

Published by The Safety First Association

Supporting Associations:

- The Institute of Safety Management (IOSM)
- Southern African Protective Equipment Marketing Association (SAPEMA)
- Association of Construction Health and Safety Management (ACHASM)
- Southern African Institute for Occupational Hygiene (SAIOH)
- South African Qualification and Certification Committee (SAQCC Gas)

# National Safety



ISSN: 0028-0097

January/February 2019

Volume 79 Number 1



**FIREBREAK SA**  
SAFETY APPLIANCES PTY LTD

A LEVEL 1 CERTIFIED BBBEE CONTRIBUTOR

**EVERYTHING YOU NEED  
FOR RESCUE!**

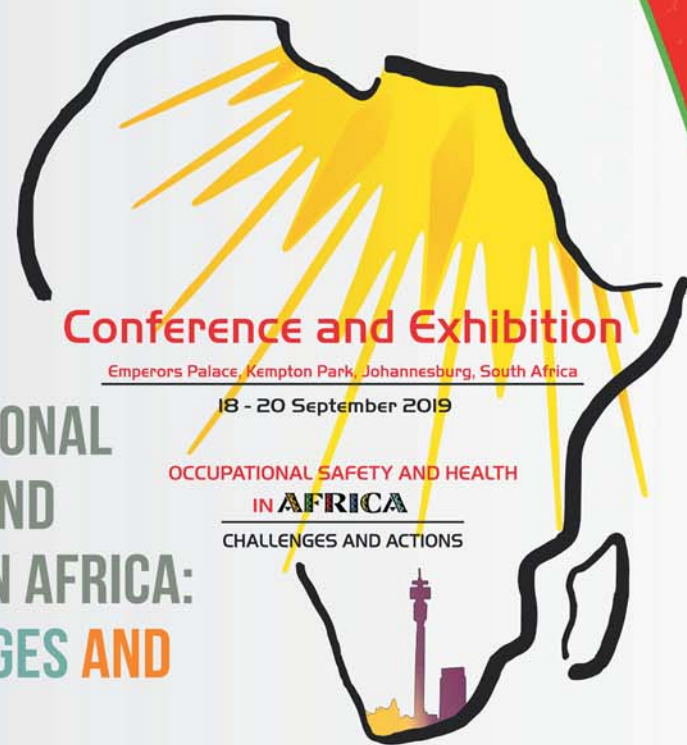
Tel: +27 11 908 6960

Fax: +27 11 908 6961

[www.firebreaksa.co.za](http://www.firebreaksa.co.za)

**MSA**  
The Safety Company





## Conference and Exhibition

Emperors Palace, Kempton Park, Johannesburg, South Africa

18 - 20 September 2019

OCCUPATIONAL SAFETY AND HEALTH  
IN AFRICA  
CHALLENGES AND ACTIONS

# OSHAfrica 2019 Conference



18 - 20  
SEPTEMBER 2019  
EMPERORS PALACE

www.OSHAfrica2019.com

## IMPORTANT DATES:

### 28 MARCH 2019

- Early Registration Closes
- Scholarship Closes

### 21 FEBRUARY 2019

- Abstract Submission Closes

### 6 SEPTEMBER 2019

- Regular Registration Closes

### 18 SEPTEMBER 2019

- On-site registration opens



## OCCUPATIONAL SAFETY AND HEALTH IN AFRICA: CHALLENGES AND ACTIONS

## CONFERENCE TRACKS:

- OSH in Manufacturing, Mining, Construction, Aviation, Farming, Oil and Gas and Healthcare Workers
- Occupational Safety and Health Leadership
- Improving Health and Safety in the Informal Sector
- OSH Training and Competency Improvement
- Occupational Health Diseases, Rehabilitation and Return to work
- Occupational Health Assessment and Fitness to work

- Mental Health in Workplaces
- Employee Assistance Programmes
- Workplace Violence and Assault
- Aged Workforce and Pre-retirement Programmes
- Drug and Alcohol Abuse in the Workplace
- Personal Protective Equipment
- Workplace Inspection and Audits
- Safety Risk and Control Management
- Major Hazard Management Systems
- Safety and Risk Management Systems
- Behavioural and Human Factor Interventions

## THIS CONFERENCE TARGETS:

- Government officials and decision-makers in the public and private sectors;
- Chief Executive Officers (CEOs)
- Human Resource Managers
- Workplace managers
- Business owners
- Occupational Safety and Health (OSH) professionals such as safety managers, engineers and technicians, occupational hygienists, occupational health professionals, occupational medicine practitioners, labour inspectors and safety and health inspectors, OSH instructors and trainers, trade union workers and their representatives, employers, manufacturers, importers and suppliers of personal protective equipment and clothing.



