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**SAFETEMBER:
ALL ABOUT
HEIGHTS;
CONSTRUCTION'S
SECOND-HIGHEST
CAUSE OF FATAL
ACCIDENTS**

Insights not incidents

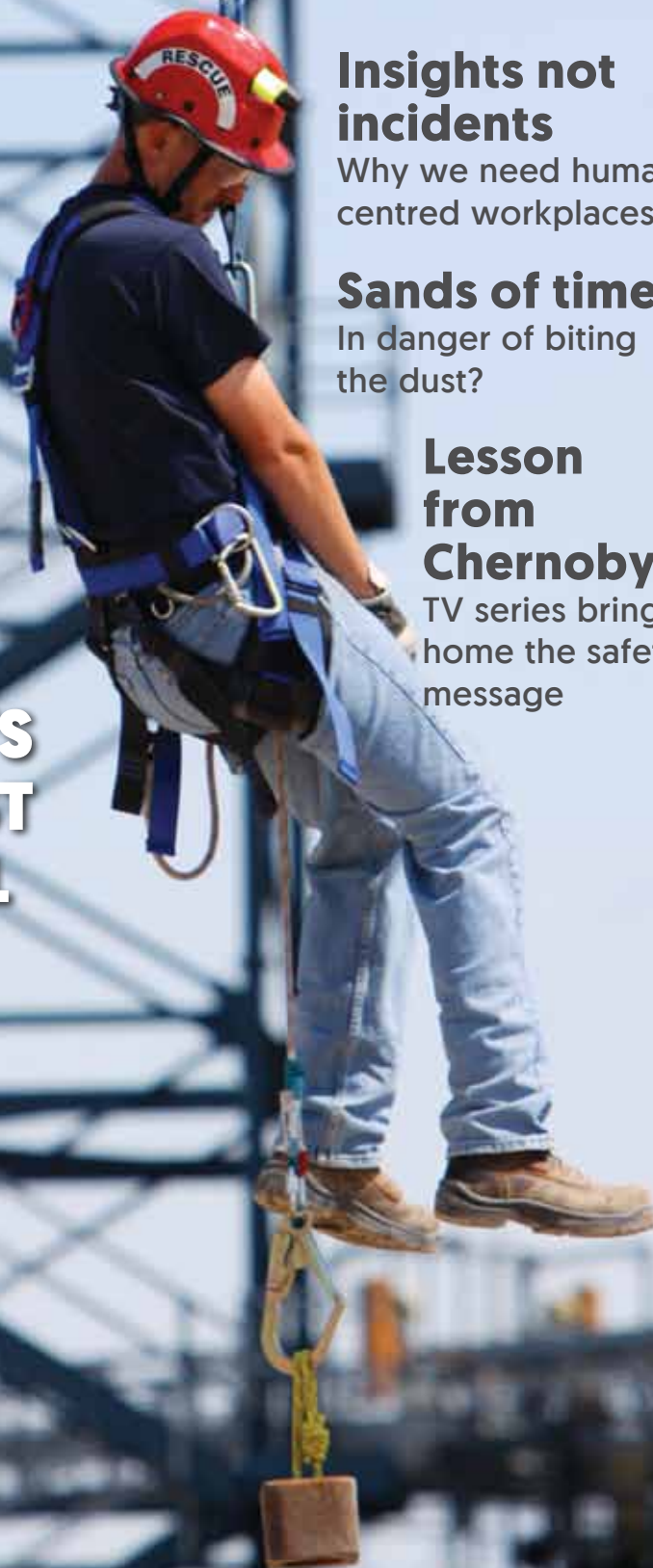
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Published alternate monthly by
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ISSUE 4 2019

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THE CHANGING FACE OF OHS

Moves by the Department of Employment and Labour to employ an additional 500 occupational health and safety (OHS) inspectors are likely to have far-reaching implications for the profession in South Africa

The Department of Employment and Labour is on the verge of engaging 500 OHS inspectors in a move that will have significant impact in the workplace, according to the department's chief inspector, Tibor Szana.

Speaking during the opening day of a department-sponsored OHS conference at Emperor's Palace, Ekurhuleni, Szana said the change was aimed at broadening the focus of inspection services by including small, medium and micro enterprises (SMMEs), as well as the informal sector, in its scope.

"Over the next ten years, health and hygiene will never be the same. We are clear about what we are about to do. When we look back, this move will mark a major turning point in OHS in South Africa. Further, we will be leveraging the use of technologies to fulfil our objectives," he said.

According to some observers at the conference, the move to employ additional inspectors has its roots not only in better enforcement of South Africa's OHS regulations, but also in providing encouragement to OHS students or recent graduates looking for work.

"While the department is making clear that it intends to improve law enforcement in OHS by bringing about an increased level of monitoring, the appointments will also open up new opportunities for professionals," said a delegate, adding that strictly enforced OHS obligations could result in the creation of a wealth of jobs across the board.

"To avoid penalties that will come with closer scrutiny,

employers in all sectors of the economy are going to need people who can ensure that health and safety obligations are properly fulfilled. In the coming years, we may well see a rise in demand for occupations such as safety officers, health and safety managers, environmental protection officers and others."

Szana maintained that the department was implementing change in order to prepare for the challenges posed by the Fourth Industrial Revolution. "We are on the cusp of major transformation across all of South Africa's industries – and OHS is no exception," he said, adding that regulations that govern health and safety in the workplace would be of no value if high accident rates persisted.

The department's inspector-general, Aggy Moiloa, said decent workplace conditions could not be achieved unless proper provision was made to construct a sound, safe and healthy environment. "Workers have a right to conditions that are not harmful to their health or safety. If that factor is compromised, productivity levels suffer," she said.

Moiloa added that employers should not see safety as a "by the way" initiative – and neither should they be lured in applying short cuts in their health and safety programmes. "In my view, every occupational accident is preventable," she said. "That is the position South Africans must strive to achieve. Changes that are being implemented will go a long way to realising this."

WYNTER MURDOCH

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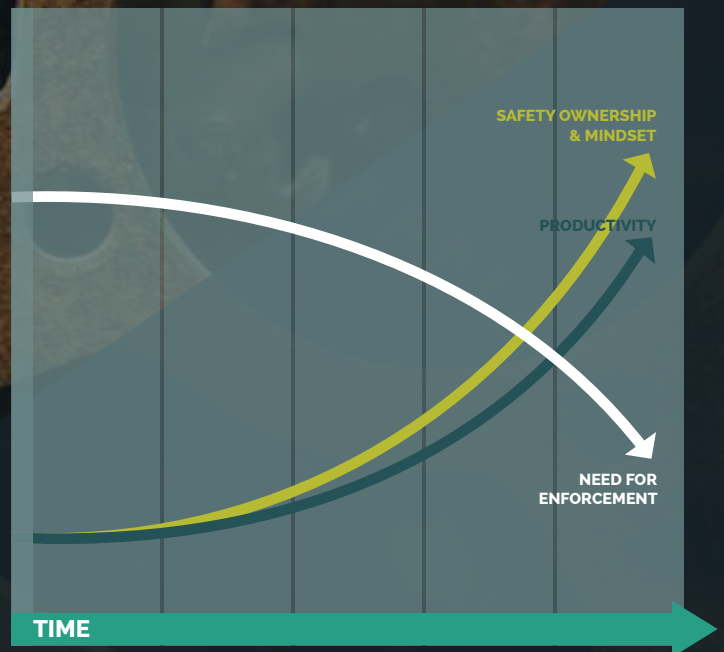
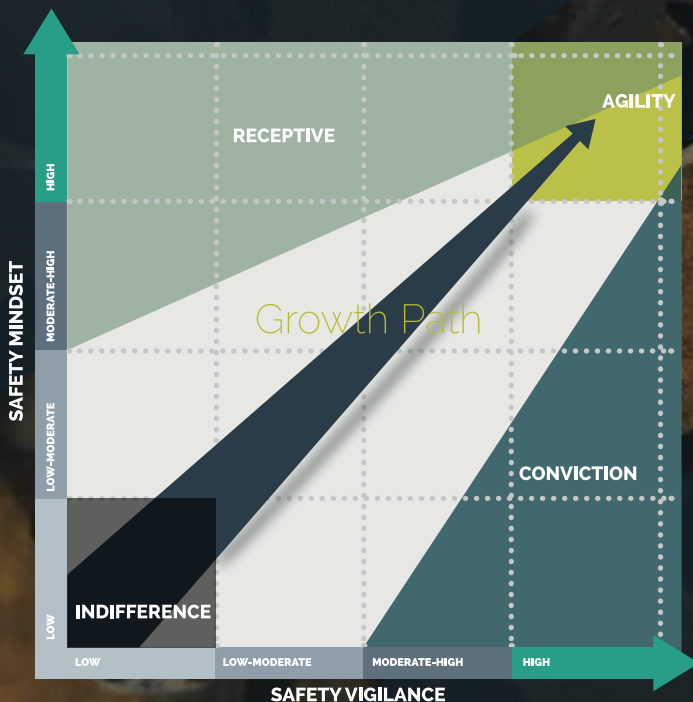
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How **agile** is your **safety** culture?

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AGILE SAFETY CULTURE: BEYOND MERE RESILIENCE

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People Driven Safety promotes a positive organisational culture and safety mindset which facilitates good corporate citizenship behaviours. These behaviours have been linked with numerous desirable outcomes such as an increase in productivity and engagement levels, as well as a decrease in absenteeism and at-risk behaviours. As a result, we typically see that as an organisation moves along the adoption curve, the need for safety enforcement decreases and productivity levels are positively influenced.

A full-page background image showing two construction workers from behind, standing on a horizontal steel beam. They are wearing hard hats, safety glasses, orange high-visibility vests over plaid shirts, and tool belts. The worker on the left is also wearing a safety harness. They are looking out over a construction site at sunset, with a vertical steel column visible on the left and a hazy orange and purple sky in the background.

SAFETEMBER ALL ABOUT HEIGHTS

The annual Safetember campaign returns with a focus on preventing falls from heights – the second most-common cause of fatal accidents in the construction industry

In September of each year, the Federated Employer's Mutual (FEM) Assurance Company hosts its Safetember initiative to educate the construction industry on the most common accidents that lead to fatalities, and ways to make the workplace safe.

"Safetember was initiated to draw attention to the high number of construction-related accidents and, more importantly, to educate both employers and employees in the prevention of such accidents," explains Herman Enoch, marketing and communication manager at FEM.

"It is important to FEM, as we firmly believe that every accident is preventable and that an industry with zero accidents is achievable."

The 2019 Safetember initiative will focus on safely working at heights, as falls from heights is the second most-common cause for fatal accidents in the construction industry after motor-vehicle accidents – the focus of previous Safetember initiatives.

"Fatalities as a result of falls from heights are second only to motor-vehicle accidents and account for around 10 to 20 percent of total fatalities annually," Enoch notes. He adds that it is not possible to pinpoint the most common causes, but there are a few issues requiring attention.

"There are themes of incorrect use of personal protective equipment (PPE), poor safety standards and unsafe working environments that precede fatal accidents." Most of these common causes are preventable – a key message from FEM through its Safetember initiative.

Enoch further adds that simply providing employees who work at heights with the correct quality PPE does not prevent accidents. He says: "Just supplying PPE is not enough. There has to be education provided and continuous reinforcement on the correct use of the PPE. In addition, ongoing site inspections need to take place to ensure a safe working environment.

"Safety should not be viewed as a grudge purchase. The cost of the correct quality PPE or expenses to make an area safe is



far lower than the cost of an accident.” The financial burden of an injured or deceased employee on a company includes much more than just the direct costs, Enoch explains.

“While insurance covers the direct costs, such as medical and pension expenses, there are also the indirect costs that can have a very negative impact on an organisation,” he says. “Companies with a high number of claims submissions can be subject to a loading of their workmen’s compensation premiums.

“There are also costs associated with the events that occur after the accident, such as a site shutdown, trauma counselling for co-workers and union intervention. These can have a very negative effect on the bottom-line figures of an organisation.” Thus, ensuring the safety of all employees who work at height creates a better work environment and makes financial sense.

Through its 2019 Safetember initiative, FEM is offering occupational health and safety officers, employers and businesses the perfect opportunity to learn more about falls from heights and preventive measures through its various information sessions held throughout the country in September.


“We have engaged with industry experts to host sessions that are focused on PPE, training and the required legislation to help everyone in the industry achieve zero accidents,” Enoch explains.

The sessions are free to attend for anyone within the construction industry, but booking is essential due to the limited number of seats available.



Saioosh members can also receive continuing professional development (CPD) points if they attend.

To book a seat at one of the sessions, or for more information, contact FEM via email at marketing@fema.co.za. When booking a seat, be sure to include the date and venue of the preferred session.

Create a safer environment for work at heights by taking advantage of the 2019 FEM Safetember information sessions today! 

The sessions will take place on the following dates at these venues across South Africa:

Date	City, Province	Venue	Seats available
September 4	Johannesburg, Gauteng	Killarney Country Club	150
September 10	Durban, KwaZulu-Natal [KZN]	KZN Master Builders Conference Centre	100
September 16	Nelspruit [Mbombela], Mpumalanga	Emnotweni Conference Centre	80
September 26	Cape Town, Western Cape	Grand West Conference Centre	100
September 30	Port Elizabeth [PE], Eastern Cape	Boardwalk Conference Centre	80

LEARNING OPPORTUNITY FROM **ELECTRA MINING**

Knowledge is power – that's the theme of seminars which will run alongside Electra Mining Botswana, a mining, industrial and power-generation expo to be held at the Gaborone Fairgrounds from September 10 to 12.

Specially designed to promote business growth in Botswana, displays at the trade show will feature each of the sectors' latest technologies, machinery, products and solutions. The event will be co-located with A-OSH Expo Botswana, an occupational health and safety [OHS] initiative aimed at promoting awareness and the importance of safety standards.

