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WHY SAFETY?

WHY DO SAFETY PROFESSIONALS DO WHAT THEY DO? WHY DO THEIR COMPANIES OR CLIENTS LISTEN TO THEM? WHY, WHY, WHY?



GAVIN MYERS

At the 2018 Saiosh conference, Owen McCree, MD of The Compliance Group, presented on the topic: Have we lost our why? In an informative and engaging way, he questioned just about everything that is done in terms of health and safety.

"What do we do in safety? How we do it is starting to become a grey area. Why do we do it is where we get stuck... The 'why' has become to make sure that, if something goes wrong, everything is in place..." he began.

"In safety we sell outcomes, not the 'why'. The moment we try to explain the 'why' we say: 'because we care'. But, do we really care?"

"It has become the job of the safety professional to promote 'we care' ... but this cannot be demonstrated from a single department. Company staff have many job issues that are impacted by different departments. So how did 'we care' become a safety function?" he questioned.

As he explained how the human brain works and the dynamic between the neocortex (the 'what' or statistical) and the limbic (the 'how' and 'why' or emotional) sides of the brain, McCree suggested that the key to changing an employee's view on safety is to appeal to their limbic brain – their emotions.

"We need to stop providing safety stats – we need to get people to feel. Changing people is difficult; changing the context in which they function is a key catalyst. We need to create an enabling environment where people can grow and mature," he suggested.

"We are focused on legal repercussions. This affects how we approach the tasks and the end product. This is so complicated that the output we generate is useless," he said.

McCree then spoke about how safety professionals measure safety performance.

"The issue is we usually don't know how we did it. How did we get that dramatic improvement in safety? What was the baseline, the plan, intended outcomes, implementation, project post-mortem and measurement? If you can't show these metrics, it was just luck," he said, adding that if one knows how they did something, they can more easily repeat it.

"We investigate accidents, but that doesn't help us. Where are the teams that investigate positive trends? We should establish success factors and roll them out. Safety professionals present the 'what', but the key to their function lies in the 'why' and 'how,' said McCree.

However, it's not all as simple as it sounds, as having competent health and safety professionals in the first place is a key consideration.

"Safety professionals are their own worst enemies... How can we have such short training courses for such a complex job? How do we promote people to the role of safety manager if they have no idea what the job entails? How many new people are consciously entering the safety profession?" he questioned.

In conclusion, McCree suggested that entering the safety profession should be a well-meditated career decision.

"If you, as a safety professional, do not want to busy yourself day and night with creating an enabling environment for line managers to care for their employees, find something else to do.

"Everyone needs to sit with their hand on their heart and decide if safety really is for them. If it's not, it's no bad thing, but then they mustn't be part of the corruption of the profession," he concluded. SM





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IN SAFETY FOOTWEAR**



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Through extensive research and consultation with women in industry, Sisi has launched a range of safety wear that challenges the status quo that one size fits all. With an understanding that not all women are shaped the same, Sisi introduces the first range of locally manufactured safety wear to offer **3 UNIQUE CUTS FOR WOMEN**: Standard, Extended and Maternity.



Incorporating internationally recognised finishes, such as a **Vizlite™ reflective tape** and **YKK zippers**, Sisi has once again shown its commitment to empowering the lives of the women who shape our world.

OUR LOCALLY MANUFACTURED RANGE FEATURES THREE DIFFERENT CUTS:

THE STANDARD CUT: caters for women with standard body shapes

THE EXTENDED CUT: caters for women with fuller figures

THE MATERNITY CUT: caters for women during pregnancy

Jackets and trousers sold separately

Women have spoken and Sisi has listened

Since its launch in 2008 of the first locally manufactured range of women's safety footwear, Sisi has become more than just a brand, it has become a commitment to the women of industry that their needs do not go unnoticed. With the rise of women entering into areas once the preserve of men, the market has seen an increase in brands offering work wear catering to the needs of women. These garments have typically classified all types of women into one shape group. Through extensive research and consultation with women in industry, Sisi has launched a range of safety wear that challenges the status quo of one size fits all. With an understanding that not all women are shaped the same, Sisi proudly offers the first range of locally manufactured garments offering 3 unique cuts: Standard, Extended and Maternity.

The Sisi Safety Wear range features three different cuts:

The standard cut: This cut caters for the typical differences between a woman's and a man's body, accommodating for the hip and bust areas.

The extended cut: This cut has been designed to accommodate for a bust size that is not typically proportional to the waist area and a larger posterior that is not typically proportionate to the hip area. This range further features a longer length jacket and higher waisted trousers to prevent exposure of the back and midriff areas when the wearer is raising her arms or bending over.

The maternity cut: This cut caters to women during pregnancy who experience changes to the shape of their bodies. The trousers feature a cotton-knit insert at the side seams and a broad knitted cotton waist band, providing comfort for a growing belly, whilst the jacket offers an extended front and sides to accommodate for the growing bust and belly areas. All trousers and jackets are sold separately to ensure that those with large bust areas, but small hip areas, or vice versa, can still ensure a comfortable fit.



COTTON WAIST BAND

This Sisi range further caters to the functional requirements of women in industry, placing emphasis on creating garments that not only fit comfortably, but also address the practical requirements of those wearing safety wear in the field, often in the company of men. Apart from the extensions made to the length of garments to prevent the exposure of the back and midriff areas when bending over or raising arms, our range of boiler suits has looked to maintain the dignity of women in the mining industry who are often challenged by the lack of an enclosed ablution facility.



BOILER SUIT V-FLAP

The V-Flap enables women to conveniently relieve themselves on-site without having to remove the upper part of the garment and expose themselves, while the darker colour featured on the upper thigh and hip area of our unbleached boiler suits prevents the exposure of sanitary accidents whilst on-site. Sisi is proud to introduce its inaugural range of safety wear, shaped for the women who shape our world.



SAFETY WEAR

For more information, please email us at info@sisi.co.za or visit www.sisi.co.za

ELECTRA MINING DRAWS NEARER

For 46 years, Electra Mining Africa has been winning the hearts and minds of mining and related industries. Delivering an effective platform to showcase the latest innovations, technologies and trends, it's much more than a show – it's a tradition.

Electra Mining Africa will take place between September 10 and 14 at the Expo Centre in Nasrec, Johannesburg, and leading players in the mining, manufacturing, electrical and power industries are looking forward to engaging with visitors and sharing information on their latest products, services and solutions.

"There will be an exciting line-up of new products and services, live demonstrations and free-to-attend seminars at this year's Electra Mining Africa, and visitors will benefit from the insight and information they will gain," says Gary Corin, MD of Specialised Exhibitions Montgomery, organiser of the show.

"New technologies and innovation are influencing the way we do business and it's imperative that those in the industry keep up to date with these trends."

For the first time, each day will focus on a different theme at this year's show. Day one will centre on the future of skills development. One of the highlights at Electra Mining Africa will be the Artisans Training Centre, developed in

partnership with The SAJ Competency Training Institute and the South African Equipment Export Council (SACEEC).

This will be a fully functional workshop where learners will be demonstrating the skills that they learn at SAJ; including boiler making, welding, electrical, fitting, millwright, turning and CNC programming, as well as JIG and die making.

Artisans visiting Electra Mining Africa can test their skills against the highest standards of industry – and could win a prize.

Top new products will be the focus on day two, whereas on day three visitors will be part of the "Local is Lekker" South Africa day – a day to celebrate our local heritage.

Safety takes the spotlight on the fourth day, while diversity takes centre stage on the final day of the show, celebrating the diverse reach of Electra Mining Africa.

Top industry speakers will present at the conferences hosted by leading industry associations: The Southern African Institute of Mining and Metallurgy (SAIMM), The Lifting Equipment Engineering Association of South Africa (LEEASA) and Women in Mining South Africa (WIMSA), which will be taking place alongside Electra Mining Africa.

Further knowledge and learning will be central to the daily free-to-attend seminars hosted by The South African Institution of Mechanical Engineering (SAIMECH).

What is ?

It is an online PPE solution that assists employers to comply with industry and regulatory PPE requirements while keeping record of the PPE issued, controlling PPE costs, report on historic date and enable employers to plan future PPE usage in REALTIME!

A few of the major benefits of ppe365.net include:

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An onsite store is an actual store at the customer's place of work. These stores can be a space offered by the client that is transformed into a store or if no space is available, a container store as display in the image below can be set up. Together with the customer, Select PPE determine an Issuing Protocol (IP) which stipulates the rules under which the store can issue or supply PPE to an employee.

Benefits Of The On-site Store Service

- Cost-savings through controlled and monitored PPE usage and economies of scale.
- Accurate reporting on PPE drawn by employees.
- Efficient and effective PPE procurement and management, as well as disposal of redundant PPE.
- Efficient stock replenishment.
- Issuing and tracking of specialised equipment.
- Customer control of specific purchases falling outside the ambit of the IP.
- Minimizing risk with regards to stock losses and insufficient stock levels.



Safety is moving to the cloud

DIGITAL SOLUTIONS FOR THE FUTURE

Data Dynamics has enjoyed working in the field of digital law for the past 28 years and is of the opinion that digital information is the future.

The team of engineers at the company enjoys innovating to constantly make better document browsers to capably manage information in a way that is practical, but fast.

Gavin Phoenix, lead engineer and publisher at Data Dynamics, holds a double Government Certificate of Competency in factories and mines. He and the company's software engineer created the company's first browser in 1991 for the Machinery and Occupational Safety Act. It ran on IBM PCs and was called MOS 2000.

Since then, Data Dynamics has produced Data 9000 with network versions, and its latest browser for legislation: InsightNet. This is presently on the company's web portal. It includes an intranet version that can provide all business staff with access to legislation.

The company's next innovation is the DLex Register Editor. This will assist companies that have legislation libraries in place to develop continuously improving digital legal registers. Internally created legal registers are automatically updated.

DLex comes with

three modules – the live legislation library; a cloud-based data-management engine to handle digital data used for any style of register; and a self-assessment module. Companies can write any assessment structure of choice for their data to instantly determine compliance status.



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GOOD THINGS EXPECTED FROM NOSA ACQUISITION

The National Occupational Safety Association (Nosa) was bought for approximately R750 million by the American multinational private equity, alternative asset-management and financial services provider, The Carlyle Group (Carlyle), in April.

Duncan Carlisle, Nosa MD, confirms that stakeholders and clients can expect ongoing investment into the Nosa product suite and expansion of services following the acquisition.

Although there will be limited impact on the South African client base, there will be a strong focus on Africa, ensuring the business is well positioned to benefit from the increasing demand for health and safety services across the continent.

"Nosa was acquired by Carlyle with a view that the occupational health and safety sector across emerging markets is likely to grow and expand as compliance rates align with developed countries. Given Nosa's track record, the business is obviously well positioned to benefit from this growth," states Carlisle.

An early indication of the investment in the business from Carlyle, is the recent acquisition of the Coca-Cola CO₂ testing facility in Midrand. This, along with the laboratories in Cape Town and Durban, position the Nosa Food Safety Division as one of the leading providers of food safety testing and auditing in South Africa.

"The recent outbreak of listeriosis has led to an increased focus on food safety throughout South Africa and the Nosa Food Safety Division is well positioned to assist companies in dealing with their food-safety compliance challenges," Carlisle says.

He adds that there are also more training courses available through the organisation with a special focus on the new ISO 45001 standard. The courses will also be offered in an e-learning format.

Carlisle notes: "The global footprint and credibility of Carlyle will also assist in taking Nosa into new international markets. We are seeing more interest and uptake of Nosa service offerings in markets such as India and Saudi Arabia. Further expansion of the food-safety division in Africa is also anticipated."













"The Carlyle Group has established a staff equity trust for staff within Nosa, which will enable the company to enhance its overall empowerment capability and improve its B-BBEE status," he adds.

The Nosa brand will remain unchanged and annual events, such as Noshcon and the Noscar awards, will still take place. The acquisition simply means Nosa will have a broader network and more financial support to ensure that it continues to offer world-class occupational health and safety risk-management services to its extensive client base.



INX[™] SHEQ Management Software

INX is a modular web based , mobile ready software product with multiple modules focussing on different areas of Workforce Management. Increase compliance and adopt a proactive approach to Workplace Health and Safety . Manage everything from incidents to audits, all in one place, with our INX InControl module.