FOR MORE INFORMATION ON THE CONFERENCE PLEASE VISIT:

Website: www.OSHAfrica2019.com | Email: info@OSHAfrica2019.com

Tel: 012 816 9070/9089/9149/9124

# National Safety



January/February 2019 - Volume 79 Number 1

## CONTENTS

### FEATURE ARTICLES

- Whatever happened to MSA in South Africa . . . . 4
- A Dow DuPont Collaboration - DuPont supports waste pickers with protective safety outfits for their daily work . . . . .10
- Remembering Heinrich's work - Where are you? . . . . .12
- Effective health and safety training . . . . .16
- Preventing employees from being infected by biological agents . . . . .21
- Communication - the missing key . . . . .22

### GAS SAFETY



- Fraud uncovered . . . . .28

### PERSONAL PROTECTIVE EQUIPMENT



- PPE and workwear - 5 Steps to knowing your workwear and PPE . . . . .26
- The Science behind Safety . . . . .28
- BBF wins award . . . . .28
- Firebreak SA - everything you need for rescue . . . . .29
- My Procure Zone - merging technology with sales . . . . .29

### CONSTRUCTION SAFETY



- Putting the Presidents Pen to paper . . . . .26

### OCCUPATIONAL SAFETY



### IOSM

- Fraudulent activities by registered IOSM members . . . . .17
- Construction work - OHS Requirements. Many clients, project teams and contractors are clueless . . . . .18



### HSE CONNECTION POINT

- Building structural integrity . . . . .6
- Neuroscience in safety . . . . .23
- Guarantee of employment through changes in legislation . . . . .24



- Health . . . . .31
- Men's health . . . . .31
- ILO . . . . .31
- Sanitation in Africa . . . . .31
- Do GMO foods pose any health and safety risks . . . . .31
- Preventable death through effective healthcare communication . . . . .32
- Support a green environment . . . . .32
- Do truck drivers suffer from diabetes? . . . . .33
- Zambia launches Vision Zero . . . . .34
- Out of Zambia, yet Zambia in my mind . . . . .34
- Ghana launches Vision Zero . . . . .36
- Nigeria Maritime Administration and Safety Agency (NIMASA) . . . . .36

Cover Story: See page 4



Participating associations / organisations / institutes with National Safety and the Safety First Association







**National Safety** is published by the **Safety First Association** and is the official journal of

- The Institute of Safety Management (IOSM)
- Southern African Protective Equipment Marketing Association (SAPEMA)
- Association of Construction Health and Safety Management (ACHASM)

**National Safety** is supported by:

- Southern African Institute for Occupational Hygiene (SAIOH)
- South African Qualification and Certification Committee for Gas (SAQCC GAS)
- HSE Connection Point

**National Safety** incorporates:

- Occupational Safety and Health
- Personal Protective Equipment
- Corporate Risk Management
- Occupational Hygiene
- Gas Safety

**Editor:** Debbie Myer  
**Production Editor:** Lindsay Myer  
**Chairman:** George Browne  
**Vice Chairman:** Leighton Bennett  
**Marketing & Subscriptions:** Maureen Schwegmann  
**Admin Manager:** Bruce Schwegmann  
**Committee members:** Leighton Bennett, George Browne, Sankie Greyling, Wensley Misrole, Wellington Mudenda, Debbie Myer, Steward Shapiro

**Subscriptions / Administration / Marketing / Promotions**  
 3 Kwartel Street Vorna Valley, PO Box 321 Halfway House 1685  
**Tel:** + 27 11 701-5054 **Fax:** 086 684 2664  
**E-mail:** admin@safety1st.co.za

**Advertising & Editorial**  
 Delinds Publications cc  
 12 Delta Road, Blairgowrie, Randburg,  
 PO Box 72366 Parkview 2122  
**Tel:** + 27 11 886-5985 **Fax:** +27 11 886-1332  
**Cell:** + 27 83-266-6662  
**E-mail:** delinds@mweb.co.za

