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Health, Safety & Security Review

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Middle East

THE LATEST IN FIRE SUPPRESSION

INSIDE...

Security Buyers' Guide

**Advancing HSE through
collaboration**

The importance of fit testing

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June 2021

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editor's note

The Middle East fire safety market is set to grow strongly over the next few years. In this issue, Johnson Controls discusses the latest trends and fire safety solutions, as well as providing advice on how to select the most appropriate fire suppression solution (p13).

We hear from Tadweer on how pursuing the latest innovative technology and encouraging foreign participation can facilitate climate-friendly waste management and effective recycling (p24).

We also include exclusive interviews with keynote speakers at our HSE UAE Forum and inaugural virtual HSE Oman Forum, both of which were a great success (p8-12). And don't forget our Security Buyers' Guide on p30.

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Philips, du partner to transform healthcare

Healthcare

Philips, Healthcare Technology specialist, and du, from Emirates Integrated Telecommunications Company (EITC) have partnered, signing a memorandum of understanding (MoU) which will see the two companies collaborating to accelerate the critical, data-driven transformation of healthcare across the United Arab Emirates. The agreement will support the Dubai Health Strategy 2021 to transform the data-driven approach to healthcare.

Both companies will focus their collective efforts on striving to realise value-based care, aiming to improve patient and professionals' experiences whilst delivering better outcomes at a lower cost of care across the UAE's healthcare continuum.

Farid Faradooni, chief of the New Business & Innovation Office at du, explained, "Bringing people and businesses together to unlock economic and social transformation has always been at the heart of our operations."

"Although the pandemic



The partnership will set course for a rapid transformation of the UAE's data-driven healthcare strategy.

undoubtedly altered this laser-focused approach temporarily, with business continuity and seamless connectivity for all our topmost priorities, recent events have also accelerated the pace of momentum to realise the digital transformation required to help people take better care of their health at every stage of life."

The Dubai Health Strategy 2021, along with substantial investments in artificial intelligence, blockchain and

related technologies, and partnerships between major healthcare players, are all contributing to the rapid transformation of healthcare across the UAE.

"As a leading national organisation, we are proud to contribute to efforts in this direction and look forward to working with our partners at Philips to achieve our shared objectives in due course," concluded Faradooni.

Image Credit: Philips/du

Intertek and PRECISE sign testing MoU

Infection control

Intertek has announced a formal agreement (including a memorandum of understanding) with PRECISE, regarding its new antimicrobial film.

The agreement confirms Intertek's involvement in the testing and launch of PRECISE's highly-effective antimicrobial protective films, designed to protect high-contact touch spots and surfaces from transmitting infection.

PRECISE's nano-copper antimicrobial film solution kills 99.9% of pathogens within 30 seconds, including the COVID-19 virus. The solution requires no human intervention or repetitive disinfection.

As part of the agreement, Intertek will provide the exclusive independent COVID-19 SWAB testing for the solution, dubbed MEDG.

Intertek's COVID-19 testing service is part of Intertek Protek, a worldwide first health, safety and wellbeing assurance programme designed for people, workplaces and public spaces.

EFS Group acquires Guardian Safety & Security

Fire safety

EFS facilities Services Group has acquired Guardian, a company operating for more than 12 years in the UAE providing best-in-class fire protection systems and services.

This move was facilitated by an official signing ceremony between the entities at EFS Group head office in Dubai, UAE.

Guardian offers total fire protection and maintenance solutions ranging from sprinkler systems, fire pumps, fire alarm

systems, clean agent systems, and many others as part of their installation and maintenance contract services. These turnkey service offerings follow NFPA standards and Civil Defence requirements with around 400 clients.

Tariq Chauhan, Group CEO, said, "This move will go a long way as it will act as a significant enabler for EFS, being a leader in the integrated facilities management space with a 21-year proven track record. This

strategic move will further accelerate and broaden EFS's capability in specialised systems and services.

"With the addition of Guardian into the EFS Group, EFS has expanded its technical expertise to ensure service excellence and sustainable service delivery to its clientele in the critical field of fire protection and safety. This will also facilitate our entry in fire safety in India, as the country holds great potential for this business vertical."

Recognising concussion dangers

HSE

Headway, the UK-based brain injury association, and leading safety manufacturer Centurion highlighted the importance of recognising and reporting signs of concussion to hard hat wearers during Hard Hat Awareness Week from 14-20 June.

On modern day construction sites, there is widespread awareness of the need to wear a hard hat, but in a survey carried out by Headway last year, 52% of workers surveyed said they had experienced a head injury which they did not report to their manager. Of those workers who had sustained a head injury, only 6% sought medical attention.

There is growing evidence of the short and long-term damage that can be inflicted by even a single knock to the head.

Peter McCabe, chief executive of Headway, said, "Concussion is often referred to as mild head injury, and while most mild head injuries result in no long-term damage to the brain, it can cause temporary disruption to brain function that can last for a



Image Credit: Adobe Stock

Concussion could lead to some very dangerous situations for workers on building sites.

matter of hours to days, weeks or even months.

"People may experience dizziness, nausea or even distorted vision, so for those working on a building site, potentially operating heavy machinery or working at height, this could lead to some very dangerous situations for themselves or colleagues.

"We want to remind people about the importance of wearing hard hats and taking any impact to the head seriously. Take time to

stop work, report the incident and recover fully before returning to work."

Chris Tidy, technical and training specialist at Centurion Safety Products, said, "Wearing a hard hat, maintaining, and storing it appropriately, and being more concussion aware, are all vital to keep hard hat wearers safe."

Further information can be found at: <https://www.headway.org.uk/news-and-campaigns/campaigns/hard-hat-awareness-week/>

Enhanced security certification for Yokogawa

HSE

Yokogawa Electric Corporation has announced it has obtained ISASecure CSA Level 1 certification from the ISA Security Compliance Institute (ISCI) for its ProSafe-RS safety instrumented system, a product in the OpreX Control and Safety System family.

This is the first time a safety instrumented system has obtained this certification. Yokogawa will leverage it to accelerate its efforts to enhance the cyber security of its customers' plant operations.

Yokogawa's ProSafe-RS safety instrumented system is certified for use in safety integrity level 3 (SIL3) applications. ISASecure CSA certifies compliance with the IEC62443-4-2 and IEC62443-4-1 international standards pertaining to control device security.

ProSafe-RS safety instrumented system helps to prevent accidents by detecting abnormal conditions in plant operations and initiating emergency actions.

Bee'ah and Polygreen launch JV to enhance environmental protection

Sustainability

Bee'ah, the Middle East's sustainability pioneer, and Polygreen, the Greek-owned company offering a total circular economy approach worldwide, have launched Evogreen, a joint venture (JV) that offers innovative marine and environmental management solutions, to promote a circular economy and sustainability.

The company aims to tackle marine pollution through advanced waste management solutions to keep oceans

pristine. By joining forces, Bee'ah and Polygreen are setting a new benchmark for environmental cooperation in the wider Middle East region.

Evogreen has already established an alternative raw material facility located in Bee'ah's waste management complex in Sharjah, and is building an alternative solid fuel facility to process waste streams such as sludge, and convert it into alternative fuel that can be used in cement manufacturing.

The alternative raw material facility treats

and processes maritime waste and marine-related hazardous waste, to produce alternative materials for industrial use. Both facilities will collect, recycle and recover hazardous and non-hazardous waste from ships visiting ports in the UAE, which is an international maritime hub.

Evogreen will also provide oil spill response services; management of distressed vessels, cargo and abandoned containers including recycling or recovery solutions, and repair or refurbishment works.

Latest innovations showcased at Arab Health

Health

Arab Health, the largest exhibition for the healthcare industry in the MENA region, welcomed 1,500 exhibitors from 62 countries during the four-day showcase.

More than 20,000 people attended the live, in-person showcase to do business and see the latest healthcare innovations and technology.

Underscoring the show's theme of 'United by business, driving the industry forward', a month-long online showcase will allow attendees to connect with people from around the world to meet and conclude business deals virtually, browse products and view a range of webinars, interviews, and keynote speeches.

Innovations on display included a smart portable cooling system that prevents vaccine spoilage during the last mile of distribution, designed by Kitty Liao, CEO of Ideabatic Ltd from the UK, winner of the Innov8 Talks competition.

G42 Healthcare showcased the latest AI platforms, scientific research and cutting-edge technology in genomics, digital



Image Credit: Informa Markets

Arab Health provided a platform for recovery for the healthcare industry.

health, diagnostics, and clinical trials to bring new healthcare solutions to communities and futureproof the health of nations. It shared learnings from the 4Humanity clinical trials, the world's first Phase III clinical trials of an inactivated vaccine, as well as discussing disruptive solutions to build an integrated healthcare response beyond the current pandemic.

Philips, a global leader in health technology, demonstrated

a reimagined future of healthcare, realised through AI-driven clinical collaboration command centres and key telehealth solutions.

The Ministry of Health and Prevention (MoHAP) and the Emirates Health Services (EHS) showcased a slew of innovative health services, the latest preventive and curative projects, and the integration of smart applications into health services, telemedicine, and digital health.

New wastewater monitoring lab

Health

The Abu Dhabi Department of Energy (DoE) has announced the launch of construction of a wastewater monitoring laboratory in Abu Dhabi that will analyse wastewater samples and issue early warnings to prevent the spread of infectious diseases or harmful substances, as well as curb any adverse effects on the environment.

The lab is being developed in collaboration with G42 Healthcare, a leading health-tech company based in Abu Dhabi. The facility will be capable of testing for chemical, physical, and biological hazards, including infectious diseases, parasites, pathogenic yeast and fungi, pharmaceutical compounds, and other lifestyle-related items – all with automated sampling and artificial-intelligence-powered data analysis.

The DoE has made significant efforts to guarantee the quality of treated water and ensure it is free of any harmful substances, particularly in the wake of the COVID-19 pandemic.