Event director Charlene Hefer says the free-to-attend seminar programme has been designed to provide a learning opportunity for exhibitors and visitors alike. Topics to be discussed include:

- How the Internet of Things [IoT] and smart devices could change the face of mining in Africa;
- Managing occupational health and risk management;
- Smarter safety solutions for mining;
- Where artificial intelligence and machine learning fit within industry and mining;
- The importance of a strategic approach to IT security.

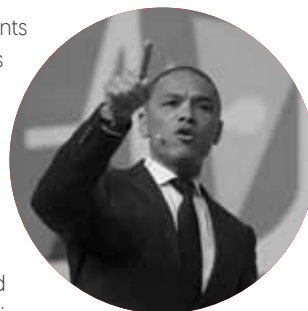
"Not only will visitors learn loads from the 100 or so leading local and international exhibitors on the floor, who will be showcasing their latest products, services and solutions, they will also learn from our seminar panel of experts," she says.

For information log on to www.electramining.co.bw

IT'S ALL GO FOR **NOSHCON 2019!**

The 2019 Noshcon conference has been confirmed. In its 58th year, Noshcon is a leading risk-management conference, offering a platform for industry players at which they can encourage the progress of enhanced implementation, management, controls and the improvement of occupational risk-management processes.

Key industry participants will once again discuss current trends and cutting-edge innovations. The keynote speaker will be Stafford Masie [right].



Maisie commenced his education in South Africa, before undertaking studies in computer science at Tel Aviv University, Israel. He has been involved in the IT industry for more than 20 years, and was associated with pre-eminent ICT companies, such as Telkom, Dimension Data, Novell and Google.

His passion for technology led to him holding senior executive positions at Novell USA – based in Utah for seven years – and subsequently at Novell South Africa.

He was also responsible for establishing Google's presence in South Africa and orchestrating its initial broader Africa strategy.

After leaving Google in 2010, Maisie founded several Fintech businesses and has since established several

technology start-ups that have expanded globally. He is known as the inventor of the Thumbzup Payment Pebble and Payment Blade.

Event: Noshcon 2019

Date: Thursday, September 12

Venue: The Maslow Hotel, Sandton

Price: R3 650 [incl VAT] per delegate

Queries can be directed to: Beatrix Lourens. Email: beatrixe@beatrixevents.co.za, Tel: 082 773 7595



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SAWEA CALLS FOR FINALISATION OF INTEGRATED RESOURCE PLAN

The wind energy industry, represented by the South African Wind Energy Association (SAWEA), has called for the release of South Africa's Integrated Resource Plan (IRP) in order to provide the country with a clear technology investment strategy.

According to Ben Brimble, head of SAWEA's policy and markets working group, pressure for the release of the plan is mounting across all energy sectors. "This is perfectly understandable as the plan provides a clear technology investment roadmap – which is essential to investor certainty – over a multi-decade time horizon," he says.

Brimble explains that the finalisation of the plan is important, since policy uncertainty results in international investors looking to other markets. "If we aren't able to provide clear policy, South Africa will continue to lose out on investment. We are competing against the rest of the world when it comes to investment dollars."

Brimble adds that, given the country's enormous socio-economic challenges, the plan should be based on a least-cost solution and technology mix in support of socio-economic development and environmental sustainability. He says the country's economy is not at a stage where it can continue to wait for an investment roadmap.

"President Ramaphosa, in his State of the Nation Address, emphasised that South Africa had the opportunity to take the lead on low-carbon industrialisation and green growth. He called for an increase in renewable energy in the country's national power-generation mix. However, he failed to say when the IRP would be finalised.

"The president's very positive tone has not yet filtered down to concrete decisions with regard to policy, so we continue to wait on the National Economic and Labour Development Council (Nedlac) and hope for a green light soon," says Brimble.

According to Brimble, the draft IRP was tabled in August 2018 for public comment and an updated version was issued in March this year. "As it stands, the plan outlines coal-fired energy supplying 46 percent of South Africa's energy mix by 2030, with further decommissioning of coal generation up until 2050. The supply of solar, hydro and wind sources is set to increase as a proportion of total generation," he explains.

According to Brimble, the R80-billion South African wind industry is a product of one of the country's most successful public-private partnerships, given its potential to attract investment, create significant numbers of jobs and contribute to the country's green economy and social objectives of the National Development Plan (NDP).

He maintains that the industry has the ability to stimulate economic growth and societal upliftment through clean power generation, component manufacturing, rural social-beneficiary programmes and by attracting foreign and local investment.

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FIREFIGHTERS AT THE TOP

The Adcock Ingram Critical Care facility in Aeroton, Gauteng, now boasts two of the best manufacturing facility emergency teams in the country. Recently, its firefighting team won the prestigious national Marsh Mutual Risk Group (MRG) fire team competition, the honour coming only months after the facility's first-aid team won the national Marsh MRG first-aid team competition.

Emerging among the top teams of 35 in the regional finals in Johannesburg last year, the Aeroton team competed in the national finals in Vereeniging in May, and brought home the first-place floating trophy.

The annual competition is hosted by Marsh and is aimed at encouraging the company's clients to focus on best-practice risk management. It is fiercely contested by teams from major manufacturers across the country.

"We are very proud of the team's achievement. It has certainly boosted our staff morale, but it has also given the management team the assurance that our emergency procedures and teams are top class," says Dave Dickie, the

facility's controller. "It is crucial that, in addition to physical safety measures that are in place, our people are well prepared to deal with any fire incidents that may occur.

"We encourage team members to share their knowledge at home and within their communities. Already, one of the team members has utilised his training to assist in improving the fire systems at his church."



Apart from physical training the team received, its members were trained on firefighting drills across a range of fire types. "Adcock Ingram plays an important role in the healthcare of the nation, and safety processes and emergency response teams have to be world class to protect this national resource," says MD Colin Sheen.

Adcock Ingram Critical Care is the only integrated medical-grade plastics and pharmaceutical manufacturing facility on the continent and manufactures a range of intravenous fluids, renal-dialysis systems, products for the storage of blood and blood components, infusion systems and accessories, as well as a comprehensive range of wound-care and ostomy products.



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RISK AVERSE OR DANGEROUSLY AMBIVALENT?

A survey conducted by DuPont Sustainable Solutions [DSS] – the 2018 Global Operations Risk Survey of Corporate Leaders – has revealed startling findings. Based on interviews with executives from more than 350 companies – with 60 percent representing high-hazard industries such as mining and metals – the results illustrate how company executives are not adequately identifying and preparing for risks that can have potentially catastrophic implications on business operations, employees and society.

Executives are dangerously ambivalent about implementing proper risk-governance measures across industrial sectors despite overwhelming evidence of business disruptions that can occur from failing to manage risk, notes DSS.

The annual survey benchmarks and measures the maturity of operational risk-management programmes in companies across numerous industries, and examines the challenges they face in effectively managing risk to improve business performance. Executives from more than 350 companies participated in the survey last year.

Johan van der Westhuyzen, DSS regional director for Turkey, Middle East, and Africa, explains that while executives are well aware of the necessary characteristics and procedures for a successful risk-management programme, they are still failing to implement these critical measurements and requirements down to the front line of the organisation.

“We found that executives are not putting sufficient emphasis on high potential risks that can lead to large-scale incidents,” he says.

The survey indicated that executives seem to be allowing low incident rates to provide a false sense of security and are ignoring other indicators of potential significant events. While 78 percent of executives agree that low incident rates do not correlate to reduced risk, two-thirds of them acknowledge feeling satisfied when they see data indicating incident rates as zero to low.

“At the same time, onerous risk-management processes are failing to identify risks effectively, with evidence to support and confirm a growing disconnect between executives and personnel at the front line,” says Van der Westhuyzen.


According to the survey, executives agree that processes and systems alone do not manage risk to ensure operational performance, and that these need to be integrated, complementary and regularly reviewed.

Forty percent admit to challenges with implementing effective employee performance management and internal procedures seem to be insufficient to manage current risks. A lack of integration in processes can also lead to failures in assets, safety processes and increase injuries or catastrophic events.

Tied to this is the fact that executives confirm a disconnect among personnel in managing risk. It was revealed that one quarter of executives feel front-line personnel are not aligned on top risks facing the company, but more than half (55 percent) do not feel senior executives are fully aligned on top risks facing the organisation.

Asset reliability, supply chain integrity and safety processes are also among the least-discussed topics in the boardroom. A gap in engagement between company leaders and front-line workers is critical to preventing and mitigating risks.

“In South Africa, the mining sector is facing a crisis in safety, which is having a negative impact on the already depressed sector that now makes up less than seven percent of the country’s economic output,” Van der Westhuyzen, notes.

It was concluded that safety and proper risk assessment in the mining industry is of paramount importance to risk-averse operations and must be addressed holistically within the South African operating context. According to Van der Westhuyzen, this can be achieved by focusing on cultivating a strong safety culture at all levels, upskilling employees and introducing new technologies that can reduce risk. 

DRONE TO THE RESCUE

When a leak in a boiler at a coal-fired power station in Limpopo recently threatened electricity supply, a drone was deployed to carry out an assessment of the damage – marking the first time the utility had used the technology for confined-space emergency inspection.

Operated by Johannesburg-based Skyriders Access Specialists, the craft – fitted with camera and lighting systems – was used to survey the boiler's interior, pinpointing the location of a leaking tube and photographing the area and its surrounds for damage.

"The client required an urgent visual assessment," says Mike Zinn, marketing manager of Skyriders Access Specialists. "Traditionally, scaffolding or other time-consuming means of access would have had to have been constructed before an inspection of the boiler could be carried out."

The Swiss-made drone – an Elios Sky Eye – was able to take high-definition photographs of the leaking tube. While the craft had been used at the power station on two previous occasions for inspection purposes, the incident marked the first time it had been called upon in an emergency situation.

"Skyriders dispatched a two-person team that was quickly on site and able to get the drone into the boiler as soon as possible," says Zinn, adding that the incident highlighted the effectiveness of drone technology. "Health and safety aspects



have improved dramatically for on-site crews in such projects, allowing specialised teams to enter only once the situation has been thoroughly analysed and verified."

Imported from Flyability of Switzerland, the drone incorporates a full high-definition camera, a thermal camera and an LED lighting system with remotely adjustable intensity. It can be piloted into usually inaccessible places up to many hundred metres beyond line of sight thanks to its wireless communication system and live video feedback.

"The main issue in this project was accessibility. The area in which the damage occurred was difficult to get to. Here, the collision-tolerance feature of the drone meant it was able to reach the affected area quickly and reliably. The fact that the pilot was fully trained and qualified meant that inspection work could be carried out rapidly and professionally, producing real-time results for the client," Zinn maintains.

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THE FUTURE OF WORK: SHAPING A HUMAN-CENTRED WORKPLACE

“The focus of occupational health and safety (OHS) should be on insights, not incidents.” This was among the observations made at the 2019 Saioish Health and Safety Conference. DEBORAH RUDMAN reports

While addressing the delegates on the topic The Future of Work in South Africa the Director General of the Department of Labour [DoL], Thobile Lomati expressed the view that taking a human-centred approach towards work makes the most sense from a moral as well as an economic point of view.

He noted that the future of work is already changing, reflecting several “indisputable truths” such as the effect of the Fourth Industrial Revolution and the move from full-time employment to the gig economy. In addition, the traditional protection offered to workers (in the form of the Unemployment Insurance Fund [UIF], for instance) was no longer adequate.

He noted that the Global Competitiveness Report [GCR] 2018 issued by the World Economic Forum [WEF] was a clarion call for respect for employee rights and protection of the right to work, which is crucial to meet material needs, build decent lives and promote a sense of identity and self-esteem. He added that work fosters interpersonal connections and expands the individual's perspective.

He said that the Fourth Industrial Revolution is characterised by technologies such as artificial intelligence [AI], automation and robotics, and that these are disruptors that bring opportunities, but also pose urgent challenges.

He stated that, in South Africa, highly skilled people stand to benefit, while the illiterate on the lowest societal rung are doomed to suffer the most. “The skills of today will not match the jobs of tomorrow,” he said.

The GCR report calls for a new approach that puts people and the work they do at the centre of economic and social policy and business practice.

Work can, however, be dangerous, which is where OHS comes in. He questioned why targets, of say 1,5 percent, are set for death and disability. He stated: “I’m a proponent of zero harm, especially since in South Africa one worker is usually responsible for seven or eight dependants.”

He recommended that OHS risks be elevated into the top ten strategic risks that are focused on by risk officers and risk-management practitioners, adding that in amendments to the Act the DoL had prescribed the implementation of a risk-management system.

“By putting this provision in the amendments, hopefully, occupational health and safety matters will receive the same priority and attention that is given to other strategic organisational matters.”

Lamati advised that safety should be communicated as a



Photograph by Natalie Field Photography.

ABOVE: Director General of the DoL, Thobile Lamato during his address at the Saioish conference.

value in the workplace. Its importance needs to be emphasised and understood, and a safety ethos entrenched. “Instead of taking a top-down approach, rather co-opt the workers. They know far better than management how the equipment operates,” he said.

On the responsibility facing OHS practitioners to understand and leverage the evolving technology, he noted: “You cannot manage something you don’t know.”

He stated that new products – digital equipment ranging from drones and robots to wearables for workers, proximity sensors for vehicles, and even smart personal protective equipment – are being developed at a rapid pace.

He felt that OHS professionals will need more time, exposure to information [such as at the Saioish Conference], professional help from IT departments, or a dedicated safety technician to get to grips with these products.

Lomati said: “They need to develop a technology ‘roadmap’, using the available data to identify high-risk sectors and improve the efficacy of the inspection system.

“This is important, because the DoL will never have the number of inspectors required to monitor the levels of compliance with the labour laws. Now is the time to develop these strategies to identify and mitigate risks.”

He concluded: “The aim is to ensure that the use of technology supports a ‘decent-work agenda’ and thus helps to shape our workplaces into human-centred institutions.” **SM**

ENGAGEMENT IS KEY TO SUCCESS

When working towards an improved safety culture within an organisation, engagement is essential

In my previous column, I spoke about developing a good safety culture in the workplace. As mentioned, a good safety culture requires so much more than simply achieving milestones relating to a set of safety indicators. In fact, there are a number of elements that need to be in place before one can truly boast a good safety culture!