*Copyright: 2018 Material appearing in this issue may not be reproduced without the permission of the editor or publishers in any form whatsoever.*

*The Safety First Association is a non-profit making, privately supported, public service organisation which aims to prevent accidents by promoting an awareness of accident situations as they exist in day-to-day living amongst members of the community. The Publishers and Editors are not liable for any damages or loss incurred as a result of any statement contained in this magazine. Whilst every effort is made to ensure accuracy in this publication, neither the Publishers nor Editors accept any responsibility for errors or omissions in the content and reserve the right to edit all contributions. The views expressed in this publication are not necessarily those of the Publishers or Editors.*

## Editor's Comment

### DON'T MISS OUT - JOIN US AT OSHAfrica 2019

The OSHAfrica 2019 Conference is just seven months away. The momentum is rapidly increasing, time is running away, and before we know it, September 18th will be upon us and we will be welcoming all those participating in this maiden conference.

Speakers, delegates, exhibitors and other participants will all be under the same roof for 3 days to unite in their show of support for a healthy, happy and safe work environment.

The inaugural conference hosted by OSHAfrica will be held in Johannesburg, South Africa. Afterwards it will be held every 3 years and rotate between other African countries. It is therefore is a one-time opportunity for all South Africans to show their support for occupational health and safety and register to attend.

This event has garnered heaps of excitement due to the fact that it's the launch conference for OSHAfrica, with the result, many international speakers have made themselves available to share their experiences and knowledge with us, and a myriad of associations and institutes - both local and international - have come out in strong support.

For exhibitors and sponsors alike, this will be a unique opportunity to showcase your products and promote your companies to attendants from all corners of the earth.

The programme will soon be announced. We have an incredible line-up of presentations covering all aspects of OSH. We will be hearing about OSH best practices from all regions in Africa, as well as America, Europe and Australia.

There is no doubt that this will be the African conference of the year!

Anyone with an interest in OSH cannot afford to stay away from this event. We look forward to seeing you there

Discounted early registrations close on 28th March 2019, so book now - to register go to [www.oshafrica2019.com](http://www.oshafrica2019.com).

*Debbie Myer*

# OSHAfrica 2019 Conference



18 - 20 SEPTEMBER 2019 | EMPERORS PALACE  
JOHANNESBURG | SOUTH AFRICA

Over 300 participants expected from around Africa, South East Asia, Europe, America and Australia

## BECOME A SPONSOR

Exhibitors are expected to showcase the latest technologies, product innovations and best practices in the OSH industry

## BECOME AN EXHIBITOR

**TO SPONSOR OR EXHIBIT CONTACT:** Debbie at email: [delinds@mweb.co.za](mailto:delinds@mweb.co.za) / Cell: +27 (0) 83 266 6662

### CONFERENCE CO-CHAIRS



DR THUTHULA BALFOUR  
CO-CHAIRPERSON  
OSHAfrica 2019 CONFERENCE



DR CLAIRE DEACON  
CO-CHAIRPERSON  
OSHAfrica 2019 CONFERENCE



DR. DINGANI MOYO



DR. IVAN D. IVANOV



DR. JUKKA TAKALA



DR. TITILOLA HAMEED



DR. ULRIKE BOLLMANN



PROF. MALCOLM SIM



MR ALAN STEVENS



MR EHI IDEN



MR PETER-JOHN JACOBS



DR. ORHAN KOC



PROF. ANDREW CURRAN



PROF. JOHN SMALLWOOD



**FOR MORE INFORMATION ON THE CONFERENCE PLEASE VISIT:**

**Website:** [www.OSHAfrica2019.com](http://www.OSHAfrica2019.com) | **Email:** [info@OSHAfrica2019.com](mailto:info@OSHAfrica2019.com) | **@OSHAfrica2019**





# WHATEVER HAPPENED TO MSA IN SOUTH AFRICA

The Safety Company

MSA – Mine Safety Appliances Company opened its offices in South Africa in early 1940 ... one of the first companies to manufacture safety equipment on the African continent. MSA Africa manufactured and assembled mining cap lamps; fire extinguishers; methanometers; gloves; hard hats; respirators and many more products.

By the early 1980s, a workforce of over 450 people supplied products throughout Southern Africa as MSA had offices and agencies in Lusaka; Ndola; Salisbury (now Harare); Bulawayo and all major centres in South Africa.