ENEC achieves 100mn safe work hours at Barakah plant

HSE

ENEC and its joint venture partner the Korea Electric Power Corporation (KEPCO) have surpassed more than 100mn man-hours without a Lost Time Injury (LTI) at the Barakah Nuclear Energy Plant.

ENEC and KEPCO have worked closely together for more than a decade on implementing the highest safety and quality standards and ensuring an exceptional safety culture. Dedication to continuous

improvement of everyday work behaviours, accountability, and employee empowerment to ensure their safety and that of their colleagues has been delivered through a range of safety-related practices and tools including continuous training programmes.

Mohamed Ibrahim Al Hammadi, CEO of ENEC, said, "This extraordinary achievement is a result of our robust culture of safety and dedication to meeting the highest standards of quality and safety in the development of

the Barakah Plant. Achieving 100mn safe work hours is a testament to the UAE's ability to safely deliver complex megaprojects and sets a new industrial safety record for nuclear new build projects.

"With thousands of workers at the site, we have been committed to offering regular training and coaching to ensure our team places safety as the highest priority. We remain committed to upholding these same standards throughout the plant's lifetime."

→ events calendar 2021-2022

September

12-14	Intersec Saudi Arabia	RIYADH	https://intersec-ksa.ae.messefrankfurt.com/ksa/en.html
28-29	International Security Expo	LONDON	www.internationalsecurityexpo.com

October

12-14	A+A	DUSSELDORF	www.aplusa-online.com
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November

1-3	IFSEC FIREX EGYPT	CAIRO	www.ifsecandfirexegypt.com
15-18	ADIPEC	ABU DHABI	www.adippec.com

January 2022

16-18	Intersec	DUBAI	https://intersec.ae.messefrankfurt.com/dubai/en.html
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Please verify dates and location with organisers as this information can be subject to change

Leading experts share insights at HSE Oman Forum

HSE Oman Forum

The inaugural HSE Oman Forum, which took place virtually from 22-23 June, provided a platform for experts from PDO, Port of Salalah, Oman Dry docks, Yokogawa RAC and other leading government and private sector entities to share their best practices, insights and strategies for the optimisation of safety performance.

The event opened with a presentation from Mark Breese, global sales manager, Yokogawa RAP, on 'Savings through Safety', which was followed by a panel session on the Zero Incident Framework.

Breese described the three key pillars of control of work: plant assets and process, plant system and technology, and safe working practices, which should be linked together to make a proper

balance between risk assessment, isolation management and permit to work.

He stressed that digitalisation and digital solutions are the easiest way to achieve this. Digital solutions such as RAP provide proven intelligent safety at the forefront of the digital control of work in high hazard industries.

In the panel session Nadhira Al Hinai, general manager Al Tasnim Group, stressed the importance of hands-on training for employees to improve HSE elements in the organisation, and highlighted the role of effective communications to ensure a robust HSE management system. She spoke about the seven Cs of Communications – Clear, Concise, Concrete, Correct, Coherent, Complete and Courteous. These are crucial for effective training and teaching to contribute to the

zero-incident culture.

Neelesh Sogani, chairman, IOSH Oman, highlighted the importance of investing in HSE and having a budget for it. If a single incident can be prevented, it decreases downtime, and thus increases profitability.

Jose Petrizzo, senior industrial hygienist, Petroleum Development Oman (PDO) said a proper management system can lead to opportunities for growth, decreasing the level of accidents, ultimately increasing the Return of Investment (ROI) and productivity while mitigating the risks. Petrizzo said that it is important to analyse why systems fail, and the sequence of events. A management system provides a late recovery measure in order to stop a disaster. The operator may not avoid errors, but should be able to reduce incidents by

analysing the trends and the consequence of these incidents.

Suriya Narayanan, consultant – business development manager, Yokogawa Middle East & Africa RAP – control of work solutions, said it is important to take the right managerial decisions and also take appropriate actions at an appropriate time to ensure safety. The operator needs to understand the plant's capability and to understand and assess stakeholders' expectations. The operator needs to have balance in doing that with a proper business case to meet those expectations.

The first session was followed by sessions on environmental footprint, E-HSE next revolution in Oman and best practices for an LTI-free workplace.

Reports on all four sessions are available at www.hssreview.com

Preventing accidents in Dubai industries

Eng Mohamed Al Marzooqi, head of accident investigation, health and safety department, Dubai Municipality, explained the learnings from accident investigations at the HSE UAE Forum.

“The differences in risk perceptions, the lack of proper equipment as well as inadequate machine maintenance, are principal causes of workplace accidents.”



Image Credit: Alain Charles Publishing

The HSE UAE Forum 2021, which took place in April in Dubai, created extensive awareness on health and safety, especially in the new work environment.

Eng. Al Marzooqi emphasised the significance of detailed accident investigations for industries, in safeguarding and protecting the interests of the workforce and the role they play in preventing recurring accidents.

He went on to explain that the responsibilities of the Dubai Municipality investigators include the preparation of

detailed reports and producing accident statistics, based on comprehensive investigations.

“The investigators should ask themselves three main questions, what happened, why and how it happened,” he elaborated.

Eng. Al Marzooqi pointed out that the most common causes of accidents in workplaces include a lack of training, adding that especially during the times of pandemic lockdowns, each worker was handling multiple jobs.

“The differences in risk perceptions, the lack of proper equipment as well as inadequate machine maintenance, are also

principal causes of workplace accidents,” he added.

He explained citing numerous real-life situations, that sometimes accidents occur due to varied risk perceptions, for instance, misjudging the roof height or miscalculating the pressure in a vessel.

The Dubai Municipality has created a video for awareness on the wrong and correct practices involved in different jobs. The recommendations for industries are to implement proper safety management and improve machine operation and maintenance, he commented. ♦

ABOVE: Eng. Mohamed Al Marzooqi, head of accident investigation, health and safety department, Dubai Municipality.

Advancing HSE through collaboration

Dr Rahaf Ajaj, assistant professor in EHS, College of Health Sciences, Abu Dhabi University, shares her thoughts on the role of academia/industry collaboration in advancing HSE.

“The outcomes of these agreements have opened new opportunities for students, faculties and industry partners.”

ABOVE: Dr Rahaf Ajaj, assistant professor in EHS, College of Health Sciences, Abu Dhabi University.

What role can collaboration between academia and industry play in driving solutions to HSE issues, and are there any examples you could highlight relating to the UAE or the wider region?

There is an apparent gap between academia and the industrial sector. Collaboration is needed to play a significant role in deriving relevant solutions through collaborative research projects, to qualify students with updated practical knowledge and prepare them to best fit the market's needs. To achieve a better standard of life quality and welfare, it is crucial to establish a strong linkage between theoretical knowledge (in academia) and practice (in the market), and train students to reflect on the learning outcomes of health and safety in real life. Collaborations between universities and industries have made significant progress over the past years. Some of the more obvious reasons include the advanced technological changes that have presented different hazards in the workplace, as well as the growing interest in ethics and corporate responsibility.

Universities need to see the results from their research put into practice. At the end of the day, it is mutually beneficial to collaborate, and there are excellent examples of successful collaboration between universities and industry partners. For example, the College of Health Sciences at Abu Dhabi University recently signed many MoUs with multiple medical and industrial sectors. The outcomes of these agreements are motivating and have opened new opportunities for students, faculties and industry partners.



Image Credit: Dr. Rahaf Ajaj

What do you think are the main ingredients for effective and successful industry/academia collaboration?

One of the most crucial aspects of effective collaboration is identifying the purpose, goals, and objectives it is hoped to accomplish. A mindset focusing on the problem-solution trail is a crucial element in which creativity and innovation are critical ingredients for success. Clear and effective communication, based on transparency, is an effective tool. Long-term thinking, mutual trust, respect, objectivity and accountability are other

must-have ingredients for successful collaboration. I would like to add here that being open-minded is a crucial ingredient to any success.

What are the main gaps between academia and industry, and how can these be bridged?

In general, alumni struggle to get jobs, either because of their lack of experience or absence of functional training. Having a relevant internship as part of the curriculum is an operative solution for this problem. At the same time, employers need to collaborate in having the motivation to train new graduates and allow them to learn and gain practical experience. As for the university, it is responsible for supporting students in achieving their goals and enabling them to best fit the job market. The university should focus on up-to-date knowledge and skills that respond to what industry demands and build on the current curriculum to match them. Conducting class mini-projects and involving students with inside and outside class activities are all helpful elements. Students' empowerment with the latest practical skills, competencies, and capabilities is vital in solving employment gaps. Developing curriculums that consider the students' interests with the coordination of industry can play a significant role. Conducting impactful research projects in collaboration with industry, involving active student participation and solving real challenges in the industry, is critical for bridging existing gaps. We need to discuss topics and challenges of shared interest and collaborate to find a better way to

"I propose establishing a research-based HSE programme in the UAE."

merge academia and industry to achieve the best results and innovate feasible and sustainable solutions.

How can collaboration between scientists and engineers support HSE and advance new technologies?

Modern safety and health professionals are more challenging and more critical than they have ever been. To achieve feasible solutions, collaboration is needed between experts from multi-disciplines, including science and engineering. Scientists can work more on the development of the technology, while engineers can focus more on the application side. Both knowledge and expertise are needed to integrate feasible and applicable innovative solutions.

What do you think are the paramount health, safety, and environmental issues of concern currently in the UAE, which would benefit from further research and development?

I believe that the global Covid-19 pandemic is evidence of the substantial health and safety considerations which apply in the UAE. The country progressed meaningfully to manage HSE issues to ensure life continuity and adapt the best to the situation, following strict

health precaution measures. Many research ideas can be explored through collaboration with industry to reduce hazards in the workplace and ensure occupational health and safety. In addition, there are various important issues related to oil and gas, carbon footprint, limited water resources, overfishing, waste generation, air pollution, land degradation, desertification and invasive species, which are posing an environmental threat to the UAE and many countries at the global level.

I propose the idea of establishing a research-based HSE programme in the UAE, which can be a channel to link universities and industries. It can help to bridge the gap by identifying the concerns in HSE and finding solutions through good collaboration between researchers, engineers, technicians, technologists, and decision-makers. ♦

Image Credit: Alain Charles Publishing



Dr Rahaf Ajaj participating in a panel session at the HSE UAE Forum.