In this article, I am going to tackle one of the important aspects to consider when striving for an improved safety culture – the art of engagement.

FAMILY SITUATION

I would like to use the example of how most families do and do not address issues in their private lives. For example, imagine a parent receiving a call from the headmaster of the school attended by their ten year old daughter, informing them that their child was caught smoking at school together with three friends.

The headmaster further explains that such behaviour will not be tolerated; making it clear that should it happen again the children involved would be expelled from the school.

The parent then informs the headmaster that when the child returns home from school in the evening the issue would be addressed.

Without doubt, when addressing the concern as a family, the parents and the child would engage in discussions in order to ensure clear understanding of the events, as well as agreeing on the way forward.

The objective would be to understand the reasons for smoking (for example peer pressure) and whether it was it a once-off behaviour, or whether it occurred regularly. The parents would also engage in a discussion to explain the health hazards of smoking, the ultimatum of being expelled from the school and, finally, come to an agreement and obtain a commitment from their child that she would refrain from smoking again.

The parents would probably engage with the parents of the other children involved to address the problem together in order to obtain common understanding from all three children that the behaviour could not continue and any peer pressure had to stop.

In the family environment there would be no written

procedures to prevent a recurrence, or PowerPoint presentations, checklists or the provision of training or retraining. The essence is engagement and obtaining an understanding by all, together with agreement and commitment going forward.

This approach has worked among families for thousands of years. It is, therefore, rather surprising that leaders in the workplace do not follow the same approach. It works in our private lives, so why not follow the same principle at work? In the workplace we tend to tell and instruct and do not engage enough with the teams.

TYPICAL SAFETY “TOOLBOX” TALKS

During a number of recent training sessions that we conducted at one of our operations, we split the attendees into a number of groups, giving them a topic to use as a safety talk or toolbox talk. They were then required to present the safety talk to the wider group. Each attendee then rated the safety talk using a number of categories including whether it:

- covered the critical elements;
- would make a difference in understanding of the topic;
- added value to the audience; and
- promoted engagement between the presenter and the audience.

Not surprisingly, the scores of the wider group were low for three of the four items above, with the exception being critical elements discussed.

It is not uncommon in industry for leaders to conduct safety talks by reading the document and explaining what is required. They then believe that the contents have been understood and that the time spent has ensured buy-in and will make a difference.

Often toolbox talks are treated as a “tick box” exercise and are conducted only because it is a requirement by the company, or even local legislation. The approach is, therefore, “let’s get this done so that we can start the work”. This approach is absolutely absurd. It adds no value and is a waste of time, effort and money.

Obviously, toolbox talks are an important part of the puzzle in providing a safe working environment and in the drive to send everyone home safely at the end of the day. However, doing it



properly and steering away from a telling approach to a two-way communication and engagement approach would bring much needed value to these talks.

ENGAGING WITH THE TEAMS AND ACHIEVING BUY-IN AND COMMITMENT

If we followed the same approach at the workplace as provided above with regard to the natural way family members have engaged with each other for thousands of years, safety discussions (including toolbox talks) would, without doubt, add more value.

Good engagement ensures group involvement and collective discussions during safety talks, during general discussions, when developing a new initiative, or when addressing certain concerns. Engagement with the relevant people improves understanding of the message, idea, or even an incident that is being discussed.

By conducting good engagement sessions when developing a new initiative, this allows the individuals and collective teams to provide their comments and suggestions during the development stage. Spending sufficient time in effective engagement makes the roll-out of the initiative and achieving buy-in from the employees so much easier.

PREVENTING REPEAT INCIDENTS

An important aspect of all health and safety programmes is learning from incidents and ensuring suitable actions are implemented to prevent any repeats.

In order to achieve this, most companies have a "Safety Alert" or "Incident Notice" initiative as part of their overall safety communication programme. These explain the key things learnt from the respective incidents, as well as key action items to

reduce the risk and probability of experiencing the incident again.

In the organisation at which I work, these incident notices (in our case) are distributed to all our operations that potentially have the same risks. The requirement is that the first-line managers (supervisors) are required to use the incident notice to share the details of the incident with their respective teams.

By just reading the details of the incident, as well as key contributing factors and actions developed by the site where the incident occurred, will not have an impact. It will not ensure clear understanding and will more than likely not prevent the occurrence of a similar incident at the site.

To ensure maximum benefit and to support the objective of preventing repeat incidents, it is important that an engagement session is conducted to ensure a clear understanding of the incident, and then to agree what similar risks exist that could cause a similar incident, and, finally, as a group agree on suitable actions and or commitments to prevent similar incidents occurring at a later stage.

The employees and contractors who attended the session will leave with a clearer understanding of the incident, and will most probably have bought into the agreed actions and commitments, as they would have participated in finding the solutions. This will contribute immensely to a safer working environment for all.

MANAGEMENT SITE WALKABOUTS AND AUDITS

The same principle applies to management site walkabouts and audits. As part of lead indicators, many companies require their managers to visit the shop floor at defined frequencies to focus on safety and health-related matters.


Often the focus is on conditions and behaviours. They then share their observations with those in the work area, or at supervisory level. The question is: how many of them include open and transparent discussions with those on the shop floor?

The benefit and impact of management safety-focus walkabouts could be greatly increased if the focus was engaging with employees and contractors during these walkabouts.

SUMMARY

Engagement is key to the success of our efforts to provide a safe working environment. Leaders need to do a lot less telling and a lot more listening if they want their efforts to add value. The more time spent during the development stage of, for example, initiative controls and action items, the less time will be required to ensure a successful roll out.

Let's change from safety talks to safety engagement sessions, during which there is two-way communication and engagement on the topic being discussed. Obtaining commitment and buy-in will follow, and the time spent will add value to those attending, as well as to the company as a whole.

Let's change our lead indicators by moving our leadership teams from safety walkabouts to safety-engagement walkabouts, and training and coaching them to engage with their respective teams. 



Brian Darlington is the group head of safety and health for the Mondi Group, based in Vienna, Austria. He has filled the role since 2012 and is responsible for safety and health in more than 30 countries. Brian started working at Iscor before joining Mondi in 1987, working in Gauteng. In 2000 he transferred to the Kraft Division in Richards Bay. During 2005, Brian transferred to Europe, taking up the position of business unit SHE manager, responsible for SHE in paper mills in Austria, Hungary, Israel, Slovakia, Poland, South Africa and Russia, as well as forests operations in South Africa and Russia.



HOW TO MAKE TRAINING WORK FOR YOU

PROFESSOR ANDREW SHARMAN and DARREN SUTTON tackle the challenges of making health and safety training stick, by exploring a range of techniques for management – and learners – to get more out of the next training session

At eight thirty in the morning they sheepishly shuffled in to the classroom. Nervously noticing that their name cards had already been placed on the tables for them, they reluctantly took their seats – some in clearly apparent dismay at their neighbour for the day.

When everyone was seated, the trainer rose to her feet and welcomed the group to the Health and Safety for Supervisors' course. Someone yawned loudly. Another pretended to nod off in his chair. We might say that the attendees were, on the whole, not exactly excited to be there.

PowerPoint slides, uniformly created - each with bullet-point text on the left and a clipart image on the right (a Safety First sign, a red circular STOP! image, and innumerable Zero Injuries logos) – dramatically whooshed through the full array of “animations” – fading in, swirling out and even with complex checker-boarding effect – yet the trainer struggled to elicit much more than a begrudging mumble from anyone during the entire session.

The delegates returned to their day jobs and the trainer shrugged her shoulders. “I don’t know what just happened,” she said. “What’s wrong with those people?”

Oh no, another health and safety training course

Sure, health and safety may not be the most exciting of topics


for some people invited to attend a training course. We suspect that most readers will have had their own share of seemingly disinterested delegates from time to time.

So, can we actually affect the personal values or existing beliefs of training participants? Can we develop training that will actually change the way learners think, act and behave? How do we create a more effective learning environment that helps us to develop better leaders and a more effective and reliable workforce?

MAKING IT STICK

How we learn is a fascinating area of psychology and performance, with many models and theories that occasionally seem contradictory. Some have even been totally debunked! If classroom sessions are still being planned around meeting all of the learners' different “learning styles” (reflecting Fleming's ‘VARK’ model) then please don't stop there.

While people may have certain preferences for how they learn – many have a natural bias towards either visual, audio, reading (or Kinaesthetic learning opportunities) – modern neuroscience suggests that there are much more important things to be considered when developing meaningful and sustainable learning experiences. So let's explore four ways to make health and safety training really stick.



The evidence suggests that learning becomes much more efficient and long lasting if we make things tougher for ourselves.

“

to remember the information in the future. It's like building new muscle; if the exercise is too easy then we don't "stress" the muscle and it doesn't grow. Guess what? Our brains work in a similar fashion.

Creating a "desirable difficulty" is much more effective than making learning smooth or fluent. Making things tough and trying hard to retrieve the information from our minds creates a more powerful cognitive connection and helps the learning to stick.

We create desirable difficulties in our safety leadership programmes. Homework often includes reading a chapter of one of Professor Sharman's books, and then presenting a 60-second summary of the chapter (which may often be between 20 and 30 pages) to the entire class the next morning. Participants are forced into understanding the key elements of the chapter, and the distillation of what they've learned, followed by sharing it verbally with the rest of the class, which galvanises their understanding.

• Water the garden

Have you ever crammed information for an exam, or left your preparation to teach a new subject to the very last minute and had to stay up all night to make sure that you know all that you need to know by the next day?

Well, we wouldn't water our garden like that – several weeks' or months' worth of water in just one day would create an awful mess!

Neuroscience research suggests that learning works in much the same way. It's much better to do a little bit every day, in bite-sized chunks. This gives our brains time to soak up each nugget of information. To reflect and consider how what we've learned could be applied "in our world" or in a specific context. Watering the brain regularly with information works much better than saturating it with heavy loads.

• No pain, no gain

It's tempting to believe that we need to make learning easy for our people, right? Well actually, it may be better to make it harder! The evidence suggests that learning becomes much more efficient and long lasting if we make things tougher for ourselves.

Have you noticed those people who write diligent notes in training programmes? They very neatly highlight the key information with fancy fluorescent marker pens. Then they go back and re-read all that important highlighted information to help them remember. Well, that's not the best way to actually retain or better understand any kind of information. It makes it too easy!

It may be much more effective to read a chapter, or listen to a lecture or podcast, and then, rather than highlighting or tagging key information, close the book, or "pause" the podcast. Now try to recall what has just been learned. Make it hard for yourself, then go back and check if you were right.

This is a much more effective strategy to learn, even if you were wrong at first, you now know that and you're more likely



• Tell someone!

Another great way to ensure that learning sticks better is to teach your new knowledge to someone else. Check back on the previous section where we discussed "desirable difficulties" for a reminder on our asking participants to make "60-second summaries". This technique can be used easily to ensure the understanding of key points in any learning session.

Another idea is to imagine teaching a five-year-old child. Things would need to be broken down into simple language and short sentences, right? This technique is useful in ensuring that training communications are as clear as they can be.

• Take a nap

The research in this area is significant. When we commit to learning something, it can be tiring. A quick nap can help our brains to really soak up the new learning – creating deep understanding and improving our cognitive recall as our sub-conscious automatically filters things for us, and helps us to apply this new information to our world.

This is known as the Zeigarnick effect. In simple terms, if something is left unfinished and then a break or rest is taken, the sub-conscious will fill in the gaps. Now, having people snoozing on the job may not be desirable, but a change of activity or a strategically placed break can have similar impact.

Lithuanian psychologist Bluma Zeigarnick explains how waiters or bartenders can remember orders most effectively. If they take the order and payment for the order at the same time, their brain sees this as a completed transaction and it doesn't remember the order too well. If the waiter doesn't receive payment when taking the order, then their mind sees that the transaction is still "incomplete" and that actually helps them to remember the order.

WHY, WHAT AND HOW

Research suggests as much as 40 percent of our learning can be forgotten in the first 20 minutes, and in six days we may forget as much as 77 percent. So, if we really want our learners to be engaged, there are three important factors to consider. Whichever learning methods or processes, trainers or courses to which we might expose people, our interventions can only act as a lens to facilitate each individual's line of thought to reaching their own conclusions.

First, learners need a compelling reason why. Before we even mention training opportunities to our staff, we need to create a vision about why they need the training. To do that, one can leverage the organisational culture of the company; communicating, specifically, how this training will benefit everyone.

If people cannot identify the problem that will be solved

by the training, they won't actively participate. In our training programmes we always begin by asking participants to define a learning objective for themselves once we've explained the agenda for the session. This helps participants "buy in" to the course content and focus on "what's in it for them".

Next, consider what participants need to learn. Ask this simple question to build an outline for content creation: "What do I need learners to be able to know, think, and do as a result of the training?" Write down ideas in each of the three categories, and then think about how to broaden these threads into clear learning ideas.

Finally, it's good to give people an opportunity to choose how they might consume their learning. Consider options such as live face-to-face programmes, self-directed study, or perhaps some sort of online e-learning option that learners complete at their own pace.


LEARNING FROM EXPERIENCE

We hope that this article provides some useful thoughts to help build more impact into your training programmes. However, it's not over as soon as the learners leave the classroom, or receive their certificates of completion.

Professor Ortrun Zuber-Skerritt at South Africa's North West University reckons that "learning is a process, as well as an outcome" and describes "a spiral of action and research consisting of four major moments: plan, act, observe and reflect".

We've provided some ideas on the first couple of phases, and it's important to keep an eye on the learners during the training and observe how they're progressing, so let's end with a note on this final element.

Back in 1987, Donald Schön introduced the concept of modern reflective practice, which involves drawing connections between knowledge and practice from our own experiences. So, once the session has been delivered, take some time to think back over what happened.

Where were the high points? What did learners most appreciate? Were there areas that seemed more challenging – for the participants or for the trainer? Why might this be? Be objective here. The feedback sheets completed by learners may reveal what worked well for them, but often they paint only part of the picture. Reflection can help you to fill in the gaps and complete the masterpiece. 



