Deblina Roy

Managing Editor: Georgina Lewis

Magazine Sales Manager: Richard Rozelaar
Tel: +44 20 7834 7676 Fax: +44 20 7973 0076
Email: richard.rozelaar@alaincharles.com

Head Office:

Alain Charles Publishing Ltd, University House,
11-13 Lower Grosvenor Place, London SW1W 0EX, UK
Tel: +44 20 7834 7676, Fax: +44 20 7973 0076

Middle East Regional Office:

Alain Charles Middle East FZ-LLC,
Office L2-112, Loft Office 2, Entrance B,
PO Box 502207, Dubai Media City, UAE
Tel: +971 4 448 9260, Fax: +971 4 448 9261

Production: Srinidhi Chikkars, Nelly Mendes
Infant Prakash and Hariharan PM
E-mail: production@alaincharles.com

Subscriptions: E-mail: circulation@alaincharles.com

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Chairman: Derek Fordham

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Sohar International signs deal with Burjeel Hospital

Health

Sohar International, a bank in Oman, has signed a Memorandum of Understanding (MoU) with Burjeel Hospital to offer its customers a range of special services.

Under the one-year agreement, Sohar International cardholders will be entitled to a range of services at Burjeel Hospital that includes – 20 per cent discount on all consultations and two general practitioners, one cardiologist and two dental consultations free in a year for outpatients; 10 per cent discount and an upgrade to the royal suite for inpatients; 20 per cent discount on diagnostics; free ambulance service; one free health checkup for credit cardholders and 50 per cent discount for their family members; and a 20 per cent discount on physiotherapy.

“Health has been a crucial component of our social responsibility initiatives, and we have been exploring new ways to make a difference to our customers’ lives,” said Khalil Al Hedaifi, the chief retail banking



Image Credit: Sohar International

Khalil Al Hedaifi, chief retail banking officer of Sohar International, signing the agreement with Dr Rohil Raghavan, the regional CEO-VPS Oman of Burjeel Hospital.

officer of Sohar International.

“Providing winning offers and promotions, we are pleased to enter into this strategic alliance, as the benefits go a long way in ensuring our customers’ healthful life,” he added.

“Taking every opportunity to create an overarching concept of ‘responsive banking’ to help customers achieve their goals, we always aim to put our customers in a winning position yet

again,” he noted.

Under the “Interactive Easy Payment Plan” programme, Sohar International’s credit card (gold, platinum, signature and infinite) customers will be able to make payments in equal instalments over a three, six or 12 month period with zero interest rate for any medical bill amounting to US\$519 and above, made at any of Burjeel Hospital Oman’s branches.

UL shares top tips to prevent fire outbreak this summer

Safety

UL, a safety science company, has advised UAE residents and businesses to follow a series of top safety tips to prevent fire hazards to ensure a safe summer.

Fires in residential buildings, villas and commercial real estate during summer have been a serious issue in the region.

Negligence and human error have resulted in the loss of lives and damages to property worth millions in the past.

There has been a significant decline in fire outbreaks in recent years due to safety awareness initiatives launched by authorities. However, the risk of fire incidents within the UAE rises during summer as temperatures soar up to 50° C.

Hamid Syed, vice-president and general manager in the Middle East for UL, said that the region’s construction industry needs to adhere to the technical specifications laid out by the UAE government.

Terra Drone enters joint venture to provide NDT inspection in the Middle East

Technology

Tokyo-based Terra Drone Corporation has entered into an investment agreement with NDT Corrosion Control Services Co. (NDTCCS), a Saudi oil and gas inspection firm, to form Terra Drone CCS, a venture that will focus on the Middle East market.

NDTCCS has some of the major oil and gas clients such as ADNOC, Saudi Aramco, Kuwait Oil Company, and Oman Oil Company. With NDTCCS branches in Saudi

Arabia, the UAE, Kuwait, Oman and Bahrain, Terra Drone CCS will provide UAV inspection and testing services to a variety of sectors, including power lines, utilities, renewables, telecommunications, and oil and gas facilities.

Terra Drone CCS will use Terra Inspectioneering’s technology stack – the newest branch of Terra Drone Corporation that performs visual and ultrasonic inspections using proprietary drone technologies.

L.M. Murugan, group general manager, NDTCCS, said, “Joining forces with Terra Drone will not only add value to our customers, but it would also spark a digital transformation in Saudi Arabia and the GCC.”

“By collaborating both companies’ technical expertise and experience, Terra Drone CCS will become a pioneer of emerging technologies like drones, Internet of Things, data analytics, and artificial intelligence in the region,” he added.

New fire reaction testing laboratory



Image Credit: Material Lab

The new laboratory will test a wide range of products.

Testing

Material Lab Testing Services, an ISO 17025 accredited laboratory with branches in Al Quoz and Abu Dhabi has successfully launched a state-of-the-art Fire Reaction Testing Laboratory in Dubai Investment Park.

The new laboratory is capable of testing a wide range of products such as composite panels, gypsum boards, wall coatings, PV cells, wood products, plastic and rubber flooring.

The investment includes equipment such as the single burning item, flooring radiant panel, non-combustibility tester, bomb calorimeter, single flame source and ignition temperature.

“This is a milestone for Material Lab,” explains Mr. Sherif – general operational manager of UAE. “We have offered fire resistance testing in the past to our loyal customers and this service extension covering fire reaction is another step to becoming the leading fire testing company in the GCC. Our lab is fully capable of analysing structures which have been affected by severe fire by utilising advanced techniques to determine the loss of strength of structures and propose retrofitting material to reinstate it to its original strength. Various destructive and non-destructive tests are carried out for post fire analysis, such as computerised load testing, maximum temperature rise during the fire, impact on yield properties of reinforcement, major chemical and mechanical changes in concrete due to fire, GPR scanning and various near to surface testing, infrared thermography and more, as per the requirement of each particular case.”

Material Lab is accredited by EIAC and approved by DCD for resistance and reaction to fire testing. It has the latest and advanced facility equipment to conduct reaction to fire tests in accordance to EN- 1 different classes from A1 to class F, as well as resistance to fire in accordance with BS 476 Part 22, EN 1363, EN 1634, UL and various international test standards.



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Stage set for leading international health and safety event

Corporate health & safety

A+A, the leading international trade fair for Safety, Security and Health at Work, takes place from 5-8 November in Düsseldorf.

It will offer a complete overview of the latest trends and products, nationally and internationally, and provide a forum to discuss how to work more safely, healthily and efficiently in the future.

Wolfram N. Diener, managing director of Messe Düsseldorf GmbH said that many new companies will be exhibiting for the first time, while a number of returning exhibitors are looking to increase their exhibition space.

“We are confident that in 2019 we’ll be seeing more than 2,000 exhibitors at A+A for the first time. The full range of exhibitors will be occupying 10 halls, not just the nine we’ve had up to now.”

Exhibitors will be presenting innovative, forward-looking ideas alongside proven and updated developments.

“In addition to the products and services offered by exhibitors, there will be many informative and exciting live presentations, e.g. the Highlight Route to the Future of Work. It will be about innovative solutions for the impending changes in our working environment as a result of digitisation – developments which are set to affect all areas of work. Everywhere in the halls there will be presentations by well-known exhibitors, including smart solutions for personal protection, new workplace models, new ideas



Wolfram N. Diener, managing director, Messe Düsseldorf GmbH

for workplace structures, and also digital applications, ranging from prototypes to series production.

“2019 will be the first A+A to feature an International Start-Up Zone. It will be aimed at companies that have been trading for less than five years and which have an annual turnover below EUR 5m and a workforce of less than 20. In addition, German exhibitors can again access a programme created by the German Ministry for Economic Affairs and Energy to support innovative young enterprises.”

Turning to the A+A Congress, Diener comments that some of the focal issues will be

- The future of work
- Health and safety policies: national and international
- Technology and labour protection laws
- Health at work – skills, behaviours and resources

Image Credit: Messe Düsseldorf GmbH

- New tools and working methods.
“There will also be a large number of special shows and staged events in the various halls. Two new events are especially worth mentioning, as they are major additions to our programme for emergency responders, aid organisations and fire services:

“On 6 November 2019, a special conference will be held, entitled “Self-Protection for Emergency Responders”. Another new one-day conference will be aimed at professional users of respiratory protection equipment. Running under the title “Respiratory Protection and Hygiene at the Place of Deployment”, it will be about the issue of toxic and carcinogenic substances to which firefighters are often exposed in their work. Solutions will be presented in collaboration with the fire services of Düsseldorf and Berlin and also with an organisation called Hamburger Feuerkrebs, which seeks to promote and sustainably improve health and safety as well as good health for firefighters.

“With such a wide range, A+A 2019 will again be the most important international platform on all issues, products and ideas designed to help people work more safely, healthily and efficiently in the future – in a working environment that is changing faster than ever before.”

For further information see the website at www.aplusa-online.com.

OFSEC 2019 – Oman’s comprehensive exhibition of fire, safety & security

Fire, safety & security

OFSEC, the Oman Fire, Safety & Security Expo, takes place from 21-23 October in Muscat. It will bring together local and international exhibitors from more than 30 countries who will showcase their latest solutions and technologies to meet the requirements of governments and businesses in sectors including aviation, construction and infrastructure, manufacturing, oil and gas and utilities.

Dynamic economic and infrastructure development in Oman and the region has made the Middle East the most vibrant safety and security market in the world, with a growth rate of more than 10 per cent annually since 2012, according to research by G4S. There is a diverse demand for fire, safety and security equipment.

OFSEC will bring together practitioners, suppliers, distributors and manufacturers from the fire, safety and security industry,

with major decision makers from the government and private sectors, making it a definitive networking platform. It will provide a forum to stay abreast of the latest global trends, share best practices, tackle challenges, and explore breakthrough methods for the integration of safety and security technologies.

For further information see the website at www.muscat-expo.com/ofsec.

→ events calendar 2019

September 2019

3-4	HSE Forum Kuwait	KUWAIT	www.hse-forum/kuwait
24-25	HSE Forum Oman	MUSCAT	www.hse-forum.com/oman

October 2019

13-16	Kuwait Oil & Gas Show	KUWAIT	www.kogs-expo.com
21-23	OFSEC 2019	MUSCAT	www.muscat-expo.com/ofsec
29-31	SNSR Expo	RIYADH	www.snsrexpo.com

November 2019

5-8	A+A	DÜSSELDORF	www.aplusa-online.com
11-14	ADIPEC	ABU DHABI	www.adipec.com
24-25	HSE Forum Dubai	DUBAI	www.hse-forum.com/dubai

Readers should verify dates and location with sponsoring organisations, as this information is sometimes subject to change.