The benefits of behaviour-based safety

Yousra Kindi, senior behavioural safety adviser, Petroleum Development Oman (PDO), discusses PDO's IHTIMAM programme, which has had a major impact on safety performance throughout PDO and its contractor companies.

Can you outline PDO's behaviour-based safety programme, and its role in improving safety culture? What do you think are its main achievements?

Behaviour-based safety, when implemented correctly and sustained, can improve safety performance by raising awareness and the ability to recognise hazards among the workforce, reinforce positive safe behaviour, promote intervention, encourage proactiveness to eliminate hazards in the workplace, improve communication and ultimately improve the safety culture.

IHTIMAM (Care), is a highly targeted behaviour-based safety system to cater for the safety requirements of the oil and gas sector and other industries. Launched in 2018, IHTIMAM has already led to a step change in safety culture at the company, exemplified by significant improvements in safety metrics including Lost Time Injury and Total Recordable Case Frequencies. It assists in the identification of the root causes of unsafe behaviour, enabling the system's users to develop targeted solutions before an incident occurs.

The basic principle of IHTIMAM is that all injuries and occupational illnesses can be prevented. The main objective of the IHTIMAM programme is to train each member of the line organisation to eliminate incidents and injuries by skillfully observing people as they work, talking with them to correct their unsafe acts, and encouraging them to follow safe work practices.

There has been a major business impact of implementing IHTIMAM, both in terms of cost, and in safety performance. Its impact on safety leadership and safety performance can be confirmed from the companies that have piloted IHTIMAM since January 2017. One particular company which had a Lost Time Injury Frequency (LTIF) of six per



Image Credit: Yousra Kindi

million man hours recorded a massive drop in LTIF to zero after implementing IHTIMAM.

As the programme is developed in-house, it has resulted in total cost savings of over US\$2,189,332 per annum, when compared to the costs of using BBS consulting services.

The implementation of IHTIMAM has been completed in 74 companies, with the training of around 34,000 employees. We are currently working to increase the BBS maturity level of enrolled contractors.

“The basic principle of IHTIMAM is that all injuries and occupational illnesses can be prevented.”

ABOVE: Yousra Kindi, senior behavioural safety adviser, PDO.

How is the IHTIMAM BBS system using digital technologies to enhance safety systems, identify issues and prevent incidents occurring?

The BBS system encourages everyone within an organisation to observe, report and comply with behavioural changes based on a thorough analysis of root causes, safety reports and audits. The IHTIMAM database is customised and available to all employees and contractors. Reports are pre-designed to provide a pro-active approach to data analysis. Employees can report their observations in the system online, which will reach the supervisor who is responsible for verification and assigning action to close it. Data is analysed for areas of improvement and towards correcting unsafe behaviours and recognising safe behaviours.

The system allows users to:

1. Observe and report safe/unsafe behaviour remotely
2. Monitor activities and trends to ensure they fall in line with corporate safety principles
3. Turn statistical data into actionable insights
4. Analyse the data periodically for areas of improvement.

What is your process to maintain the sustainability of the system?

A periodically set meeting (time and date agreed by PDO and contractor staff) is to take place to discuss implementation progress, statistics and any support required.

Management are required to be part of IHTIMAM implementation, to ensure IHTIMAM is included within the management review agenda.

Sustainability reviews are conducted to review progress and identify any gaps within the implementation process. This is done through a data deep dive. It is an extensive

overview of the overall effectiveness of the system and targets the following key indicators:

- Improvement in safety performance with regard to safety statistics, such as reduction in LTIF
- Improvement in communication and engagement
- Improvement in action close out rates
- Improvement in safe percentage scores
- Improvement in safety culture
- Improvement in management involvement

This is done in three steps:

1. Employee perception survey
2. Data deep dive
3. Site visit to review actual implementation on site.

Has the pandemic impacted your BBS safety programme and standards?

Indeed, the pandemic has impacted the whole world; however, we have put in lots of efforts to cope with the new situation. All our communication with system users shifted to virtual meetings. The main challenge was training, as we cannot implement the system for new batches of employees unless they are well trained. We were able to shift all our training to virtual tools, changing the material to fit with online display.

“Despite all the challenges, we successfully progressed in our plan of the implementation process with new users, and introduced IHTIMAM to 32 new contractor companies.”

As we were not able to conduct site visits due to travel restrictions, we tried our best to make them virtual as well. We stopped most activities and events that require gatherings of people, which has impacted the marketing of the system and its visibility to the community.

Despite all the challenges, we successfully progressed in our plan of the implementation process with new users, and introduced IHTIMAM to 32 new contractor companies as part of the 2021 implementation plan. ♦

Yousra Kindi presented on this topic at the HSE Oman Forum, which took place virtually from 22-23 June.

See www.hse-forum.com/oman-2021 and <https://www.hssreview.com/industrial/hse-oman-forum-reducing-incidents-with-big-data-safety-systems>

New national lifting operation management system

PDO has helped to drive the introduction of a new national lifting operation management system for the oil and gas industry in Oman, as reported in its magazine Al Fahal.

The new standard defines the minimum compliance and implementation requirements for a robust lifting management system for any party involved with the management or execution of lifting operations in the sector.

It also means there is now one national training programme for lifting operations, which is certified by the Accrediting Bodies Association (ABA). The ABA was established in the UK in 2012 to maintain a common set of standards for the basic skills and underpinning knowledge required to operate workplace transport equipment in line with all relevant legislation and approved codes of practice.

Oman's new system followed the success in lifting operation industrial certification which was introduced by PDO in 2016 to enhance safety, competence and professionalism. Operators then approached the Oman Society for Petroleum Services (OPAL) to develop a uniform management system for lifting and hoisting.

Lifting lead Fahad Al Raba'ani said, “Having one system in Oman will enhance safety in lifting operations and will standardise the requirement among other operators, which can boost such operations without compromising safety or quality. In addition, it helps our oil and gas contractors to understand the requirement of a safe lifting operation and equip themselves accordingly.”

“The BBS system allows everyone to observe, report and comply with behavioural changes.”

Fire protection in the Middle East

Johnson Controls provides an in-depth analysis of fire safety solutions and explores the Middle East market in detail.

“The Middle East market has always been considered a regulated market with legislation applicable to safety and firefighting systems.”

Javier Moyano, business development manager, Middle East & Africa at Johnson Controls

Covid-19 has caused a contraction in the global fire safety equipment market as industries dealt with faltering cash flows as well a large proportion of workers unable to enter the workplace due to restrictions. As the world emerges from the pandemic, this market is set to rebound firmly due to the continued growing awareness of the importance of fire safety, stricter standards being enforced by various regulatory authorities, the surging use of electronics in industrial processes and not to mention the greater emphasis Covid-19 has placed on health and safety in general.

The Middle East, which has been steadily raising its safety standards across the last few decades, is matching this trend, with a recent report from 6Wresearch indicating that the fire safety systems and equipment market within Middle East, Turkey and Africa is set to grow at a CAGR of 4.4% between 2020-2026. This will be bolstered by the fact that the region is leading the emergence from lockdowns, and the fact that the construction of a number of large-scale commercial establishments and enterprises will generate a huge demand for fire safety equipment.



Image Credit: Johnson Controls

Johnson Controls

To understand more about fire safety regulations and prevailing trends in the region, HSSRME spoke to Javier Moyano, business development manager, Middle East & Africa at Johnson Controls, who noted, “The Middle East market has always been considered a regulated market with legislation applicable to safety and firefighting systems, with the exception of only a few countries. Different authorities have jurisdiction to apply their regulations in order to keep the safety standards at a high level and request the use of international third party approvals and listings in order to be able to import/commercialise a solution in the market. The use

of recognised third party approvals provides peace of mind, knowing that the fire suppression system has passed a series of test according to standards and testing protocols that cover the most critical scenarios. Countries applying more stringent regulations is a positive thing because that helps ensure the highest levels of fire protection and safety.”

Turning to industry trends emerging in the region, Moyano stated that in years gone by, the industry developed solutions that covered the demand and safety requirements and has kept up to date in terms of the latest technology available. As an example, Moyano explained, “Acoustic solutions were used for

ABOVE: SAPHIRE Acoustic 0.75 and 1.5 nozzles from Johnson Controls.

data centre applications (where it is important to protect the data stored in hard disks along with the equipment), as it was noticed that gas suppression systems caused issues relating to noise effects on hard discs due to the fact that the HDDs are becoming more sensitive due to the increase in their storage capacity. The use of acoustic nozzles together with gas suppression systems therefore reduces any possible issue in terms of losing data, and is definitely a change which will remain, moving forward.”

However Moyano believed that big change is about to come because the industry is starting to lean towards solutions that are more environmentally friendly or that include digital solutions integrated with the fire suppression systems.

Johnson Controls has always been a pioneer of innovation (it invented the first thermostat at the end of the nineteenth century) and Moyano emphasised that it was keen to maintain this reputation. He said, “Over the last few years,

including 2020 when the world experienced the first peak of the pandemic, the company introduced several new solutions for the fire industry. Some examples are the introduction of non-fluorinated foam to protect the environment without compromising performance; the new Non-Fluorinated LVS System used for the protection of heavy duty vehicles in mines or mobile vehicles in airports and ports; the new ESFR34 sprinkler for storage applications; the TN17 and TN25 nozzles for vehicle tunnel

protection; and the Lithium Ion risk prevention system for the protection of energy storage systems using Li-Ion batteries. Add to this the unique Connected Fire - Container Monitoring for gas suppression systems, where using IoT allows an end user to monitor the status of the system remotely and via the use of a mobile application, and the ANSUL Restaurant Electric Detection (RED) for the protection of commercial kitchens that are connected to each other.” ♦

The basics of fire protection

There are five different types of fire defined by the NFPA, and sometimes there are different solutions for the protection of the same fire class. There are many variables in the selection of the right solutions, but in general terms we can say:

Class A: Solid materials

The most common accidental fire encountered across industries which features ordinary combustible materials such as wood, cloth, paper, rubber, etc. that often emit harmful gases.