Professor **Andrew Sharman** (left) is Chief Executive and **Darren Sutton** is Senior Partner at RMS, consultants on leadership and cultural excellence to a wide range of blue-chip corporates and non-government organisations globally. Find out more at www.RMSswitzerland.com. RMS's IOSH-approved and certified Behavioural Safety Leadership online learning programme takes a mindful approach to developing safety leadership and provides a low-cost, practical and easy-access route to building a robust safety culture in an organisation. E-mail us at: team@RMSswitzerland.com and mention this article to find out more and receive a free gift and special offer when you begin your online programme.

SHEQ MANAGEMENT readers can purchase Sharman's best-selling safety culture book **From Accidents to Zero** with a **20-percent** discount.

Go to: www.fromaccidentstozero.com and enter the code **SHEQSA20**.



SOFTWARE TO MAKE **OHS SIMPLER**

Software can make all the difference when attempting to implement more effective and efficient occupational health and safety [OHS] processes.

More companies are investing in OHS programmes for several reasons. "One is the need for stricter record keeping," notes Scott Bredin, Adapt IT manufacturing executive. "Another is increased stakeholder pressure to ensure that companies fulfil their social responsibility towards communities and the environment."

"A third factor is the increased adoption of safety management standards such as ISO 45001." Along with more investment in OHS comes the need for more efficient and accurate systems. This is where software is key.

"Good OHS software can reduce operational risk by improving management and control of safety-related activities at industrial sites," Bredin explains. "Software is able to achieve a high level of monitoring and control that is not possible when using a manual system."

"For example, access to a dangerous working area can be automatically controlled at the turnstile by first performing a number of safety inspections such as checking for a valid permit to work and the necessary certificate of competency to work on site."

Software can also assist in improving the quality and speed

at which safety reports are conducted. Bredin says: "OHS software, when correctly set up, allows management to focus on making continued improvements while managing exceptions."

"Well-designed OHS software will also allow changes and improvements to safety procedures to be implemented quickly across the entire operation."

The IntelliPERMIT software offered by Adapt IT, for example, reduces waiting time and congestion in the permit office as multiple work crews prepare to start their shifts. This software forms part of a bigger software package: OpSUITE.

"OpSUITE comprises of several interrelated safety solutions. These include IntelliPERMIT, SmartSURE for managing incident reporting and investigation, and OptiRUN for planned maintenance of assets. FlexiLOG, which is also an important part of the OpSUITE family, is designed for managing typical operations processes found in a plant," Bredin explains.

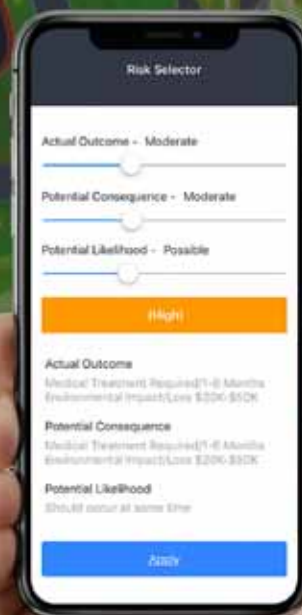
For OHS officers still debating the implementation of software, Bredin advises: "A safety project will impact the entire organisation. Obtain early commitment from all the stakeholders. We also suggest contacting Adapt IT early to learn from other clients. It is very useful to learn from other companies in a similar industry that use the system. We can facilitate this."

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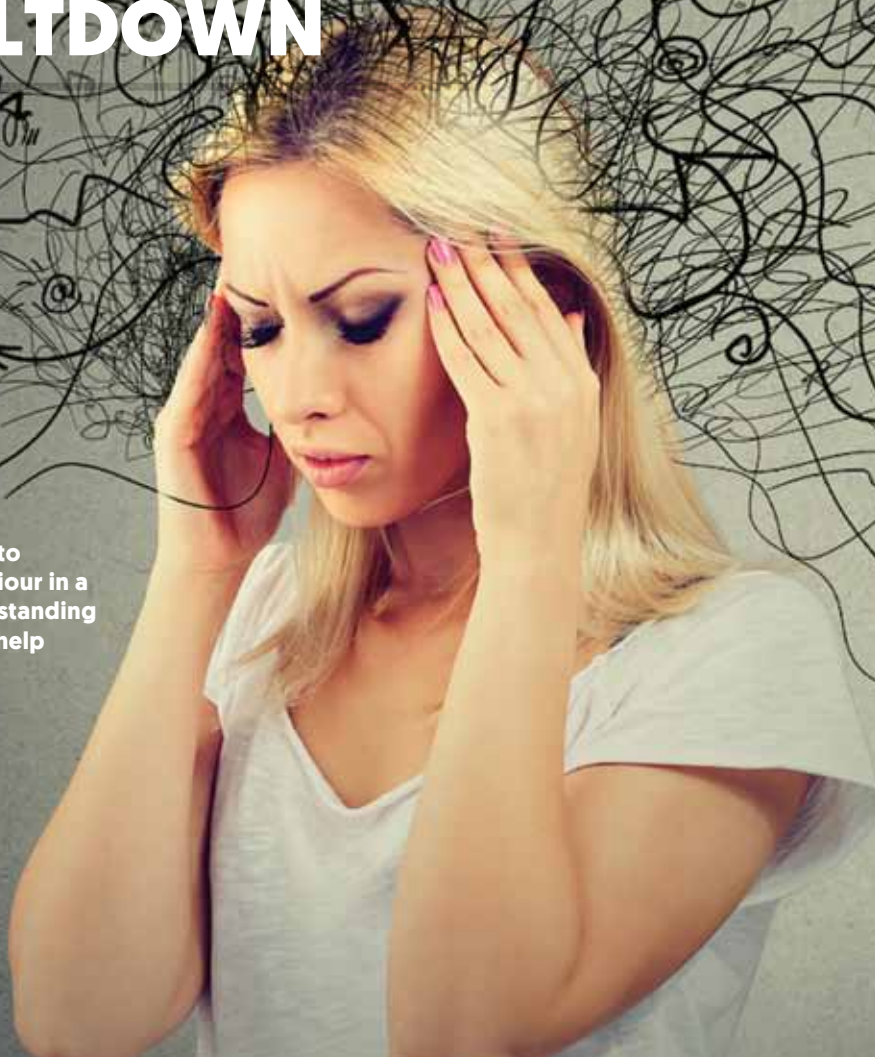
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MAYDAY, MAYDAY: WE ARE HAVING A MENTAL MELTDOWN

Do you sometimes battle to understand human behaviour in a stressful situation? Understanding how the brain works will help



Without warning, smoke gushes into your office. You are confused about what is going on. Your heartbeat starts to race. Then the emergency siren goes off. You know you need to evacuate the building. With the abundance of smoke, you are struggling to breathe and, with burning eyes, you cannot see down the passageway. Not knowing where the source of the fire is located, or its intensity, what do you do? The choices you make in that instant could save, or possibly cost you, your life.

Thankfully, few of us will ever have to make such life or death decisions. However, we are regularly forced to make decisions while under pressure. Understanding how the brain works, particularly when we are stressed, can assist us to keep ourselves and our people safe.

Our brain's highest priority is our survival. When the brain detects a threat, whether or not it is real, it will jump into action

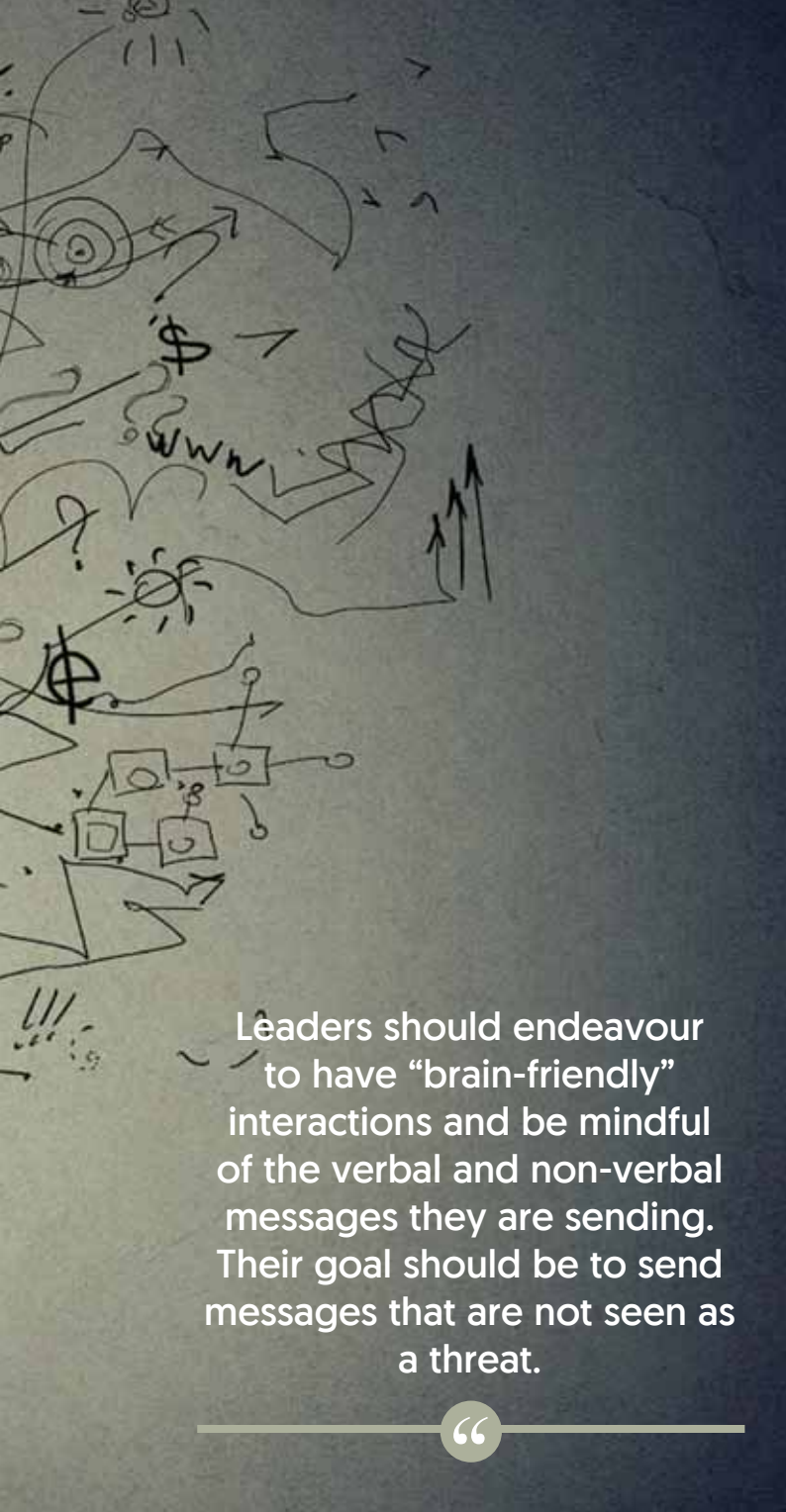
– sometimes in an irrational manner.

To explain this reaction, and without going into intricate details, we need to understand two fundamental building blocks of the brain.

The largest portion of the brain is the neocortex. Among other things, it is responsible for our higher cognitive functions such as language, analytical thinking, reasoning, problem solving and decision-making.

Another section of the brain is the hypothalamus, which is similar to a command centre. It communicates with the rest of the body through the autonomic nervous system (ANS). The ANS regulates our involuntary body functions such as our heartbeat, blood pressure and breathing.

Whenever we are in imminent danger, such as being trapped in a burning building, the amygdala sends a distress signal to the hypothalamus. This, in turn, activates a series



Leaders should endeavour to have “brain-friendly” interactions and be mindful of the verbal and non-verbal messages they are sending. Their goal should be to send messages that are not seen as a threat.

of chain reactions to ready the body and ensure it has the necessary resources to deal with the danger.

In a state of fear or anxiety, our heart rate escalates to provide more energy and oxygen to the body. Our pupils dilate to allow more light into the eyes so we can be more aware of our surroundings. With a surge of adrenaline and cortisol racing through our system, we can start to tremble as our muscles tense and prepare for “battle”.

We can become pale as the body redirects blood away from the surface areas and brain to vital muscles like the arms

and legs. This automatic response happens so quickly that we do not have any time to think about it. In these conditions, the brain bypasses the neocortex and switches over into survival mode.

This is ideal when we need to swerve out of the way of a child chasing after a ball that has rolled into the street. At that moment, we are, literally, not thinking. The analytical function of the brain is circumvented as the body arms itself for action. However, this can also be disastrous when a situation calls for a more level-headed, think first and then react, response. This is why people seem to make “silly” mistakes or decisions when they perceive a threat.

It is important for managers to take note that this reaction is not limited to physical danger. Our brain responds in precisely the same way when it perceives a psychological threat.

I know that I should not have [as it was serious], but I could not help laughing when a senior manager shared that whenever his team undertook their weekly safety walkabouts, everyone would disappear.

If for some strange reason a lion wandered into our office, we would immediately default to a fight-flight-freeze mode. On a psychological level, if every time a subordinate sees us they experience a negative emotion, their brain will quickly deem us to be a threat. From their brain's perspective, we have just become a human form of a roaming lion.

It is more than likely that the next time we engage with that person, the primal (and not rational) part of their brain will be activated. To make matters worse, our primal brain is not language orientated. Trying to have a logical conversation with it is a waste of time.

Have you ever been angry with someone and they told you to calm down? Did you respond by magically going from a state of anger to being cool, calm and collected? The answer is most probably not. It's more likely that you became even more irate.

Usually, later in the day, after calming down and coming to your senses, you realise that your behaviour was unnecessary and silly. This is because you are no longer functioning from your primal brain, but using the reasoning side.

Leaders should endeavour to have “brain-friendly” interactions and be mindful of the verbal and non-verbal messages they are sending. Their goal should be to send messages that are not seen as a threat. This will dampen the possibility of a fight-flight-freeze reaction.