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3 _____

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2 _____

3 _____

4 _____

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2 _____

3 _____

4 _____

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(ONLY 1 ONLY APPLIES TO OPERATING STAFF)

EVACUATION DRILL

IN CASE OF FIRE

1. CLOSE

2. SWITCH OFF

3. EVACUATE

4. ROLL CALL

IN CASE OF BOMB

1. CLOSE

2. SWITCH OFF

3. EVACUATE

4. ROLL CALL

DO YOU HAVE AN EMERGENCY ALARM? IF NOT GET ONE OF THESE

WARNING
CONSTRUCTION AREA
WATCH OUT FOR MOVING MACHINERY

CONSTRUCTION SITE

DANGER

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ALL VISITORS TO REPORT TO SITE MANAGER

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SANS 1186-1 of 2013 - SAFETY SYMBOLIC SIGNS

FIRE-FIGHTING INFORMATION	GENERAL INFORMATION	MANDATORY (DO)	PROHIBITORY (DON'T)	WARNING
<p>FB1 LOCATION OF FIRE-FIGHTING EQUIPMENT</p> <p>FB2 FIRE EXTINGUISHER</p> <p>FB3 FIRE HOSE</p> <p>FB4 FIRE HYDRANT</p> <p>FB5 FIRE ALARM</p> <p>FB6 SPRINKLER STOP VALVE</p> <p>FB7 FIRE TELEPHONE</p> <p>FB8 FIRE PUMP CONNECTION</p>	<p>GA1 FIRST AID EQUIPMENT</p> <p>GA2 GENERAL DIRECTION</p> <p>GA3 DIRECTION TO ESCAPE ROUTE</p> <p>GA4 DIRECTION TO ESCAPE ROUTE</p> <p>GA5 HAIRED FIRST AID STATION</p> <p>GA6 DRAWING WATER</p> <p>GA7 BLASTING POINT</p> <p>GA8 TRAVELING WAY</p>	<p>MV1 EYE PROTECTION SHALL BE WORN</p> <p>MV2 RESPIRATORY PROTECTION SHALL BE WORN</p> <p>MV3 HEAD PROTECTION SHALL BE WORN</p> <p>MV4 HEARING PROTECTION SHALL BE WORN</p> <p>MV5 HAND PROTECTION SHALL BE WORN</p> <p>MV6 FOOT AND LEG PROTECTION AGAINST CRUSHING SHALL BE WORN</p> <p>MV7 FOOT PROTECTION AGAINST CRUSHING SHALL BE WORN</p> <p>MV8 DELETED BY AMENDMENT</p>	<p>PV1 SMOKING PROHIBITED</p> <p>PV2 FIRE AND OPEN FLAMES PROHIBITED</p> <p>PV3 THROWING FOR PEDESTRIANS PROHIBITED</p> <p>PV4 WATER PROHIBITED</p> <p>PV5 PROCESSING BEYOND THIS POINT IS PROHIBITED</p> <p>PV6 CYCLING PROHIBITED</p> <p>PV7 CYCLING PROHIBITED</p> <p>PV8 CARRYING OF LONG MATERIAL PROHIBITED</p>	<p>WW1 GENERAL WARNING OF HAZARD</p> <p>WW2 WARNING OF FIRE HAZARD</p> <p>WW3 WARNING OF EXPLOSION HAZARD</p> <p>WW4 WARNING OF CORROSIVE HAZARD</p> <p>WW5 WARNING OF POISONOUS SUBSTANCES</p> <p>WW6 WARNING OF BOMBING DANGER</p> <p>WW7 GENERAL WARNING OF HAZARD</p> <p>WW8 WARNING OF SUSPENDED LOAD HAZARD</p>

SANS 1186-5 of 2013 - PHOTO LUMINESCENT



SAFETY BOOK LAUNCHED FOR CHILDREN

ISABEL GUERREIRO DARLINGTON HAD A SERIOUS ACCIDENT IN JUNE 2011, AND NEARLY DIED. THIS INSPIRED HER TO WRITE A SAFETY BOOK ESPECIALLY FOR CHILDREN CALLED *SAM + SUE SHARE THEIR FAMILY'S SAFETY RULES WITH YOU*. CHARLEEN CLARKE REPORTS THAT IT'S A WONDERFUL BOOK THAT SHOULD BE READ BY FAMILIES ALL OVER THE GLOBE

Guerreiro Darlington's book was inspired by a terrible accident. "I fell down some stairs at our home in Austria and ended up in an induced coma with multiple fractures of my face and skull, followed by months in hospital and numerous brain surgeries. While lying in hospital I thought about how many times I have seen people running up and down stairs, carrying babies in their arms. I wondered if they realised that they could trip, fall and be seriously injured.

"I decided that I would write a rhyme book for children, which would share some of the safety rules [to follow] at home. Most importantly, I wanted to emphasise the safe use of stairs. Having two wonderful granddaughters, I wanted them to learn from this book as well, since they're so close to my heart," she tells SHEQ MANAGEMENT.

It was her first attempt at writing a book – and it was no easy task! "It took a number of years to finish and it was much harder than I thought, but I have received some positive responses and therefore I am inspired to write a second. Maybe next time around Sam and Sue will share health rules at home," Guerreiro Darlington reveals.

Despite its youthful target market, the book has already been well received by people of all ages. "I aimed the book at children aged four to eight. However, some adults have told me that reading the book to their children has improved their own understanding of how to look at safety at home and in their lives in general. I have also been informed that the book is doing its rounds at a retirement village in South Africa!" she says with a chuckle.

Guerreiro Darlington hopes that the book will change lives. "I realised how my accident had a massive effect on my family. As a result, I wanted to derive some sort of benefit from my experience. If the book saves the life of one child or a parent, it will have been more than worth it. Even today, when I see children running up and down stairs or standing on the back seat of a car, I get cold shivers down my back in fear," she says.

Various aspects of family life are covered in the book – from safety in the kitchen, bathroom and bedroom to safety while gardening, cycling and shopping. Of course, safety on stairs is highlighted, too.

With companies focusing on family safety as part of their overall safety and health efforts, the book makes a

wonderful gift, which employees and customers alike can share with their families. Guerreiro Darlington believes that it could also be useful for teachers of children at nursery schools (we most definitely agree).

Because the SHEQ MANAGEMENT team is made up of grown-ups (who, admittedly, sometimes behave like children), we decided to give the book to two children – sisters Jiya and Ahana Ramachul, aged seven and three respectively – to review. They were unanimous in their praise of the book, noting that their dad could learn a thing or two from it as well (apparently he doesn't wear safety




ABOVE: Jiya and Ahana Ramachul have given the new book the thumbs up!



glasses when cutting the grass).

They have a quad bike and told us that they could learn a great deal from the section on bike safety. They also loved the fact that a dog and a fish feature in the book, because they also have these pets. It was clear that they could relate to Sam and Sue, and learn from the book's two characters.

Sam + Sue Share Their Family's Safety Rules With You costs R80 plus postage. Order your copy by emailing isabelgdarlington@gmail.com. For an extra charge, a company logo can be added to the cover of the book. 



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MASTERING YOUR MIND



WHETHER STRESSED OUT AT WORK, OR SITTING ON VENICE BEACH SIPPING AN AROMATIC COFFEE, THE ABILITY TO BE MINDFUL AND LIVE IN THE MOMENT CAN HAVE PROFOUND EFFECTS ON ONE'S LIFE

As a kid I wasn't big on television. I forsook cartoons, *Blue Peter*, and the Australian soap-opera *Neighbours* for a show I never believed I'd be interested in. Even today, looking back, I'm amazed I passed up Colt Seevers in *The Fall Guy* (a very big deal for me, aspiring as I was to be a stuntman, like Colt) for a show where an aging gent swivelled around in his chair to ask members of the public a series of random questions.

Mastermind ran for 25 years on British TV, and as that menacing theme tune kicked in I could hardly wait for Magnus Magnusson to look down his nose and ask the first question.

As humans, we're addicted to questions. Our minds love to work. Look around you on the bus, train or plane – how

many passengers are locked into crosswords, Sudoku, word-searches, *Tetris* or *Candy Crush*?

David Adam, talking in his memoir on his own obsessive compulsive disorder (OCD) is remarkably erudite: "The mind is a thought factory. Every day it processes a conveyor belt of thousands of thoughts, good and bad, happy and sad, useful and intrusive. The factory must decide how to act on them and then issue instructions to respond.

"We each do this differently, based on our unique combinations of early experience, environment and biology; our biases, preconceptions and knowledge. The conveyor belt always rolls and new thoughts arrive in a constant stream. Something always comes in and something always goes out."



MASTERING OUR MINDS

The actor Anthony Hopkins, without his nasty Hannibal Lecter mask, reckons: "We are dying from overthinking. We are slowly killing ourselves by thinking about everything. Think. Think. Think. You can never trust the human mind anyway; it's a death trap." He may not be far wrong.

In the United Kingdom (UK), the cost of work-related stress to society is now around £4 billion (£70.83 billion) per year. Over in the United States (US), more than one million workers call in sick every day, complaining of stress, generating a cost to employers of over US\$ 200 billion (£2.7 trillion). Even this number pales when compared to the total amount spent on healthcare – a whopping US\$ 2.7 trillion (£36.4 trillion) in the US each year.

Mental health issues such as stress and depression are on the rise in every developed nation around the world. One in every six adults now experiences a common mental health

problem every week, with the most common diagnosis being a mix of anxiety and depression.

I'VE STARTED SO I'LL FINISH

Here's a thought: mental pain may be less dramatic than physical pain, but it's much more common and also harder for most of us to bear. In the words of C.S Lewis, "It's far easier for most of us to say: 'My tooth is aching' than to say: 'My heart is broken'."

MIND FULL, OR MINDFUL?

A recent study of 15 000 people revealed that most people spend 46.9 percent of their waking hours thinking about something other than what they're doing, and this mind-wandering typically makes them unhappy.

According to a superb article from Harvard by Matt Killingsworth: "A human mind is a wandering mind, and a wandering mind is an unhappy mind. The ability to think about what is not happening is a cognitive achievement that comes at an emotional cost."

WE'VE GOT TO FOCUS

The practice of "mindfulness" is about training the brain to block out the myriad distractions and worries that invade our thoughts, to allow us, instead, to live in the moment. Practitioners of mindfulness find it has a positive impact on their mental health, aiding them in effectively managing stress and negative thoughts.

Mindfulness is now becoming more popular in the corporate world. These days, many occupations require multitasking. This often means that our thoughts become scattered and jump from place to place, which tends to negatively affect productivity and exhausts the mind.

Nobel Laureate Herbert A. Simon warned us about this back in 1969 when he said: "In an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that the information consumes."

"What information consumes is rather obvious – it consumes the attention of its recipients. Hence a wealth of information creates a poverty of attention, and a need to allocate that attention efficiently among the overabundance of information sources that might consume it."

Simon was writing in a different age of course, but his words are perfectly relevant today with the flood of information on social media, news feeds, and so on. When we're overwhelmed, we become stressed – and, in these situations, we need to take a moment to ourselves and focus on something positive.

During a busy day, taking time out might sound counterintuitive – but, if we don't, our brains won't refresh, and, consequently, we fail to manage stress and opportunities to reflect and gain new insight are lost.

Research by the National Institute of Health in the UK has determined that practising mindfulness can enhance mental well-being, aid concentration, improve the ability to learn new things and increase personal efficiency.

So, let's see how we can master our minds.



BUT FIRST, COFFEE

I had a great coffee this morning. I mean really great. In fact, it was amazing. It was at this little place I know in Venice Beach, Los Angeles. As I stood there in line, waiting my turn, an old record player scratched and scuffed its way through the track *Hocus Pocus* by the Dutch band Focus. A blast from the past of 1970, one hell of a track – search it out, I guarantee it'll make your ears tickle!

With Dutch yodelling (I know!) in my ears and the smell of fresh coffee in my nostrils I was off to a good start. As I nod in time, the barista catches me on a roll and starts to tell me about where he found the tune. He describes the flea market stall in such a way that allows me to smell the musty vinyl, feel the jostling at my elbow, and the excitement in my breast as I struck gold as I unearth a classic from the past in one of the rows of records. I was there!

With beaming smiles on our faces, it's my turn to order, except he already knows what I'm having, so rather than asking he starts to tell me about the beans: Ethiopian, from the Yirgacheffe region in southern Ethiopia, which has been growing coffee forever. It's from a traditional Arabica variety and features pronounced floral notes with a dry, but massive, finish. He says it's like *Hocus Pocus* for the mouth.

As he describes the coffee, I'm transported back to a moment in Addis Ababa, last year, sitting cross-legged in front of burning embers as a beautiful woman in a golden-coloured habesha keme – the traditional dress – entrances me with her coffee ceremony.