Typical solutions: Water-based solutions, dry chemical, gas suppression agents, water mist, foam.

Class B: Flammable liquids and gases

These fires are often difficult to control, can often spread rapidly and can reflash even after flames are extinguished. They are caused by flammable liquids and gases such as gasoline, tars, oils, solvents, alcohols, etc.

Typical solutions: Foam, dry chemical, gas suppression agents (depending on the flammable liquid or gas to protect), water mist.

Class C: Electric fires

These involve energised electrical equipment such as computers, data centres, generators etc which are often caused by a spark, power

surge or short circuit. They often occur in locations difficult to reach and see.

Typical solutions: removing the power and converting the fire to Class A, gas suppression agents.

Class D: Metal fires

Fires in combustible metals such as magnesium, titanium, zirconium, sodium, lithium, and potassium.

Typical solutions: Special dry chemicals.

Class K: Grease/cooking oil

Fires involving cooking oil and fats which ignite at high temperatures, making them difficult to extinguish.

Typical solutions: Wet chemical agents.

Fire protection solutions:

Water: An unlimited resource which is the most common application worldwide and controls/extinguishes fire by cooling.

Sprinklers are the most popular application but spray nozzles are also used when required and water mist is becoming increasingly popular for certain applications and uses.

Water Mist: Water used at low/medium/high pressure to generate a ‘mist’ (water under 1mm). Typical applications include machinery spaces, data centres, industrial fryers, and more.

Carbon dioxide: One of the oldest agents used in the industry and abundantly available in the atmosphere, making it very inexpensive. Typical applications are manufacturing, coal manufacturing, turbines and generators and commercial applications. It should be used with caution as it is lethal to humans at fire extinguishing concentrations.

Dry chemicals: Can be used for almost all fire classes (not Class K). Commonly used in fire extinguishers and in POG facilities, may be used in larger equipment, including some applications that require ‘Stationary Large Dry Chemical Systems’.

Wet chemicals: The best agent for grease and cooking oils, so they are the preferred choice for systems in commercial kitchens. Fire extinguishers with wet chemical are also available as backup.

Clean agents: Do not leave residues after a discharge so avoid business disruption and are safe for people. Very effective for Class A, B and C fires. Gas suppression applications using clean agents are typically used in data centres, control rooms, switch rooms, machinery spaces etc.

Foam: Generated using foam concentrate, water and air. Has many solutions for different applications including helipads, storage tanks and backup generators.

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Save lives with correctly fitted RPE

Nick Baxter, PPE and RPE specialist at HSE's Science and Research Centre, and Alan Murry, CEO of BSIF, speaking at the HSM/BSIF PPE Digital Conference, discussed the importance of fit testing to ensure employees are protected against workplace hazards.

"The RPE needs to be adequate for the hazard identified and needs to be suitable for the individual wearing it as well as the tasks they are carrying out."

Ian Murry, CEO of BSIF.

Ian Murry and Nick Baxter at the HSM/BSIF PPE Digital Conference 2021.



Image Credit: HSM/BSIF

Each year thousands of people are killed or suffer illness from airborne exposures at work, much of which could be avoided if appropriate and properly fitted RPE was worn.

To explain the importance of correctly fitted RPE, Nick Baxter and Alan Murry gave a presentation at the HSM/BSIF PPE Digital Conference 2021.

Opening the session, Murry commented, "Elimination of a hazard is the first consideration in a hierarchy of control, followed by substitution and isolation. But in many circumstances, use of the correct

fit-for-purpose RPE supported by the appropriate training of the wearer is the most appropriate method of control."

In HSE's RR1029 report, 25 volunteers wearing nine different RPE models underwent four different fit tests in random order. The results made clear that a significant proportion of the masks tested did not fit the range of users, leaving them exposed to potential hazards.

Murry said, "The HSE test demonstrated the importance of fit testing to establish a suitable mask for the individual wearer. Not all masks will fit all head shapes, and so it is vital that fit

testing is carried out by a competent person. The RPE needs to be adequate for the hazard identified and needs to be suitable for the individual wearing it as well as the tasks they are carrying out."

Baxter commented, "Unfortunately, often when people wear masks they do not wear them properly with three main things done incorrectly: the nose clip is not fitted, the straps are positioned incorrectly (ideally they want to be over the crown of the head and back of the head), and finally masks are often worn with facial hair."

Baxter proceeded to outline the

main fit testing methods used in the UK:

Qualitative:

A simple taste test whereupon the wearer will equip the mask and then either a bitter or sweet tasting aerosol is administered while the subject carries out a number of exercises. If the wearer cannot taste either, then the mask fit is deemed to have passed. However, if they can distinguish the taste then the mask does not fit properly and fails. This is suitable for testing half masks, filtering face pieces but it is not suitable for full face masks.

Quantitative:

Split into Ambient Particle



Masks must be properly fitted to prevent harmful airborne exposures.

Counting and Control Negative Pressure test.

-Ambient Particle Counting:
Uses a machine that measures the concentration of particles inside and outside the mask while

exercises are carried out by the subject. The ratio between the concentration of particles inside and outside is calculated which generates the fit factor to determine if it has passed or

failed. This method can be used for filtering face pieces, half masks and full face masks.

-Control Negative Pressure:
Using the same exercises but after the wearer will hold their breath for the machine to generate a negative pressure inside the mask to determine how much leakage has occurred around the mask. This generates the fit factor to assess whether the mask has passed or failed. This method is not limited by any environmental conditions and is suitable for testing half masks, full face masks but not face pieces. ✦

To view the conference on demand follow this link:
<https://tinyurl.com/2d8m2zzk>

Using particle-filtering face masks

Respiratory protection

Particle-filtering face masks offer effective protection against aerosols and fine particles which can pose a hazard in the workplace, such as dust, mist, smoke and fumes.

EN 149, the European standard of testing and marking requirements for filtering face pieces defines three classes of such particle-filtering half masks, called FFP1, FFP2 and FFP3, according to their protection level. The protection level indicates how high the concentration of harmful substances (contaminants) can be without posing a health risk to the user. The higher the contaminant concentration, the higher the FFP protection class needs to be. Draeger explains the three categories:

FFP1: When the contaminant concentration reaches four times the occupational exposure limit (OEL), FFP1 masks must be worn. FFP1 masks can filter up to 80% of all contaminants that are fundamentally non-toxic and are water or oil-based. These masks protect against non-toxic dust particles, for example, such as



Particle-filtering face masks offer protection against aerosols and fine particles which can pose a hazard in the workplace.

those from pulp, cement, plaster, chalk or pollen. They offer reliable protection for cleaning (dust), agriculture (hay, grain, flour and much more); sanding, planing, cutting and drilling into concrete, masonry, iron, rust.

FFP2: FFP2 masks can be used in environments where the contaminant concentration reaches up to 10 times the occupational exposure limit. They filter up to 94% of toxic water and oil-based contaminants. Masks with this rating also

offer protection against toxic dust particles, such as those from calcium oxide, concrete, granite or zinc oxide fumes. They offer reliable protection for sanding, cutting and drilling into cement, wood, steel, paint, lacquers, rust and plastic; welding construction steel and zinc; handling mould and bacteria in risk group 2.

FFP3: With FFP3 masks, the contaminant concentration must not exceed 30 times the occupational exposure limit. FFP3 masks filter up to 99% of all water and oil-based contaminants, which are harmful to health, carcinogenic or radioactive. They protect against toxic dust, for example, from chrome, cobalt, nickel or mould spores. They offer reliable protection for sanding, cutting and drilling into high-alloy steel; welding stainless steel or thorium electrodes; working with asbestos, diesel exhaust particulates/fumes; handling viruses and bacteria in risk group 3.

https://www.draeger.com/en_sea/Safety/Respiratory-Protective-Equipment/FFP-Masks

Fighting Covid-19 misinformation

Matthew Frese, general manager of Med Learning Group, says that eradicating misinformation is essential in the global fight against the coronavirus pandemic.

“Not all countries have been as effective as the UAE in controlling domestic misinformation and fake news surrounding the pandemic.”

ABOVE: Medical specialists, clinicians, patients and caregivers need access to reliable information.



Image Credit: Adobe Stock

After more than a year of the Covid-19 pandemic, the global death toll attributed to the coronavirus has now topped 3.3 million people, according to a mid-May situation report released by the World Health Organisation (WHO).

In the UAE, where the death toll has reached 1,631 as of 16 May, the country's government has successfully vaccinated more than 70% of its eligible population and conducted more than 54 million RT-PCR tests, as

per the latest news sources.

As the nation begins to look beyond the pandemic, the UAE's Minister of Health, His Excellency AbdulRahman Al Owais, recently reaffirmed the UAE's commitment towards employing innovative treatments and strengthening international health partnerships. With its own house increasingly in order, the UAE – a vital logistics and supply chain corridor in global Covid-19 vaccine transportation – has also recently begun the first phase of a

vaccination programme for refugees and displaced people in Iraq and Jordan.

While the UAE continues to set global benchmarks in managing the pandemic, the challenges of this moment are not few, nor are they easy to solve. One challenge is that information is scattered and often without the necessary verification to be considered reliable. Looking at this challenge in a global scenario, it is hugely important for patient and caregiver communities to be able

to access crucial information from a reliable resource platform.

Resource platform

As the adage goes, knowledge is power, and not all countries have been as effective as the UAE in controlling domestic misinformation and fake news surrounding the pandemic. This is why the Continuing Medical Education industry has created FRONTLINE (www.covid-frontline.com) – a resource platform designed to keep doctors and the community informed about the latest updates, guidelines, trends and resources related to the coronavirus.