Lastly, I recently read a fascinating article by Tait-Harris, a leading United Nations war crimes investigator, regarding the violence and hostility in society, in which he stated: “People generally do these things to others because they see them as different, so if there's some way to show that you're just the same, it might just ease the situation.”

Connecting, caring and building rapport is vital to keeping our people mentally calm, engaged, focused and attentive. When it comes to safety, it is more than a nice sentiment or corporate values' slogan – it is an absolute necessity. SM



Dr Brett Solomon is the CEO of The Kinetic Leadership Institute and is a recognised leader in combining neuroscience, change management and leadership theory to drive cultural transformation processes. Brett specialises in neuroleadership, especially when it comes to an understanding of what motivates human behaviour and how to influence it. He has been involved in numerous culture change and leadership development initiatives throughout Africa, Australia, Canada, Saudi Arabia and the United States.

IS WORKMEN'S COMPENSATION A SOCIAL WELFARE PHENOMENON?

DR ALBERT MUSHAI and PROFESSOR ROBERT W VIVIAN argue that workmen's compensation probably has little to do with social welfare

Workmen's compensation is usually classified as being part of social welfare – and is treated as being part of the “welfare state”, so to speak. It is always discussed in economic literature on this basis; forming part of social welfare systems. It is usually classified as such automatically, with very little thought being given to the specific question: Is workmen's compensation socialist in nature? We want to argue this is probably incorrect. It has little to do with social welfare.

Resorting to definitions doesn't help to answer the question. Socialism, welfare state, capital, capitalism and so on, are notoriously difficult to define and, when defined, the definitions are usually not of much assistance. For instance, socialism is defined as a society where the means of production are owned and controlled by the state. It is difficult to see how this can be applied to workmen's compensation!

An easy definition of socialism is that it's the world of the “free lunch”. So, if we talk of free education, or free higher education, or free medical treatment, no doubt most would consider these ideas to belong to the field of social welfare.

Where individuals pay for their own education, it would not be regarded as part of a social welfare state. So, one can ask, we suppose, who pays for the goods? This can help as an indication of whether something is part of social welfare. If the state pays, it points to the welfare state. Another idea would be the degree of state involvement. If the state is involved in one

way or another, then it again points to the welfare state.

It does not help much to look at texts that deal with workmen's compensation as part of the welfare state – most do not discuss the issue. Workmen's compensation simply appears in some books that deal with social welfare. Workmen's compensation then finds itself included in that category.

As is well-known, workmen's compensation in its current form originated in Bismarck's Germany as part of a package under his so-called social insurance laws. The laws applied to the areas of workmen's compensation, medical care and old-age pensions.

Many writers treat this as the beginning of the German welfare state. It is also correct that Bismarck introduced these to counter the arguments of socialists that capitalism was uncaring. When workers became old, the socialists argued, they were discarded and replaced with younger workers. In reality, old-age pensions were not a socialist intervention, but a practical solution to the legitimate question of old age.

The same can be said of workmen's compensation. The socialists' argument was that, under capitalism, injured workers were simply discarded and new workers employed. Again, it could be argued that workmen's compensation was merely a solution to a problem being highlighted by socialists, who could see problems, but not solutions.

Medical funding is more interesting, since medical costs



were not significant at the time as medical science had not developed to its modern extent and public hospitals were common. Life expectancy was also very low.

In the world of Bismarck, the cost of these services was not going to be paid for by the state. He utilised the concept of insurance – everyone contributed towards their own costs via an insurance levy. There was no “free lunch”.

The contribution of the state was to legally force employers and employees to join the schemes and pay the insurance premiums. This became the norm via social security payroll taxes. Therefore, one can see the words “social security” and “taxes”, indicating the nature of these schemes as social security and the levies not as premiums, but as taxes. Further, in the Bismarck model, taxes were paid over to a state body that administered the funds.

Although employers may pay contributions to the workmen's compensation fund, this does not mean employees do not pay the tax. The tax is merely being paid by employers on behalf of employees.

Thus, employers pay SARS the PAYE contribution of employees. The fact an employer writes out the cheque does not mean the employer is, in fact, bearing the cost. Almost certainly, when working out the employee's cost to company, the cost of workmen's compensation will be included as part of the contract.

One way of making workmen's compensation part of social welfare would be for the costs to be paid out of general revenues – out of taxes, but since the days of Bismarck this has been difficult to achieve.

In the early 1900s, when the British parliament passed what has become known as the Peoples' Budget, it was not possible and parliament did not agree to pay the costs from general tax revenues. To many, this was the point in time when the United Kingdom [UK] introduced the welfare state. The original plan was to pass these costs onto the tax fund, but this did not happen and a separate social security tax was imposed.

When the UK, and later the United States [US], first introduced workmen's compensation, it was clear it was not part of the social welfare system. One may even say this was strange – workmen's compensation legislation merely imposed an obligation on the employer to pay the compensation benefits. No provision was made for the government to fund these obligations.

One could, we suppose, call this private socialism. Instead of the state providing the “free lunch”, it merely passed a law imposing this on the employer. Employers faced with this risk sought insurance cover and the private workmen's compensation insurance market developed with the blessing of the state. It can thus be argued that originally in the UK, workmen's compensation was very much a private matter, other than the legal obligation to pay compensation.

We argued in our previous article that, through the concept of externalisation, the economic concept of internalising external costs that workmen's compensation achieved is conceptually sound. So, the UK and probably the US concept of workmen's compensation cannot easily fall within the framework of socialism, or social welfare, despite the fact that that is where it is usually placed.

In South Africa, it is even more difficult to categorise workmen's compensation as part of socialism and the welfare state. By far the most important private industry during the late 1800s was the mining industry. The Rand Mutual introduced workmen's compensation long before it became a legal requirement. In the South African case, it can be argued that workmen's compensation clearly was not part of the social welfare system.

The history of the system in this country clearly contradicts the notion that it was part of the welfare system, because it was a private-sector initiative. Therefore, the mere fact that the state assumes oversight over something does not make that activity part of the welfare system. It is more helpful to determine where the costs ultimately lie before making a determination on whether or not something forms part of the welfare system. SM



Legally Speaking is a regular column by **Professor Robert W Vivian** and **Albert Mushai**, both in the school of Economics and Business Sciences, University of the Witwatersrand. Robert W Vivian is a leading authority on insurance and risk management. He has written a number of books on South Africa's business history. Albert Mushai holds a master's degree from the City University, London, and was the head of the insurance department at the National University of Science and Technology in Zimbabwe before joining Wits University as a lecturer in insurance.

KEY QUESTIONS FOR MONITORING AND REVIEW OF RISK/OPPORTUNITIES

One of the most frequently asked questions is: how often should risks and opportunities be reviewed and monitored? The answer helps us establish whether an organisation's risk-management process is effective

The answer also has a significant influence on an organisation's choice of risk/opportunity rating methodology at a given time. Above all, it puts a spotlight on its internal risk and opportunity control environment.

Although not comprehensive, the key questions we are discussing provide an understanding of what one could expect when monitoring and reviewing risks and opportunities.

Are risk and opportunity oversight committees formalised?

The complexity of an organisation usually determines how the various cross-functional structures constitute forums to review risks and opportunities, while taking into account its risk profile.

However, irrespective of the structures, formalised forums have a clear mandate, thus creating value. For example, an organisation with various business units across multiple geographical locations may choose to establish forums to monitor and review risks and opportunities at local or operational levels.

The local levels then report to regional structures, which then escalate key risks/opportunities reviewed to the head office.

The reviews could also be undertaken in other meetings. The challenge I often notice in this scenario, is when the meeting agenda does not make provision for feedback on monitoring and reviewing risks/opportunities depending on the subject matter.

Another challenge is where reviews are rushed, especially if the chairperson is not interested, or sees risk management

as a constraint to achieving an opportunity in their jurisdiction.

Are there any changes in an organisation's business environment?

From the onset, ISO 31000:2018 [Risk Management – Guidelines] states: "The context of the risk-management process should be established from the understanding of the external and internal environment in which the organisation operates and should reflect the specific environment of the activity to which the risk-management process is to be applied."

This is a good foundation that enables an organisation to be familiar with the pertinent issues when establishing its risk-management framework. The fundamental concern is whether there are potential changes that could trigger risks, which would then impact on an organisation's strategic direction coupled to its objectives.

When monitoring and reviewing risk/opportunities, we can also pay attention to management systems standards such as ISO 9001:2015 [Quality Management] and ISO 14001:2015 [Environmental Management] respectively in relation to clause 4.1 Understanding the organisation and its context.

I recently came across a thought-provoking read. A preliminary draft entitled: Enterprise Risk Management – Applying enterprise risk management to environmental, social and governance-related risks, was published in February 2018 by the Committee of Sponsoring Organisations of the Treadway Commission [COSO] and the World Business Council for Sustainable Development [WBCSD]. It provides practical examples of changes to the internal and external environment as illustrated in the table below.

Are the risk treatment plans effective?

ISO 31000:2018 notes: "Monitoring and review need to be an integral part of the risk treatment implementation to give assurance that the different forms of treatment become and remain effective."

It further states: "Risk treatment can also introduce new risks that need to be managed." Just as one would follow up with a doctor on the treatment administered, risk treatment plans should be monitored to assess how effective they are in mitigating the respective risks.

Recently, I was at a car-maintenance workshop, where the mechanic [owner] almost lost sight in his right eye due to a sharp object. This event got me thinking about the risk events that could have led to this accident. Despite the owner being knowledgeable about leading and lagging safety indicators in his workshop, no further actions had been implemented to prevent re-occurrence of an event. One should not be afraid to ask challenging questions on whether the right indicators have been established.

Is data provided to the relevant stakeholders reliable?

The development of an organisation's risk-management framework should also take into account what data will be made available, and the various risk-information systems being utilised. We often hear of the quote "In God we trust. All others bring data."

Inevitably, in order to make good risk/opportunity decisions as an outcome of monitoring and review activities, available


data should not be misleading. Those familiar with the ISO 9001:2015 standard quality-management principle "evidence-based decision-making" have not taken data reliability for granted.

On the technology side, many organisations have central sources of data, such as risk-management information systems that facilitate the capturing, management and analysis of their enterprise-wide risks.

While this is a worthwhile investment, those responsible for monitoring and reviewing risks and opportunities should validate the integrity of the data to guarantee fair decision-making. This is even more critical when the integrity of data is undisputed when it comes to an organisation's performance-management appraisal.

Positive Outlook

Organisations with robust risk-management processes have established frequencies and forums to monitor and review risks and opportunities they encounter or anticipate. The questions selected will further provide a good insight into challenges faced by risk managers to demonstrate to their counterparts the added value of monitoring and review activities in embedding the management of risks and opportunities.

Even when we identify risks and opportunities, they will not just vanish. They have to be monitored and reviewed, while taking into account the respective forums in place, changes in our organisation's context, asking the right questions and providing stakeholders with reliable data. 

Examples of changes to the internal and external environment

Internal environment

- Changes in strategy or objectives
- Rapid company growth
- Organisational changes including change to leadership
- Mergers and acquisitions
- Innovation
- Change in risk appetite

External environment

- New or pending regulations
- Emerging technology
- Changing stakeholder expectation
- More frequent or extreme weather
- Trends or strategies adopted by peer companies
- Shifts in global megatrends

Source: COSO



Hope Mugagga Kiwekete is a managing consultant at the Centre for Enterprise Sustainability. Previously he was a principal consultant risk management at Transnet Freight Rail, a management systems specialist and senior EHS auditor at the South African Bureau of Standards. He has practised as a management systems consultant, trainer and auditor in the fields of risk management, environmental, energy, occupational health and safety and quality management in various industry sectors in eastern and southern Africa and Southeast Asia.



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WANTED: HEALTH AND SAFETY FOR EMERGING CONTRACTORS

Small, medium and micro-enterprises (SMMEs) play a vital role in developing economies because they absorb a significant part of the unemployed labour force, but they need to focus on health and safety

In the South African context, SMMEs have the potential to be an engine for black economic empowerment and the reduction of poverty. The sustainability of the SMME sector can be promoted through the enhancement of the health and safety systems.

The International Labour Organisation estimates that only ten percent of people in developing countries are covered by occupational health and safety laws. South Africans are fortunate to have legislation governing health and safety and a Compensation Fund to protect injured workmen.

According to the Construction Industry Development Board Act of 2000 [Republic of South Africa, 2000], an emerging contractor can be defined as a person or enterprise, which is owned, managed and controlled by previously disadvantaged persons, and which is overcoming business impediments arising from the legacy of apartheid.

These enterprises are also termed small construction enterprises and small-scale contractors. Emerging contractors are generally characterised by limited capital resources, plant, equipment and managerial support, which negatively affect their ability to acquire skilled labour and employ professionals.

The ISO 45001:2018 guideline is applicable to all organisations, regardless of size, industry, or nature of business. It is designed to be integrated into an organisation's existing management processes and follows the same high-level structure as other ISO management system standards, such as ISO 9001 [quality management] and ISO 14001 [environmental management].

ISO 45001:2018 enables organisations to implement a health and safety management system. It is intended to help them manage risks and improve their occupational health and safety performance by developing and implementing effective policies and objectives.

Although ISO 45001:2018 is applicable to all organisations regardless of size, emerging contractors may not have the capacity or capability to implement such an extensive health and safety management system.

The Occupational Health and Safety [OHS] Act requires employers to provide employees with a working environment that is safe and without risk to their health "as far as is reasonably practicable".

Reasonably practicable in terms of the OHS Act refers to:

- a) The severity and scope of the hazard or risk concerned;
- b) The state of knowledge reasonably available concerning that hazard or risk and of any means of removing or mitigating that hazard or risk;
- c) The availability and suitability of means to remove, or mitigate, that hazard or risk; and
- d) The cost of removing, or mitigating, that hazard or risk in relation to the benefits deriving therefrom [OHS Act, 1993:5].

According to Ferrie [2009:31] the Act suggests that the employer does not have to provide absolute protection, but can use reasonable practicability to identify how far to go to achieve compliance with the law.