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Pulling together for health and safety

The Bahrain Health, Safety & Environment Forum, which took place at the Wyndham Grand Manama, Bahrain from 17-18 June under the patronage of Bahrain's Ministry of Labour & Social Development, was a great success.

The event, held in partnership with Bapco, brought together more than 130 HSE practitioners, government representatives, regulators and solutions providers from Bahrain and the wider region, and provided a forum to share ideas and expertise on critical issues across the spectrum of health and prevention, safety, risk management and environment.

A wide range of topics was explored over the two days, through a combination of thought-provoking presentations, case studies and interactive panel discussions, which generated lively questions and debate from the audience.

“No-where was this spirit of co-operation more apparent than in the first of its kind mock evacuation drill.”

It is clear that Bahrain faces a number of health and safety challenges, such as unsafe practices on construction sites, failure of companies to report accidents and communication barriers when dealing with a multilingual workforce. However the overwhelming impression from the Forum was of the proactive approach of Bahrain's government, notably the Ministry of Labour & Social Development and bodies such as Bahrain Civil Defence, in raising health, safety and environment standards, and the strong collaboration between government, civil society and Bahrain's major companies to this end. The event was marked by a strong presence from the Ministry of Labour &

The Forum was inaugurated by Sabah Al Doseri, Under-Secretary at the Ministry of Labour & Social Development.



Image Credit: Alain Charles Publishing

Social development, Bapco and Bahrain Civil Defence / Fire Brigade.

Nowhere was this spirit of co-operation more apparent than in the first of its kind mock evacuation drill, the highlight of the Forum, which brought together the worldclass capabilities and expertise of Bapco and Bahrain Civil Defence / Fire Brigade in a unique collaboration. It showcased Bapco's world-leading expertise in rescue from height

and emergency medical treatment along with the Fire Brigade's expertise at working in confined space and smoke-filled environments.

Demonstrating commitment

The Forum was inaugurated by Sabah Al Doseri, Under-Secretary at the Ministry, who underlined the Ministry's commitment to ensuring the highest standards of safety for

Bahrain's workforce.

This message was echoed by Ali Mahdi, occupational engineer at the Ministry, who gave an overview of the legislation controlling occupational accidents and described the stringent measures taken by the Ministry to tackle health and safety violations. He pointed out that the construction sector accounted for the majority of accidents, with unsafe scaffolds being a frequent occurrence, and that the Ministry had stepped up the number of site inspections. The amount charged in fines for violations has been increased, which is having an effect. The Ministry is also active in running safety awareness campaigns; the campaign to inform labourers of the hazards of working in direct sunlight has been particularly successful.

Safety at height

Jack Waldron, safety at heights specialist at Bapco, stressed that working from heights, if not controlled, is the biggest killer in any industry. According to Ministry of Labour & Social Development statistics, 13 out of 20 deaths in the construction industry in 2017 were due to falls from height. All of these were preventable, he said.

"Even the most professional organisation in the world will suffer from emergencies; it is what they do about it that makes them professionals," he said. Bapco published its own Working from Height standard in 2017, a combination of the best international standards that work for oil and gas.

"We train to a very high standard, we look at rescue procedures, rescue plans and rehearsals, we provide the best personal protection equipment, we make sure we have qualified, experienced and competent supervisors, communication in an emergency and coordination control must be clear," he said. Bapco's emergency rescue team can effect a rescue from height in less than five minutes as a result of extensive training and daily drills.

Focus on health and wellbeing

In a session on health and prevention, Dr Maha Al Shehab, Bahrain Health & Safety Society, underlined the importance of focusing not only on physical health in



BAPCO's emergency rescue team effected a rescue from height in less than five minutes.

Image Credit: Alain Charles Publishing

occupational health programmes, but also on aspects such as mental health and social wellbeing.

"We are seeing an increase in incidents of depression and other mental problems such as stress, anxiety and bipolar disorder," she said. "So it is about time to establish a mental health programme in any organisation for early detection of any workers suffering from mental health problems, and trying to help those workers in an appropriate way. It is our job is to recognise the warning signs, detect any change in their behaviour and productivity, and tackle them. We should provide for them the safe environment and confidentiality they need to express their problems, and try to engage them.

"It's about how we build up a culture in the work environment that recognises that any of us can be in their position. It's very important to establish wellbeing programmes, including mental health, as the end result is good for everyone."

Dr Hussain Al Durazi, Healthzone Bahrain, discussed the implementation of health risk assessments in workplaces, and the benefits of occupational medicine in eliminating ill health and injury, improving productivity and enhancing the quality of life of the workforce.

Lt Qasim Saleh Ahmed Saleh, head of Hazardous Materials branch at Bahrain Civil Defence, discussed the measures and

strategies taken to control and manage hazardous materials. The branch plays an important role given that there are a number of plants in Bahrain containing chemical materials used in the manufacturing process, with 245 warehouses containing highly flammable materials, for example.

In a session on safety, Bala Siva Srikanth Adivi, Board of Certified Safety professionals (BCSP), discussed the value of certification for HSE professionals in demonstrating competency, attaining high standards and achieving professional advancement, pointing out that "not all accreditations are created equal."

Taking ownership

Hesham Abdulla, Aluminium Bahrain (Alba), outlined how Alba has driven a culture of extreme ownership in safety from the top. Set to be the largest aluminium smelter in the world when the Line 6 expansion is complete, Alba faces safety challenges such as molten metal, electricity, hot environment, worker behaviour and contractor management. Abdulla highlighted the step change Alba has achieved in its safety performance since a change of leadership in 2012, when the current CEO was appointed.

"This was done by determination, personal involvement and leadership from the CEO, which was then cascaded to the executive, to

the directors and management and now cascaded to the employees themselves, where we have an interdependent relationship between employees and an employee to employee health and safety culture.” The CEO leads safety and engages continuously with employees at all levels, he added.

Engagement is driven by activities such as safety campaigns, an annual Town Hall meeting where all results are presented to employees, and ‘safety shares’ at the start of every meeting.

The company has recorded an increase in safety training, behavioural observations safety suggestions and near miss reporting.

“All accidents are preventable, that’s the belief in our organisation,” he said. “Our aim is zero harm.”

“We have reached the stage where our employees are taking ownership,” Abdulla concluded.

Martin Peters, behavioural specialist at Bapco, discussed the benefits of behaviour-

based safety (BBS) in creating a culture of care, enhancing employee engagement and contributing to the overall success of the organisation, and what constitutes an effective BBS process.

Mohamed Ali Shukri, Y Access Training Solutions Bahrain, shared his ‘Walk, watch and win’ recipe for learning that lasts in an entertaining presentation, and how to turn workers into true and longterm learners, believers and implementers of the safety learning they receive.

This was followed by a panel session on the role of effective leadership in promoting a good safety culture, which covered areas ranging from professional development to the relationship of health and safety with the bottom line, and generated lively discussion.

In a session on risk management, Samah Al-Hamadala, Bapco, discussed the company’s business resilience management programme, stressing the link between risk management and business continuity. She pointed out that

the UAE has introduced legislation on business continuity obliging companies to evaluate risk and develop business continuity plans. “This is the way forward.”

Waleed Rehman Althawadi, Fire Chief at Hamad Town Fire station, Bahrain Civil Defence, discussed fire scene management challenges. “Being ready is the first step towards good fire scene management” was his key message. “Do what you can with what you have to save lives.”

Moving on to environment, Dr Fay Abdullah Al Khalifa, University of Bahrain, discussed the development of smart, sustainable cities. “One cannot be smart without being sustainable, and with today’s technological advancements, smart technologies are vital in any sustainability initiative,” she commented. ♦

For reports and videos of the Forum, see <http://www.hse-forum.com/bahrain-health-safety-environment-forum-2019>



The highlight of the Forum was the mock evacuation drill.

Image Credit: Alain Charles Publishing

Improving workplace safety with IoT-smart devices

IoT enables an organisation to track, analyse and respond to environmental data in ways that can help keep workers safe and healthy.

“Advanced alert trigger systems that can detect hazards such as increased exposure to chemicals can provide better safety for employees.”



Image Credit: Alain Charles Publishing

Marwa Aleskafi delivering her presentation at the Forum.

Marwa Aleskafi, head of the accelerator programme at Brinc Bahrain, delivered a presentation at the Bahrain HSE Forum on how the Internet of Things (IoT) has the potential to improve the working conditions for employees with the help of smart devices.

She said many workplaces use GPS application to track items, workers and machinery, to make informed decisions, to ensure safety and to prevent accidents and injuries. Corporations can

save a lot of money by proofing safety and providing better protection for their employees through IoT security technologies such as facial recognition, fingerprinting, camera surveillance to detect out-of-place things and better office control to turn off machinery or detect malfunctions.

Connectivity has revolutionised workplaces, and the most significant advantage of IoT is allowing organisations to act in real-time (knowledge of

the accidents and why they happened), she added. Organisations will be able to prevent future incidences and respond quickly to negate the damage from any situation.

Workplace safety is an essential concern for all companies, but the potential hazards are more severe in industrial environments such as manufacturing, mining, and oil and gas industries. “Advanced alert trigger systems that can detect hazards, such as increased exposure to chemicals

Trend 6: IoT in Industrial Safety

Experts believe that this will be the next Industrial Revolution where every 'thing' will undergo a massive transformation with the help of **connectivity of the internet**.

Expect:

- Enhanced and **rapid tackling** of threats.
- **Monitoring** of machine data
- **Tracking** of support standards
- **Integration interfaces** for numerous production systems
- **Notifications**, reports on dashboards
- Extensive trigger and **alarm systems**



IoT opportunity for Industrials could amount to **\$2 trillion** by **2020**

Image Credit: Brinc Bahrain

or exposure to the harsh environment on an industrial site can provide better safety for employees," she noted.

IoT for wellness in the workplace

Positioning IoT as a benefit is one of the biggest cost-saving schemes that big corporations are implementing today, Aleskafi remarked. Improving employee well-being needs to become a strategic directive within the organisation to foster better results. Many health insurance companies are offering discounts and incentives to employers who encourage workers to use wearable devices to track their activities.

"IoT developers have created innovative ways to maintain the wellness programme's interest such as the use of gamification techniques and incentivise wearable fitness tracker," she commented.

She continued that gamification increases the involvement of workers, and simple contests in the workplace have shown a 17 per cent

improvement in sleep and 11 per cent positive adjustment in activity habits. Measuring personal health data is becoming more familiar with the increasing popularity of devices such as the Fitbit and Apple Watch.