FRONTLINE has tools to support medical specialists,

clinicians, patients and caregivers in the search for the right sources of information to keep up to date with the growing data of Covid-19. The platform contains predictors of disease severity, pathophysiology, symptoms, treatments, vaccines, as well as information on how Covid-19 affects health professionals and their capacity to care for existing patients. The free to access platform also enlightens readers on the latest approved treatments, such as monoclonal antibody therapy, which recently had emergency use approved in Brazil.

Since its launch, the site has become a trusted resource for education and updates on the coronavirus, with over 1.25 million views. According to our

statistics, the professionals who took part in FRONTLINE education have demonstrated a 27% gain in knowledge and a 25% gain in competence.

All of this was only possible thanks to the joint effort made with institutions, such as the USA's National Infusion Center Association, Infograph-Ed and Fundação Heroes of Lorna Breen, India's Public Health Foundation, as well as AbbVie, Astellas, Genentech, Merck & Co. Inc., Lilly, Pfizer and Regeneron Pharmaceuticals, who came together to promote health and enable initiatives to fight the coronavirus.

In the fight against Covid-19, harnessing the power of international public-private



Image Credit: Med Learning Group

Matthew Frese, general manager, Med Learning Group.

partnerships – the type of initiatives being explored by the UAE – is key to our global family moving on from the pandemic. ♦



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The importance of valuing human capital

Louise Hosking, director, Hosking Associates and IOSH-approved training provider, discusses the critical role human capital plays in the sustainable workplace, and the need for a balance between the values of 'People, Planet, Profit'.

The United Nations' (UN) published definition of sustainability is "Meeting the needs of the present without compromising the ability of future generations to meet their own needs". To understand "human capital" we first need to consider this definition. In its simplest terms this is about "People, Planet, Profit". There must be balance in all three for business to thrive and be truly sustainable. While we like to believe Health and Safety is our top priority, the reality is, it must be a priority value in harmony with these other aspects.

The UN Sustainable Development Goals provide the architecture for resolving many of these challenges. To achieve these goals, organisations need to transform current patterns of production, operation and consumption.

The Five Capitals Model (Natural Capital, Human Capital, Social Capital, Manufactured Capital and Financial Capital) expands the concept of "People, Planet, Profit". These "capitals" interconnect and create a sustainable ecosystem. When we restrict one it affects another (see www.forumforthefuture.org/the-five-capitals).

Sustainable organisations place true value on good work, people and communities, charging a fair rate for a fair job and considering the impact on the planet.

Human capital includes things such as education, training, skills, health, and personal or shared values such as loyalty and punctuality. Think of the person within a business with the drive, knowledge, passion and the energy to make incredible things happen – now see them as an asset (a value) to the business. However, Health and Safety performance is not being consistently captured in most financial or public reporting on human capital, so it is not being given the importance it deserves.

Large organisations have significant supply chains which span the globe. Some are able to push hazards out from the centre into territories with little or no Health and Safety state regulation. Organisations may be tempted to exploit workers in the rush for greater profits.

Health and Safety professionals have a role to play in creating meaningful evidence-based reports which boards and stakeholders understand. With better reporting comes greater accountability, and customers

will make informed choices which reward sustainable businesses and improve standards. Health and Safety becomes a value.

Evidence suggests investments in human capital, including higher education, yield long-term economic rates of return that exceed most standard investments in technology or capital. The more skilled and empowered the workforce, the more productive it tends to be.

Businesses need safe, healthy and engaged workers to thrive – something the investment community is looking at more closely than ever before.

Companies with a focus on sustainability will be in a better position to weather adversity, because they invest in prevention measures. We are currently experiencing adverse conditions, so there is an even greater focus on this, and we have seen ESG funds performing well. The desire for ethical investment will drive ethical values, which creates interest to understand more about the issues we Health and Safety professionals care about.

Good governance creates sustainable businesses attuned and in harmony with people, the planet and profits. ♦

"Businesses need safe, healthy and engaged workers to thrive."

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Creating safe and healthy buildings

Fahmi Jabri, general manager, Honeywell Commercial Security, Middle East, Turkey and Africa discusses how the company is responding to increased health and safety concerns relating to buildings, and the demand for more intelligent solutions.

“We’re seeing building owners and operators look for technologies that provide more control over critical health, safety and security factors to help them reassure occupants and stay compliant.”

Creating safer, healthier environments that help to redefine how occupants experience and perceive a building has become critical, whether it is a high-rise building, a school, an airport or a healthcare facility.

We recently commissioned a survey of Middle East employees, conducted by Wakefield Research, which found that approximately one third of the 500 respondents said that to feel safer in their workplace, they would want to see their building operators invest in updated air quality systems and touchless door entry technologies, and almost half said they would welcome health-screening technology.

We are seeing building owners and operators look for technologies that provide more control over critical health, safety and security factors to help them reassure occupants and stay compliant with changing building standards, safety guidelines, regulations and risk management policies. This is increasing the demand for more intelligent solutions that help them gain actionable intelligence

as part of a digital transformation already underway.

We have worked closely with our customers to develop Healthy Buildings solutions that help building owners operate more cleanly and safely and encourage sustained compliance. These solutions integrate air quality, safety and security technologies, along with advanced analytics to provide a holistic view of a building's health based on key factors. These metrics can even be provided to occupants in a simplified dashboard for visibility on what is being done to improve their wellbeing, safety and security.

Another example is Pro-Watch Intelligent Command, a comprehensive security software platform that helps protect people and property by using video analytics, sensors and access control – all from one intuitive and user-friendly interface. The ecosystem provides a powerful tool to help operators monitor, report and take action on incidents, such as non-compliance with social distancing and mask policies, access control and occupant flow.

To help safeguard occupants and streamline processes in the event of an incident, Pro-Watch creates intelligent customisable Standard Operating Procedure (SOP) workflows, reducing compliance exceptions, security risks and response times.

The new normal presents several opportunities that go hand in hand with the changing security challenges. First, we are designing versatile and scalable solutions, purposed for long term use as well as evolving needs that support businesses in accelerating their digital transformation. Secondly, we are integrating data analytics to develop innovative solutions so that building operations can be optimised to meet efficiency goals and make the sector even more resilient.

As we are looking to help our customers deliver more critical outcomes, we are also deepening key relationships with companies that can offer industry-leading solutions in their specific focus area. These partnerships expand our ecosystem to help us create future-ready solutions for our customers. ♦

Safe storage of flammables

In a webinar, Sascha Kunkel, vice president, global markets at Asecos, a leading manufacturer of safety storage cabinets, gave an overview of global certification standards for safety storage cabinets.

Kunkel began by stressing the two cardinal rules for the safe storage of flammables indoors. The first is to keep the temperature within the limits below the auto-ignition temperature of the flammables concerned, so the cabinet must never exceed a certain temperature inside. The second is to never allow explosive atmospheres to build up, so effective ventilation is critical.

He underlined the importance of standards, in terms of safety, quality and lower costs, making it possible to compare products and root out fraudsters, as well as eliminating the need for every component to be tested individually.

Kunkel explained that there are broadly two different schools of thought on safety storage cabinets. The US approach focuses on egress from the danger zone, the cabinets themselves having limited fire resistance. The specifications are outlined in NFPA 30 and the typical standards that apply are the NF standard from Factory Mutual and the UL 1275 standard, which call for 10-minute fire testing. Quantities are regulated and the control areas are strictly defined.

The European approach on the

other hand, focuses on keeping the damage and fire as small and localised as possible. There are no quantitative limitations on the flammable materials that can be stored inside, provided the 90-minute fire resistant cabinet is used, because such a cabinet is a control area or fire compartment. The standard that applies is EN 14470.

So the American approach requires more to be done to protect buildings, whereas the European approach offers more flexibility, but may require a higher investment in the actual cabinets themselves.

EN 14470 consists of two parts, Part 1 for flammable liquids and Part 2 for flammable gas cylinders. There are four different categories within the standard – 15, 30, 60 and 90 minute fire resistant cabinets. The standard specifies protection goals, the construction details and safety features, marking and labelling requirements, very precise standardised fire testing procedures, and permissible construction alterations (only very limited changes are able to be made to a cabinet without retesting).

The first part relating to

flammable liquids specifies that doors must be self-closing when the temperature rises, to limit fire spread, and that pull-out drawers if used must auto-retract. It also specifies ventilation connections which auto-close when a certain temperature is reached. All the gaps, eg between the doors and the side, must be self-closing as well, so intumescent material is used. The cabinet is constructed from special insulation plates, calcium sulphite hydrate being the best material for this purpose.

The second part relating to gas cylinders has similarities to Part 1 but also some important differences, in particular relating to the fire testing of the gas cylinder valve. It also has specifications on how to safely penetrate the units to install gas pipes, which is quite complex as care has to be taken not to compromise fire resistance.

Other relevant standards are the GS German quality seal, which tests for quality and longevity, and the EN 16122 which relates to durability, longevity and sustainability.

Kunkel felt it is unlikely that there would be a global standard for safety storage cabinets as the two schools of thought are very

different. “Both have their merits; in the end it boils down to your own individual risk assessment,” he commented. He added that standards are continually being improved as new technologies emerge and market requirements evolve. Part 1 of the EN 14470 standard is currently under revision, and a new edition of the standard is expected in 2022 or thereafter.

Kunkel concluded by offering some advice on the selection of safety storage cabinets, highlighting the importance of certification, in particular to ensure that each individual model has an individual certificate which is valid and applicable, that an accredited third party is used for fire testing, and that the manufacturer is ISO 9001 certified and subject to external monitoring.

“I can’t stress enough, certification is not just a piece of paper, it is the user’s life insurance, the only proof that this particular device is safe and fit for purpose,” he said.

“If you are the user, insist on certificates, and if you are a reseller, put your supplier to the test and make sure everything is legitimate.” ♦

Facilitating effective waste management

Abu Dhabi Waste Management Center (Tadweer) discusses how pursuing the latest innovative technology and encouraging foreign participation can facilitate climate-friendly waste management and effective recycling in the Middle East. Robert Daniels reports.

“The Emirate of Abu Dhabi has implemented an integrated waste management approach to manage its ever-increasing amounts of waste.”