Reasonable practicality involves weighting up the risks and balancing these against the resources necessary to control them. Emerging contractors are faced with inadequate financial and organisational resources and have limited health and safety knowledge and preventative capacity.

The South African Council for the Project and Construction Management Professions [SACPCMP] is empowered by Section 18 of Act No. 48 of 2000. The SACPCMP is the designated registration body for construction health and safety practitioners operating in South Africa.

Further investigation is required to determine whether emerging contractors can afford to employ health and safety practitioners as part of the legal requirement, and how effective the registration of SACPCMP has been in terms of reducing injuries in construction.

My research incorporates "reasonably practicable" to indicate the relevance of a system that is feasible and possible to implement by emerging contractors.

The research will attempt to gain a better understanding of health and safety practices of emerging contractors in South Africa.

Initiatives aimed at enhancing the knowledge and capacity of SMMEs to combat health and safety risks and to prevent work related accidents can be of great benefit for small businesses and their workers. 



Sanjay Munnoo has over 15 years' experience in the risk and financial services industries. He started his career at Alexander Forbes and now works at FEMA as Regional Manager. He held several leadership positions including that of chairman of the board at the Workers Accident and Rehabilitation Centre, and chairman of the KZN MBA Health and Safety Committee. Sanjay is a Chartered Member of Saioosh [CMSaioosh] and was appointed as president of Saioosh in June 2017. He is currently completing a PhD in Construction Management.



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STEALING THE SANDS OF TIME

Sand builds the world around us – but it is running out. Worse, much of it is being mined illegally, not only in South Africa, but in other parts of the world. WANITA WALLACE reports

The United Nations (UN) has warned that the sands of time are running out. In a recently released report, the organisation reveals that there will not be enough sand and gravel left in the world's terrestrial, riverine and marine environments to meet the demands of ten-billion people unless effective policy, planning, regulation and management is introduced.

The report, entitled 2019 Sand and Sustainability: Finding New Solutions for Environmental Governance of Global Sand Resources, says sand and gravel are the unrecognised foundational materials of the global economy. "They are mined from natural sources the world over, with aggregates accounting for the largest volume of extracted material. Most of the mined resources are consumed regionally because of high cost of transport – but little data exists regarding exact volumes, sources or uses."

Nico Pienaar, director of the Aggregate and Sand Producers Association of South Africa (ASPASA), concurs. "Sand is one of the most extracted minerals in the world, but, with few exceptions, volumes are not well recorded, here or elsewhere," he says.

According to the UN report, China is the top consumer of sand, since it produces the most cement globally – accounting for an estimated 2,4-billion tonnes in 2017. India follows at 270-million tonnes, with the United States (US) at 86,3-million tonnes.

The report states that for every tonne of cement consumed, ten tonnes of aggregate is used. By 2030, when global annual cement production is predicted to reach 4,83-billion tonnes,

it warns that aggregate use is likely to rise to about 50-billion tonnes.

Additionally, the report notes that while some sand is mined legally, in many regions of the world much is extracted and traded illegally, at times by organised crime syndicates. "It's a global phenomenon," says Romy Chevallier, senior researcher at the Governance of Africa's Resource Programme for the South African Institute of International Affairs. "In countries such as India and Pakistan, there are actually sand wars going on. Syndicates have developed and they all trade in illegal sand."

According to the UN report, half of the sand mined in Morocco – representing about ten-million cubic metres a year – comes from illegal coastal extraction. Sand smugglers have transformed a large beach between Safi and Essouira into a rocky landscape. Sand is often removed from other beaches to build hotels, roads and tourism-related infrastructure. In some locations, continued construction is likely to lead to an unsustainable situation and destruction of the main natural attraction for visitors – the beaches themselves.

In this respect, Asilah, in northern Morocco, has suffered severe erosion of its beaches and surrounding areas as a result of non-regulated mining activity, with many structures near the coast now in danger of collapsing, the report notes.

In South Africa, sand is classified as a mineral under the Mineral and Petroleum Resources Development Act (MPRDA). A licence is required to mine sand. "Many people are under the impression that when explosives aren't used in its extraction – in other words it is dug out mechanically or by hand – no authorisation is required," says Pienaar.

"However, the law is clear. As soon as sand is removed from its natural state, it is being mined. Many farmers remove it from their farms. This is fine, but it may not be sold. If it is sold then it is classified as mining," Pienaar explains.

He says: "The Department of Mineral Resources (DMR) is supposed to keep a tally of how much sand is being mined, but it has never got this right. Illegal mining is a major challenge. ASAPA members report the quantities they extract, but illegal miners don't, so nobody knows exactly what volumes are being taken out. This is unfair competition – we comply, illegal miners don't and regulators turn a blind eye."

In a report entitled *Illegal Sand Mining in South Africa*, Chevallier says the DMR has national jurisdiction over the regulation of sand mining. The key national statute, the MPRDA, places all mineral resources in South Africa, including natural sand, under the custodianship of the state. Any person who wants to extract sand must apply for the right to do so, and the act sets out a regulatory regime governing the exploitation of the resource, applied through the administration of various rights and permits.

Chevallier says: "Illegal sand mining is occurring throughout South Africa, not only in riparian environments – the interface between land and a river or stream – but also in some of our protected areas in Limpopo and near the Kruger National Park. There are many accounts of illegal sand mining in river beds. I have even seen illegal sand mining in significant environments like mangrove forests, or in wetland areas. I have been doing research in Mozambique, Tanzania and Kenya – those countries are also struggling to curb illegal sand extraction."

She adds: "One of the reasons why sand extraction is so attractive in riparian areas is that it doesn't come from a salty source. It is washed by the fresh water system, which means, unlike sea sand, it doesn't contain corrosive elements."

In her report, Chevallier says that apart from causing depletion, illegal sand mining also damages habitats through the destruction of vegetation, riverbanks and wetland systems. It can alter the flow of a river and fragment ecological corridors. Furthermore, illegal sites are not rehabilitated and usually become overgrown with invasive alien vegetation.

She adds that unregulated sand mining also results in high levels of disturbance caused by the construction of haphazard roads – often across flood plains – and the destruction of aquatic habitats through dredging and the use of mechanical

diggers. Deep holes left after excavation are lethal hazards to local people, especially children.

Chevallier says: "There were examples in KwaZulu-Natal where children and cattle have fallen into dongas created by sand mining. There are also issues regarding public infrastructure. An example is an electricity pylon that fell over because of illegal mining activity around its base."

In her report Pienaar states: "Better enforcement is needed to discourage illegal activities and eventually prohibit the extraction of all river and estuarine sand. However, finding an alternative to sand won't be easy. I'd say it's probably



The main limitation to responsible sand extraction is not technical; it is an awareness and governance issue.

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impossible. We need to understand why we use sand when mixing concrete – small particles of sand fill up voids between bigger stones and the cement [which acts as the glue] – then binds everything together."

The UN report points out that reduction of natural sand use can be achieved through some tried and tested methods, as well as through emerging technologies and materials. Experimentation has led to green concrete forms such as bottom-ash or fly ash mixtures, while some countries have supported widespread, aggregate recycling initiatives.

The report concludes that sand production is not rocket science. At its most basic, it needs boats and pumps, shovels and trucks, as well as hammers and rocks. The main limitation to responsible sand extraction is not technical; it is an awareness and governance issue. A paradigm of infinite sand resources still dominates. Challenging this is the difficult task ahead as we aim for a rapid, yet smooth, transition to more sustainable sourcing, while reducing consumption and demand in parallel. SM



SLIP AND FALL PREVENTION – NEED TO KNOW

Slips, trips and falls are among the most common causes of accidents in the workplace and could lead to serious injury, or even death. WANITA WALLACE finds out more

According to statistics from the Health and Safety Executive in the United Kingdom, 37 percent of all reported injuries and 28 percent of all deaths in the workplace are as a result of a slips, trips or falls. On average, approximately 50 people die each year from a slip, a trip or a fall and many more are seriously injured.

Greg Boswarva, the owner of Supersafe Systems, says that workplace injuries constitute a high proportion of risk. People in clerical and administrative occupations suffer 14.41 percent of all reported occupational health and safety accidents involving compensation claims.

SLIPS AND TRIPS

Slips and trips occur when there is too little traction or friction between the walking surface and footwear. Some common causes of slips are occasional spills, wet or oily surfaces, weather hazards and loose mats or rugs.

Trips happen when a person's foot strikes or hits an object causing loss of balance that could result in a fall. Common causes of tripping include poor lighting, an obstructed view, cluttered floors, wrinkled carpeting, uncovered cables and uneven walking surfaces.

Boswarva adds that if the hazard cannot be removed then it should be controlled. Changing or modifying walking surfaces and stair treads is the next level of preventing slips and trips.

According to the Canadian Centre for Occupational Health

and Safety [CCOHS], workplace injuries caused by slips and trips can be prevented by modifying or changing walking surfaces. Replacing or recoating floors, installing mats, pressure-sensitive abrasive strips, or using abrasive-filled paint-on coatings can further improve safety aspects and reduce risk. Use of metal or synthetic decking should also be considered.

Boswarva says it is critical to remember that hi-tech flooring and treads require as much good housekeeping as other flooring. In addition, resilient, non-slippery flooring and non-slip stair treads prevent or reduce foot fatigue and contribute to slip prevention measures.

FALLS

Statistics show that 67 percent of falls are as a result of slips and trips, with about 30 percent of accidents involving falls from heights, according to the CCOHS.

Good organisation in the workplace is the first and most important aspect of preventing falls due to slips and trips. It includes cleaning all spills immediately; marking spills and wet areas; mopping and sweeping debris from floors; removing obstacles from walkways and always keeping walkways free of clutter or unsecured mats, rugs and carpets that do not lie flat.

It also includes closing filing cabinets or storage drawers, covering cables that cross walkways, ensuring working areas and walkways are well lit and replacing used light bulbs and faulty switches.

In workplaces where floors may be wet or oily, or where workers spend significant time outdoors, prevention of fall incidents should focus on selecting proper footwear. However, since there is no footwear with anti-slip properties for every working condition, it is advisable to consult with footwear manufacturers to ensure correct choices for particular applications.

Boots and shoes that fit properly can also prevent fatigue and increase comfort, thereby improving safety aspects for employees.

FALLS FROM HEIGHT

Working at height encompasses any workplace from which a person could fall, causing serious injury or death, if preventative safety measures are not in place.. The event might include, for example, falling from a step ladder or roof, or through an unguarded hole in the ground or floor. Fall protection may also be required when working above an open-top tank, bin, hopper or vat.

Other situations that may require fall protection include the use of forklift platforms; elevated work platforms; fixed suspended work platforms; swing staging; aerial devices, suspended equipment; or personnel carrying equipment such as lifting units raised by cranes or hoists.

In workplaces where floors may be wet or oily, or where workers spend significant time outdoors, prevention of fall incidents should focus on selecting proper footwear.

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Occupational health and safety laws generally require action when there is potential for a worker to fall about three metres, with most regulations requiring use of specific fall-protection measures before, or in addition to, personal protective equipment (PPE).

These measures generally include the use of fixed barriers such as handrails or guardrails; surface opening protection; warning barriers or control zones; as well as fall restraint, containment and arrest systems. There may also be specific legal requirements around use of equipment such as ladders and scaffolding. SM

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REACHING SAFETY'S TIPPING POINT?

Having spent a month in Canada, where he attended three conferences addressed by experts in health and safety, MATHEW GONCALVES has come to believe that it is time to challenge the philosophies and foundations upon which safety has been built

In an age of technological development and advancement, one key element remains crucial to success – the human factor. That's the common message to come out of three major safety conferences that I attended recently in Canada – the Western Conference on Safety in Vancouver; the 37th Annual Workplace Health and Safety Conference in Halifax, Nova Scotia; and the prestigious 69th Annual Petroleum Safety Conference in Banff, Alberta.

At each event – which brought together some of the best Canadian experts in health and safety – the need to integrate technology and people was prominent. It was articulated perfectly when Mike Krayacich, a safety practitioner at a large energy company, told delegates at the 69th Petroleum Safety Conference that technology alone would not bring value. "Technology and people need to work together to gain any successes," he said.

The intermingling of technology and safety was always going to be a significant feature



at the three forums and, in this sense, I heard much about other trends, too – the advent of drones, autonomous gas-detection robotics, connected workers, autonomous trucks and much more. However, the need to integrate technology and people remained a core focus, with some known concepts and practices being turned on their heads in the name of the next safety revolution.

Speakers emphasised that a holistic view of safety was important. “We need to understand the context of an organisation to ensure that the approach we take is appropriate when developing, implementing and maintaining a system,” said health and safety expert Eldeen Pozniak. “We need to understand people’s definitions.”

Incidentally, this sentiment is echoed in ISO 45001, a popular topic in South Africa, which dedicates an entire section to the scope of an organisation. Definitions are crucial so that we are “talking the same language” when engaging with people, whether they are workers or senior management.

Another significant point that Pozniak made was the importance of the credibility of the individual delivering the safety message – and that it might not be the safety practitioner.

At each of the conferences, the need for credible and better communication within an organisation became a key refrain. Practitioners lamented how they had been trained in technical aspects of their jobs, but never on the non-technical side, sometimes making it difficult for them to impart their knowledge. Breakdowns in the flow of communication meant

that targets for information never received the message, or, if they did, they never understood it.

The latter point highlights the fact that information needs to be put in such a way

that it attracts and maintains people’s attention; that it can be readily understood, and that it calls to action those at whom it is aimed.

Mental health in the workplace – including depression, post-traumatic stress disorder [PTSD] and stress management – was the most requested discussion topic at the Western Conference on Safety, according to the co-chairman Terry Swain. He said one of the biggest trends within the industry was “the recognition that mental health issues can and do fall within the scope of the corporate safety programme”.

Swain added that employers, supervisors and co-workers could play a positive role in reducing incidents triggered by negative mental health issues if the topic was incorporated as a regular part of an occupational safety and health [OSH] programme.

Another trend discussed at each of the conferences related to impaired performance of employees in the workplace. Though speakers tended to highlight the effects of cannabis, they pointed out that impairment could be caused by many other substances or factors including alcohol, depression, prescription drugs and fatigue.