Aggregating and analysing this data could help predict sick leave and manage human resources, she explained.

IoT for construction / industrial site safety

The ability to unlock real-time data from smart Industrial IoT (IIoT) devices such as sensors, wearables, robotics and GPS Tracking gives industrial companies visibility into their operations. But the advantages are not just on the operations side. A Smart organisation also offers security professionals an opportunity to use real-time data and connectivity to improve how they monitor and manage industrial safety.

"Businesses that use IoT to change safety compliance behaviours for industrial and construction safety can reduce compensation payouts by 20 to 40

per cent. IoT can help an organisation by tagging large pieces of machinery with sensors and detecting their location as well as an employee location to ensure that there are no accidents or collisions at the workplace," she stated.

Aleskafi further added that data collected from these devices would help companies refine their insights and improve their safety programmes.

Examples

Aleskafi cited some examples of how IoT has been implemented to improve safety and security at workplaces:

- ❖ A company based in India has developed a smart helmet used in construction and oil and gas sites. This helmet detects the workers vital to make sure that they are healthy. Being able to identify a workers pulse, especially during construction of a high-rise building, will allow the organisation to gauge at which level things happen, and enable it to put in a strategy to ensure no future accidents occur.
- ❖ Two companies equipped

employees with wearable devices on drilling platforms to track activity, location and exposure to chemicals. This device resulted in limited exposure to risk factors, reducing sick leave by 40 per cent.

- ❖ An Australian company has fixed its employee helmet with a sensor to detect heat strokes. Aleskafi noted that it is imperative to protect workers from heat strokes or the incidence of being overheated, especially in the Middle East.
- ❖ Vinci Construction UK used wireless sensor technology to track real-time data on workers' movements, using different systems to choose the one that best fitted the company's needs, reducing risk and the number of injuries.
- ❖ Intel and Honeywell workers wear sensors that capture heart rate data, job-site activities, gestures, toxic gases, and other factors. The data is processed locally and monitored by workers and remote operators, enabling them to gain insights that allow them to change behaviours. ❖

Prevent, protect, prepare

Health, Safety & Security Review Middle East's highly successful series of Health, Safety & Environment Forums continues, with events coming up in Kuwait, Oman and Dubai.



Image Credit: Alain Charles Publishing

“The events will discuss best practices, process improvements, technological advancements and innovative applications to enhance HSE performance and employee happiness.”

The Forums provide opportunities for lively discussion.

The events will discuss best practices, process improvements, technological advancements and innovative applications to enhance HSE performance and employee happiness. They will provide a neutral platform where delegates can hear a wide range of perspectives and concerns from a variety of stakeholders can be discussed, with the aim of improving safety, protecting the environment, opening dialogue and creating new avenues of business.

The inaugural Oman Health, Safety & Environment Forum takes place from 24-25 September at the InterContinental Muscat, key topics being wellness and prevention, heat stress protection in extreme temperatures, LPG and NG safety, emission control, monitoring hazardous environments with IoT, robots and drones for improved safety, opportunities of digital transformation, disaster risk management and air

pollution control. Confirmed speakers include Fahad Al-Raba'ani, Lifting Function lead, Petroleum Development Oman; Khalil Al Baloushi, senior HSE specialist, Oman Airports Company; and Qutaiba Said Al Gheilani, head of safety awareness, Sultan Qaboos University.

The Dubai Health, Safety & Environment Forum takes place from 23-24 November 2019 at the Habtoor Grand Resort, Dubai. Confirmed speakers include Salman Dawood Abdulla, VP HSE, Emirates Aluminium; Dr Mohammed Aref, QHSE expert, Ministry of Human Resources & Emiratization; Saleh Nuaimi, head of safety, National Emergency & Crisis Management Authority (NCEMA) and Dr Taufiq Omeish, senior manager HSE, Dubai Electricity & Water Authority. ❖

For further information and to register, see the website at www.hse-forum.com

Enhancing health and safety in Kuwait

The Kuwait HSE Forum, to take place from 3-4 September at the JW Marriott Hotel, Kuwait City, will provide a platform to share insights and expertise on topical health and safety issues.



“You cannot be a safe worker if you are not a happy worker.”

Industrial communities in the Gulf have large multinational workforces that are exposed to various occupational hazards.

Kuwait is no exception, with its dominant oil and gas and construction industries giving rise to hazards ranging from fire and chemical spills to falling from height and exposure to dust. Demands to implement sustainable workplace safety and health programmes to protect workers are rising by the day.

There is also a big push on sustainable healthcare, tying in with the unified Gulf Health Strategy, to achieve sustainable

development goals and raise standards of health and wellbeing throughout the country.

Despite rapid advances in health and safety, Kuwait faces a range of challenges such as addressing communication issues, improving the effectiveness of health policies, reducing environmental hazards, cutting the road accident rate, and promoting healthy lifestyles and behaviours that will advance worker wellbeing. As Prof. Mohamed Kamel, Ministry of Health, Kuwait commented at last year’s event “You cannot be a safe worker if you are not a happy worker.”

Kuwait also faces security challenges. Deploying video surveillance under challenging conditions is one of the top priorities in the country.

This edition of Kuwait Health, Safety and Environment Forum will have a renewed focus on health and wellbeing, and will provide professional development opportunities for doctors. It will include sessions on health promotion, occupational health services and sustainable healthcare.

The event will discuss best practices, process improvements, technological advancements and

The event builds on the success of the inaugural Kuwait HSE Forum held in September 2018.

innovative applications to enhance HSE performance while promoting wellbeing at work.

Main topics are:

- ❖ SAFETY in construction sites – working at heights
- ❖ SECURITY – securing against surprise attacks
- ❖ DEFENCE driving and road safety
- ❖ PROCESS SAFETY – New frontiers
- ❖ ENVIRONMENTAL contamination by industrial activities
- ❖ INDOOR air quality and outdoor air quality
- ❖ PROTECTING workers with the aid of 3D modelling
- ❖ ERGONOMICS – eliminating discomfort and optimising performance
- ❖ HIA (Health Impact Assessment)
- ❖ WASTE minimising and management in Kuwait
- ❖ RISK management.

Confirmed speakers to date include Nasser Al-Buhairi, chief security officer and head of Emergency Coordination Unit, Kuwait Oil Company; Dr Ahmed Al-Shatti, director, Occupational Health Department, Ministry of



This year's event will have a renewed focus on health and wellbeing, providing professional development opportunities for doctors.

Health, Kuwait; Dr. Ghaida Mubarak Al-Shoraian, senior general practitioner, Kuwait National Petroleum Company; Qusai Al Shatti, acting director-general, Central Agency for Information Technology (CAIT); Dr Muhammad Alamgir, HSE manager Petrofac, Kuwait and Dr Ahmed Haji, senior doctor, Petrochemical Industries Company KSC.

Conference producer Soumen Chakraborty said, "Kuwait is hard at work to achieve the third of the 17th UN 2030 Agenda Sustainable Development Goals

(SDGs), namely "ensuring healthy lives and promoting the well-being for all at all ages is essential to sustainable development". There is a need to significantly strengthen the workforce by providing appropriate training in issues related to occupational health, safety and environment. The Kuwait HSE Forum 2019, under the patronage of the Ministry of Health, Kuwait now in its second edition with the theme of "Prevent, Prepare, Protect" is all set to deliver. Visionary speakers from KNPC, KIPIC, Petrofac and more

will present relevant case studies and share best practices. This will also be an avenue for safety professionals to embrace the future and help define what new technology (AI and IoT, Data) can bring to their professions. Considering the huge emphasis on having a clean and green environment, the two-day gathering will also have an exclusive session on some of the key areas of concern in this space." ❖

For further information and to register, see the website at www.hse-forum.com/kuwait.

Image Credit: FS-Stock/Adobe Stock

Q&A - Dr Ahmed Haji, senior doctor, Petrochemical Industries Company KSC

To what extent do you think there is an awareness in Kuwait of the benefits of actively promoting worker health and wellbeing?

I think there is an ample amount of awareness, especially at the decision-maker level in oil sector companies. Now we have the 2030 health plan in the oil sector, where each company is assigned specific targeted activities regarding health. These targets are regularly audited and updated to management.

What are the main challenges you face in raising standards of occupational health and wellbeing?

Challenges include the habits of people and their lifestyle, that is reflected in the prevalence of obesity, tobacco use, disturbed lipid profile, hypertension etc. Community leaders as well as managers should be committed to occupational health promotional activities.

What measures should companies be taking to promote occupational health and wellbeing in their workforces, and what initiatives has PIC taken?

Line management commitment is a critical requirement for ensuring high standards of occupational health.

PIC has accomplished several Six Sigma projects in occupational health. We also have a well-established and successful behaviour-based safety programme which almost all employees share in.

In PIC a lot of changes have taken place, e.g. no subsidised food is given unless the food label and the amount of calories are attached to it.

How important is the sharing of expertise and best practice?

Sharing expertise and best practice raises all standards and procedures, not only standards of occupational health and wellbeing.

The safe use of powered access equipment

Don't blame operator error if employees aren't properly trained, says the International Powered Access Federation (IPAF).

“Too often the underlying cause of accidents is a manager choosing the wrong equipment or asking an operator who isn't trained to carry out a badly planned job. There really is no excuse for cutting corners where safety is concerned.”

ABOVE: Jason Woods, IPAF representative, demonstrates the correct wearing of a harness.



Image Credit: IPAF

There are relatively few accidents involving the use of powered access equipment. Those that do happen are often blamed on operator error, but what does that mean? Was it really the operator that did something wrong and avoidable, or were there underlying

problems with the planning or management of the job?

The International Powered Access Federation (IPAF) analyses accidents involving mobile elevating work platforms (MEWPs) worldwide to look for trends and learn from them. This research indicates that all too

often the underlying cause of accidents is a manager choosing the wrong type of equipment or asking an operator who is not trained correctly to carry out a poorly planned job.

The simplest solution is for all managers and supervisors to undergo basic training on how to

properly plan and organise the safe use of MEWPs. And the first thing that any manager or supervisor planning temporary work at height using MEWPs should do is to ensure operatives are correctly trained and familiarised on the machines they will use.

All of IPAF's official training centres offer operator training, leading to the Powered Access Licence (PAL) Card, a globally recognised certification with almost one million valid today. Wherever in the world an operator is trained, IPAF's courses are consistent and its training centres audited to the same high standard.