First, I watch her roast green coffee beans in a pan over the fire then grind the deeply coloured beans with an ancient wooden pestle and mortar, before they are brewed with hot water in a jebena pot set directly in the flickering flames.

This coffee is brewed three times: first for the flavour, second to mature, and third (called "baraka") to be blessed by the Gods. Incense is burned to give thanks before we can drink. She finally lifts the jebena as though it's made of the

most delicate silk and I notice the handmade straw lid and rounded base. From miles above, she pours the liquid with pin-point accuracy into tiny handle-less cups on an ornate tray. I am more than ready.

Cup in hand I sit on a bench in the street and the 07:00 Californian sunshine washes over me. I'm alive.


"Mindfulness is like that – it is the miracle that can call back in a flash our dispersed mind and restore it to wholeness so that we can live each moment of life."

The words of Vietnamese Buddhist monk Thich Nhat Hanh are relevant today more than ever. When we find ourselves in a familiar place – stumbling to the shower, driving to work on autopilot, hunched over our laptops, drifting through meetings – it can be difficult to be present, can't it?

This is because our brains are in a routine, to which we've become accustomed, and our central processor has made it easy for us, taking us from A to B to C, without us having to compute – but that's not living, it's surviving.

Only when we step out of our routine can we begin to notice the way it feels to really hear the music, appreciate the taste of the toasty goodness in our coffee cup, and how the warmth of the sunlight penetrates our clothes. We notice we're here. It's an experience our brains need to stop for and to process.

Instead of just doing, how about just being in the moment for once? We live our lives the way we choose to live them. Don't wait for a break in your routine in order to do something meaningful; start today; start small. Take this moment as a brand-new moment in your life. You'll never get this moment back again, so, whatever you're doing, get curious! Get ready to be amazed.

How does your coffee taste? Is it simply fuel for a tired mind, or does it create some kind of *Hocus Pocus* in your brain? Where are the moments for you to be truly mindful in your life today? Choose one, focus in, and get ready to be amazed. 



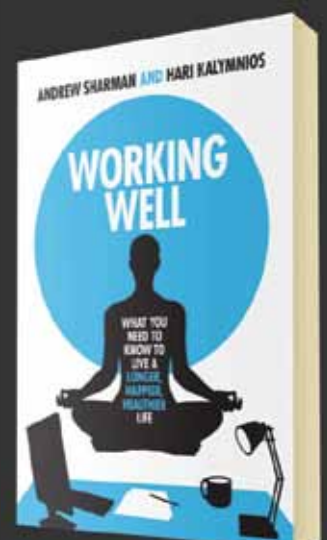
Professor **Andrew Sharman** is chief executive of RMS – consultants on leadership and cultural excellence to a wide range of blue-chip corporates and non-government organisations globally. He's an international member of Saïosh; vice-president of the Institution of Occupational Safety & Health; and Chairman of the Institute of Leadership & Management. Contact him at andrew@RMSswitzerland.com.

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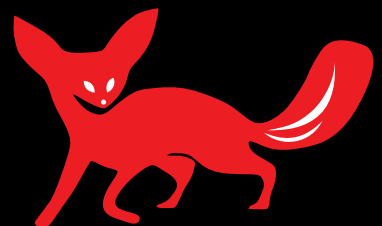
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GIVING SAFETY A SPORTING CHANCE

SAFETY IS NOT A SPORT, AND ALL SPORTING DISCIPLINES ARE NOT SAFE. NEVERTHELESS, WE CAN AND SHOULD TAKE SAFETY PRINCIPLES FROM SPORT INTO THE WORKPLACE, TO GUIDE OUR APPROACH TO SAFETY IN INDUSTRY

Let's take a closer look at one of the fastest sports in the world – Formula One racing.

Formula One racing is one of the highest-risk sports, with many drivers having been killed and others seriously injured over the years.

Some of the more prominent accidents include the fatal crash of Ayrton Senna in 1994 and the life-altering injuries sustained by Niki Lauda when his car crashed and burst into flames at the 1976 German Grand Prix at the Nürburgring.

This is not entirely surprising in a sport in which cars reach speeds in excess of 300 km/h, and in which drivers come into close contact with each other while negotiating corners, chicanes and bends, and sometimes drive with poor visibility during treacherous rain.

There is no doubt that these drivers have nerves of steel. We can, however, also be sure that, while certainly not without risk, the safety of Formula One racing has improved significantly over time; with a continuous focus on improving the safety of the cars, tracks and drivers.

APPLYING THE HIERARCHY OF CONTROLS

Formula One officials have increasingly made the sport safer by applying the principles of hierarchy of controls. By considering how to eliminate, substitute and engineer the risks out, followed by robust controls and procedures, they have, over time, been able to improve the overall safety of the sport.

The first Formula One race was held at the Silverstone racetrack in England in 1950, with cars having been built for one purpose only: speed! While their speed was (relatively speaking) impressive, they fell short in many other respects. The vehicle balance was somewhat compromised, with

engines having been mounted in the front. Disc brakes as we know them today were not used.

There was also very little protection for the drivers: no roll-over protection, no fireproof racing overalls and just open-faced crash helmets. (Fireproof overalls were only introduced in the late 1960s, and at that stage, only as a recommendation!)

Since then, officials have continued to introduce engineering controls to make the sport safer. Some of the more significant controls introduced have included the installation of double safety barriers between the vehicles and the spectators; pit-lane walls between the pit and the racetrack; re-designed cockpits making it possible for drivers to exit the vehicle as fast as possible; and fitting fireproof structures around the fuel tanks.

Some of the administrative controls have included the need for rescue services to remove a driver within five minutes after an accident; the provision of safety marshals around the track at strategic/higher risk positions; the introduction of minimum standards for personal protective clothing and equipment; and minimum safety distances between fences and spectators.

Improvements to personal protective clothing and equipment included the introduction of fire-proof clothing for drivers and pit-crew members, improved helmet design (providing full face protection) and the introduction of six-point seat belts.

A FOCUS ON THREE KEY ELEMENTS

Regardless of whether in the context of sport or industry, when considering safety and the necessary hierarchy of controls, there are three key elements to always consider: the issuing of safe equipment, to ensure a safe working

environment and the safety and health of people (Formula One racing drivers and employees alike).

• Safe equipment

Over the years, the design of racing cars has continuously changed – with the introduction of rear-mounted engines, disc brakes, rear-view mirrors, improved cockpit designs and the most recent introduction of the halo device around the driver's head.

• Safe environment

The environment has also been made much safer for the drivers, pit crews and the spectators through the introduction of walls, fences, crash barriers, gravel sections at corners as well as rear lights on all vehicles.

The use of a safety car was introduced in 1992. In addition, the use of warning lights and flags was also introduced, making it possible to alert drivers of any problems ahead on the track.

The speed limit in pit lanes was reduced to 80 km/h to reduce the risk of accidents and injuries to the pit crews. Pit crews are also now expected to move out of the danger zone and back into the garages immediately after the car has left the allocated pit box.

• Safe and healthy drivers and pit crew

Unlike in the early days of Formula One racing, drivers now have to undergo regular medical examinations. They are also required to have a licence to compete in Formula One, issued by the FIA (the International Automobile Federation). In addition, doping tests are conducted on drivers at regular intervals.

Safety marshals are regularly trained and practice drills held to equip them with the knowledge and the skills to rescue drivers from a car in the event of an accident and/or fire. State-of-the-art medical services are also provided at the race tracks to deal with all injuries and medical conditions.

JOINT UNDERSTANDING OF THE TEAM'S OBJECTIVES

Fortunately, today it's about winning without injuries to any person involved. So, too, the objectives of industry should be to win without injury to any employees!

People often quote the slogan "Safety First". For me, safety is not an add-on or simply one item on a long agenda of business priorities. I far prefer the slogans "Safe Engineering First", "Safe Production First" or "Safe Maintenance First".

Within the world of Formula One, it's evident that safety is considered an integral part of the business day, every day. In industry it is unfortunately not uncommon for companies to design equipment or establish working environments without considering the safety and health aspects from the start.

In some companies, projects are planned without any involvement from the safety and health professionals at all ... and they then wonder why work has stopped during

project implementation phase, due to risk assessments not been conducted, or procedures and/or equipment failing the safety standards.

TEAMWORK IS PARAMOUNT

The teamwork of a Formula One team is impressive to watch. A car comes to a stop in the allocated pit box position. The team of 20 people moves in towards the car, which is lifted. Old wheels are removed and replaced with new ones. The driver's visor is wiped clean, and, within seconds of arriving in the pit, the driver is on his way to re-join the race.

They get this right through practice, practice and more practice. This ensures that there is a clear understanding of each person's role in the team and their individual responsibilities; that clear procedures are in place, and that each person is equipped with the required tools and equipment for his/her role in ensuring that the car is back on the track as soon as possible.

While teamwork in industry doesn't have to happen at the same pace as Formula One, a commitment to safety is equally important to both! Just like Formula One racing, industry will always benefit from each member of the team having a clear understanding of everyone's roles and responsibilities.


SUMMARY

Industry can learn from Formula One by signing up to an ongoing commitment to safety. By considering the hierarchy of controls when eliminating, substituting and engineering out risks, it can work towards safety becoming the easy option.

To get this right, companies need a team that shares a common objective and an ongoing commitment to the three key safety issues: safe equipment, a safe working environment and the safety and health of employees and contractors. The team also needs to share a clear understanding of everyone's roles and responsibilities in meeting those objectives.

Significant progress has been made in Formula One. Unfortunately, despite these efforts, accidents continue to happen because of the human element in safety. Within industry and sporting disciplines alike, for as long as there is unsafe human behaviour (whether consciously or subconsciously), accidents will continue to occur.

It is, therefore, also important to focus on developing the desired safety mindset, where employees and contractors make safety a way of life and a habit. Companies also need to develop an interdependent safety culture, where people look after their own safety as well as that of others.

As with Formula One racing, companies can enjoy continuous improvements in safety through a focus on the hierarchy of controls, strong teamwork, development of an interdependent safety culture, and moving employees into the conscious and unconscious safety mindset. 



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.

RESOLUTION OF THE SILICOSIS CLASS ACTION

LITIGATION IS NOT AN EFFICIENT WAY OF DEALING WITH THE MATTER OF OCCUPATIONAL DISEASE

We have previously dealt with two occupational health matters. The first involved Gencor and asbestosis. This matter started in London and later migrated to South Africa where it was eventually settled out of court with Gencor contributing several million rand as two trusts were formed.

At the time, Gencor was involved in merger discussions to form BHP Billiton. The asbestos litigation could have held up the merger for years, so it appeared expedient to settle the matter out of court. The significance of this is that at the time no claim for occupational diseases had succeeded in the courts. Whether such a claim could succeed was untested.

In the silicosis matter, a claim was brought against a mine and the High Court ruled that the matter was non-suited. It was then taken to the Supreme Court of Appeal, which upheld the High Court decision. The matter then proceeded to the Constitutional Court, which ruled against the mines.

This judgement was not made on the merits of the case, but on whether or not the Compensation for Occupational Injuries and Diseases Act of 1993 (COIDA) barred employees from suing their employers.

The Constitutional Court ruled that it did not. This was

contrary to the view commonly held for over a century and contrary to the findings of the High Court and the Supreme Court of Appeal.

This ruling opened the way for miners to sue their employers. The action was limited to miners; it did not apply to industries outside of the mines. It was a lacuna in the law. This, in turn, paved the way for a class action, which was instituted and certified. It is this class action that is now being settled.

The purpose behind this all is not to get a court to make a decision, but to force the employer(s) to pay money into a trust. After much negotiation, the matter was again settled out of court. Therefore, despite years of litigation, we still do not have a successful case being decided in the courts.

We are still no closer to a decision as to whether or not it is legally possible to sue an employer for occupational disease. Most lawyers would accept that it is possible, but there are also good reasons to believe that this is not possible. Accordingly, rather than answering the question, the matter was settled out of court.

A similar method was followed in the United States with a range of disease cases. For decades, tobacco companies

were sued, but the matter was eventually settled when most state Attorneys General joined forces and sued the tobacco companies. Again, the cases were settled out of court in a multi-billion dollar settlement in favour of the individual states.

Despite the importance of the settlement that is now being reached, it received surprisingly little media coverage – although the mines had come to an agreement that had taken several years to finalise. As the matter became closer to being considered by the courts (in this case the Supreme Court of Appeal) so the parties edged closer to an agreement.