In the mid-80s, MSA in Pittsburgh were being forced to distance themselves from their South African operation and transferred their ownership to AuerGesellschaft GmbH (Auer) who in turn sold the majority shareholding to Boart International. Now known as Boart MSA a new dynamism encompassed the company in the form of their newly appointed MD – Brian Richardson. With the fantastic support of Auer, from Berlin Germany ... Boart MSA gained a controlling market share in the sales of self-rescuers and methanometers to the mines in South Africa. Boart MSA opened an office in Mossel Bay and gained a big slice of the Moss gas business.

Divisionalisation (a concept instituted by Brian Richardson) soon put the focus on which product grouping made money for Boart MSA ... leading the field was safety products and gas detection products ... however it was the passion and drive of the junior management that was to prove just how successful these products were to become in the future.

MSA Africa was reborn again post 1994 ... when MSA Pittsburgh repurchased the controlling interest in MSA (Africa)

and a dedicated product management team of Blane De Meillon, Silver Martins, Gerald Maree and Louis Potgieter came to the fore. "Being passionate about your product means being knowledgeable, willing to exceed the customers' expectation and providing superb after sales service" ... this was to be the foundation of successful businesses that have had their seeds sown in the MSA Africa of the 80s and 90s.

MSA Africa purchased Campbell Gardwell in 1999 and became South Africa's largest safety manufacturer and supplier. Campbell Gardwell had some unique talented individuals and together with agencies like American Optical (AO); Plysu; EAR; Hawes; Mappa ... they were set for a prosperous future.

Regrettably ... this was not to be. Poor leadership and a belief that a "MBA" was a key to running successful businesses saw MSA Africa losing its identity as it became enamoured with the big turnover of Select PPE (a force to be reckoned with as it was South Africa's largest PPE supplier .... - the "on-site store" concept was the key to its massive turnover.) The passion and drive of dedicated Product Managers gave way to chasing the "Big Turnover" ... of overalls, footwear, toilet-paper, light bulbs and tea and coffee. The very essence of MSA (Africa) as Africa's leading Safety Company was lost in the mix and those dedicated individuals left the company and started their own businesses.

MSA (Pittsburgh) embarked on a drive to employ highly qualified people for positions in South Africa ... they even imported graduates from within their ranks from South American and the USA ... but this recipe for disaster saw the company shrink in size as the borrowings continued to escalate ... and the net profit from their South African operation was negligible.

"Every cloud has a silver lining" – not referring to Silver Martins (per se) ... but the passion for safety, embedded in ex-MSA employees was to be the saviour for MSA in South Africa. Firebreak SA, PSA Africa and VDS Fire & Safety have become the main distribution outlets for superbly engineered MSA products like:

- Breathing Apparatus
- Fall Protection products
- Gas Detection products
- Respirators (await the shortly to be launched M1 + G1)

Professionalism together with focus ... made for the new trend in business – smaller companies who were thoroughly knowledgeable in their products and that had the passion to succeed. Companies like Vanguard Africa, Delta Health + Safety, Precision Safety Africa, Gas Detection Services, AMS Haden and Firebreak SA were to emerge as market leaders.

Firebreak Safety Appliances (**Firebreak SA**) is the Company that embodies the passion for safety ... the knowledge and the friendly service ... steeped in the MSA belief that **"THAT MEN & WOMEN WORK IN SAFETY"**.



Tel: +27 11 908 6960  
Fax: +27 11 908 9961  
[www.firebreaksa.co.za](http://www.firebreaksa.co.za)

A LEVEL 2 CERTIFIED BBBEE CONTRIBUTOR





# BUILDING structural integrity

In 140 AD, the Circus Maximus, an ancient Roman chariot racing stadium capable of seating 250 000 spectators collapsed, apparently under the weight of too many spectators. This resulted in 1112 fatalities.

History, even in South Africa, is stained with incidents of buildings and structures uncontrollably collapsing either during construction or during use. When we are exposed to these incidents, specifically when it results in loss of life, we are confounded, considering the amount of legislation and standards applicable to ensure the integrity of buildings and structures and the competency requirements of professionals involved in the life cycle of buildings.

Various legal requirements are applicable to the different stages of the life cycle of a building – in broad terms; design, construction (including material manufacturing), operation and demolition (including waste management) requirements.