As safety practitioners and leaders, it is our job to remove barriers to effective work – and to do that requires a shift in mindset to incorporate more into our OHS programmes and policies. Other pertinent aspects to come out of my month-long trip to Canada include:

THEORIES

Though work has never been as safe as it is today, progress has stalled and statistics have plateaued. That’s the view of Jeffery Lyth and Frank Garrett, each of whom are safety

The integration of other fields of study, such as the humanities, into the safety space represents a fundamental shift in how workers should be managed.

“

practitioners with over 20 years of experience. The duo facilitated and discussed New View concepts that have been gaining momentum over the last decade. These concepts may just provide the bedrock of thinking as health and safety moves into the future.

WORK AS IMAGINED, WORK AS DONE

Work as imagined refers to various assumptions (explicit or implicit) that people have about how their work (or that of others) should be done. It is how organisations and people think the work is being executed and how it is documented in laws, rules, procedures, guidelines and checklists.

Work as done refers to how something is actually done. It encompasses the routines and patterns that emerge to

Safety-I focuses only on failures, but these are relatively uncommon and have low predictive value. For every one failure, there are many more successes. Therefore, Safety-II also focuses on, and learns from, the successes. This refers to everyday work; the things that go right. This work has a high predictive value and, by ensuring that these successes happen, safety becomes an investment that is interlinked to productivity and quality.

SAFETY DIFFERENTLY

Prof Sidney Dekker of Griffin University in Brisbane, Australia, is the driver of a movement called Safety Differently, a concept that is based on three shifts in perception:

- People are not a problem to control, but rather a solution to harness.
- Safety is not the absence of negatives (incidents, accidents or injuries), but rather the presence of positive capacities and resilience.
- Safety should not be just a bureaucratic accountability up the hierarchy, but rather an ethical responsibility from the top down.

Another part of Safety Differently is the concept of retributive justice versus restorative justice. Retributive justice asks: Who did wrong? How bad was it? What should the consequences be? Dekker describes this as meeting pain with pain. Restorative justice asks: Who is hurt? What do they need? Who has the obligation to meet that need?



get the job done within a specific context. It adapts to the circumstances at the time and may or may not entail risk.

There will always be a difference between the two, but this is not a bad thing, as work as imagined is not always safer than work as done. There needs to be more understanding of work as done, why the gap exists and how to bridge the gap effectively. Complex systems, such as workplaces, perform reliably because of people's adaptability and flexibility.

Human performance variability is not a threat, but is essential for the system to function and is responsible for both successes and failures. Trying to constrain the human performance variability can affect the ability of the system to achieve the desired outcomes.

SAFETY-II

Prof Erik Hollnagel, one of Europe's leading experts on industrial safety, describes Safety-I as trying to have as few things go wrong as possible; that humans are treated as a liability or a hazard; and investigations aim to find only cause and contributory factors.

Safety-II, on the other hand, is about ensuring that as many things as possible go right; seeing humans as a resource; and that investigations aim only to learn.

HUMAN AND ORGANISATIONAL PERFORMANCE (HOP)

HOP is about understanding how humans perform and how we can build systems that are more error resilient. The thought leader of HOP, Dr Todd Conklin, has distilled the philosophy into five principles:

- Error is normal. It is not the opposite of success as it also exists within successes.
- Blame fixes nothing. Blame is emotionally important, but not operationally important.
- Learning and improving is vital. Learning is a strategic and deliberate operational choice toward improvement. If a company isn't becoming a learning organisation, it is losing to one that is.
- Context drives behaviours. Behaviours are influenced by organisational systems and values. Actions have reasons and the reasons make sense given the specific context.
- The response to failure matters. It could be to blame and punish, or to learn and improve, but not both.

Since learning is vital, a tool called a Learning Team has been developed. The tool brings together those who can best describe how work is actually being done, not only safety investigators. Its goal is to reveal complexity to leadership, empower those closest to the work, and create operational



An organisation's greatest resource is its employees.

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intelligence to inform system design with more accurate understanding of system weaknesses.

SOCIAL PSYCHOLOGY OF RISK (SPoR)

SPoR, founded by Dr Robert Long, seeks to answer the question: “Why do people do what they do?” It seeks to understand risk and human decision-making through the lens of social and psychological influences. Risk is classified into one of three different layers:

- The workspace [physical] affected by administrative, engineering and systems controls.
- The headspace [psychological] influences due to human decision-making.
- The group space [cultural] dealing with the cultural and sub-cultural influences in an organisation, which are made up of artefacts, slogans, language, history, attitudes and beliefs. All of these matter when trying to change or influence organisational culture.

ZERO-ACCIDENT VISION

There is a noticeable movement away from Zero Harm safety programmes in Canada. This movement is, however, still quite controversial and not universally accepted. Swain states: “While the research and early studies are drawing a straight line to how they often harm and hide the real safety culture of an organisation, the majority of employers/safety people still believe that a zero-accident programme is not only good, but the only acceptable type of programme to have. There will be a time of turmoil as reality challenges the belief systems of traditional safety programmes.”

Questions around Zero Harm programmes are being debated globally and South Africa is no exception. Zero Harm targets are common practice in the South African business and corporate landscape.

THOUGHTS

After spending a month in Canada absorbing new information, my thoughts are racing. The concepts I heard fundamentally disagreed with the concepts I had learnt, but I could not simply disregard them as they resonated with something inside me. Once I had more discussions about the history



of safety, I came to believe that it was time to challenge the philosophies and foundations upon which safety has been built.

Medicine, quality, technology... all have changed, sometimes drastically so, over the last few decades. Are we now at a tipping point in safety? I believe so. The integration of other fields of study, such as the humanities, into the safety space represents a fundamental shift in how workers should be managed.

We live in turbulent times where economic constraints force organisations to prioritise production. The New View shows us that an organisation's greatest resource is its employees. We need to remain human-centric, have some more industrial empathy, trust and a good command of non-technical skills to effectively navigate turbulence.

Learning is crucial and workers at the front lines of our organisations are a vast well of knowledge and experience. Maybe it is time to stop telling them what to do [or not do], and instead start asking them what they need to complete the job efficiently and safely? It's time for dialogue and to invest in organisational culture.

As Conklin says: “A culture can only be as safe as the leader's ability to hear bad news.” SM



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INSURANCE RISKS AND CYBER CRIME



South Africa's legal professionals have become major targets in cyberattacks that have seen billions of rand lost to criminals each year

Hack attacks, ransom threats and theft of money through fraudulent transactions are all becoming a stark reality for legal professionals and law firms around the world.

According to South Africa's Banking Risk Information Centre [SABRIC], the country has the third-highest number of cyber-crime victims worldwide, with an average of about R2,2 billion a year lost to cyberattacks.

Samantha Varela, a legal risk advisor at insurance company Aon South Africa, says that conveyancing attorneys, specifically, are in the sights of cyber criminals. She says the Attorneys Insurance Indemnity Fund [AIIF] – now known as the Legal Practitioners' Fidelity Fund [LPFF] – has been notified of at least 110 cyber-scam-related claims worth over R70 million since July, 2016.

"In a recent case, the sellers of a property approached the court for an order that the conveyancing firm be held liable for their losses after they became victims to a cyber scam in which they had apparently instructed their conveyancers via email to transfer the proceeds from the sale of their property to a different account. It turned out to be a fraudulent account and the sellers lost R268 348.

"The case was dismissed, with the judge stating that, despite the fact that the conveyancers did not pay the money into the sellers' account, their failure to do so was not due to their negligence. From this case, we can clearly see that the allegation of negligence based on a cyberattack is incredibly

difficult to prove, and leaves all parties severely compromised," Varela notes.

Varela says that in light of the judgement, it is important to establish how professional negligence in the context of a cyberattack is determined. "The test for negligence in South African courts is clear – the court will weigh up the conduct of the reasonable professional, to that of a similarly qualified professional, with a similar set of skills, qualifications and qualities," she explains.

Very often it is not the lack of legal knowledge that leads to professional negligence claims in the legal fraternity, but rather non-adherence to basic office management protocols and good governance processes. The main reasons for claims attributed to a lack of supervision can be as a result of:

- Lack of a diary system;
- Lack of internal controls;
- Failure to adhere to office procedures;
- Taking on matters where experience is lacking; and
- Failure to obtain proper instructions.

"If these issues are addressed and processes and procedures designed around them, one can begin to manage the implications that they may have on the business," says Varela. She adds: "When it comes to cybercrime, there are many misconceptions around the insurability of these types of risks – they are very complex from an insurance perspective, simply because there are so many permeations."

She says the following examples highlight the types of cybercrime currently impacting the legal field:

- Privacy or network security breach;
- Funds transfer fraud;
- Theft of funds held in escrow;
- Corporate identity theft;
- Telephone hacking;
- Push payment fraud; and
- Unauthorised use of computer resources.

Varela says that although the LPFF provides professional indemnity insurance cover to legal professionals practising in South Africa, the policy does not cover claims related to liability for compensation arising out of, or in connection with, the insured's trading debts. Nor does it cover misappropriation

using the services of a specialist broker.

"It is paramount to take special note of exclusions and to have a clear understanding of what cover is provided by different insurance policies, as one is likely to need a combination of solutions that are able to address specific risk exposures."

She recommends that a comprehensive insurance schedule be underscored by a comprehensive risk-management programme. "In most instances, it's a case of implementing practices and procedures that raise awareness of various cyber schemes – such as avoiding clicking on e-mails or hyperlinks from unverified sources – in addition to providing adequate supervision and monitoring of staff across the board. With the proper checks and balances in place, a legal professional can quickly verify a change in banking details or any other fundamental aspects of a matter," she says.

Cyber liability will not cover the actual theft of money in the legal professional's care, custody or control. For that, the insured will need a commercial crime policy.

or unauthorised borrowing of trust money or property by the insured, an employee or agent.

"Additionally, it doesn't cover a risk, which is insured – or which could more appropriately have been insured – under any other valid, collectible insurance available to the insured," she says. According to Varela, cyber liability insurance is intended to cover the costs, expenses and liability associated with the prevention of access to data or theft of data when an insured's computer system is breached.

"The policy will not, however, cover the actual theft of money in the legal professional's care, custody or control," she explains. "For that, the insured will need a commercial crime policy, which provides cover for the theft of money or property, which is in the care, custody and control of the insured; as result of theft by an employee; through fraud committed by an employee; or through third-party computer fraud committed by someone who is not an employee."

Varela advises that finding an insurance solution that addresses, at least in part, the myriad of threats faced by the legal fraternity from a cyber event is a task best undertaken

In conclusion, Varela says by ensuring awareness and understanding of the implications of cyber and commercial liability, and by implementing stringent risk-management procedures, legal professionals – and others – will be in a better position to stay abreast of the trends that impact the sector, simultaneously helping to address the far-reaching implications of cyber crime.

- The increasing frequency and voracity of cyber concerns are mirrored in Aon's 2019 Global Risk Management Survey, where participants ranked cyberattacks and data breaches sixth out of ten top risks facing organisations.
- According to Kaspersky Lab, malware attacks in South Africa increased by 22 percent in the first quarter of 2019 compared to the first quarter of 2018, translating to around 13 842 attempted cyberattacks a day.
- Further, an IBM security study by the Ponemon Institute indicates that a data breach in South Africa costs an average of R36,5 million.
- According to Verizon's 2019 Data Breach Investigations Report (DBIR), 43 percent of cyber attacks target small businesses. SM

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WHAT CHERNOBYL TAUGHT THE WORLD

Occupational health and safety officers can learn a lot about safety from the newly released HBO mini-series on the meltdown of the Chernobyl nuclear power plant in 1986. MARISKA MORRIS shares some of the lessons learned

American television network HBO is synonymous with good television and mostly recognised for the successful television series *Game of Thrones*. In its latest mini-series, *Chernobyl*, which aired in June, the network took a more documentary approach.

The mini-series, which consists of five one-hour episodes, is available on Showmax. It is based on the real events leading up to and after the meltdown of the Chernobyl nuclear power plant near Pripyat, in Russia.

In 1986, one of the nuclear reactors at the Chernobyl plant blew open during a safety test and exposed the nuclear core, which leaked extreme levels of radiation into the surrounding area. As a result, many people died and the area was evacuated. Today, more than 30 years later, it is still a restricted zone with high levels of radiation.

Director Johan Renck undertook extensive research to ensure that this mini-series portrays the real-life events leading up to the meltdown and the aftermath as accurately as possible. The *Chernobyl* series follows the lives of everyone involved in the disaster, the decisions made, the impact on the community and the actions taken to minimise harm.

While the series is a “must watch” for many reasons, professionals in the occupational health and safety (OHS) industry will enjoy the safety undertone that runs throughout the series – from provision of the correct personal protective equipment (PPE) to preventing the spread of radiation.

Chernobyl also offers incredible insights into some of the biggest challenges facing OHS officers. Here are some of the key lessons to be learned from the series.

KNOW THE DANGERS

Ensuring the adequate safety of employees requires

knowledge about all the potential hazards in the workplace. When the reactor blew open at Chernobyl, a fire broke out. Emergency services were called to respond. At the time, authorities were unaware of the true levels of radiation.


While the firefighters wore their traditional fire-retardant clothing, they were not protected against the radiation. All of them died within a few weeks. It can be argued that, in an area where there is a nuclear power plant, the firefighters should have been provided with PPE to protect against radiation – no matter the expected level – or at least have been trained and notified of the hazards.

When the ill firefighters arrived at the hospital, a nurse realised they were sick as a result of radiation exposure and immediately arranged for the disposal of all their clothes and had the firefighters placed in isolation. If she had not been aware of the potential hazard and how to respond appropriately, there might have been many more deaths, as hospital staff would have been exposed to additional radiation.

OHS officers can use this as a lesson in the importance of knowing the potential hazards in the workplace. Inspections of existing or new work environments can assist officers to identify any potential hazards and adequately prepare staff to ensure their safety.