Tadweer



Image Credit: Tadweer

ABOVE: Tadweer collected 588,425 tons of waste in the Emirate of Abu Dhabi in Q1 2021.

According to an article published on BioEnergy Consultant, the Middle East remains one of the most prolific generators of waste in the world, with high standards of living, ineffective legislation, infrastructural roadblocks, and insufficient funding all contributing to the difficulty in implementing integrated and effective waste management strategies in the region. However,

many countries are preparing to take on this challenge, identifying ways to encourage recycling practices and reduce waste, including through the research and utilisation of new technologies and raising public awareness. Health, Safety & Security Review Middle East spoke to Tadweer, the entity responsible for all activities related to the development of waste management facilities and

services in the Emirate of Abu Dhabi, to hear their expert insights on waste management in the region.

What needs to be done for the region to implement more effective waste management and recycling?

The Emirate of Abu Dhabi has implemented an integrated waste management approach to deal with its ever-increasing amounts

of waste in line with the objectives of the Abu Dhabi Government's Vision 2030. To reinforce this vision, Tadweer works closely with the private sector and with internationally recognised experts in waste collection, transportation, treatment and disposal. Additionally, Tadweer pursues opportunities and attracts investment to upgrade and or develop its waste management infrastructure and services. The private sector and international participation has supported Tadweer to ensure that all its facilities operate according to the highest standards.

To facilitate development of state-of-art waste management infrastructure, regulations in support are essential. This will not only raise the level of participation standards but will also help in bringing new technology as well as the transfer of knowledge and expertise.

How can effective waste recycling make a difference in reducing the climate impact?

Effective recycling supports Tadweer's plan to minimise waste production and achieve the Emirate's target of diverting 75% of waste away from landfills. Tadweer works closely with private sector partners to further enhance recycling and develop innovative solutions to mitigate the harmful effects of waste on the environment.

The company operates dedicated facilities to recycle everything from construction and demolition waste to agricultural and animal waste, from farms to used tires, as well as recyclables recovered from municipal solid waste. Such



Tadweer has recently set up a facility for the treatment of fallen stock collected from farms across Abu Dhabi.

initiatives boost our capacity to recover materials from discarded products and use recycled materials instead of virgin raw materials.

For example, recycled aluminium from scrap and used cans saves 95% of energy required for aluminium production from bauxite. Tadweer ensures the optimal performance and continued efficiency of these facilities through the utilisation of the latest technologies and international best practices. Through promoting sustainable waste management and recycling practices, the company seeks to position Abu Dhabi as a leading contributor to global sustainability.

What innovations has your company included to optimise the recycling processes?

To support the common goals towards waste reduction and creating a responsible and sustainable society, Tadweer launched in July 2018 an innovative initiative called Civic

Amenities for Recyclable Waste. Since then, several such facilities have been rolled out across Abu Dhabi mainland and Al Ain city as they have proven to be highly effective in encouraging members of the community to adopt eco-friendly lifestyles and practices. These amenities allow the public to participate in the segregation of recyclable waste at source by allocating coloured bins for different types of wastes and reusable materials. Such innovations go a long way in reducing the high costs associated with traditional waste treatment practices by turning waste into valuable materials through increased community participation in waste segregation from source.

What challenges did the pandemic bring to waste recycling?

The COVID-19 pandemic has posed unprecedented challenges to Tadweer's operations, as it was actively involved in implementing the National Disinfection Programme. In close collaboration with strategic

partners, Tadweer stepped up its cleaning and sterilisation operations across the Emirate during the programme, which lasted for 227 days. The team worked around the clock and carried out intensive disinfection operations across Abu Dhabi's neighbourhoods using the latest equipment, technologies, and disinfectants that are safe for both humans and the environment, approved by relevant domestic and international authorities.

To ensure the timely and efficient treatment of medical wastes generated by hospitals and quarantine sites dedicated for COVID-19 patients in Abu Dhabi, Tadweer increased the capacities of its existing incinerators by adding two rotary kiln incinerators of 1.5 tons/ hour each in Abu Dhabi and 500 Kg/ hour in Al Ain, and deployed three mobile incineration plants at Al Mafraq Hospital, the field hospitals in Abu Dhabi National Exhibition Centre (ADNEC), and the Emirates Field Hospital in Mohammed Bin Zayed City. With a capacity ranging from 150kg to 300kg per hour, the new mobile incinerators can treat medical waste at temperatures of up to 1,200 degrees Celsius, and are equipped with advanced air emission cleaning systems to keep the environment clean and safe.

This allowed us to ensure that all waste related to the virus is treated with high flexibility at the various sources of generation, thus minimising the risk of transporting the contaminated waste through the populated areas of the community and the risks associated with the handling and managing of the waste during loading, unloading and treatment. ♦

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2014 and EN15154

requirements.

This high-visibility orange unit has handles to aid portability and a wide opening for ease of filling. The outlet at the base of the unit allows water to fully drain out with no risk of stagnant water building up. An optional insulated jacket is available to protect the unit from solar radiation.

Contact Hughes for more information or to receive a quote: sales@hughes-safety.com or visit the website at www.hughes-safety.com



Image Credit: Hughes Safety Showers

The OptiWash self-contained eye wash is ideal where a continuous supply of water is not available.

US\$25bn market for wearable biosensors by 2030: Lux Research

Health technology

Biosensors offer tremendous promise as convenient, easy-to-use, and low-cost solutions to monitor underlying physiological conditions, compared to other incumbent diagnostic techniques. This will lead to an increase in applications for biosensors, such as vital signs monitoring, metabolism monitoring, biomarker detection, and disease diagnosis.

However, many challenges related to precision, accuracy, commercialisation and deployment need to be overcome before biosensors can gain widespread adoption in consumer health and wellness, according to a new analysis from Lux Research, a leading provider of market research and advisory services focused on emerging technologies.

Lux's new report, 'Emerging Biosensor Technologies: Landscape and Market Forecast,' outlines recent innovations in biosensor technologies, discusses challenges that stakeholders will need to overcome, and provides an outlook for the technology and business of biosensors. In this report, Lux identifies and focuses on five health



Image Credit: Adobe Stock

The medical technology market is growing rapidly.

conditions that significantly impact daily life for consumers, thereby offering opportunities for businesses to develop consumer-centric solutions for diagnosis, monitoring, and prevention:

- Cardiovascular disease
- Diabetes
- Stress
- Hydration
- Sleep disturbance

Although active and continuous monitoring solutions are available for all five

leading health conditions, gaps remain that point to the opportunity to develop innovative solutions. Incumbent testing and diagnostic technologies are often expensive, bulky, and uncomfortable for long-term or on-demand monitoring applications. In contrast, wearable electronics offer biosensing capabilities that are convenient and allow consumers to monitor their health on a continuous basis and derive insights.

"Patients today face enormous financial and psychological burdens because of rapidly rising healthcare costs. The rising prevalence of various health conditions in the population is placing tremendous pressure on already-overburdened healthcare systems," states Lisheng Gao, Ph.D., analyst at Lux Research and lead author of the report. "On the flip side, this offers substantial business opportunities, particularly in the area of consumer-centric healthcare technologies."

Lux forecasts that, by 2030, the total market for biosensor devices for the five health conditions in the EU, APAC, and North America together will be around US\$25bn, with a CAGR of 23%.

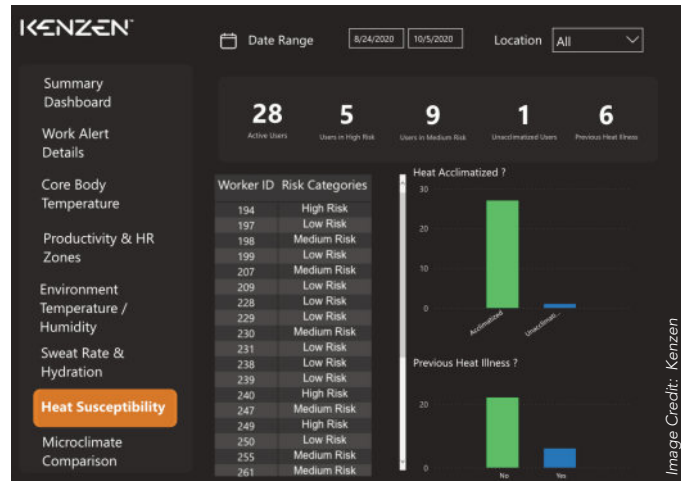
PPE monitoring now includes heat sensitivity

PPE

Kenzen, the physiological monitoring platform, has added two new features to its heat risk assessment system. Kenzen technology can now track the heat susceptibility and sweat rate of individuals, which both serve as key indicators in detection and prevention of heat-related stress, injury and fatality risk in hot environments.

By calculating the heat susceptibility of workers, the system classifies employees into low, moderate or high heat-risk categories, with the proprietary algorithm determining the person's heat risk category based on medical/physical conditions, fitness, heat-acclimatisation status, history of heat injury/illness, age, illnesses and medications.

Workers' classifications do not reveal personal or medical information that discloses why such a category has been assigned, protecting medical confidentiality and helping supervisors monitor and manage workers according to individual circumstances.



The Kenzen system can now trace heat susceptibility based on workers' medical records, and use sweat rate to inform necessary hydration.

"Managers have so much to worry about at their worksite, including if their workers are physically able to work safely to get the job done well and on time," said Nicole Moyen, vice president of research and development at Kenzen. "This new feature tells managers which workers to monitor closely on hot days, and when and how to alter an individual's schedule or workload."

A new sweat rate monitoring feature will also indicate how much water the user needs to drink each hour to remain hydrated, eliminating guesswork. Managers can ensure sites provide sufficient hydration, with accuracy within one quarter of a litre.

Only workers can view personal health details; managers and other EHS leaders only see the necessary details to maintain workforce safety.

One Sea's autonomous shipping safety agenda

Maritime safety

One Sea, the industry alliance that brings together leading exponents of autonomous ship technology, has released a white paper focusing on ship safety and autonomous technology.