In January this year, *Business Day* reported that the case had been put on hold as a settlement beckoned. It indicated that an amount of R5 billion would be paid into a trust to benefit some 100 000 former mine employees.

The Supreme Court of Appeal agreed to a postponement to allow the parties to reach the settlement. In May, it was announced that agreement had been reached, although it still needed to be approved by the High Court.

Some lessons appear to have been learnt from the earlier asbestos litigation. In that case, hundreds of millions of rand were paid into the trust. After several years, the fund still had hundreds of millions of rand and the number of persons found to qualify each year declined.

It then transpired that attempts were being made to compel the trust to use the funds for reasons other than compensating persons with asbestosis.

In the silicosis matter, it was announced that the R5 billion will not be paid over to the trust. The trust will make cash calls as and when funds are required.

An interesting report appeared in December 2017 as the parties were reaching an agreement. The government tried to intervene in the process and get agreement that government representatives should be appointed as trustees of the proposed trust.

The report recalls how a group (who were not suffering from asbestosis) tried to get access to the funds of the trust. A former trustee report showed how government representatives tried to persuade the trustees to hand over R30 million to this group.

At one point, the premier for the Northern Cape also alleged that the asbestos trust had paid persons who were not entitled to payment. This matter eventually ended up in court.

The asbestos trust denied that had happened and agreed to a forensic audit. It also asked for a list of persons who had received compensation but were not entitled to it. The

premier was unable to provide a list.

Nevertheless, in the case of the new silicosis trust, the chairperson of the parliamentary committee agreed that government representatives should serve as trustees. It will be interesting to see if this happens.




The report recalls how a group (who were not suffering from asbestosis) tried to get access to the funds of the trust. A former trustee report showed how government representatives tried to persuade the trustees to hand over R30 million to this group.

COMMENT

We have previously expressed the view that litigation is not an efficient way to resolve matters of occupational disease. The silicosis matter merely illustrates that point.

Occupational diseases have attracted compensation for over a century. Persons who contract asbestosis and silicosis are entitled to compensation and have received compensation for over a century. The legislation is in place and is operational.

The allegation in the silicosis matter is that the compensation was grossly inadequate. That is probably true. However, the solution to this is not to allow a new cause of action, but to improve the level of statutory compensation. That should have been done by the government, which is responsible for the operation of the legislation. The fact that this was not done points to regulator failure. The way to deal with this is to improve the regulations, not to impose a new obligation.

The establishment of a trust fund is also not the solution. It is merely another administrative body, as it has to administer applications for compensation. The compensation fund is already an administrative body that does this, and the trust fund is a duplication of this body. The solution is to combine and streamline the existing compensation bodies – not to make new ones. 



Legally Speaking is a regular column by **Albert Mushai** from the school of Economics and Business Sciences, University of the Witwatersrand. 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 the University of the Witwatersrand as a lecturer in insurance.

EXPLORING THE REVISED ISO 19011:2018

THE NEW STANDARD PLACES EMPHASIS ON RISKS,
OPPORTUNITIES AND AUDITOR COMPETENCE

Have you ever wondered why auditors are often referred to as the backbone, ears and eyes of top management? This is because the auditors can provide a diverse and independent appraisal of an organisation's operations and activities.

The third edition of ISO 19011:2018 Guidelines for auditing management systems has been revised and published by the International Organisation for Standardisation (ISO). It replaces the second edition of 2011.

The Organisation says that the ISO 19011:2018 standard "provides guidance on auditing management systems, including the principles of auditing, managing an audit programme and conducting management system audits, as well as guidance on the evaluation of competence of individuals involved in the audit process".

The standard is based on the following guiding principles:

1. **Integrity:** the foundation of professionalism;
2. **Fair presentation:** the obligation to report truthfully and accurately;
3. **Due professional care:** the application of diligence and

judgement in auditing;

4. **Confidentiality:** security of information;
5. **Independence:** the basis for the impartiality of the audit and objectivity of the audit conclusions;
6. **Evidence-based approach:** the rational method for reaching reliable and reproducible audit conclusions in a systematic audit process;
7. **Risk-based approach:** an audit approach that considers risks and opportunities.

There are numerous key changes that appear in the revised ISO 19011:2018.

ADDITION OF THE RISK-BASED APPROACH TO THE PRINCIPLES OF AUDITING

The previous edition of ISO 19011:2011 had suggested taking into consideration the adoption of a risk-based approach, but did not provide much clarity. This time around, appreciation of the risk-based approach will essentially be a critical determinant when scheduling, conducting and reporting of audits.



This will prompt auditors to overcome the dilemma of hastily jumping into auditing without familiarising themselves with the means that management uses to control their functions.

EXPANSION OF THE GUIDANCE ON MANAGING AN AUDIT PROGRAMME, INCLUDING AUDIT PROGRAMME RISK

Managing an audit programme is an overwhelming task. It requires taking into consideration activities to be reviewed, allocation of resources and the audit methodology to follow. It also needs to allow for surprises and risks that might derail the effective implementation of the programme.

Audit programme risks and opportunities may differ from one organisation to another. Hence, these risks and opportunities will influence the scope of the audit and the attainment of audit objectives.

A practical approach is to conduct a risk assessment, so as to identify potential risks to the audit lifecycle, decide on what controls to implement to mitigate these risks and report back to management.

As shown in figure 1, clause 5.3: Determining and evaluating audit programme risks and opportunities, forms part of audit programme process.

EXPANSION OF THE GUIDANCE ON CONDUCTING AN AUDIT, PARTICULARLY THE SECTION ON AUDIT PLANNING

The previous guidance on conducting an audit has received a significant revision. In sub-clause 6.3.2.1: Risk-based approach to planning: "The audit team leader should adopt a risk-based approach to planning the audit based on the information in the audit programme and the documented information provided by the auditee."

As you can imagine, the bar is being raised higher and higher for internal auditors. The unquestionable fact is that professional judgement will need to be given a good shot by the auditors.

EXPANSION OF THE GENERIC COMPETENCE REQUIREMENTS FOR AUDITORS

Looking back to the first edition ISO 19011 (published in 2002) auditor competence was geared towards quality and environmental management systems.

There has been a significant improvement on what constitutes essential competencies that management-systems auditors need to possess or acquire. I am a strong advocate for continual development. Hence auditors need to continually upskill and remain relevant while adding value to their clients.

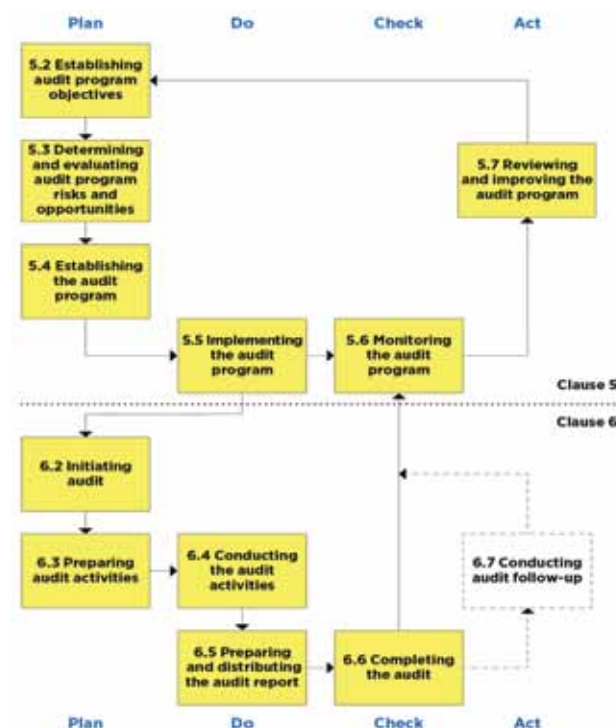


FIGURE 1: AUDIT PROGRAMME MANAGEMENT PROCESS FLOW

Management-systems training providers and personnel certification bodies need to be able to put emphasis on ISO 19011:2018, Clause 7: Competence and evaluation of auditors, in which it is noted that passing the relevant lead auditor examination and compiling audit log sheets will not be adequate. As mentioned, the bar is being set higher and higher for auditing professionals.

“Auditors need to continually upskill and remain relevant while adding value to their clients.”

ADDITIONAL TERMS AND DEFINITIONS

Additional terms and definitions related to audit evidence, joint audits, requirements, processes, performance and effectiveness have been included into the revised standard.

REMOVAL OF THE ANNEX CONTAINING COMPETENCE REQUIREMENTS FOR AUDITING-SPECIFIC MANAGEMENT-SYSTEM DISCIPLINES

In the previous ISO 19011:2011, Annex A (informative) section was a "guidance and illustrative examples of discipline-specific knowledge and skills of auditors when auditing transportation safety, environmental, quality, records, resilience, security, preparedness and continuity, information security, occupational health and safety management systems".

However, in the revised ISO 19011:2018, the above Annex has been replaced with "Annex A (informative) Additional guidance for auditors planning and conducting audits". The rationale is that it is not realistic to list all the relevant

competencies given the increase in various management-system standards.

EXPANSION OF ANNEX A IN ISO 19011:2018


If we take into consideration that revised ISO 9001:2015 Quality managements, ISO 14001:2015 Environmental management, ISO 45001:2018 Occupational health and safety management systems as well as other standards, are based on the ISO High Level Structure (HLS), guidance on how to audit organisational context, leadership and commitment was long overdue.

The good news is that these have been included into ISO 19011:2018, together with virtual audits, compliance and supply chain.

The ISO 9001 Auditing Practices Group is also good source of methods and techniques (in the form of guidance papers) on how to audit various elements, for example, in the quality-management system.

AUDITING FORWARD

Will the revised ISO 19011:2018 meet our expectations? The timing of the revision and publication of the guidelines for auditing management systems is perfect. Entry-level management-systems auditors and training service providers will find that the revised standard is practical and features additional guidance and some clarity on often challenging concepts such as risks and opportunities.

Last but not least, it is a great form of a refresher for experienced auditors, and helps management to know what to anticipate during and after the audits. 

AS WE MOVE FORWARD AND EMBRACE THE REVISED ISO 19011:2018 STANDARD, CHECK OUT AN INTERESTING READ BY RICHARD CHAMBERS ENTITLED: TO BE 'AGENTS OF CHANGE', INTERNAL AUDITORS MUST EMBRACE CHANGE



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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THE ECONOMIC IMPACT OF HEALTH AND SAFETY

EMPLOYEE HEALTH AND SAFETY IN THE WORKPLACE MUST REMAIN A TOP PRIORITY

It has been a dreary and depressing few months interacting with companies that have been in the process of retrenching staff. Concerned staff, some of whom had been loyal to a company for over a decade, had to come to the realisation that they would have to find alternative work and means to support their families.

Academics suggests that the financial hardship and mental stress for workers losing their jobs during an economic recession is likely to increase the risk of ill health and even mortality.

In South Africa, as many as 100 000 people lost their jobs from April to June this year. The official unemployment rate in the second quarter of 2018 increased to 27,2 percent compared to the first quarter rate of 26,7 percent.

After growing by 3,1 percent in the fourth quarter of 2017, the South Africa economy contracted in the first quarter of 2018, shrinking by 2,2 percent quarter-on-quarter, according to the latest information from Statistics South Africa.

Primary industries that contributed to the slowdown included agriculture, mining and manufacturing, with the electricity, construction and trade industries also recording negative growth.

It is important to note that certain groups in the workforce are potentially more vulnerable than others. For example,

older or unskilled workers may be affected more than other employees.

Reports from developed countries during the 2008 financial crisis concluded that important organisational functions, such as training, purchasing new work equipment

“ The official unemployment rate in the second quarter of 2018 increased to 27,2 percent compared to the first quarter rate of 26,7 percent.

and innovation, are predominantly affected. This imposes significant pressure on the working conditions of employees including challenges with the management of occupational health and safety.

For example, the recent fatalities in the mining industry were widely condemned by society, leading to legal action



being taken by the shareholders. Business leaders should therefore be aware of the disadvantages of aggressive cost-cutting plans.

Costs of poor health and safety are high as a result of:

- Fatalities and disabilities;
- Absenteeism or sick leave;
- Damaged equipment associated with occupational injuries;
- Time and money spent on injury investigation, workplace assessments;
- Changes to The Compensation for Occupational Injuries and Diseases Act (COIDA) or insurance premiums, due to the incidence of injuries and occupational illnesses;
- Production time lost as a consequence of an event which results in injury.