PPE IS A BEST FRIEND

The incident at Chernobyl highlighted the importance of adequate PPE in the workplace. The equipment should be fit for purpose or it might not offer any protection. At a later stage in the series, a group of men enter the power plant wearing appropriate PPE. Those men lived to an old age, despite entering an area with very high levels of radiation.



When the meltdown occurred at Chernobyl, those in charge spread misinformation about the level of radiation, as they believed it was impossible for a reactor to blow open.



The series also draws attention to the fact that PPE should be comfortable. A group of miners were called to the power plant to assist in minimising the potential spread of radiation. While authorities did provide them with adequate PPE, the work environment below the power station was too hot, so they decided not to wear it.

Supplying equipment is not enough. It needs to offer adequate protection and be comfortable to wear in the specific work environment, or injuries could occur as staff refuse to wear it – even if they are aware of the hazards.

COMMUNICATION AND INFORMATION ARE POWER

Communicating the correct information to staff is key to ensuring their safety in the workplace. When the meltdown occurred at Chernobyl, those in charge spread misinformation about the level of radiation, as they believed it was impossible for a reactor to blow open.

There were also no adequate channels for staff on the ground (who were aware of the severity of the situation) to communicate properly with management. Various employees on the ground tried to warn management that the nuclear core was exposed, but management failed to listen.

It is important for employees to be able to properly inform the OHS officers, or management, about potential hazards in the workplace.

BUY IN FROM EVERYONE

While there were numerous small errors that led to the meltdown, the decisions made by management had the biggest impact on the disaster. Those in charge decided to run a safety test, despite knowing that there were potential risks involved. While management was under the impression that it was safe to do this at the time, the test and the potential risks taken, were unnecessary.

It is important for safety to be a priority for all staff. Employees should also follow safety protocol, while management should

have safety in mind when making any decisions that could impact on the well-being of employees.

PRESSURE LEADING TO UNSAFE ACTIONS

A big contributor to the meltdown at Chernobyl was the pressure placed on staff from top management. Their demand for results in a short timeframe resulted in some questionable decision-making – something that would not have taken place if the staff had not been placed under pressure.


While every business wants to see results from efficient employees, there should never be a compromise on safety. Employees should feel that they can decline to undertake a task if it would put their lives in danger.

OHS officers can assist by supporting employees to raise safety concerns; reiterating the importance of making safety a priority; and sharing with management the risks of putting pressure on staff.

ONLY SKILLED WORKERS ON THE FRONT LINE

Aside from the pressures that led to the poor decision-making at Chernobyl, the staff were unskilled. While they had adequate knowledge and training to qualify them to work at the power plant, many had only worked there for a short period of time.

They were ill-prepared to undertake the safety test and more experience could, arguably, have made all the difference. It is important for businesses to ensure that only skilled, experienced employees attempt dangerous tasks. Skilled employees can always transfer their knowledge to new employees, but the unskilled or inexperienced staff should never be left to fend for themselves.

There is so much more to learn from the nuclear power plant meltdown and what better way to gain some insights than with a visual representation of the events. *Chernobyl* is a definite “must watch” for anyone involved in OHS. 



SELECTING PPE THE RIGHT WAY

As every occupational health and safety officer knows, it is not just about providing personal protective equipment (PPE). Businesses need to invest in the correct PPE. MARISKA MORRIS reports on what the experts have to say

Ill-fitting or inappropriate PPE can be as ineffective in ensuring the safety of employees as wearing no protective garments. In some cases, it can even cause harm. It is therefore vital for safety officers to purchase PPE that will fit the individual, the application and the environment. It all starts with ensuring safety is a priority.

"There are always three things that play a role when implementing a successful PPE programme. This first is culture, the second is the process of selecting and implementing PPE, and, finally, realising that the process is a living one," explained Christo Nel, director of sales and market in Middle East, Africa and India at Uvex South Africa, during his presentation at the 2019 Saioh Conference.

Without the correct culture, adequate processes and continued review of current PPE, companies will fail to ensure employees have the correct PPE. Essential to the process of selecting and implementing PPE is good communication between the supplier and the safety officers.

Nel noted: "The safety officers don't know the correct questions to ask, and the PPE suppliers don't always assist." There are, for example, many PPE suppliers that will make recommendations over the phone, or without visiting the site. Companies then invest in the incorrect PPE, which puts employees in danger.

ASSISTING THE SUPPLIER

Instead, Nel advised safety officers to provide a qualified and certified risk-analysis report to help guide the supplier. He warned against manufacturers that claim to be able to provide these reports.

"Don't be fooled by PPE suppliers that say they can do the risk analysis. They are not the experts. Companies need to bring in the correct people," said Nel. In addition to providing a report, the supplier should also undertake a site visit to see first hand the potential hazards in the workplace. Only after this has been completed should a recommendation be made.

IMPORTANCE OF SITE VISITS

"Guided by the risk analysis, the PPE supplier needs to analyse everything on site. This is not an overnight process," Nel explained. For each individual garment, there are a number of factors to consider. Eye wear, for example, will require the PPE supplier to look at the exposure to ultra-violet and infrared light, dust, liquids and chemicals, among other things.

If a site visit does not take place, Nel warned that the PPE supplier might simply be making recommendations based on the products it has in stock, or is trying to sell. While it might seem easier to order PPE with a simple phone call, this will most likely cost the company more in the long run, as the PPE could potential break, fail to protect the employee, or even cause an accident.

OTHER CONSIDERATIONS

In addition to ensuring a thorough investigation into the garments required, and which would be best suited to the application and environment, Nel recommended that safety officers also look at the standards, directive and regulations. While businesses should purchase PPE that complies, these standards and regulations can also assist in choosing PPE that will protect employees.



While PPE alone cannot prevent an accident, it can be an important first line of defence against an injury.




Companies should also consider whether the products recommended by the supplier are sustainable, free of harmful materials and offer other value-added features that might be important to the business.

While the cost of PPE is important, Nel pointed out that the overall long-term cost is more important than the upfront cost. Businesses should, for example, consider the lifespan of the product and whether it will adequately prevent injuries. The cost of an accident or injury in terms of medical expenses and downtime is often a lot more than investing in quality PPE.

increase in general efficiency. It is also important to renew the various garments on a regular basis.

The review process can also assist in establishing whether the PPE is being used correctly by the employees. This is where a culture of safety in the workplace is essential. "If the culture does not support the process, a successful PPE programme will never be implemented," Nel noted.

While PPE alone cannot prevent an accident, it can be an important first line of defence against an injury. Investing in the correct PPE is essential, but will require commitment and time from businesses. 

REVIEW AND REPEAT

When the correct PPE is purchased, it is also important to continuously review the equipment. Products are constantly being improved. New products can sometimes provide better protection, improved productivity, or an

Join the directional revolution



Directional Clothing

Once in a while you come across an idea so simple it can revolutionise a country. Claw Boots, with its **COME n GO** concept, has done just that!

In 2018, Claw Boots launched its **COME n GO** directional signalling system, partnering high visibility with directional awareness. By adopting this new **COME n GO** directional signalling system – where **ACID / GREEN = COME** [facing] and **ORANGE = GO** [unsighted / turned away] – not only do you see the person, but you know that the person wearing **GREEN** on his or her chest may be able to see you. In sharp contrast, the person wearing **ORANGE** is unsighted and you need to be more careful.

This simple **COME n GO** system is about to do for safety, what traffic lights did for the flow of road traffic and safety in general.

Not only does **COME n GO** give the advantage of directional awareness, it also does the following:

- **Enhances safety and security:** Highly visible people are easy to spot in unauthorised/no go areas. Accidents are also minimised, and people are more cautious and aware.
- **Increases productivity:** Hand in hand with directional high visibility comes increased productivity, as all players are very aware of every movement or lack of movement.
- **Enhances departmental supervision:** By giving departments differing peripheral coloured garments, supervisors can see at a glance who is in the correct department and who is wandering around in other departments.
- **Increases savings:** By adopting **COME n GO**, employers need not buy both uniforms and high-visibility vests for employees.

Garments in the **COME n GO** clothing range improve visibility even in badly lit areas and in poor weather. Items are adaptable to all sectors of industry and everyday life.

Since its launch, phenomenal interest has been expressed in **COME n GO** clothing by many sectors of the market, among them the mining and construction industries; breweries and bottling plants; prisons and security services; the logistics industry; traffic controllers, energy producers; and railway, airport and harbour services. Applications for which the **COME n GO** range can be used are endless.

Sasol Synfuels' safety management has recently approved the use of **COME n GO** garments on synfuels sites. The garments – which are proudly made in South Africa by South Africans – are manufactured to the company's specifications and carry the SABS mark of approval.





On presentation of the **COME n GO** concept to Shameemah van Koert, head of the safety department at TMS, a leading contractor to Sasol Synfuels, and Wouter Roux, the divisional manager, the safety team immediately recognised the significant impact the clothing could play in the stringent safety programmes at both TMS and Sasol. Jannie Venter, head of safety at Synfuels, agreed to the **COME n GO** concept and gave permission for contractors to wear **COME n GO** on Sasol's synfuels sites.



The **COME n GO** product range is vast, ranging from Conti suits, shirts, trousers, T-shirts, rain suits, ponchos and winter jackets. All garments are manufactured to the highest specs from a variety of top-quality materials, including SABS D59 with flame-retardant and acid-resistant properties, to inexpensive poly-cotton garments used in everyday life.

COME n GO is not limited to use in industry, but is also ideally suited to keeping pedestrians safe. For instance, by adopting **COME n GO** clothing and wearing it after leaving the sanctuary of a school ground, learners would be seen more easily by motorists, who would also be able to recognise the direction in which they were walking.



The **COME n GO** visibility TEST
How many people can you see in this picture?



Answer: 15

COMING UP

DON'T MISS THESE AMAZING FEATURES IN THE NEXT ISSUE OF SHEQ MANAGEMENT



SKILLS AND TRAINING

Increased investment in skills development is intended to create a more competent workforce and translate into greater returns on investment for employers. How effective is the system?



LEGISLATION

We discuss occupational health and safety and legal liability. The question is: "Should company executives go to jail in the aftermath of a workplace disaster in which lives were lost?"



WASTE MANAGEMENT

Before regulations were put in place, almost anything and everything could be buried in landfills. Some of these items may still be releasing toxic chemicals or other hazardous materials into the earth.



DRUG AND ALCOHOL ABUSE IN THE WORKPLACE

We take a look at how to manage cannabis abuse in the workplace following the decriminalisation of marijuana and the role played by saliva drug tests.



HEALTH AND HYGIENE

Astronauts face many occupational health issues – because they can be under severe mental and physical stress for a period of several years after their return to earth. How do they cope with this?



PERSONAL PROTECTIVE EQUIPMENT (PPE)

This month we focus on protection against noise and vibration.

SUBSCRIBE TO SHEQ MANAGEMENT

SHEQ MANAGEMENT aims to provide up to date, relevant information to ensure the safety and wellbeing of employees in the workplace, while assisting them in preparing for emergencies and preventing disasters. SHEQ MANAGEMENT is the definitive source for reliable, accurate and pertinent information to promote environmental health and safety in the workplace. It is our objective to raise the profile of these important subjects: these issues belong in the boardroom!

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As we look to develop our service offering, NOSA Testing now offers accredited exposure monitoring analysis of asbestos, crystalline silica and alpha quartz. NOSA Testing is the only laboratory in South Africa to be method accredited to carry out asbestos analysis. Should a laboratory be method accredited for asbestos and crystalline silica analysis, organisations and consultants should preferably use a method-accredited facility for their reporting to legally comply with South Africa's regulatory and legislative requirements.

Asbestos has been mined, manufactured and used commercially in residential and public infrastructure construction for hundreds of years. However, this was quickly curtailed after it was discovered that a number of health concerns arose as a direct result of exposure to it: asbestosis; lung cancer; pleural effusion; pleural plaque; pneumothorax, and asbestos warts. Crystalline silica is a common mineral – and a common problem. Found in the Earth's crust, it comes in several forms, including quartz, cristobalite and tridymite; all of which may become respirable particles when workers chip, cut, drill, or grind objects that contain crystalline silica. Workers who inhale these very small crystalline silica particles are at increased risk of developing serious silica-related diseases, including: silicosis (a lung disease that is incurable and can lead to disability and death); lung cancer, and chronic obstructive pulmonary disease (COPD).

That's the bad news. Here is the good news

NOSA Testing has made a significant investment in our laboratory infrastructure, equipment and technical staff, and our test methods have been validated along ISO 17025 protocols. In addition, we have recently acquired formal accreditation for the scope of our testing.

NOSA Testing also commits to a competitive turnaround time (TAT) of 10 working days for the analysis of crystalline silica, from the receipt of samples, together with full client instructions, at our Midrand laboratory.

Scope of testing

Analysis	Description	Accredited	TAT
Asbestos Identification	Identification of asbestos in bulk materials according to MDHS 77, HSE, United Kingdom and HSG 248, HSE, United Kingdom	Yes	72 hours
Asbestos Fibre Counting	Pre-packed filters including sizing and counting of asbestos fibres in accordance with HSG 248, HSE, United Kingdom	Yes	48 hours

GRAVIMETRIC WEIGHING AND CRYSTALLINE SILICA

Yes	Sampling Media	Method Based On	Accredited	TAT	Size
Inhalable and Respirable (Gravimetric)	Polyvinyl Chloride (PVC) Filters	NIOSH 0500 & 0600	Yes	48 hours	37mm, 5µm
Crystalline Silica	Polyvinyl Chloride (PVC) Filters	NIOSH 7602	Yes	10 working days	37mm, 5µm

For further technical information on our asbestos and silica capabilities, and to discuss your individual service needs please contact:

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A man with a beard and sunglasses is shown from the chest up, holding a motorcycle helmet. He is wearing a black t-shirt and black gloves with orange accents. The background is black.

uvex

Equipment of champions

uvex pheos cx2

uvex pheos cx2 pushes boundaries

uvex's fastest selling safety spectacle just got better. The addition of innovative features further enhance the protective performance and wearing comfort. New X-tended eye shield and X-Twist side arm technology are proven to provide complete protection of the eyes and deliver the ultimate fit.