The paper argues for the need to develop international safety rules for autonomous ships, and seeks to engage regulators, insurers, maritime labour and training establishments to shape the future of autonomous shipping.

Capt. Eero Lehtovaara, chairman of One Sea, writes, "Not only can autonomous ships greatly contribute to increasing productivity, bolstering sustainability and improving working conditions at sea; direct and powerful contributions to enhancing maritime safety have also been identified."

The paper examines the safety advances of autonomous ship technology and considers today's safety framework and the classification implications of autonomy, offering a proposal for the industry's next steps.

Honeywell's authentication system to prevent counterfeit PPE

PPE

Technology specialist Honeywell has announced a digital authentication technology for its PPE manufactured in the UAE, to combat rising counterfeiting across the Middle East.

Since the Covid-19 pandemic has skyrocketed demand for PPE such as N95 respirators, counterfeit PPE products have also sparked in demand, with hundreds of thousands of counterfeit respirators reported across the UAE.

Honeywell's new system is designed to provide an authentication service for its PPE offerings.

To authenticate their PPE products, end users scan a digital code embedded in the packaging with their smartphone camera using the Honeywell application for iOS or Android. The software validates the product's authenticity via a database, confirming its safe usability.

"In response to the growing number of counterfeit PPE products in the Middle East

and Africa, we've chosen the UAE to be the testing ground for digital authentication technology for our PPE distributed across the region," said Greg Norton, general manager, Fine Chemicals & Authentication Technologies.

"This software will not only confirm the authentication of our N95 respirators made in the UAE, it will also help detect counterfeit PPE products to help authorities reduce illicit trade during the pandemic."

Hempel launches new passive fire protection coating

Fire protection

Coatings manufacturer HEMPEL has launched Hempafire Pro 400, a new passive fire protection coating that maintains the stability of steel structures in the event of a fire for up to 120 minutes, and has been optimised for maximum efficiency in the loadings for a 90-minute duration.

Hempel launched Hempafire Pro 315 in 2018, which provides 60 minutes cellulosic fire protection and market-leading dry film thicknesses. Now, with the launch of Hempafire Pro 400 under BS 476 20/21, Hempel has extended the range to include fire protection for 90 and 120 minutes.

Hempel's group product manager, Cellulosic PFP, Roger Soler, said, "Our Hempafire Pro range of products has proven to be very attractive to applicators and specifiers. The exceptionally low loadings help to reduce both the total paint consumption and the number of coats required. This in turn means our intumescent coatings dry faster than similar coatings, which helps



Image Credit: Hempel

The new coating maintains the stability of steel structures for up to 120 minutes in the event of a fire.

to speed up project completion times. Since we launched Hempafire Pro 315, our customers have asked for a coating with similar properties certified for a 90-minute fire duration. We developed Hempafire Pro 400 to meet this need."

With Hempel's Hempafire Pro coatings, the same product can be used for all steel profile types – for both in-shop and on-site applications, and they can be used in exterior conditions and corrosion environments up to C4 according to ISO 12944.

New hoist for on-shore operations

Lifting safety

William Hackett has launched the WH C4 QP hoist for onshore operators, incorporating the company's patented quad pawl (QP) mechanism – considered as one of the safest and most efficient in the world.

"Innovation based on a detailed understanding of lifting applications is at the heart of what we do, and this latest addition of the QP in the WH C4 range of hoists increases the level of operational safety and performance levels provided by chain blocks," said Ben Burgess, director at William Hackett.

"The QP offset load-bearing mechanism is the best in the market, and it offers enhanced operating performance compared to first-generation twin-pawl products. With double the number of offset pawls in a chain hoist, from two to four, the load is spread securely against the ratchet gear to provide increased redundancy and resilience for the user."

DEWA receives patent for electrical panels smart fire warning

Fire protection

Dubai Electricity and Water Authority (DEWA) has received a patent for its 'Smart Fire Warning for Low Voltage Electrical Panels'. The device detects fires or their risks, and identifies causes, especially in connection points for electrical conductors and cables. The use of this invention avoids carbon dioxide emissions, power supply interruption, employee accidents or equipment destruction. The patent was granted to DEWA in Austria.

HE Saeed Mohammed Al Tayer, managing director and CEO of DEWA, said, "DEWA provides a positive, healthy and safe work environment that promotes innovation and unleashing the potential of employees. This increases individual and corporate competency according to the best international practices, enabling us to keep pace with rapid changes and contribute effectively to anticipating and shaping the future. This supports the Dubai 10X initiative

launched by His Highness Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai, to make Dubai 10 years ahead of other cities through disruptive and innovative technologies."

The new device supports DEWA's efforts to achieve the highest health and safety standards in its different operations, as part of its responsibilities towards its staff, customers and society at large.

Addressing the market's changing needs

Security

Axis Communications Middle East & Africa (MEA) has recently announced several enhanced smart safety solutions, as it seeks to capitalise on strong regional demand for cutting-edge surveillance technology, particularly from government entities and organisations in the smart city, transportation, and oil and gas sectors.

"The world is changing rapidly, and with increasing digitalisation, globalisation, and urbanisation, businesses must embrace agility and open-minded problem solving or risk being left behind. Developing smarter solutions to keep people safe during a pandemic is top of mind, especially in the security space, which sits firmly at the centre of heightened employee and customer health and safety," commented Etienne Van Der Watt, regional director at Axis Communications MEA.

With machine learning and deep learning now broadly available in surveillance technology, artificial intelligence (AI) and analytics are transforming safety, security and



Etienne Van Der Watt, regional director at Axis Communications MEA.

operational efficiency. Other trends shaping the sector include horizontal and hybrid integration, robust cybersecurity, an increase in low- and no-contact technologies, and the desire for more sustainable, high-quality products with longevity. Axis is now bringing together several of these technologies, including AI and analytics, to deliver cutting-edge security solutions that will enable a smarter, safer world.

These include the AXIS Occupancy Estimator analytic, which is deployed to support retailers and institutions to regulate the number of people in an area and adhere to safety guidelines. Combined with network camera and audio, owners can use it to provide a safe experience today, and for understanding visitor patterns to improve in-store experience in the post-Covid era.

Image Credit: Axis Communications

Marine biofouling prevention

Environment protection

De Nora has launched the SANILEC TRP low-maintenance seawater electrochlorination (SWEC) system for marine biofouling prevention in offshore oil and gas and coastal applications.

The damaging impacts of marine biofouling, including environmental and economic consequences, are of particular concern for offshore production facilities. Marine growth can reduce a firewater or cooling system's efficiency, leading to equipment damage, compromised safety, and unexpected maintenance costs.

Powered by a new self-cleaning cell technology, the SANILEC TRP system eliminates the need to purchase, store, and handle hazardous chemicals for system maintenance.

TJ Westerhaus, business development director of De Nora Water Technologies, said, "The new technology, which requires no acid washing, is driving towards a goal of health, safety, and OPEX advantages."

Salunda introduces Hawk wireless sensor network

Oil & gas safety

Salunda has introduced the Hawk wireless sensor network, which provides reliable and secure connectivity of critical production, operational and safety systems in the oil and gas industry, such as Red Zone management and real-time location applications.

Offering the latest in robust standalone technology, the patent protected Hawk network can accommodate more than 5,000 ultra-low power sensors as part of a fully

integrated and functioning wide area network, providing real time location and monitoring of people and equipment operating in hazardous environments.

Hawk is specifically designed to operate with optimum functionality in harsh and cluttered environments where there are regular changes to propagation paths – for example, equipment movements and relocation blocking transmission paths. Sensors attached to people or equipment do not require line-of-sight connectivity to

communicate effectively with the network, ensuring there is no drop off in signal strength or loss of message status, contributing further to improved safety levels.

Comprising robust concentrators to send and receive messages, gateway beacons to relay messages and passive sensors that listen for transmissions, Hawk can support a range of position-tracking performance technologies that help to avert incidents and trigger personalised warnings to reduce the risk of workplace injuries and accidents.

SECURITY Buyers' Guide 2021

The Middle East's annual where-to-buy guide

Section One: Listings by category

Section Two: International and regional suppliers

Section Three: Contact details of Middle East agents & subsidiaries listed by country

Categories

Access Control Systems

INSTACOM
Remsdaq Ltd

Airport Security

Cova Security Gates Ltd
INSTACOM
Scanna MSC Ltd

Alarm Systems & Management

ProCom Professional Communication & Service GmbH

Card Readers

Remsdaq Ltd

Certification & Accreditation

Thomas Bell-Wright International Consultants

Corporate Security

Cova Security Gates Ltd
INSTACOM

Electronic Access/Entrance Control

INSTACOM
Remsdaq Ltd

Emergency Alarm and Warning Systems

ATEIS Middle East
Aqua Safety Showers International
Everlux
ProCom Professional Communication & Service GmbH

Fire fighting Equipment

DAMOTEK SRL UNIPERSONALE
Everlux
RAPIDROP MIDDLE EAST TRADING LLC

Fire Prevention and Protection

ATEIS Middle East
Everlux
PROFOAM INTERNATIONAL
RAPIDROP MIDDLE EAST TRADING LLC
Thomas Bell-Wright International Consultants
ZAPP-ZIMMERMANN GmbH

Gates & Fencing

Cova Security Gates Ltd
Remsdaq Ltd

Others

Aqua Safety Showers International
Cova Security Gates Ltd
DAMOTEK SRL UNIPERSONALE
Hughes Safety Showers Limited
Thomas Bell-Wright International Consultants

Port Security

Cova Security Gates Ltd
Scanna MSC Ltd

Reconnaissance, Surveillance and Guarding Services

INSTACOM

Risk Management

Aqua Safety Showers International
Everlux

Security Screening

Scanna MSC Ltd

Smart Home and Building Automation

ATEIS Middle East

Survival Equipment

Aqua Safety Showers International
Everlux

Threat Detection

Remsdaq Ltd
Scanna MSC Ltd

Suppliers



Aqua Safety Showers International

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Remsdaq is a UK manufacturer of access control systems and perimeter intrusion detection systems including StarWatch, EntroWatch and Sabre.