IPAF offers training in multiple languages to suit local demand. At minimum, operator training lasts a full day, to ensure all the relevant points of theory, health & safety and the practical assessment are carried out correctly. On completion of the course, the training candidate is certified on a specific category of MEWP, and the training needs to be renewed every five years.

No other training comes close in terms of such stringent requirements to ensure that the operator has the best possible introduction and basis for operating MEWPs safely. Many IPAF training centres also offer a six-hour course called MEWPs for Managers; this doesn't teach people how to use MEWPs, but how to plan and manage their use.

IPAF can also offer vital supplementary training, including how to load and unload MEWPs from delivery vehicles safely, how to carry out a pre-delivery inspection, and how to choose, inspect and use a harness correctly.



Operatives should be correctly trained and familiar on the machines they will use.

Image Credit: IPAF

Jason Woods, IPAF's Middle East representative and a trained IPAF instructor, says, "IPAF's main safety message is about using the correct machine for the job, planning thoroughly, carrying out risk assessments and rigorous equipment inspections and using trained operatives under proper supervision.

"There are many companies that claim they can certify operatives quickly and cheaply – sometimes taking just hours – to minimise employees' time away from the job. However, this really isn't credible and runs the risk of

serious accidents, putting workers' lives in jeopardy.

"When things inevitably do go

wrong, the worksite grinds to a halt while the accident is investigated, so supposed time and cost savings are a false economy. This also shows that 'operator error' is usually the manager or supervisor's mistake.

"At IPAF we believe it is important for the manager or supervisor and all employees and sub-contractors to be professionally trained. This means fewer stoppages and minimises the risk of people being injured or killed. There really is no excuse for cutting corners where safety is concerned."

About IPAF

IPAF is a not-for-profit members' organisation that promotes the safe and effective use of powered access equipment worldwide. Members include manufacturers, rental companies, contractors and users. Details at www.ipaf.org ♦

To find your nearest IPAF training centre visit www.ipaf.org/training; for a full list of all IPAF training courses, visit:

www.ipaf.org/courses.

Contact : Matt Brereton, communications manager

Tel: +44 (0)15395 66700 / matt.brereton@ipaf.org / media@ipaf.org.

IPAF'S PAL CARD

A PAL Card is a Powered Access Licence for operating MEWPs or mast-climbing work platforms (MCWPs). To qualify for a PAL Card, operators must pass an IPAF training course at an IPAF-approved training centre. PAL Cards are only issued by IPAF, a not-for-profit organisation dedicated to the safe and effective use of powered access worldwide. PAL Cards must be renewed every five years. Many major contractors now require operators to have a PAL Card to use machines or access construction sites. In many countries there is a requirement for operators to be trained before using a MEWP or MCWP.

Managing evacuation risks

Evac + Chair, the world's leading supplier and original manufacturer of evacuation chairs, discusses how to manage the changing nature of risk affecting safety in buildings and emergency evacuation.

“Emergency plans and procedures should evolve with buildings, technology and threats to ensure they remain effective and fit for purpose.”

ABOVE: In the case of tall buildings, more planning and preparation is needed to ensure safe evacuation in an emergency.

The number of factors which influence the safety risk within any building are ever increasing. Beyond fire or flooding, there are now more subtle changes at play.

From advances in building design to greater workforce inclusivity, there are many reasons why every building should review their approach to risk, ensuring the safety of every occupant in every building.

If safe evacuation fails, lives will be at risk. Making your building safe is about moving beyond the ‘tick box’ response to risk. Emergency plans and procedures should evolve with buildings, technology and threats

to ensure they remain effective and fit for purpose.

Greater inclusivity and accessibility

Improvements to building design and accessibility are promoting work and living spaces which are more inclusive to people of all abilities. This means more people with mobility impairments have greater opportunities to access buildings, increasing the scope and requirement for people-centred emergency evacuation planning.

In taller buildings, or even vertical cities, more planning and preparation is needed to ensure safe evacuation of every occupant

as they are not designed for rapid, mass exit which can result in bottlenecks on narrow stairwells.

The Middle East is well-known for its extremely tall buildings. Dubai is home to the tallest building in the world, the Burj Khalifa, which reaches 2,717ft or 828m and comprises 163 floors, including thousands of residential homes, nine hotels and a shopping mall.

Another of Dubai's tallest buildings is the Marina Torch, formerly the tallest residential building in the world, which comprises 86 floors. The Marina Torch experienced a catastrophic fire in 2017 which prompted Dubai to introduce

mandatory evacuation drills to ensure building occupants were better prepared for emergencies. This type of training is vital to ensure every responsible team member within a building or business understands their role in an emergency.

Advancing technologies

Another driving factor which is changing the nature of risk is technology. Advances in technology are allowing for greater flexibility and more remote working practices, but this does have its limitations.

With more people working remotely, and some only renting the office by the day, it can be difficult to have access to an accurate headcount at any one time. Access control systems or signing in protocols can help to maintain a precise headcount for a building. However these must be tested and monitored by those responsible for the safety of the building to ensure they are effective.

The terrorism threat

Different buildings will face different levels of risk of terrorism. Those particularly prone can adapt to the threats they face by implementing individual building risk assessments.

Planning emergency procedures for security threats should be treated differently to preparing fire evacuation plans. For example, protocols to evacuate the building to the nearest, clearly marked evacuation point may not be appropriate in the event of a security threat. In this scenario, people may need to be evacuated to an alternative safe location further away from the building.

The reality is, there's no 'one size fits all' approach. Building



Image Credit: Evac + Chair

evacuation should be tailored to your building's design and your occupants' individual needs.

How can you improve the safety of your building?

When preparing your emergency evacuation plans, it's important to consider a number of different things in order to make them as effective as possible:

- People should be at the heart of all plans – your plan should be

a tailored solution which caters for the individual needs of the people you're protecting, especially those who are mobility-impaired, visually impaired or hearing-impaired.

- Embed best practice – health and safety teams should influence a culture of an organisation to emphasise the benefits effective planning can potentially have on reputation – both internally and externally.

- Maintain consistency – multi-site businesses should ensure best practice is consistent across all locations.
- Communicate clearly – visual cues can help to improve communication and identify any issues, making your emergency procedures easier to understand and implement effectively.

Best practice emergency evacuation

Every building, business or organisation must have a 'responsible person' who is formally accountable to ensure the safe and seamless evacuation of a building.

As the nature of risk continues to change, it is important this responsible person ensures all policies and procedures are kept up to date, to account for new and evolving threats. ✦

For more information on how the nature of risk is changing, please visit www.evacchair.ae or call +971 4430 7722.

Evacuation – 10 no-nonsense pointers

- Be aware of your obligations – updates in legislation, liabilities, codes of practice
- Make someone responsible – even in a small business
- Risk assessment – think specifically for your industry
- Evacuation strategy – part of overall disaster recovery plan
- Practice – evacuation and fire drills
- Be prepared – ensure people are trained
- Be aware of mobility-impaired people; make adequate arrangements for their evacuation in the event of an emergency
- Get tooled up
- Communication
- Service your equipment

“Use the correct equipment, carry out training as often as possible, plan and understand your

standard operating procedures to ensure that should an incident occur, you are ready in all aspects to get the people who are in your building, both employees and visitors, to a place of total safety. Building management is critical; we can have the best systems in the world but they require human intervention.

“We have to train and educate everyone so they understand the requirements of these fantastic vertical cities, standard operating procedures, and how their building works and interacts, so that when something does happen, we can give the right advice to the people in our buildings, showing them a duty of care to get them to a place of total safety.”

Gary Hicks, manager, Evac + Chair International Middle East, speaking at the Bahrain HSE Forum.

The sound of safety

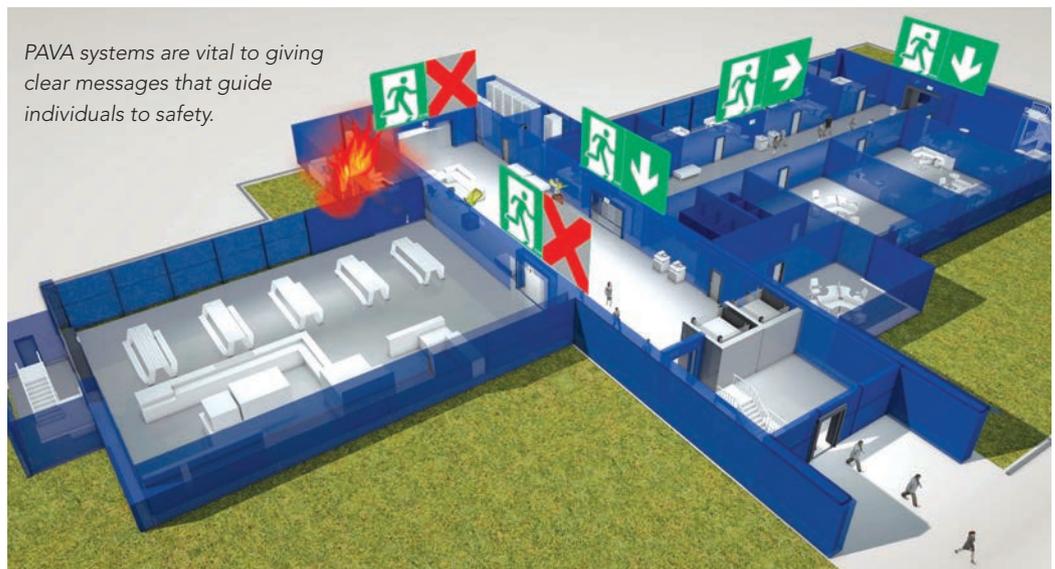
Ashraf Yehia, managing director, Eaton Middle East, discusses the benefits of PAVA systems for safe evacuation.

The evacuation of a commercial building can be triggered by a growing array of potential threats, including fire, acts of terrorism or extreme weather, and the process of guiding people to safety is becoming increasingly complex with the growing number of busy, complicated or unfamiliar buildings.

As part of the movement towards greater responsiveness when an emergency occurs, voice communications are a valuable component. Known in the industry as public address / voice alarm (PAVA) systems, they give building managers and safety or security officers the option of issuing tailored instructions to occupants. They are key to giving clear messages that guide individuals to safety, which is why they are an essential part in evacuation planning today.

Eaton has launched a new public address and voice alarm system. The EFDAU2000 is a powerful, all-in-one, wall mounted voice alarm solution that has been certified to EN 54-16, the standard for 'Voice alarm control and indicating equipment' and allows compliance with BS 5839-8, the code of practice for the design, installation, commissioning and maintenance of voice alarm systems.

The EFDAU2000 is network ready and up to 32 panels can be installed in a single network.