Companies should be reminded of the benefits of well-managed health and safety programmes. Some of the potential benefits are:

- Fewer accidents;

NEWS FROM SAIOSH

Another chapter has been added to Saiosh. The Saiosh Health and Safety Training Advisory Committee (SHASTAC) was approved by the Saiosh Council after numerous training providers asked for advice, direction and assistance, after the Department of Labour promulgated in the Government Gazette (No 41350 dated December 22, 2017) Notice 1463:


"Amended Notice of Direction in terms of Section 27(2) of the Occupational Health and Safety Act, read with Regulation 3(4) of the General Safety: The purpose for the establishment of the SHASTAC is for the committee to advise Saiosh on all matters related to short courses in occupational health and safety (OHS) in order for Saiosh to lobby on behalf of its corporate members that provide these courses."

SHASTAC conducted a survey with all Saiosh members (and non-members) in the training industry. SHASTAC has been engaging with the Department of Labour (DoL), Quality Council of Trades and Occupations (QCTO) and the Health and Welfare Seta (HWSETA).

The Saiosh Council thanks SHASTAC for what it has accomplished in a short space of time.

We are proud to announce that Siven Naidoo (Saiosh nominee) has been appointed by the minister of public works to the South African Council for Project and Construction Management Professions fifth term of council for 2018 to 2022. Saiosh congratulates him and wishes him all the best for the upcoming term of office.

Saiosh and IOSH United Kingdom have had several meetings to learn about and support each other's initiatives. Saiosh CEO, Neels Nortje, has been invited to attend the IOSH Annual Conference in September. We look forward to learning more about its research department and how it can add value in the context of health and safety in South Africa.

- Reduced costs for facilities, energy, materials, increased productivity and reduced personnel cost;
- Improved quality of products and services;
- Lower medical costs;
- Improved well-being, job satisfaction and working climate;
- Reduced compensation payments;
- Maintaining a "positive" organisation image. 



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 Saiosh (CMSaiosh) and was appointed as president of Saiosh in June 2017. He is currently completing a PhD in Construction Management.



THE ROLE OF ERGONOMICS IN CONSTRUCTION

WORKING IN THE CONSTRUCTION SECTOR IS ONE OF THE MOST PHYSICALLY TAXING OCCUPATIONS THAT ONE CAN UNDERTAKE. NKOSINI NGWENYA EXPLORES THE TOPIC OF ERGONOMICS IN THE CONSTRUCTION INDUSTRY

The construction industry is among the most hazardous and accident-prone working environments. On construction sites, workers are exposed to dangers on a daily basis that can result in serious injuries or even death.

In the United Kingdom (UK), construction was the leading industry among four industries with higher-than-average rates of musculoskeletal disorders during the 2014 to 2016 period.

There is a high prevalence of work-related upper-limb disorders in the construction sector, at 960 per 100 000 workers, compared to an all-industry average of 550 per 100 000 workers.

The sector also has a high prevalence of back disorders, with about 920 per 100 000 workers reporting back disorders, compared to an all-industry average of 490 per 100 000 workers. It is reported that 15.5 percent of construction workers complained of upper-back pains while 43.7 percent complained of lower-back pains.

Speaking at the recent South African Institute of Occupational Safety and Health (Saioh) conference, Professor John Smallwood, head of the Department of Construction Management at Nelson Mandela Metropolitan University, noted that the causes of these problems include working in the same position for long periods of time; bending or twisting the back; working in awkward/cramped positions; working when injured or hurt; working in hot, cold, wet and humid conditions; exposure to noise; climbing and descending; and handling heavy materials or equipment.

The high worker injury and fatality rates in the construction industry make it an extreme-risk sector when it comes to work-related musculoskeletal disorders (WMSDs) – the most prevalent form of occupational ill health in this sector.

In the United States, for example, musculoskeletal disorders (MSDs) are the biggest cause of absence from work in the construction sector. According to the Construction Industry Development Board, approximately 30 percent of construction workers suffer from MSDs globally.

Despite stringent health and safety regulations that seek to reduce the risks associated with working in the construction sector, very little progress has been made in improving health and safety of workers, particularly in developing countries. Accidents and injury rates in many developing countries, such as Nigeria, Thailand, and Tanzania, are considerably higher than in European countries.

Ergonomics – defined by Professor Smallwood as the study of work, or the work system, including the worker, his/her tools and workplace – has become extremely important in the construction industry around the world.

Ergonomic resolutions have contributed immensely to preventing injuries and fatalities, while facilitating safety and health practices for construction workers, but there still remains great potential for more widespread application of ergonomics.

Smallwood pointed out that, when applied in the construction sector, ergonomics enhances productivity, quality, time, profitability and reduces project risks.

He added: "Prevention of injury and illness in the construction sector requires dissemination, adoption and implementation of effective interventions, or research into practice. Regulations may require employers to make

changes, but knowledge, attitudes and work practices can evolve significantly even without regulations."

Smallwood identified a number of interventions that could contribute to an improvement in ergonomics. These include awareness, constructability (general), safe working procedures, mechanisation, reengineering, contractor planning, design of tools, prefabrication, on-site workshops and specification.

Overcoming the barriers to implementing more feasible ergonomic resolutions requires participation and cooperation from all involved in the construction sector.

If the principles of ergonomics are integrated into all phases of construction work – such as bidding, engineering, pre-planning, purchasing, materials handling, job-site management and training of supervisors and workers – the construction industry will ease the burden off workers, mitigate hazards and reduce WMSDs.

Thus, ergonomists have an important role to play in promoting the importance of ergonomics in the construction industry. The need to protect construction workers from health-related risks and fatalities will require architects, builders and safety researchers to consider how to decrease and eliminate work-related injuries such as WMSDs. **SM**

“ According to the Construction Industry Development Board, approximately 30 percent of construction workers suffer from MSDs globally.



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A CONCERTED EFFORT TO PREVENT OCCUPATIONAL DISEASES

OFTEN THE NEGLECTED STEPCHILD OF OCCUPATIONAL HEALTH AND SAFETY (OHS), OCCUPATIONAL DISEASES ARE A RECURRING THREAT FOR WHICH CLAIMS ARE ON THE RISE. HOWEVER, DUE TO THEIR LATENT NATURE, THEY ARE OFTEN FRAUGHT WITH COMPLICATIONS AND HIGH COSTS. AS PREVENTION IS BETTER THAN CURE, A NEW CAMPAIGN HAS BEEN LAUNCHED TO DRIVE EXACTLY THAT

Rand Mutual Assurance (RMA), the Compensation Fund (CF) and Federated Employers Mutual Assurance (FEM), have combined their collective might and launched the Occupational Diseases Prevention Programme.

Having been gestated towards the end of 2017, and with support from the Department of Labour (DoL) and Department of Mineral Resources (DMR), the campaign aims to create nationwide awareness regarding the rise of occupational diseases. At the same time, it aims to assist South African employers in their efforts to educate employees in managing the risks to which they are exposed, as well as with monitoring the effectiveness of the tools used to reduce the contraction of disease.

It is the first collaboration of its type within the compensation bodies seeking joint solutions, hence adding value to the South African employer. In line with international trends, the prevention programme aims to shift workplace conversations from compensation towards a prevention-first culture in the workplace.

A key focus of the programme is on creating awareness of hazard identification and risk exposure within the work environment, driven by an analysis of what is being presented to the RMA, CF and FEM at claims stage. The idea is to move the conversation from theory to real and practical approaches and interventions.

Opening the launch event, Nomfundo Metula, RMA general manager, sales and marketing, noted that an increase in occupational disease claims has been seen in recent times.

"Compensation entities find no joy in seeing claims go

up at the expense of healthy employees – we also want employers to pay lower premiums. To achieve that, we have to drive prevention among employees. But changing behaviour is not a sprint, it's a marathon and it's not to be taken lightly.

"Our belief is that what we are launching today will see all stakeholders being able to better manage these occupational diseases," she said.

The programme will be rolled out nationally during the second half of the year through various educational and intervention workshops that focus on high-impact diseases in order of priority. It will, therefore, be starting with noise-induced hearing loss (NIHL), which is said to currently be the most prevalent occupational disease.

The focus on NIHL will create awareness of hazard identification and risk exposure within the work environments, and on changing behaviour towards prevention and safety habits in the long term. (See sidebar for more information on NIHL.)

"We have chosen to launch with NIHL because it affects almost every employer in South Africa. There are newer professions, such as call centres, that are starting to see employees presenting with this disease," Metula added.

However, while the programme will launch with a focus on NIHL, that's not to say that other occupational diseases are less important... Speaking at the launch, Godfrey Oliphant, Deputy Minister of Mineral Resources, said that each year an estimated 2,34-million people die worldwide from work-related accidents and diseases.

"Of these, the majority, an estimated 2,02-million, die from a wide range of work-related diseases. Of the estimated



6 300 work-related deaths that occur every day, 5 500 are caused by various types of work-related diseases. The International Labour Organisation (ILO) also estimates that 160-million cases of non-fatal work-related diseases occur annually," he noted.

Using the local mining industry as an example, Oliphant said that between 2016 and 2017 there was a decrease of four percent in the total number of occupational diseases reported. However, there was an increase in NIHL between 2016 and 2017, totalling 1 144 reported cases. Similarly, silicosis increased by 17 cases to 652, although, encouragingly, tuberculous showed a slight decrease.

"Effective prevention requires collaboration at the national level between OHS institutions and employment compensation schemes within social security systems," he commented.


RMA, CF and FEM envision the long-term effects of this programme will benefit South Africa's workforce through safer working environments and a better quality of life, as



well as reduce absenteeism and production stoppages. Ultimately, it may lower the cost of compensation for employers, since premiums are aligned to the claims experience.

Deputy Minister of Labour, Phathekile Holomisa, concluded the day's proceedings: "While in a sense this is the beginning of a journey for us, we must appreciate that the vision and the forecast are in sync with international thinking.

"This is a rallying call to all employers in this country to respect our Constitution, to observe international conventions and protocols, and to affirm human rights and the dignity of all South Africans. This can be done by taking all the necessary steps to prevent occupational hazards, to prevent occupational diseases in our workplaces and to treat our citizens with dignity," he said.

Judging by the support shown at the launch event, RMA, CF and FEM are well on their way to achieving that. 



WHY NIHL IS A CONCERN

Occupational audiologist Dr Anita Edwards presented on noise-induced hearing loss (NIHL) and why it is such a pressing occupational disease.

"Worldwide occupational NIHL prevalence ranges from 16 to 24 percent, while the World Health Organisation estimates that occupational NIHL costs approximately 0,2 to two percent of the gross domestic product of developed countries," she said.

Shockingly, it constitutes 90 percent of all occupational disease claims at RMA!

"The two industries most at risk at the moment are mining and metals. A total of R156 764 577 in benefits has been paid since 2015 to these two industries alone. However, that's only about R33 000 per worker; an amount with which you can barely buy two hearing aids..." Edwards continued.

There's no doubt that these stats are worrying, especially since, Edwards says, NIHL is 100-percent preventable.

"Noise over 85 dB does physical damage within the ear. NIHL is permanent and develops slowly over two to ten years, which is part of the problem, as by then it's too late [to remedy]."

The task then, says Edwards, is to not just comply with legislation, but change the prevalent train of thought to one of prevention.

"NIHL affects quality of life and it is great that we now have the opportunity to positively change that," she concludes.

VIRTUALLY REAL

BEING ABLE TO VISUALISE HOW SOMETHING WILL WORK HAS LONG BEEN ADVANTAGEOUS WHEN DEVELOPING NEW PRODUCTS OR PROCESSES. JOHAN BOUWER, HEAD OF VR/NEW TECHNOLOGY, SIMULATED TRAINING SOLUTIONS, EXPLAINS HOW THE GAME HAS MOVED ON TO THE IMMERSIVE WORLD OF VIRTUAL REALITY

Many people thought Jeff Hawkins was going looney. For months on end he would randomly produce a wooden block from his shirt pocket, poke at it with his finger (often while talking to it) before pocketing it again. Then he'd continue his conversation with you as if nothing had happened.

But Hawkins wasn't losing it, he was playing it smart. He was prototyping. Yes, with an "e". See, Hawkins was co-founder of Palm Computing, and inventor of the Palm Pilot – the very first Personal Digital Assistant, or PDA. One could arguably see this as the great-grandfather of the smartphones of today.