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Thomas Bell-Wright International Consultants was formed in 1995 as a Façade Consultancy, and in 1998 the company established a Testing Laboratory and Inspection Division. With over 60 experts and technicians, Thomas Bell-Wright International Consultants is the region's leading company delivering Conformity Assessment Services offering an extensive range of services and solutions in testing, inspection, product certification and consulting. At Thomas Bell-Wright International Consultants, we aim to be the best in the industry to enable us to provide accurate results to our clients while maintaining strict confidentiality and impartiality.

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بتمثيل متساو وأن يتم الربط بينها لإحداث التوازن المناسب بين تقييم المخاطر وإدارة العزل وتصاريح العمل».

وشدد أيضاً على أن التحول الرقمي والحلول الرقمية هي أسهل الطرق لتحقيق تلك الأهداف. والتطبيقات الرقمية، مثل RAP، توفر حلول السلامة الذكية المثبتة والتي تأتي في صدارة التحكم الرقمي في الأعمال في المجالات الصناعية المحفوفة بالمخاطر. كما يعزز التطور التكنولوجي المكاسب الثقافية للسلامة. ومع تحسين مستويات السلامة، ترتفع كفاءة العمل والامتثال الروتيني وتعلم استخدام التطبيقات. ويؤدي هذا بدوره إلى الوقوف على أوجه التعارض في العمل، وتقليل أوقات التطبيق وتوزيع المهام آلياً على جميع الموظفين المعنيين. وفي نهاية المطاف تحسين ثقافة مكان العمل. من جانبها، شددت المهندسة نظيرة الهنائي، المدير العام في مجموعة شركات التسليم، على أهمية تدريب الموظفين على عناصر الصحة والسلامة والبيئة. وذكرت أنه إذا توفرت لدى المشغل الإرادة لتحسين عوامل الصحة والسلامة والبيئة في المؤسسة، فيجب أن يتلقى موظفوها التدريب على ذلك، لأنه يمنحهم معارف وخبرات عملية في مجال البيئة والصحة والسلامة تحقق السلامة لهم وللآخرين. وفيما تكون عملية التدريس نظرية، يمنح التدريب العملي، على عناصر الصحة والسلامة والبيئة، الموظفين المعرفة المباشرة بمكونات البيئة والصحة والسلامة. ويهدف التدريب العملي إلى تطوير القدرات من خلال الممارسة الخاضعة للإرشاد أو الإشراف.

الشخصية، تعتبر تدابير الصحة والسلامة التنظيمية الفردية، والحد من المخاطر وتطبيق نظام الإدارة عوامل رئيسية في هذا الصدد. إذ أن نظام الإدارة المناسب يمكن أن يوفر فرص النمو ويقلل مستويات الحوادث، ومن ثم يرتفع عائد الاستثمار وتزيد الإنتاجية، وفي نفس الوقت تقل المخاطر.

أوضح هذه المسألة أيضاً سوريا نارايانان، المستشار ومدير تطوير الأعمال بشركة يوكوجاوا الشرق الأوسط وإفريقيا آر. آيه. بي. ومراقب حلول الأعمال. وذكر أنه يجدر اتخاذ القرارات الإدارية الصحيحة، واتخاذ التدابير الملائمة كذلك لضمان السلامة. كما يجب أن يكون المشغل مُلمّاً بقدرات المنشأة، وبناءً على ذلك يتعين عليه فهم وتقييم توقعات أصحاب المصالح. ويجب على المشغل إحداث التوازن خلال هذه العملية بواسطة إجراء دراسات الجدوى الملائمة لتلبية تلك التوقعات.

وخلال حديثه عن الوصول إلى هدف «صفر حوادث»، قال بيترييتسو إن من الأهمية بمكان تحليل أسباب فشل الأنظمة. تلك هي سلسلة من الأحداث. ويجب على المشغلين تحليل التوجهات والمخاطر. وأياً كان نظام الإدارة الجاري استخدامه، وبصرف النظر عما يحدث، يجب اتخاذ إجراء للتعافي المتأخر لإيقاف الكارثة. قد لا يستطيع المشغل تجنب الأخطاء، ولكن يجب أن يكون قادراً على تقليل معدل الحوادث بتحليل التوجهات وتبعات تلك الحوادث.

للحصول على المزيد من المعلومات، تفضل بزيارة

<https://www.hse-forum.com/oman-2021>

وأبرزت المهندسة نظيرة - أيضاً - دور الاتصالات الفعالة لضمان كفاءة نظام إدارة الصحة والسلامة والبيئة. وقد تحدثت عن الخصائص السبع الواجب توافرها في الاتصالات، وتتمثل في الوضوح والدقة والقوة والصحة والترابط والاكتمال والكياسة. فهي عوامل حتمية للتدريب والتدريس الفعال حتى يتسنى للأفراد المشاركة في ثقافة «صفر حوادث». وألقى نيليش سوجاني، رئيس معهد الصحة والسلامة المهنية في عمان، الضوء على أهمية تخصيص ميزانية للصحة والسلامة والبيئة. وقال: «نحتاج إلى بدء الاستثمار في مجال الصحة والسلامة والبيئة. فعند الحديث عن الاستثمار في مجال الصحة والسلامة والبيئة، هل غما إلى علمك أن هناك مؤسسة تخصص ميزانية للحوادث؟ إذا لم تخصص ميزانية للحوادث، وإذا وقع أي حادث في مؤسستك، فإنه سيؤثر في نهاية المطاف على ميزانيتك وأرباحك السنوية. وبطبيعة الحال، يكون نهج الإدارة في أغلب المؤسسات هو جعل الصحة والسلامة والبيئة مركز التكاليف».

يجب على الإدارة تقييم ما إذا كانت الصحة والسلامة والبيئة تعتبر حقاً مركز التكاليف أم مركز الأرباح. إذا وقع أي حادث، تتكبد الشركة تكلفة ضخمة. وإذا تسنى منع حادث واحد في المؤسسة، تقل الأوقات المهددة وبالتالي تزداد الأرباح.

وفي معرض حديثه عن الثقافة الإيجابية المستدامة في أي مؤسسة خلال إحدى جلسات الأسئلة والإجابات، أوضح خوسيه بيترييتسو، كبير مسؤولي الصحة الصناعية بشركة تنمية نفط عمان، أنه فيما يتعلق بنظام إدارة الصحة والسلامة

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تناقش المجتمعون حول كيفية تحقيق أعلى معايير الصحة والسلامة

العمل على تحقيق «صفر حوادث» في عُمان

ركزت الجلسة الافتتاحية لمندتي عمان للصحة والسلامة والبيئة الافتراضي، التي انعقدت في 22 يونيو/حزيران، على «توفير التكاليف عن طريق السلامة» مع شركة يوكوجاوا آر. أيه. بي. تضمنت الجلسة أيضا حلقة نقاش تفاعلية ضمت خبراء في هذا الشأن من شركة تنمية نفط عمان، ومعهد الصحة والسلامة المهنية في عمان وشركة يوكوجاوا آر. أيه. بي. ومجموعة التسليم.

وفضلا عن ذلك، تقع 26 في المائة من الحوادث بسبب الانزلاق والتعثر والسقوط، فيما تقع 27 في المائة من الحوادث بسبب المخلفات والسقوط من أماكن مرتفعة والمعدات المتحركة والأجسام الحادة.

وللتغلب على تلك المشكلات، ألقى بريس الضوء على الدعائم الأساسية للرقابة على الأعمال. وقال: «الرقابة على الأعمال تتكون من ثلاث وظائف رئيسية، وهي أصول وعمليات المنشأة، ونظم وتقنيات المنشأة، هذا إلى جانب ممارسات العمل الآمنة. هذه الدعائم الثلاث يجب أن تحظى

الوفيات في القطاعات الصناعية. وطبقا لما ذكر، تقع 60 في المائة من الحوادث بسبب عدم توافر الرقابة الكافية في العمل، ويعتبر ضعف إدراك المخاطر المرتبطة بالأعمال هو العامل الرئيسي. وقد تطرّق إلى الأسباب الرئيسية للحوادث في عمان، إذ أشار إلى أن 34 في المائة من الإصابات في مكان العمل ترتبط بحوادث المركبات. وطبقا للإحصائيات الصادرة عن الهيئة العامة للتأمينات الاجتماعية، فقد بلغ عدد حالات الإصابات المرتبطة بـ مكان العمل في 2018، التي نجمت عن حوادث المركبات، 158 حالة من إجمالي 454 حالة.

ألقى مارك بريس، مدير المبيعات العالمية بشركة يوكوجاوا آر. أيه. بي. الضوء على بوابة جديدة تتميز بسهولة الاستخدام لإرساء ثقافة تحسين سلامة العاملين. وخلال حديثه عن Industry 5.0، اقتبس جزءا من بيان المفوضية الأوروبية: «الخطوة التالية (Industry 5.0) هي اعتبار صحة وسلامة العامل العنصر الأهم في عملية الإنتاج واستخدام التقنيات الحديثة لتحقيق الازدهار خارج نطاق الوظائف إلى جانب النمو مع مراعاة حدود الإنتاج على الكوكب». وفي هذا الإطار، ناقش بريس أسباب حدوث

فني هذا العدد ...



تحيات:

العمل على تحقيق «صفر حوادث» في عُمان

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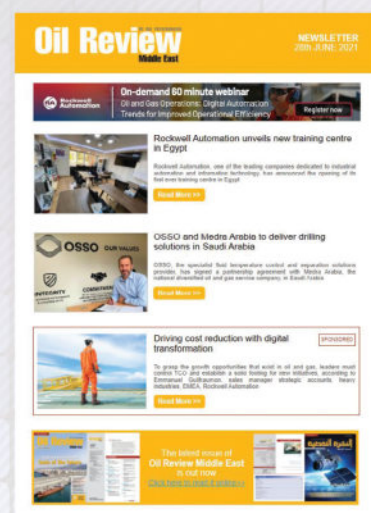
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