Other features include:

- ❖ Capacity for up to 10 amplifier cards (EF-D150 & EF-D500)
- ❖ 12 audio inputs and internal storage for up to 64 recorded messages
- ❖ Maximum power of 2000 watts total load per panel
- ❖ Integrated IP audio networking
- ❖ Integrated battery charger and dedicated battery mounting shelf
- ❖ Optional fireman's microphone and desktop paging microphone

EFDAU2000 provides an easy to install and configure voice alarm solution for a range of centralised and decentralised PAVA applications.

A PAVA system can be applied

alongside other fire safety and security technologies, whether they are existing legacy systems or newer innovations. For example, PAVA is particularly effective when coupled with a CCTV system that helps a control room to identify potential areas of risk or congestion. The ability to direct people away from standard exit routes that have become dangerous, for example, is a powerful advantage of voice alarm systems.

Eaton has also launched an adaptive escape sign luminaire that enables real-time adjustment of exit routes according to the nature and location of a hazard. Matrix CGLine+ can adjust the direction of the arrow it displays, with the aim of improving safety of emergency evacuations in

commercial buildings including airports, shopping centres, railway stations, stadia, offices, schools, hospitals, universities and industrial sites.

The self-contained Matrix CGLine+ escape sign luminaire displays a solid or animated arrow that can point in any one of four different directions. The change of the pictogram can be activated via an input at the luminaire or controlled by EATON's Adaptive Evacuation system to respond in a certain way to predetermined triggers from fire alarms, smoke detectors, panic buttons or other inputs.

Compliant with European emergency lighting standards, Matrix CGLine+ can also operate as a standard exit sign. ❖



DUBAI HEALTH, SAFETY & ENVIRONMENT FORUM 2019

24 - 25 November 2019

Habtoor Grand Resort, Autograph Collection
Dubai, UAE

PREVENT | PROTECT | PREPARE

Over the last three decades, the UAE has become a major business centre with a diversified economy and a plethora of profitable industries. Economic growth has driven the need for a robust labour force capable of carrying out high-risk jobs across multiple industries. Protecting the health and safety of this ever increasing workforce is a top priority. Although the Government has taken several initiatives to promote safety at work with the support of all stakeholders, incidents do happen at workplaces. The Dubai Health, Safety & Environment Forum 2019 will present the latest innovations to help businesses deal with challenges related to occupational health and safety. Industry leaders will share solutions to enable companies and organisations to run successful operations while maintaining the highest HSE standards.

CONFIRMED SPEAKERS



Salman Dawood Abdulla
Executive Vice President -
HSSEQ
Emirates Global Aluminium



Dr. Mohammed Aref
QHSE Expert
Ministry of Human
Resources & Emiratisation



Jason Woods
Middle East Representative
International Power
Access Federation (IPAF)



Karim Youssef
Regional Head of QHSE
Panalpina World Transport
(Dubai) DWC LLC

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FOR MORE INFORMATION AND TO REGISTER:
UAE: +971 4 448 9260 | UK: +44 20 7834 7676 | E-mail: register@hssreview.me

www.hse-forum.com

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Middle East
www.hssreview.me

Are you hearing right?

Safety company MSA highlights the importance of hearing protection and provides some advice on selecting hearing protection devices (HPDs).



Image Credit: Douglas Gingrich/Adobe Stock

“Prolonged or excessive noise exposure may damage nerve endings in the inner ear and present long-term challenges, on and off the job.”

Choosing the right HPD for the job depends on various factors.

Noise-induced hearing loss is a serious occupational hazard. In the USA alone, an estimated 22 million workers are exposed to potentially damaging workplace noise, according to the US Department of Labor Occupational Safety and Health Administration (OSHA). According to the Center for Disease Control and Prevention (CDC), occupational hearing loss is one of the most common work-related illnesses in the USA. While in the UK around 23,000 workers suffer from work-related hearing problems, according to

the Health and Safety Executive (HSE).

What makes hearing loss particularly insidious is that it is often painless, gradual, and progressive. Usually, there are no visible signs of injury.

The importance of hearing protection

Prolonged or excessive noise exposure may damage nerve endings in the inner ear and present long-term challenges, on and off the job. This potentially permanent and lifelong problem may affect workers' ability to perform even daily, mundane

tasks.

Workers in high-decibel level areas are affected most. That is one reason the USA's OSHA requires employers to conduct annual hearing tests for these team members.

It begins with a baseline test to establish hearing acuity. This usually happens with new hires, or when an employee transfers to a job with high noise levels. Additional tests help determine the effectiveness of the company's hearing protection programme, allowing them to make changes if necessary. It includes measuring workplace noise levels annually

so that appropriate hearing protection procedures or equipment are planned for and implemented. Decibel levels are determined by using a TWA (time-weighted average) method.

In the UK, the level at which employers must provide hearing protection and hearing protection zones is 85 decibels, and the level at which employers must assess the risk to workers' health and provide them with information and training is 80 decibels. Health surveillance (hearing checks) are required for workers regularly exposed above 85 decibels.

Hearing tests alone won't alleviate the problem. But they can help determine the controls and PPE that help prevent this debilitating occupational hazard.

Some dangerous noise levels can be engineered out. Engineering controls can prove an effective line of defense. They include physical measures such as redesigning equipment or constructing barriers to block the noise.

Unfortunately, not every noise hazard can be eliminated that way. In those cases, personal protective equipment for safeguarding hearing becomes essential.

Hearing protection devices (HPDs) must be properly selected, worn, and maintained. HPDs aren't one-size-fits-all by any means. Each worker is different, as well as the workplace environments.

Choosing the right HPD for the job is based on several factors:

- ❖ Decibel level of the work area to determine the NRR (noise reduction rating) of the device used, also called attenuation levels
- ❖ Worker comfort
- ❖ The ability of the worker to use and maintain the HPD on his/her own (the product



Earmuffs attached to a hard hat can be swung out of the way when not needed.

Image Credit: thinkphotop/Adobe Stock

should be simple to use and unobtrusive)

- ❖ Other options such as enhanced worker-to-worker communication

Monitoring and recording work areas help determine the suitable HPDs for the area. And the annual monitoring informs the employer when a change in process affects their hearing conservation programme.

Of course, hearing protection that isn't worn isn't effective. Worker comfort has much to do with how often HPDs are used.

In a report published by US National Library of Medicine, National Institute of Health, researchers found a link between comfort and the likelihood of consistent and correct HPD use. The study concluded that "hearing protection must be selected with as much attention to comfort, convenience, and communication as to attenuation characteristics."

The types of hearing protection available

The two basic types of hearing protection devices are ear plugs and earmuffs.

Earplugs are inexpensive and relatively simple. Made of soft foam or silicone, they simply insert into the ear canal. However, users should be trained in properly placing them. For some users, they may take time getting used to. Foam plugs are normally discarded after a single use. Silicone plugs may be used multiple times as long as they're cleaned and disinfected. They must be inspected frequently for damage or wear. If damaged, discard them.

Earmuffs are pricier, but have benefits that offset the cost. Training is minimal. Most people already use headsets and headphones for music and other activities. That familiarity makes earmuffs a natural fit. They can

also prove more effective in high-noise environments where extended use is necessary. And they're more visible, making it easier to monitor their use.

Earmuff HPDs have a much longer lifecycle and many parts, such as the foam cushions and inserts, are replaceable. They can be purchased with headbands for over the head applications. Many models can be attached to a worker's hard hat. When not needed, they can be swung out of the way. A major benefit to hard hat-mounted earmuffs is that they're always with the worker. This often leads to increased HPD use, a major factor in hearing protection.

Ear protection products for sale in Europe must meet the EN352 series of European Standards and the new PPE regulation (EU)2016/425. ❖

For more information, see www.msa.ae.

New developments in safety gloves

Ironclad Performance Wear discusses technologies in hand protection and the new EU test standard.

“Safety gloves which are ill suited to a specific task or are ill-fitting may also inhibit dexterity or cause injury.”

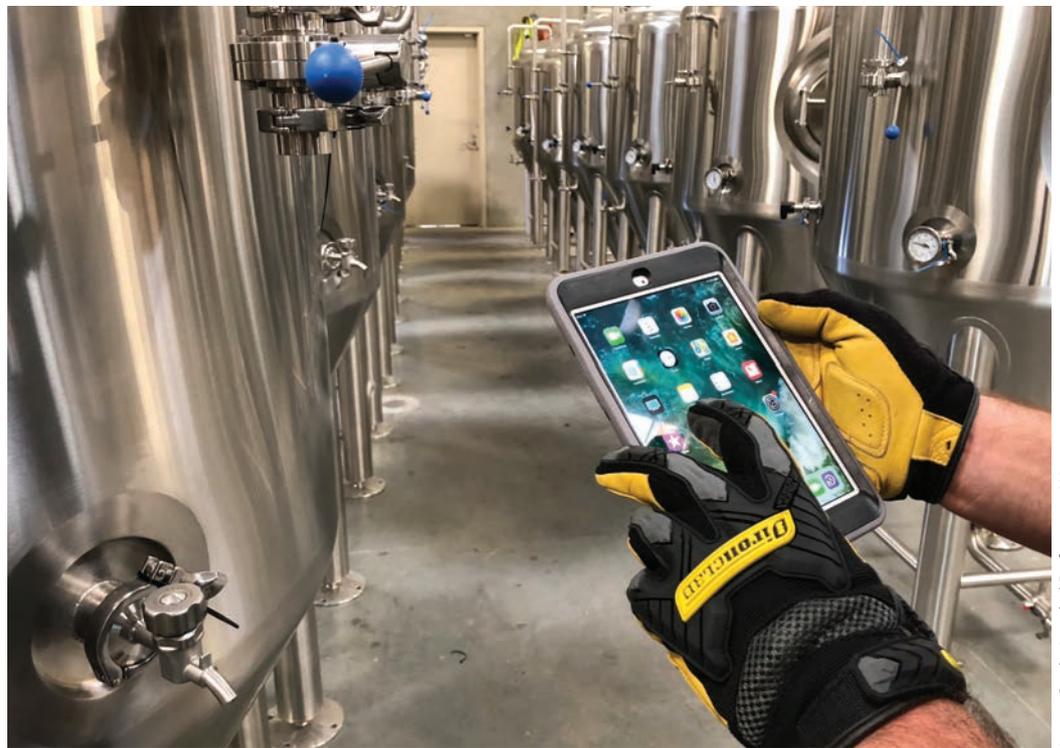


Image Credit: Ironclad Performance Wear

Your hands are vulnerable to a multitude of hazards in the workplace, including mechanical risks. In all industries, workers are at risk of sustaining injuries through cuts, punctures, abrasions, crushes, fractures, strains and avulsions. This is why it is important to identify and provide the most suitable safety gloves for the task in hand, the environment you are working in and the hazards you are likely to face.