About ten years earlier, Hawkins developed one of the first handheld computers – the GridPad. Although an engineering marvel, it failed miserably – it was just too big and lumpy to carry around. In retrospect, he realised that the device should've been much smaller. Palm Computers took another stab at it, but this time around he was going to approach it right. He was going to prototype.

Whenever Hawkins needed to look up a phone number, pencil in a diary appointment or make a note, he would yank out his block, and pretend to use it as a computer. This allowed him to focus on the consumer requirements for the device, and not only the technical requirements.

He wasn't asking, "Could I build it?"; he was asking,

"Should I build it?" This saved the company millions of dollars and years of development time in building the wrong product – again.

Where prototyping allows people to see if something would work, prototyping allows people to see if something would work as intended.

GHOSTS IN THE MACHINE

In building mine-safety training programmes, we make use of a similar approach to ensure we (and the client) get it right before starting with the more expensive production processes.

We first produce a ghosting animation – a simplistic black-and-white animation showing the storyline, technical workings, and movement of objects or characters. Although the script may have been approved by the client, it is only once words are presented as pictures that not-so-obvious issues come to light. Discovering these problems early on saves a great deal of time and production costs later on.

Some case studies include where we've helped engineers discover flaws in their design's mechanical operation (something a static CAD file won't show), or where complex rock-mechanics stress visualisations highlighted problems in support and safety procedures previously thought to be sufficient.

“ The environment is all around you: you are experiencing the content, not merely looking at it.

that hold the bigger pieces together. They may also become so focused on the end product that they (and I mean this in no bad way), develop a form of tunnel vision to the end goal; missing issues on the sides, just as Hawkins missed out on simple ergonomics with his first, lumpy computer.

Sometimes during the scripting phase we discover that everything doesn't quite add up – even in procedures that have been taught and followed for years on the mine. The reason is that we are forced to study and evaluate the procedures in order to build an animation. We look at it with a completely fresh set of eyes.

Sometimes our concerns are put at ease, and through that



ABOVE: VR training can demonstrate on-site dangers without actually endangering the participants.

LEFT: STS has developed its 3D Virtual Cube, which places the user right inside the virtual environment and makes them a part of the virtual experience.



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THE OUTSIDER PERSPECTIVE

It's not unusual for us to identify issues even earlier – during the briefing, scoping or prep phases. It is our job to visualise what the client needs, so we have to make sense of it first. If we don't understand properly, we can't visualise properly. And this is where we ask some critical questions. Why this, what about that?

As "outsiders", we're not prone to "insider assumptions". We don't accept that things will simply work. We need to see all the components fit together as part of the whole for it to make sense. That's not because the client is stupid; sometimes they just miss a simple detail.

Subject experts often skip smaller "insignificant" details, or the "obvious" stuff, when sharing their ideas or providing training content. These bits are, however, the glue; the links,

we learn, but at other times our questions send the engineers back to the drawing board – quite literally.

GETTING IN THE GAME

Visualisation remains an immensely powerful tool. From explaining complex abstract concepts in a way that everybody can understand – such as horizontal and seismic stress effects on strata and underground operations – to improving production (up to 27 percent in this case) by simply explaining to workers (in a way they understand) why following an approved shuttle-car loading procedure is better than filling the cars to capacity.

In order to take it to the next level, we need to fully embrace virtual reality (VR).

Immersive VR systems like the STS3D VR Wall, STS3D CUBE, or commercially available head mount displays (HMDs), place one right inside the virtual environment. Users are not staring at a small flat screen that takes up less than ten percent of their visual field. The environment is



all around them: they are experiencing the content, not merely looking at it. This level of immersion puts the user in a state of "suspension of disbelief" – a phenomenon that makes them a part of the experience. It's like watching a good Spielberg movie – the user gets so involved, they simply forget about the rest of the world.

Once in this state, the brain is like a dry sponge. One pays more attention, sees more detail, takes more in, and remembers things much, much better.

I remember when we first took one of our TARP programs into a VR HMD environment.

Looking at a trigger like a joint or a brow was a whole different experience from looking at the same trigger on a computer screen. With the HMD one could sense the mine, feel the danger. The risk was present – the disconnect was gone.

We've had many a giggle at people ducking and dodging, stepping over virtual obstacles that simply aren't really there. Watching somebody nervously retreat when "standing at the edge of an open shaft" never fails to raise a smile.

However, apart from the fun factor, this real sense of the environment allows one to see things one wouldn't normally see on screen. We've often spotted mistakes on 3D models inside the HMD that we simply didn't notice before.

This technology works so well that we now use the HMD to place 3D models of our immersive hardware installations within 3D models of the proposed venue before we commit to any hardware purchases. Then we can walk around the venue, rearrange the equipment until we find the best fit,



ABOVE AND LEFT:

Applications for VR include anything from virtual meetings in a "cyber room" (above) to simulated training exercises (left).




and experience the final layout on a real-life 1:1 scale. This allows us, the client and the engineer to approve and sign off before any real fabrication starts.

Apparently, we're not the only ones who've come to this realisation. Recently HMD manufacturer Meta announced that it has joined forces with Dassault

Solidworks to visualise CAD drawings. The reason? Speed, accessibility, and efficiency...

A FINAL WORD

When all is said and done, visualisation helps reduce waste in more ways than one, right from the start – whether it's pitching and conceptualising the idea, ghosting the procedure, educating the workforce or experiencing the full might of an immersive VR world.

So, maybe it's time you started having conversations with a piece of wood. 

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PREPARED, INFORMED AND EQUIPPED FOR FALLS

NO INDUSTRY IS IMMUNE TO FALLS, INCLUDING EMPLOYEES SLIPPING AND FALLING ON WET OR UNEVEN SURFACES, OR FROM HEIGHTS. SHEQ MANAGEMENT TAKES A LOOK AT HOW COMPANIES CAN HELP PREVENT FALLS AND RESPOND TO THEM

An estimated 1.5 to 2.5 fatalities occur in the construction industry per week with 77 fatalities in the mining industry in South Africa. About 21 percent of the deaths in the mining industry are due to falls from heights, as well as slip and falls.

Lizette Scheepers, sales and marketing at Height Safety, a supplier of training, services and personal protective equipment (PPE) for working at heights, notes that not all falls are reported.

"Falls are one of the most common causes of injury-associated mortality, after traffic accidents. Many factors affect the mortality and morbidity of falls, such as the employee's experience and training background, the fall height, the cause of the fall, the type of ground on which the employee falls and the obstruction that is hit during a fall," Scheepers says.

"For people who work at heights, their focus on safety is of utmost importance. It takes one mistake to turn a normal routine into a nightmare. Falls can be deadly. Employers must be prepared to protect employees each and every time they are exposed to the risk of falling," she adds.

No industry is immune to the hazards of falls, whether it is a fall down stairs, off a ladder, a walkway or a scaffold. It is essential for companies to prevent these falls where possible and to be prepared for when an incident does occur.

PREPARED

Prevention is always better than responding to an incident.

Companies can start by establishing a comprehensive fall-protection plan, which includes possible risks and ways to manage these risks, as well as procedures on how to respond to falls.

The fall-protection plan should be industry specific and comprehensive. Industries that experience more frequent falls, such as mining and construction, might want to consider a separate fall-protection plan, while other industries can include the fall-protection plan in their general occupational health and safety (OHS) plan.

INFORMED

Lennie Samuel, senior inspector and forensic investigator at the Department of Labour, states that health and safety regulations in South Africa are of a high standard, but have failed to ensure worker safety.

He says: "The lack of supervision and failures by management, in my view, are the biggest factors in the cause of incidents. The majority of our investigations reveal there is lack of management controls and a lack of supervision."

Samuel explains that management often tries to address the immediate cause of an accident instead of resolving the root causes. He adds that, in his investigations, he has found that unqualified workers often perform the duties of the health and safety officer. An easy solution would be to provide employees with proper health and safety training at a registered organisation.

Scheepers notes that it is also important for employees to be well trained in working at heights. While training is required by law, it also assists employees to protect themselves. "Arm employees with the knowledge they need to keep themselves safe. When it comes to fall protection, no one can have too much information," she says.

Companies can also become members of the various health and safety organisations, such as the South African Institute of Occupational Safety and Health (Saiosh) and National Occupational Safety Association (Nosa), which provides training opportunities, regular seminars and conferences for OHS managers and employers.

equipment, but, if it is allowing them to hit the lower level before it engages, it's pointless. It may sound like common sense, but, quite surprisingly, many people don't seem to have this knowledge," she says. Employers should also consider whether the anchor point is sufficient – particularly in the construction industry.

Scheepers notes that PVC pipes and decorative steel are, for example, not good anchor points. She states: "An anchor point must support the weight of the person attached and two kilonewtons per person. Many fixtures are not going to withstand those forces."

If a harness has a maximum carry capacity of 100 kg, the




EQUIPPED

Each industry is unique and will require different equipment to assist with preventing falls. This could range from simply equipping a factory floor with anti-slip mats and stairs with reflective strips, to providing employees with fall-arrest systems and kits.

Fall-arrest systems assist in stopping a fall safely and include harnesses, anchor points and fall-arrest devices. Scheepers explains that it is essential for companies to provide the correct PPE, to inspect it regularly and to understand the fall distance.

"An employee can wear all the correct fall-protection

combined weight of the tools and worker should be below the carry capacity of the harness. Employee fitness should also be considered. Employees who suffer from high-blood pressure, epilepsy, diabetes, or heart disease, or have a fear of heights, should not work at heights.

Scheepers concludes: "The employee fitness certificate is there to ensure that the appointed person is fit to perform the job. If, for example, an employee has an epileptic seizure while working at a height, it can have devastating results. In order to protect the employee and employer, a medical fitness certificate must be obtained and must be readily available." 



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WITH THE CORRECT INSURANCE AND ASSURANCE, COMPANIES CAN BE WELL PREPARED AND ASSIST EMPLOYEES IN THE CASE OF AN INJURY, DISABILITY OR DEATH. SHEQ MANAGEMENT TAKES A LOOK AT WORKMEN'S COMPENSATION IN SOUTH AFRICA

Most companies have their building and equipment insured against theft and damage. However, it is just as important to protect the greatest asset of any business – the employees. Lennie Samuel, a senior inspector and forensic investigator at the Department of Labour (DoL), notes that there are between 1,5 and 2,5 fatalities in the construction industry per week.

According to a report entitled: *Construction Health and Safety in South Africa*, by the Construction Industry Development Board (CIDB), a 2007 inspection by the DoL found that 53 percent of construction employers were non-compliant with the Occupational Health and Safety (OHS) Act and construction regulations.

The report also states that 34 percent of top management and 33 percent of site workers had no OHS training in 2007. A decade later, it seems that OHS is still not a priority for many industries, although there is greater awareness and there are more qualified OHS officers.

Failing to meet safety requirements could lead to significant costs for a company and possibly death for employees.

According to the Federated Employer's Mutual (FEM) Assurance Company, there were 7 721 injuries among its policy holders in 2015, of which 61 were fatal and 603 led to a permanent disability with 34 385 lost days.

In its 2016 annual report, FEM noted that the company paid R163 million in medical claims for the 2016 year.

Deon Bester, OHS manager at the Master Builders Association of the Western Cape, estimates that the national average cost per accident is R27 244. According to a 2004 study, cited in the CIDB's report, the cost of accidents is estimated at five percent of the value of completed construction.

Indirect costs – such as pain and suffering, incident investigation, lost production and work days, legal fees and the cost of employing staff to work overtime to make up lost days – account for up to 14,2 times more than direct costs,

such as wages and medical expenses.

The CIDB report states: "The direct costs of claims, reported by FEM, amounted to about R116 million for 2007, implying indirect costs of around R1,65 billion."

In May, a historic settlement of R5 billion was made between attorneys representing thousands of mineworkers and the Occupational Lung Disease (OLD) Working Group, which represented various mines in South Africa.

Following the settlement, six gold mines will contribute money towards a trust to pay compensation to miners who contracted silicosis.

The lung disease silicosis is caused by breathing in silica dust released into the air during the drilling, blasting and mechanical loading processes involved in producing gold.

While many of the miners could claim compensation under the Occupational Diseases in Mines and Works Act prior to the settlement, which is managed by the Department of Health (DoH), the process is considered a bureaucratic nightmare.

Rebecca Davis, in an article for *Daily Maverick* in May, writes: "The body responsible for certifying mineworker claims is the Medical Bureau for Occupational Disease, to which a number of documents have to be submitted: a medical form, worker ID, fingerprints, and labour records. Many former mineworkers lack at least some of these documents."