If the wrong selection is made, this can be equally as hazardous as not wearing any hand protection at all. Safety gloves which are ill suited to a specific task or are ill-fitting may inhibit dexterity or cause injury.

At Ironclad Performance Wear, we offer several ranges of Safety gloves which offer a variety of safety features – from cut and impact protection, to chemical and high abrasion resistance. In addition to these common types of gloves, we offer advanced protection where gloves have been designed with comfort, grip, dexterity and efficiency in mind while meeting other specific needs, ergonomically designed so they can be worn comfortably all day.

The modern workplace is a changing landscape with the rapid influx of tablets, data entry terminals and smartphones into manufacturing, construction and warehouse work sites.

Ironclad Performance Wear has launched their

Touchscreen capability is increasingly required in safety gloves.

Command Series of safety gloves, which all have touchscreen capability, while still providing protection, comfort and dexterity.

The two main advantages of wearing gloves which work flawlessly with all touchscreen devices are efficiency and safety compliance. With touchscreen devices entering nearly all types of workplaces, gloves that are not 100 per cent touchscreen compatible create a host of problems.

First, removing gloves to enter data will negatively impact workplace efficiency. Second, once an employee has removed their gloves, they have instantly created an unsafe working environment. They are literally forced to be non-compliant with workplace safety requirements. This is unfair to the employee, and, most importantly, it is unsafe as well.

Advanced materials

The evolution of technologies has paved the way for advanced materials and cutting edge glove design. Incorporating nanoparticle technology, the Command series gloves are infused with highly conductive carbon ions resulting in a fabric composite with electrical conductivity even greater than the human finger. Unlike a conductive palm coating, which conducts poorly and can wear off over time, Ironclad's specialised ion infused micro-fibre matrix lasts the life time of the glove.

Another addition to the range are the Command Knit safety gloves, also 100 per cent touchscreen compatible, with cut protection available from levels 1 to 5 and A to F. These are extremely dexterous and comfortable while providing high levels of cut protection.

Ironclad Performance Wear is well known for their Impact Protection range of heavy duty safety gloves under the KONG brand. Ironclad sponsored one-of-a-kind hand impact studies with the University of Wisconsin in 2010 and 2015, to develop a reliable, repeatable safety glove impact test and rating system.

The Ironclad Impact shield was born – providing an easy to understand method of identifying the impact protection provided by any glove on the fingers, knuckles and metacarpal bones.

EN 388



The new European test standard.

ABRASION	COUP TEST	TEAR	PUNCTURE	TDM TEST	IMPACT
1 - 4	1 - 5	1 - 4	1 - 4	A - F	P, F, X
4	5	4	3	C	P

New standard

The recent change from EN 388:2003 to EN 388:2016 European safety standard for 'Protective gloves against mechanical risks' will enable end users to better select the protection required against the hazards present in their work environment. Ironclad Performance Wear have been re-certifying their entire range in accordance with the new standard.

Until 2023, products tested to EN 388:2003 are still valid and it certainly does not mean these gloves are inferior in any way but in time all hand safety products will be re-tested to the new standard under the new test methods. It is important to remember that the performance of the glove has not changed, only the method of testing.

Although there are many changes in the new test standard, the most notable relates to cut protection as a new test method has been introduced. The 2003 cut test involved the 'Coupe test' which has now been supplemented with the addition of EN ISO 13997:1999 test method (TDM test). While the coupe test offers an effective representation for cuts caused by sharp, fairly lightweight objects, it does not accurately represent high-level cut protection offered by newer technology

fibres and fabrics; the TDM test gives a more accurate specification in terms of cut resistance for low, medium, high and extreme cut risks.

The EN 388:2003 test did not include Impact testing so this has also been added in accordance with EN 13594:2015 test method. This is an optional test and any gloves meeting these criteria are marked with a 'P' after the BS EN 388 rating values. It is important to note, a glove that has not passed the EN 13594:2015 test method for impact protection cannot be labelled, marketed or sold as 'Impact Resistant'.

With the new test standards and advancing technologies, the best way to identify the most suitable gloves for a particular application can be accomplished by carrying out a Hand Safety Assessment. This is where specific risks present in the workplace are examined, such as the work environment and tasks being undertaken, along with other factors including any mechanical or physical hazards. Gloves can then be selected based on the greatest hazard a worker will face while performing their daily job.

Ironclad Performance Wear can provide recommendations and assessments through their global network of authorised distributors. ♦

The importance of specifying the right safety gloves

Aquila Gloves discusses trends in industrial impact and cut protection PPE.

On site visits around the world we often see the wrong gloves used for the working environment.

Even in quarries and mines, workers are using basic nylon coated gloves where it is clear that Cut Gloves should be used as a more robust glove on abrasion, and for protection from sharp objects. Often this results from company cost cutting, or it is simply that workers may not know better, as they are not properly educated by the safety managers, and because gloves are perceived as less important protective wear compared to, say, hard hats and shoes.

This is clearly a misguided approach, since according to the US Bureau of Labor Statistics, nearly 20 per cent of workplace injuries involve cuts and lacerations to the hand and fingers. It reports that more than 70 per cent of workers experiencing hand injuries were not wearing gloves at the time, and the remaining 30 per cent of injured workers were not wearing the right type of glove. According to the American Society of Safety Professionals, two out of every five hand injuries are from cuts or punctures.

So – are you specifying the right glove for the safety of your

workers and in the best interests of your company?

A good example is the impact protection glove market where Aquila have chosen to use TPE (thermoelastic elastomer), otherwise known as TPR (thermoelastic rubber) for their impact pads for its comfort and wearability, so ensuring that users keep their gloves on and keep working longer, better and safer.

TPE/TPR is excellent for impact protection but is expensive compared to PVC. However, the PVC material is hard, hence increases hand fatigue, and when PVC ages, it tends to become brittle and breaks. Also, it is less flexible and sometimes results in injury after long hours of wearing.

The impact protection pads adhered to the gloves can determine the quality and longevity of impact gloves. For example, sewn on pads may appear good and secure but they will come off easily if the material of the pad is brittle, allowing the pad to break off very easily – a situation aggravated if the gloves are laundered, with the PVC being degraded in the process.

Aquila has developed a new approach to cut glove manufacturing with its spiral

wrap (or yarn wrapping) technology. The Alkimos yarn technology used in Aquila cut-resistant gloves employs a spiral fibre winding of ultra-high-density polyethylene as a protective and structural support outer layer to the core fibre. The yarn is consequently extremely tough with the core fibre protected from mechanical damage such as breakage or fraying in the wash process.

Also, if glass fibre is used in the mix of the yarn, the spiral wrapping supports core fibres in the flexing of day to day wear so ensuring a soft comfortable fit, without the itchiness associated with release of glass micro-fibres.

This is why gloves manufactured with Alkimos yarn are able to maintain their extremely high performance for an exceptional number of wash cycles. Repeated washing saves a considerable replacement cost, and with up to 14 washes without degradation of cut test performance Alkimos yarn means gloves can frequently exhibit double the working life compared with other mainstream products.

Ultimately a better cut yarn means a better glove, better cut resistance, better working and lower costs. ✦

“Nearly 20 per cent of workplace injuries involve cuts and lacerations to the hand and fingers.”

LED linear luminaire for onshore drilling rigs

Drilling rig lighting

Emerson has introduced the Appleton Rigmaster LED linear luminaire which facilitates the task of installing and maintaining bright, energy-efficient lighting in hazardous areas on drilling rigs.

The Appleton Rigmaster LED weighs a mere 10 lb, making it significantly lighter than similar fixtures. It delivers 8,000 lumens of uniform lighting, and the diffused lens option provides no-glare illumination. High efficiency LED drivers consume less than half the energy of standard T8 fluorescent fixtures.

It offers a variety of mounting options. A hinged wiring compartment with captive hardware makes the installation experience smooth and safe. Other features include an operating temperature range of -40° to 65° C, NPT (National Pipe Thread Tapered) hubs on each end for through wiring and an LED life of 60,000+ hours.

Built with a high degree of corrosion resistance, the



Image Credit: Emerson

The Appleton Rigmaster LED linear luminaire.

Appleton Rigmaster LED features a gasketed, copper-free aluminum housing, plus a thermal-shock and impact-resistant polycarbonate lens.

It is certified for Class I, Division 2 hazardous locations, National Electrical Manufacturers Association (NEMA) Type 3R, 4 and 4X wet and marine type areas. The fixture also meets IP66 rating requirements of being “dust tight” and protected against powerful jets of water.

Emerson has also expanded its portfolio of LED linear luminaires for hazardous

locations. It has introduced the new Appleton ATX FNLED non-metallic, hazardous area linear luminaire for Zone 2 and 22 hazardous locations, along with an upgraded version of the Appleton ATX FELED luminaire engineered exclusively for Zone 1 and 21 hazardous locations.

Both bring significantly higher energy efficiency, lower maintenance costs, and a longer service life to harsh, punishing environments unsuitable for standard lighting fixtures, especially where ingress protection from dust and moisture is required.

Larson Electronics releases 50W explosion-proof LED light

Explosion-proof lighting

Larson Electronics has released a 50-watt portable explosion-proof LED light for use in hazardous industrial work areas and commercial settings. The EPL-BS-70LED-50 explosion proof LED light is rated for use in Class I, Divisions 1 and 2, Groups C and D; and Class II, Divisions 1 and 2, Groups E, F and G hazardous locations. This light provides 4,500 square feet of coverage for work areas and 70,000 lumens of bright light output while drawing on only 50 watts. It is available in 360° and 180° beam spreads and is mounted to a handheld aluminum frame with an explosion proof on/off switch on the frame’s back. This unit operates on 120-277V AC 50/60Hz with a T5 temperature rated LED light offering 60,000 hours of lamp life. The aluminum frame has an explosion proof switch built into the cord wrap on the unit’s back.

This light comes with 50ft of SOOW cord terminated in a 1523 explosion proof straight blade plug.

Chalmit launches new generation of LED lighting for hazardous areas

Hazardous area lighting

Chalmit has launched the Protecta X LED luminaire, a high performing LED linear for harsh and hazardous applications which offers user-definable light distribution and a lifespan of more than 120,000 hours at 25°C.