Most employees in other industries claim workmen's compensation under the Compensation for Occupational Injuries and Diseases Act, which is managed by the DoL. This system is considered just as complex and frustrating.

Linda Ensor, in a 2017 article for *Business Live*, notes that the Compensation Fund is being restructured. She writes: "Department director-general Thobile Lamati said the current backlog consisted of 60 000 old cases, many of which were not processed because of incomplete documentation. The Compensation Fund has been plagued by problems of poor administration, archaic computer systems and a mountain of unpaid claims."

Ensor states that the backlog was estimated at 700 000 unpaid claims in 2016, which included former mineworkers with lung diseases who were difficult to trace.

In November 2017, Pete Lewis, in an article for *Times Live*, reported that attempts to address the backlog of claims at the Compensation Fund showed some results.

"Attempts to fix the bottleneck of claims are finally showing results, with pension payouts for permanently disabled cases more than doubling in three years. The Fund pays compensation and medical bills for workers who are injured or contract diseases, due to their work. An exception is lung diseases, due to dust in mines, which are handled by the DoH," he writes.

The Fund has invested in new skilled staff, training, better monitoring and reorganisation. This exhausting and futile process could lead to an increase in absenteeism as employees remain injured and ill.

In addition to the Compensation Fund, employers can take steps to provide better protection and services to employees. Some industries have an alternative to the DoL's Compensation Fund.

Medical aid cover is also a great way of supplementing workmen's compensation and allows employees to receive immediate, quality assistance. An employer can either supplement an employee's medical aid contribution, or pay the full premium.

A good medical aid will also help at-risk employees

(such as miners and factory workers) to regularly check for illnesses such as lung disease. Employees might even be able to detect and treat an illness before it becomes life threatening.

Personal accident insurance can also act as a supplement to workmen's compensation. Various insurance companies, such as American International Group (AIG) and Hollard, provide group and personal accident insurance, which covers death, permanent or temporary disability and associated medical expenses.

Hollard also offers employers cover for disfigurements, terrorism, HIV/Aids counselling and assistance with submitting claims at no extra cost.

AIG notes that accident insurance assists companies to go beyond the minimal contractual obligations of workmen's compensation legislative requirements.

Mining, construction and other companies, which are often faced with accidents or injuries and potential disease, can register with alternative organisations instead of the DoL.

Mining companies can register with the Rand Mutual Assurance (RMA) and construction companies can register with FEM.

These alternative organisations offer added advantages such as rebates and the option to send employees to private hospitals. FEM paid R856 million in annual merit rebates over a five-year period to its claim-free clients. SM



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WHY EVERY BUSINESS REQUIRES UNIQUE INSURANCE SOLUTIONS

DIRECT SHORT-TERM INSURER AND FINANCIAL SERVICES PROVIDER, MiWay INSURANCE LIMITED, EXPLAINS WHY EMERGING ENTREPRENEURS AND SMALL BUSINESSES CANNOT AFFORD THE RISK OF OPERATING WITHOUT THE APPROPRIATE INSURANCE COVER

Running a small business is an extremely challenging undertaking and one that comes with plenty of financial risks. Emerging entrepreneurs have to contend with issues such as cash flow and resource management, and they're also vulnerable to threats like theft and product damage, which can be crippling for any enterprise just getting off the ground.

Many up-and-coming entrepreneurs, whose focus tends to be on day-to-day operations and the preservation of financial stability, tend not to give insurance the level of priority it deserves. This can prove to be incredibly costly down the line.

Every business is different, and each comes with its own unique set of risks and rewards, which is why it's important for business owners to choose an insurance solution that keeps them covered where they need it most.

IS YOUR COMPANY ADEQUATELY INSURED?

Given the high crime levels in South Africa, entrepreneurs today tend to be fairly savvy when it comes to protecting their shops or offices against theft. Still, depending on the businesses and cover in place, it may be worthwhile insuring particular items for out-of-office use, or accidental loss or damage.

WHAT ABOUT LIABILITY COVER?

Even a small enterprise could come into contact with people at some point, whether in the form of customers, clients or employees. Should any of these people be injured as a result of visiting the company's premises, or purchasing one of its products, the business could be liable for some fairly sizable bills.

As such, it's vital to protect the company's bottom line with public liability cover, which will safeguard the business

“ Every business is different, which is why it's important for business owners to choose an insurance solution that keeps them covered where they need it most.

against any expenses that might arise as a result of a business-related accidental injury.

For business owners with employees, it's important to ensure that the insurance policy includes employee liability insurance, which covers the business in the event of injuries to staff members while on the job.

Whether a company offers a product or a service, it's also vital to consider product liability insurance, as both are bracketed in the same category under the Consumer Protection Act. While it's unlikely that a company's service could incur harm, life has a way of taking surprising turns when they are least expected.

WHAT ABOUT GOODS-IN-TRANSIT COVER?

Transporting goods in the heart of a South African summer can be a truly treacherous undertaking for businesses with heat-sensitive products, which tend to be fairly expensive to repair or replace when damaged.

As such, any business shipping items such as flowers, chocolates or electronics should

ensure they're appropriately protected against loss as a result of improper cooling, which can put a severe dent in an already stretched bottom line.

WHAT ABOUT BUSINESS VEHICLE COVER?

Given the alarming accident rate on South Africa's roads, the prospect of vehicle damage is very real. It's important to insure any delivery vans owned by the business, as the cost of replacing these can be crippling.

Goods-in-transit insurance can also be linked to a specific vehicle as a way of reducing premiums. It means the load is covered in the event of accidents, theft or hijackings – all of which are unfortunate, but very real, possibilities. SM

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UNPACKING FENG SHUI AND HOW IT CAN AFFECT THE WORKPLACE



WIKIPEDIA DESCRIBES FENG SHUI, ALSO KNOWN AS CHINESE GEOMANCY, AS A PSEUDOSCIENCE, WHICH CLAIMS TO USE ENERGY FORCES TO HARMONISE INDIVIDUALS WITH THEIR SURROUNDING ENVIRONMENT. IT IS CLOSELY LINKED TO TAOISM. PETA LEE EXPLORES THE CONCEPT

Feng shui, literally meaning "wind and water", is a traditional Chinese concept linking the destiny of man to his environment. It aims to ensure that people live in harmony with their surroundings – be it in the home or in the workplace.

Mystical Eastern gobbledygook? Definitely not. In fact, feng shui has been used in architecture for thousands of years in China, and has become increasingly popular in the western world.

"Although energy is intangible, we are constantly being affected by it, either positively or negatively," explains Elaine Hosiasohn, a feng shui consultant and teacher in Johannesburg. A master of feng shui, she founded her company Feng Shui Dynamics in 1995.

She has worked with numerous clients over the years, from small businesses to large companies, and has helped people achieve success and happiness in their workplace as well as their private spaces.

Where you live and work can have a tremendous effect on you, says Hosiasohn. "Your exterior environment also plays an important role, influencing aspects of your general well-being. Feng shui corrects the energy flow in our

surroundings, enabling us to experience improved health, wealth and success.

"If, for example, you are working in a space that has sickness or 'mishap' energy, you would notice people getting sick often and being prone to accidents. Conversely, people sitting in positive energy spaces will perform well, increasing productivity. They will benefit all round from the auspicious energy."

Feng shui, she adds, "can be applied to any business or domestic spaces. Its main purpose is to create a balanced and harmonious environment in which people can live or work. After applying these principles, a noticeable difference occurs."

Feng shui is all about the flow of energy. "Harmonious and productive conditions can be achieved, improving wealth and abundance, increased productivity and improved relationships, allowing positive spaces for businesses and homes to flourish."

It offers various ways to improve energy flows in your office: from using an aquarium to attract prosperity to the use of crystals, fountains or clocks for other personal goals.

Canadian feng shui consultant Rodika Tchi concurs

with the importance of applying feng shui to your office environment.

"Answer some basic feng shui questions: for example, what is happening behind your seat? What do you first see as you come in? What is the quality of the air you breathe and the quality of light?"

Did you know that if you have your back to the door, window or general office traffic, your energy becomes

space of JWT, South Africa's oldest advertising agency, feng shui was an integral part of the design. To gain maximum benefit when including feng shui principles in a space, they need to be introduced at the initial planning stage. In JWT's office space, we allocated the appropriate energy space to suit the people in each department according to finance, sales, creativity, wealth, human resources, technical and studios.



"We also took into account, wherever possible, employees' birth details to allow them to work according to their personal auspicious directions. The result was a beautiful blend of harmony and efficiency," she says.

Outcomes like this are increasingly inspiring architects, builders and decorators worldwide to incorporate feng shui principles into their work. While it was once regarded as an obscure philosophy, feng shui is now a tool of the trade in the west, and rapidly becoming a standard inclusion when designing commercial and domestic properties.


weak and insecure? "Strong feng shui backing can be created in many ways – from placing a row of big, lush plants behind your seating area to repositioning your chair so you have the wall behind you."

Interestingly, Tchi says angled furniture creates "poison arrows pointing in your direction". Sha Chi (the feng shui name for poison arrows) is the attacking energy that can deplete and weaken your energy. "Try to reposition the furniture slightly so that no sharp angles point at you while you work. Or place another piece of furniture or suitable office item in front of the sharp corners to neutralise the bad energy."

Linda Trim, CEO of Giant Leap Workspace in Gauteng, believes implicitly in the feng shui principles, and how they can help achieve balance, harmony and safety in the workplace.

"When we were asked to redesign the office

"It's heavily practised in Manhattan. Brokers are starting to take courses in feng shui, because it helps them market their property better," says a veteran broker in downtown New York.

United States president Donald Trump has the last word: "You don't have to believe in feng shui for it to work. I just know it brings me money." 



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ELECTRIFYING TIMES!

ELECTRIC VEHICLES ARE NOTHING NEW; THEY HAVE EXISTED SINCE THE 1800s. HOWEVER, THEY ARE FINALLY BECOMING A POPULAR MODE OF TRANSPORT, AS CHARLEEN CLARKE DISCOVERS IN MUNICH

Alexander Kotouc, head of product management BMW i at the BMW Group, is one very happy man. The success of BMW i is the reason why. "We outsold the BMW M division last year, which has been around for 40 years. That's not bad for a brand that's only just over four years old!" he reports, with a massive grin. (BMW M vehicles are the sportiest cars produced by the company; they are high-end, high-performance cars.)

"We sold over 100 000 electrified vehicles last year, versus 80 000 M cars. When it comes to the established manufacturers, we're the market leader, with ten percent of the entire electrified market. Chinese companies are making big strides in this market, too. The Chinese government is pushing hard to make inroads into this market.

"Not all of the Chinese companies will survive, but, even if only ten percent of them do, they will be a force with which to be reckoned – because there are so many of them. This is competition that we take very seriously," Kotouc explains.

BMW currently has two fully electrified cars – the i3 and the i8, which is a petrol-electric hybrid supercar. "They're doing really well for us. Every ninth electrified vehicle sold in the world is an i3, which is a good figure. In comparison, every 50th non-electrified car sold worldwide is a BMW," says Kotouc.

Many customers are new to the BMW brand. "We have a conversion rate of 86 percent for the i8. They are mostly customers we've never seen before. The i8 is normally chosen in addition to other cars; it's one of the cars within their personal fleet," he tells SHEQ MANAGEMENT.

Customers buy the car for various reasons – and some are quite amusing. "I know many of our customers personally and they often tell me why they have chosen an i8. Recently, we sold an i8 to a dentist here in Munich.

"He normally drives a Lamborghini, but he told me that, when in his Lamborghini, no one looks at him. Those who do think he's a show-off. The opposite is true with the i8; people stare and the feedback is always positive – because it's a responsible choice of vehicle.

"We have another customer from Belgium. He normally drives a Porsche, but he was becoming quite unpopular thanks to the noise he made when he travelled to the bakery early on a Sunday morning. Now, he says he can sneak out of the house and go to the bakery and he doesn't bother anyone," Kotouc reports with a big grin.

Going forward, Kotouc is putting his money on having more delighted i customers. "More than 120 BMW i3s and eight to ten BMW i8s are currently leaving the assembly line at BMW's Leipzig plant every day. In 2018, we aim to sell at least 140 000 electrified vehicles. We aim to have a total of



half a million electrified vehicles on the roads by the end of 2019. In the future, every fourth car we sell will have to be electric if we are to comply with CO₂ legislation.

"Accordingly, by 2025 the BMW i range will encompass 25 electrified models, 12 of which will be fully electric, and these vehicles will account for 15 to 25 percent of our global sales," he reveals. This means, with a volume of 2.5-million vehicles, we are talking about sales of 375 000 to 625 000 electrified vehicles – spread across several segments.

As part of this strategy, BMW will adopt a new vehicle platform. "We are already producing electrified models at ten international locations, and this number could grow in the future. From 2020 onwards, we will have a platform on which we will be able to build full-electric, hybrid and combustion-engine cars. This will give us enormous flexibility. Our competitors are focusing on solitary electric platforms, which gives them no flexibility," he explains.

BMW is also working on the development of its fifth-generation electric drives, which will fit into current (non-electrified) models. This means that the company will be able to fully or partially electrify all its products.

The i vehicles will be complemented by a number of other vehicles from the BMW Group. The company will start building the battery-electric MINI in late 2019. This will be followed by the battery-electric BMW X3 in 2020.



BMW's Dingolfing plant will build its new technology flagship, the pure-electric BMW iNEXT, from 2021. It will feature the fifth-generation electric drive.

The company will work on removing range anxiety and improving convenience. "In the future we will be able to offer battery packs that will accommodate a range of 700 km; we're even discussing 750 km, so, in the next two to three years we will no longer have range anxiety.

BMW i IN SOUTH AFRICA

In South Africa, there are three models in the i range: the new i8 Roadster, updated i8 Coupé and updated i3. We recently spent a day driving all three – and they're marvellous vehicles.


The i3 is the perfect little city car (it is nippy and great fun to drive), while the roadster and coupé are sporty, fun cars for the well-heeled. Like the dentist in Munich, we found that everyone stared at the i8. We could not blame them; it truly is a rather gorgeous and eye-catching car.

As electric cars become more popular in South Africa, the network of charging stations is growing. There are 57 ChargeNow stations installed in South Africa; our favourite is the one at Melrose Arch. (We always relax at one of their many restaurants while the car charges... It's a super way to pass the day!)



"We will also reduce charging times. Our biggest battery can now be fully charged in 36 minutes using a DC charger, and we would like to make the process even faster," Kotouc says.

In a related vein, he says the recharging stations will present some interesting opportunities. "Experience has clearly shown that, alongside range and price, charging infrastructure is a very important requirement in making electromobility attractive. That can clearly be seen in Norway, where the BMW i3 is at the top of the sales charts. The Netherlands and California are just two further examples.

"We're looking at setting up a supercharger network throughout Europe. For the conceivable future, people will spend time recharging their electric vehicles. So, you could sell them a coffee during this time, for instance – or something else for that matter. The opportunities are fascinating..." he ponders. 



THE SCIENCE OF ACCIDENT RECONSTRUCTION

WE LOOK INTO THE USE OF SOFTWARE AS A RISK-MANAGEMENT AND ACCIDENT-RECONSTRUCTION TOOL

When an accident occurs, it is of the utmost importance that an investigation begins immediately and that details are recorded accurately. An example can be followed from a road-accident investigation.

Craig Proctor-Parker, MD at Accident Specialist, says: "Operators should know that investigations into vehicle accidents must be done correctly and in accordance with the law. This requirement is legislated in the Criminal Procedure Act (CPA) and in the Occupational Safety and Health (OSH) Act, which states that a full investigation must be undertaken if there are any injuries. As such, it is a criminal offence to conceal evidence."

WHEN TO USE SOFTWARE IN ACCIDENT RECONSTRUCTION

When it comes to accident investigation, proper training, certification and accreditation in the use of technology, equipment and software are necessary. One of these cannot supplement another without an investigation falling short.

"A practitioner would need experience in doing the job manually so that they input data correctly for the software to be of any use. The operator must be qualified in the use of equipment and software otherwise the use thereof can be challenged if the matter gets to court.

"The same applies to all equipment and software used at accident scenes, which need to be certified, calibrated and licensed in accordance with industry standards," says Proctor-Parker.

TECHNOLOGY AND SOFTWARE WORK TOGETHER

Essentially, the use of equipment, technology and software supports the investigation, while providing the accident investigation specialist with a tool of the trade.

"For example, cameras allow for fast-paced collection and preservation of data, which reduces the time, and therefore cost, of piecing evidence together factually.

"When this is combined with the software being used, a huge accident scene can be drawn in detail, and with

accuracy, in less than a day. Doing the investigation, reconstruction and cause analysis manually (as done in the past) would take days," Proctor-Parker adds.

Furthermore, when confronted with physical evidence at a scene, the use of software can save time in calculating complicated equations, such as the influence of wet or slippery conditions. For example, software will require the input of a limited number of parameters to calculate the influence of environmental conditions. These may include; diameter and pressure of the tyres, width and depth of tread, weight of the vehicle, rate of speed, as well as type and condition of the surface.

"Simplifying the science and mathematical equations behind processing of this data while on the scene may lead an investigator down another path and allow them to concentrate their attention on something they may otherwise have missed," he continues.

CORROBORATION

Of equal importance when on the accident scene are witness statements, but these may be inconsistent; people may over-elaborate unintentionally, or attempt to minimise their role in the accident by default.

This is where technology such as GPS devices and on-board in-vehicle cameras, or in-vehicle monitoring equipment and telemetry, comes into play. Telemetry can be paired with software that deciphers incoming data and translates it into plain English.

This information can be fed back to managers in real time and provide the capacity to prevent accidents before they happen. On the other hand, information can be extracted from GPS devices, video recorders and monitoring equipment after an incident to back up or discredit victim or witness statements.

When all is considered, equipment, technology and software are indispensable tools in the hands of trained professionals. Proper use of these tools will add credibility to a report and assist those who are not so well informed to understand the circumstances behind an accident more clearly. SM



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HANDY ADVICE FOR HAND PROTECTION

HAND INJURIES ARE AMONG THE MOST COMMON INJURIES IN THE WORKPLACE. WE FIND OUT WHAT FACTORS SHOULD BE CONSIDERED IN CREATING A HAND-SAFETY PROGRAMME

Speaking at the Saïosh Conference held earlier this year, Jeremiah Mostrom, director of sales for HexArmor/Uvex, commented on the factors companies should consider when implementing hand-safety programmes.

"Hand injuries are usually one of the main reasons why people can't work. As one of the most prevalent workplace injuries, it's also the most preventable. Addressing these injuries is not only about personal protective equipment (PPE), which is a last line of defence. It goes deeper and there must be a full programme of training and support," Mostrom began.

He noted that hand safety requires a dedicated effort, with many factors to consider.

"A hand-safety programme is part of a continuous focus on improving safety culture by driving behavioural change and hand-safety awareness. The programme must consider policy, responsibilities, record-keeping and training," Mostrom said.

He discussed the various mistakes people often make with regard to hand safety, beginning with the gloves themselves. "Seventy percent of hand injuries are as a result of the person not wearing gloves. The other 30 percent are due to people not wearing the right gloves. There isn't a one-glove-fits-all solution..."

"Times have changed; today's gloves offer higher performance with increased comfort and dexterity, however glove selection is still important. Gloves must be fit for purpose: for example, gloves for mechanical work will differ

WATCH OUT FOR CRUSHING AND PINCHING

According to PPE supplier Ansell, crush, pinch and impact injuries can be extremely serious, with significant morbidity. Such injuries cause bruising and bone fractures that can put workers in hospital and can also have severe long-term effects.

The company quotes a 2014 study published in the online edition of the Occupational Health & Safety magazine that states that "stuck-by" and "caught-between-objects" injuries account for 56 percent of all recordable incidents.


"Fatigue, poor grip and poor visibility can all lead to impact, crush and pinch injuries of the hand. That translates to an increase in down time, a decrease in productivity, lost revenue and higher costs," says Ansell.

Targeted protection, without compromising grip and dexterity, helps reduce injuries in the most vulnerable areas of the hand. Our extensive field research shows precisely the types of injuries workers sustain most frequently, and we turn that insight into user-driven solutions," the company concludes.

from those suited to handling hazardous chemicals," he noted.

"It is important to understand a glove's limitations, which should be evidenced by real-world testing. Does it provide both cut and puncture protection? What about impact resistance? What materials is it made of and what kind of grip does it offer? These are some of the questions that one should ask," he explained.

Mostrom suggested that a hand-safety programme needs to be aligned with audits and proper training. Factors to consider include reviewing best practices, ensuring proper glove sizing, ensuring correct care of the gloves, communication about hand safety (for example, training or posters), enforcement of safety rules and the appropriate service and support from the manufacturer or supplier.

"Hand safety is an ongoing journey and not a one-time event," he concluded. 

RETAIL FASHION OR PROTECTIVE WEAR

SWEET-ORR, THE WELL-KNOWN SOUTH AFRICAN MANUFACTURER OF PROTECTIVE CLOTHING, NOW HAS A SHOWROOM IN JOHANNESBURG! CHARLEEN CLARKE ATTENDED THE OFFICIAL OPENING

When one thinks "protective clothing", the words "practical" and "safe" come to mind. Not "cool", "fashionable" or "trendy".

But Sweet-Orr is different! SHEQ MANAGEMENT first encountered the company, its owners and products at the Bauma exhibition last year – and we were both surprised and delighted at the range of clothing. We would happily wear many of their garments to a braai over the weekend (especially the denim range)!

Now the company has decided to open its very first showroom. And, much like its clothing range, the showroom isn't dull, drab or boring. In fact, it looks like a retail fashion outlet.

The new showroom is located at the Terminal Lifestyle Centre in Boksburg, and it stocks Sweet-Orr's specialised range as well as its essential and utility workwear.

"At Sweet-Orr we are passionate about ensuring individual tradesmen and artisans have access to the necessary garments and advice from expert staff. We believe that everyone deserves to be able to do their best work without putting themselves at risk unnecessarily," John Jacobs, MD of Sweet-Orr South Africa, tells SHEQ MANAGEMENT.

The 150-m² showroom has a fresh, modern appeal that combines Sweet-Orr's African and American heritage, and is centrally located, providing easy access for both the private and industrial sector. "We've worked hard to create an environment, and experience, that is premium and professional, but also warm and welcoming," says Denver Berman-Jacob, executive director, Sweet-Orr South Africa.

While browsing the showroom, customers will receive assistance from staff who have in-depth knowledge of the Sweet-Orr range and various fabrications and treatments. This will ensure that every customer is properly equipped with the right type of protective workwear according to their requirements.


Sweet-Orr is a company with a long and proud history. It

was founded in Wappingers Falls, New York – way back in 1871. The company entered the South African market in 1931 and today it's owned by the Jacobs family. This, in itself, is an incredible tale.

At the showroom opening, Jacobs revealed (with tears in his eyes) that he had joined the company many years ago as an admin clerk. "I wanted to be an attorney, however this was not possible. My father worked for the railways and my mother was a domestic worker, so they could never have afforded the university tuition. Times were tough back then. To say that opportunities were limited for a non-white person is a massive understatement," he said.

He didn't let this situation stand in his way, and today Sweet-Orr manufactures a diverse selection of high-quality and innovative workwear (everything from utility and casual clothing and denim to essential and highly specialised protective wear).

The company supplies numerous blue-chip clients – including BP, PPC Cement, SAB and Samancor – both here in South Africa and overseas.

The showroom is open from 8:00 to 16:00 on weekdays and from 8:30 to 12:30 on Saturdays. 

LEFT AND BELOW: Sweet-Orr's new showroom redefines one's idea of buying protective clothing.



IN THE NEXT ISSUE

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



HEALTHCARE AND HYGIENE

Superbugs are not to be taken lightly... SHEQ MANAGEMENT investigates how they spread, what makes them so threatening and how employees could be protected against them.



SKILLS AND TRAINING

How can live theatre shows help with effective training of employees? We hit the stage to find out.



RISK MANAGEMENT

With the revised ISO 19011:2018 Guidelines for auditing management systems having been published, we find out how to approach appointing an auditor.



PPE

We all know that a glove is a glove, a boot is a boot and a hard hat is a hard hat... or are they? In some industries, your everyday PPE doesn't cut it. SHEQ MANAGEMENT explores the world of specialised PPE.



DRUG/ALCOHOL ABUSE IN THE WORKPLACE

As we approach the end of 2018, office parties are on the horizon for many companies. We take a look at the best way to approach these festivities, and what companies need to be aware of before sending out invitations...



IN THE WORKPLACE – OFFICE HYGIENE

The average office keyboard is estimated to house 7 000 microorganisms, which could threaten employee health. SHEQ MANAGEMENT reports on the hidden health concerns and how companies can improve their office hygiene.

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