The Protecta X has specialised optics which deliver the light of a 4ft linear in a lightweight and slimline luminaire package. The optics are available in a variety of distinct distributions, designed for key site applications. It is 50 per cent more energy



Image Credit: Chalmit

The Protecta X LED luminaire.

efficient than a fluorescent luminaire.

The Emergency Protecta X has an innovative battery stick which slots into the

side of the luminaire. The Protecta X also avoids the overheating issues of traditional linear luminaires. Its LEDs and driver are housed in separate enclosures extending the life of both components. Air gaps between the luminaire and central body prevent the collection of dust and particulates. Made of marine grade aluminium, heat is conducted away from the luminaire’s central body. It has an ambient temperature range of -40°C to +60°C in standard models and -25°C to +60°C in emergency variants.

Bosch unveils fixed dome cameras

Security cameras

Bosch has launched the new FLEXIDOME IP starlight 8000i fixed dome cameras in the Middle East, which the company says saves time in pre-configuration, installation and wireless remote commissioning.

The camera is suitable for indoor and outdoor areas, enables detailed image capture in challenging light conditions, and provides data analysis for improved security and delivering business insights.

The FLEXIDOME's product enables set-up in three steps – installing the mounting bracket, connecting the cables, and attaching the camera module.

Installers can commission the cameras entirely wirelessly without having to repeatedly climb up and down ladders, or hire lift equipment to reach cameras at high levels.

A wireless contactable tablet or smartphone with the Bosch project assistant app can be used to adjust the pan, tilt, roll and zoom (PTRZ). Further, adjustments required post-



The FLEXIDOME starlight 8000i camera.

installation can be carried out remotely after a secure release process.

Other features of the new cameras include built-in intelligent video analytics with camera trainer functionality, allowing video cameras to be taught to recognise and detect stationary objects or certain situations instead of being triggered by motion alone.

All FLEXIDOME IP starlight 8000i models feature HD 1080p,

six megapixels, and 4,000 ultra HD resolution for exceptional detail – even in low-light situations. Fast-moving objects are easily captured with frame rates of up to 60fps, while High Dynamic Ranges of up to 134 dB compensate for dark and bright spots in the scene. The dome camera provides water resistance of IP66, high quality, dual-layer coating for added protection against corrosion and IK10+ vandal resistance.

Zone 1 computer for oil & gas industry

Computer hardware

HMi Elements, which designs and manufactures 'mission critical' computers for the oil and gas industry, has launched the 1301-Z1 computer which allows field maintainability for computer hardware in a Zone 1 product.

The unique enclosure with a hinged front allows access to the inside so it can be maintained in a safe area close to drilling rigs and oil refineries. The new product also has glove-friendly touchscreen controls, unique edge-to-edge glass, a high resolution display even in bright environments, high speed processing capability and is lightweight and slim.

All the company's products undergo rigorous testing and auditing so they are certified to use in and withstand explosive atmospheres. They are capable of operating in temperatures ranging from -40°C to +60°C.

Howard Gould, chief executive at HMi Elements, said, "Our products play a crucial role helping some of the biggest companies in the industry source and extract oil and gas."

Eliminating corrosion risk in firesafe valves for offshore oil & gas

Firesafe valves

Severn Glocon Group is extending its range of triple offset butterfly valves with a new solution that avoids galvanic corrosion in saline applications, without compromising firesafe capability.

The innovation ensures graphite parts – which can increase the susceptibility of neighbouring metals to corrosion when exposed to seawater – do not contact line media.

Seawater service valves play an integral role feeding water in the event of fire on an offshore platform or vessel. Their ability to either

supply or isolate sections of the water line is a critical safety feature. Eliminating galvanic corrosion while maintaining firesafe credentials has been an enduring industry challenge.

Mark Breese, Group Product Development manager – Butterfly Valves, said, "Triple offset valves are generally constructed with graphite packings, gaskets and laminated metal/graphite seals. In normal operation this material provides good service, but increased risk of galvanic corrosion in seawater applications has been an ongoing concern for offshore operators. Our team overcame

significant technical challenges to develop a sustainable solution that removes or replaces graphite, building on our oblique cone technology (OCT) for triple offset valves."

"The team took steps to ensure the solution is compatible with additional control valve features such as anti-cavitation or low-noise trims, extending its potential use beyond isolation service," he continued. "It can also be retrofitted into valves already in operation."

Severn's new valve design passed fire testing in accordance with the latest editions of API 6FA, API 607 and ISO 10497.

Safety & Health Expo provides platform for product launches

Health & Safety products

Safety & Health Expo, which took place from 18-20 June at ExCel London, showcased the latest solutions, products and services on the market. From testing and monitoring services to training and safety tech, companies used the event as a platform to launch new products in front of an engaged audience of thousands of potential buyers. Some of the industry's biggest companies launched products, including Acre, Rebo, Reactec, Eurofins Workplace Drug Testing, PDC Scaffolding, RRC International, Birkenstock, Logical Safety, Mats4U and Alcumus.

SHE Software officially launched Insights+, its innovative new business intelligence tool. Blackline Safety launched its Push to Talk function, a new feature adding new functionality to its devices, and Bollé released its new SILEX range of safety glasses.

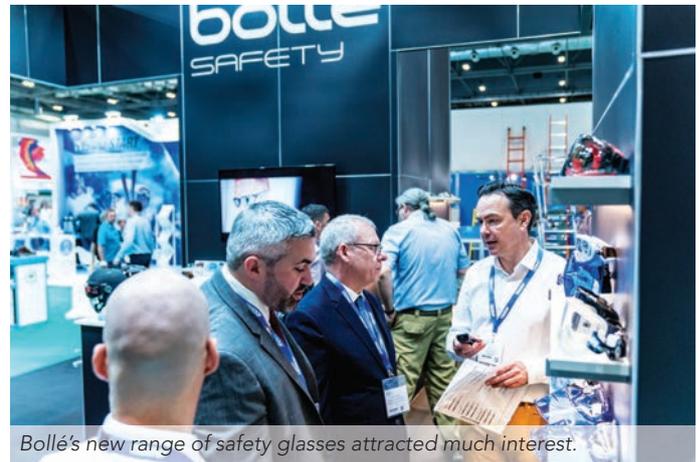
Meanwhile, Barbour EHS – the industry's one-stop shop for information from HSE, British standards and trade associations – showcased its new-look customer library and complete rebrand.

Medical and safety technology provider Dräger showcased new products aimed at reducing carcinogenic risks in the workplace, including the x-pid 9000/9500, a selective PID gas measurement device ideal for users who frequently test for hazardous toxic substances.

Training Register, launched by Hands HQ, aims to transform how safety managers maintain the training competencies of personnel. It automates the training compliance check for each person when added to a job, providing a dashboard overview that makes it simple to identify exactly how to remain compliant.

Weatherall Equipment and Instruments launched its new GX-3R 4 and 5 personal gas monitors – the world's smallest, featuring Bluetooth connectivity and lone worker features such as man down and panic alarms.

Sphera showcased its first-of-its-kind algorithm, Sphera Safety Score, designed for companies to compare safety performance against industry peers and best-in-class performers.



Bollé's new range of safety glasses attracted much interest.

Image Credit: UBM

Innovations at this year's show included the new Safety Technology Zone, which helped guests explore the implications of the most innovative technology on the market, including drones, AI, VR and wearable devices. These disruptive health and safety solutions are set to transform the workplace over the coming years. Speakers highlighted smart solutions, including using data to predict where incidents are likely to take place, and using VR to experience risks without exposing anyone to harm.

Safety & Health Expo also introduced the PPE Attack Zone, where PPE was subjected to visual tests in real-world scenarios designed to help users and buyers discover how high-quality equipment can surpass industry standards and meet their safety needs. Participants included HSE's GRIP scheme, SpanSet, 3M, Bollé Safety, PK Safety, GfG Gas Detection, Rob Shaw Associates and Derma Shield Skincare, among others.

Kentec launches new Sigma extinguishing range with event log

Fire safety

Kentec launched the Sigma ZXT single-area extinguishing control panel at this year's Firex, which took place from 18-20 June at ExCel London. It offers new functionality, improved displays and multiple configuration options for a targeted response to a fire incident.

Building on hundreds of thousands Sigma XT sales in nearly 70 countries, the Sigma ZXT provides controls and indications for a single-area extinguishing release system, enabling targeted extinguishing that limits damage and reduces costs. Three conventional

detection zones provide the alarm 'trigger' required to activate the release of the extinguishant, and the system can be configured to release the extinguishant on an alarm from any single zone or combination of multiple zones.

A new feature on the Sigma ZXT is the event log which records event data from the panel such as alarms, faults, configuration changes etc, along with a time and date stamp. This historical visibility is critical for diagnostics, identifying the cause of alarms and faults, as well as reasons for activations.

Up to 1,000 events can be stored within the panel which can be viewed through the LCD or can be downloaded and saved using Kentec's LE2 software.

The system, compliant with EN12094-1, can also be configured to provide two extinguishing outputs, either working together as common outputs or as main and reserved outputs. The latter results in the connection to two sets of extinguishing gas cylinders, which enables the customer to return a system to a functional state, quickly, following a release.

الالتزام باللوائح الكاملة والتمسك بها على النحو المذكور في المعايير البيئية للهيئة الملكية، إذ يُجري مسؤولو الهيئة الملكية والرئاسة العامة للأرصاد وحماية البيئة عمليات تفتيش عشوائية لضمان ذلك». واستطرد بقوله: «من بين المجالات الرئيسية التي يتعين اتخاذ إجراءات بشأنها حفظ ونقل النفايات الخطرة، والضوابط المتعلقة بخزانات المُركَّبات العضوية المتطايرة. ومن أجل الالتزام بهذه اللوائح البيئية، يجب تعميم أنظمة السلامة الفعالة». وبالإضافة إلى شؤون الالتزام المحلية، ألقى أميتاب الضوء على الظروف الفريدة في منطقة الشرق الأوسط التي يجب أخذها في الاعتبار، لا سيما أحوال الطقس القاسية، فقال: «قد تسبب الظروف القاسية في بعض الأحيان صعوبةً في إجراء الأعمال الروتينية». وأضاف: «الطقس شديد الحرارة صيفاً، وهو ما يجعل الأماكن عالية الخطورة وتلك القابلة للاشتعال أكثر عرضة للاشتعال أو قد تتفاقم الأوضاع وتقع حالات طارئة. ينطبق ذلك أيضاً على الشتاء الذي يشهد تكوّن الضباب على الطرق، مما يزيد من مخاطر القيادة ويؤدي إلى عطل الأجهزة أو توقف أجهزة الاستشعار عن العمل. والتخطيط هو الحل الأمثل للتعامل مع مثل هذه الحالات».

المزايا الثقافية

وختم أميتاب الحوار بقوله: «إن تأصيل ثقافة إيجابية للصحة والسلامة في أية صناعة قد يكون محفوفاً بالتحديات. ومع ذلك أعتقد أنه بإبراز مزايا ذلك على جميع المستويات، ليس فقط في إطار المحافظة على سلامة الأفراد، بل بتضمين رفع مستوى الإنتاجية وتوسيع نطاق الأعمال وتوثيق العلاقات التجارية، ستصبح هذه الثقافة مصدر إلهام للجميع لبلوغ معايير أفضل.

أصبحت أهمية صناعة النفايات أخذة في التزايد في منطقة الشرق الأوسط. ويجب علينا ألا ندخر جهداً للمحافظة على بيئة عمل آمنة وصحية».



أميتاب باتاشاريا، مستشار في الصحة والسلامة والبيئة

والسلامة، وفقاً لما ذكره أميتاب: «من بين الجوانب الأساسية إدراك الإدارة لأهمية تطبيق معايير الصحة والسلامة بشكل عام والمزايا التي تعود على المؤسسة من جراء ذلك، فضلاً عن العواقب التي قد تتمخض عن عدم اتباع تلك المعايير. «بالنسبة لي، أعتقد أن محاسبة الأفراد على ما يقومون به من أفعال سوف يقبل الموازين. المساءلة هي ما يجعل الشخص يفكر أكثر من مرة قبل اتخاذ أي قرارات عشوائية تفتقر إلى أي نوع من التأثير الإيجابي بل وتساعد على انتشار الطاقة السلبية بين الموظفين، فالمساءلة إذا ما ارتبطت بالأهداف الرئيسية التي تسعى المؤسسة لبلوغها تكون شديدة التأثير.

«لقد أدى التدريب الداخلي الذي تلقينته على كافة المستويات إلى ظهور نتائج إيجابية في الأماكن التي عملت بها، فلم يركز فقط على تحسين الإجراءات بل عمل على توضيح مزايا تحسين ثقافة السلامة لجميع أصحاب المصالح الرئيسيين».

الالتزام والظروف الإقليمية

أشار أميتاب أيضاً إلى جانب مهم متعلق بالملكة العربية السعودية على وجه الخصوص، وهو تطبيق المعايير البيئية للهيئة الملكية (RCER) على صناعة النفايات. وقال: «يتعين

والغاز بشركات النفط العالمية الكبرى، مثل هاليبيرتون وبيكر هوج إحدى شركات جنرال إلكتريك، فضلاً عن شركة لارسن أند توبرو للهندسة الهيدرولوجية.

وقد استطاع آنذاك الحصول على شهادة «نيبوش» الدولية العامة للسلامة والصحة المهنية. أخبرنا أميتاب أن مؤهل «نيبوش» لم يساعده فقط في الحصول على منصبه الجديد، وإنما أثبت أيضاً عظم فائدته بطريقة مختلفة تماماً.

وقال «اضطعت بمسؤوليات إدارة الصحة والسلامة والبيئة في موقعين مختلفين، أحدهما مركز لإدارة النفايات في الدمام كان يعمل بكامل طاقته، والآخر في الجبيل وكان تحت الإنشاء». وأضاف: «كانا في واقع الأمر مجالين جديدين تماماً بالنسبة لي. وكانت شهادة «نيبوش» الدولية العامة لا تزال حاضرة في ذهني، وأهم فائدة منحتني إياها هذه الشهادة أكثر من أي شيء آخر هو تطبيق المعارف والخبرات التي اكتسبتها خلال عملي في مجال النفط والغاز في هذا المحيط الجديد المختلف تماماً والمفعم بالتحديات».

التدريب والمساءلة

شدد أميتاب على أهمية بدء التدريب من «نقطة الصفر» في مجال إدارة النفايات إلى جانب التدريب الرسمي المعتمد الذي تلقاه، وذلك لضمان ترسيخ ثقافة الصحة والسلامة الإيجابية. وقال: «إن ضمان تطبيق معايير الصحة والسلامة طبقاً للإجراءات، هو الأمر الذي يجب أن ينتبه إليه القائمون على صناعة إدارة النفايات، حسب خبرتي. فعلى سبيل المثال؛ عندما ينقل سائق شاحنة تحمل نفايات خطرة من جيزان إلى الدمام لمسافة تبلغ نحو 1600 كيلومتر لإجراء أعمال التخلص من النفايات وتدويرها في المنشأة، يجب اتخاذ عدة خطوات من بينها تلقي السائق التدريب على الاستجابة في حالة انسكاب المواد الكيميائية الخطرة، وإجراء عمليات الفحص المسبقة إلى جانب الإلمام ببروتوكولات النقل».

غير أن ما يفوق ذلك أهمية هو التزام الإدارة بالصحة

سبتمبر/أيلول

الكويت
مسقط

www.hse-forum.com
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3 - 4 منتدى الكويت للصحة والسلامة والبيئة
24 - 25 منتدى عمان للصحة والسلامة والبيئة

أكتوبر/تشرين الأول

مسقط
الرياض

21 - 23 عمان إكسبو للوقاية من الحريق والسلامة والأمن (أوفسيك) www.muscat-expo.com
29 - 31 المعرض السعودي الدولي للأمن والوقاية من المخاطر - SNSR Expo

نوفمبر/تشرين الثاني

دوسلدورف

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2019

مفكرة

الفعاليات





استتضاعف النفايات في المناطق الحضرية بالشرق الأوسط بحلول 2025

ثقافة السلامة الإيجابية لتعزيز صناعة النفايات

أجرى دافيد تولسون، رئيس قسم المؤهلات والتقييم بالمجلس الوطني البريطاني لامتحانات الصحة والسلامة المهنية «نيبوش»، حواراً مع أميتاب باتاشاريا حول العمل في صناعة النفايات بالشرق الأوسط، وتناول الحوار التحديات التي تواجه تعزيز ثقافة الصحة والسلامة الإيجابية. فالتوسع الاقتصادي والزيادة التي شهدتها أعداد السكان أديا إلى زيادة النفايات بشكل ملحوظ في الشرق الأوسط خلال السنوات الأخيرة.

الأخرى أن تلتفت أيضاً لمجال إدارة النفايات».

تطويع المهارات والمعايير

كان أميتاب بحاجة لتطويع مهاراته ومعارفه الخاصة لتلائم إدارة النفايات في 2017 عندما حصل على فرصة للعمل كمدير للصحة والسلامة والبيئة في شركة إدارة خدمات البيئة العالمية المحدودة بالمملكة العربية السعودية. كان قد عمل قبل ذلك لأكثر من سبع سنوات كمتخصص في شؤون الصحة والسلامة والبيئة في قطاع النفط

معدلات الحوادث في صناعة النفايات تفوق تلك التي تقع في القطاعات الأخرى بأربعة أضعاف، مع ارتفاع عدد الحوادث القاتلة لعشرة أضعاف. وهذا يدل على أهمية تأصيل ثقافة الصحة والسلامة الإيجابية على مستوى صناعة النفايات الناشئة في منطقة الشرق الأوسط على وجه الخصوص. وقد عمل مستشار الصحة والسلامة والبيئة، أميتاب باتاشاريا، في مجالي النفط والغاز والنفايات في المنطقة، وقد ذكر أنه «يتعين على دول الشرق الأوسط التي تحرص على تطوير إمكانيات ومعايير الصحة والسلامة المهنية في الصناعات

أصدر البنك الدولي بيانات تفيد بأن البحرين والكويت وقطر والمملكة العربية السعودية والإمارات العربية المتحدة تُصنّف الآن من بين أعلى الدول إنتاجاً للنفايات الصلبة لكل فرد في العالم، مع توقعات بتضاعف نفايات المدن في الشرق الأوسط لتصل إلى 370 ألف طن يومياً بحلول عام 2025. ونتيجة لذلك، فإن مشاريع إدارة النفايات الطموحة تشهد تطورات على مستوى المنطقة، ما أفضى إلى توسّع صناعة إدارة النفايات بشكل آخذ في التزايد. وتشير الأرقام، التي أوردتها هيئة الصحة والسلامة في المملكة المتحدة، إلى أن

في هذا العدد ...



مقابلة

ثقافة السلامة الإيجابية لتعزيز صناعة النفايات

ما ضمن محتويات القسم الإنجليزي:

التطورات: تطورات السوق.

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فعاليات: منتدى الكويت للصحة والسلامة والبيئة، عمان إكسبو للوقاية من الحريق والسلامة والأمن (أوفسيك)، معرض السلامة والأمن - A+A.

المحررة: لويز ووترز - بريد إلكتروني: louise.waters@alaincharles.com

مديرة التحرير: جورجيا لويس

فريق التحرير والتصميم: براشانت إيه بي - هيريتي بابرو - رانجانا جي إس - توم مايكل

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كيسنل دوكسيري - فاني فينوجونال - ديلينا روي.

مدير مبيعات المجلة: ريتشارد روزيلار

هاتف: +442078347676 - فاكس: +442079730076

بريد إلكتروني: richard.rozelaar@alaincharles.com

المكتب الرئيسي:

Alain Charles Publishing Ltd, University House, 11- 13 Lower Grosvenor Place, London SW1W 0EX, UK

Tel: +44 (0) 207 834 7676, Fax: +44 (0) 207 973 0076

مكتب الشرق الأوسط الإقليمي:

Alain Charles Middle East FZ-LLC, Office 112, Loft 2B

صندوق بريد: ٥٠٢٠٧ - مدينة دبي للإعلام - الإمارات العربية المتحدة.

هاتف: +٩٦٠ (٤) ٤٤٨ ٩٦٦ - فاكس: +٩٦٠ (٤) ٤٤٨ ٩٦٦

الإنتاج: ناتانيل كومار - مامتا كارتيك - تيللي مينديز - كافيا جيه

بريد إلكتروني: production@alaincharles.com

الإشتراكات: بريد إلكتروني: circulation@alaincharles.com

الناشر: نك فوردهام

مدير المبيعات: مايكل فريديج

رئيس مجلس الإدارة: ديرك فوردهام

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المترجم: عزالدين م. علي - بريد إلكتروني: ezzeddin@movistar.es

التصميم والإخراج الفني: محمد مسلم النجار - بريد إلكتروني: alnajjar722@gmail.com

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تحديات تبنى ثقافة إيجابية للصحة والسلامة في صناعة إدارة النفايات
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