It should also be noted that a building does not just consist of a structural system but various other aspects such as electrical installations, lighting systems, ventilation systems, air conditioning systems, smoke and

fire detection, firefighting and suppression systems, lifts, escalators, passenger conveyors, etc. for which various maintenance legal requirements are established.

## STRUCTURAL COLLAPSE AT SCHOOL

The recent structural collapse at Hoërskool Driehoek in Vanderbijlpark once again highlighted the question of what are the applicable legal requirements to ensure the integrity of a building structural system during operation?



The Constitution of The Republic of South Africa, 1996, Section 24(a) indicates that “Everyone has the right- (a) to an environment that is not harmful to their health or well-being”, which establishes the basic constitutional right of any person to be afforded protection in any environment that person found him or herself. The environment may not be harmful. Environment being defined in the Oxford dictionary as “The surroundings or conditions in which a person, animal, or plant lives or operates” therefore creates the general responsibility that even

buildings, as part of the surroundings (environment), may not be harmful to a person’s health and well-being.

The responsibility to comply with this duty of protection is not allocated to specific persons but applies obviously to any person whose actions or omissions could infringe on the right of a person in this regard.

More specifically, the National Building Regulations and Building Standards Act 103 of 1977, National Building Regulations – GN R2378 of 1990, which commenced on 1 September 1985, in Regulation A15 “Maintenance and Operation” requires that the owner of any building must ensure that the structural safety performance (behaviour of buildings under all actions that can be reasonably expected to occur), and the measures taken to resist the penetration of rain water and the passage of moisture into the interior of a building, are maintained.

These two aspects must be maintained to such an extent that the requirements of regulations B, H, J, K and L of the said regulation are satisfied as well as deemed to satisfy SANS 10400 (The application of the National Building Regulations) requirements.

This means in short that:

- the building must be maintained according to its original design;
- the foundations of the building must be maintained according to its original design;
- the floors of the building must be maintained according to its original design;
- the walls can safely sustain any actions which can reasonably be expected to occur;
- the walls can adequately resist the penetration of water into any part of the building;
- the walls have combustibility and fire resistance characteristics appropriate to the location and use of such wall;
- the roofs are secured to walls, anchored and prevent penetration of rainwater.



## RESPONSIBILITY OF THE BUILDING OWNER

The National Building Regulations are not prescriptive regarding the method (inspections or tests) to be applied in ensuring this, and the competency of the person executing the method of ensuring compliance, has not been prescribed.

The owner of the building is therefore responsible to ensure compliance with the maintenance requirements as a reasonable owner of a building. In order to be compliant and avoid liability, the owner must avoid negligence.

The specific nature of the building, usage, location and related factors must be considered to determine what is required regarding maintenance and by whom.

Owners are advised to obtain the services of an “expert” in the field of structural maintenance to assist with the establishment of a maintenance programme. It should be highlighted that these requirements only apply to buildings completed after September 1985.

It should be noted that before the inception of the National Building Regulations and Building Standards Act, bylaws were promulgated in some municipal areas which could also have set structural maintenance requirements.

## INTEGRITY OF STRUCTURAL SAFETY

The next critical piece of legislation applicable to ensuring the integrity of the structural system is reflected in

the Occupational Health and Safety Act 85 of 1993, Construction Regulations, 2014 – GN R84 of 2014, Regulation 11 Structures.

In terms of the Construction Regulations, structure includes a building.

Construction Regulations, Regulation 11(2) requires of an owner of a structure to ensure that:

- inspections of that structure are carried out periodically by competent persons in order to render the structure safe for continued use;
- that the inspections are carried out at least once every six months for the first two years and thereafter yearly;
- the structure is maintained in such a manner that it remains safe for continued use;
- the records of inspections and maintenance are kept and made available on request to an inspector (Department of Labour).

The purpose of the inspections is to “render the structure safe for continued use”.

All aspects which could render a structure unsafe must therefore be inspected.

The owner (with assistance of a competent person) must make this determination on what must be inspected within the structure.

The inspections must be conducted by a “competent person” as defined in the Construction Regulations. The person must have the required knowledge, training and experience

and, where applicable, qualifications, specific to the evaluation of the integrity of the specific type of structure involved.

It is therefore obvious that the competency requirement for a person inspecting a twenty story building will differ from a person inspecting a newly erected Lapa at home. These requirements apply to all structures, even private residences.

These inspections must be conducted for the lifespan of the building and records of these inspections must be kept.

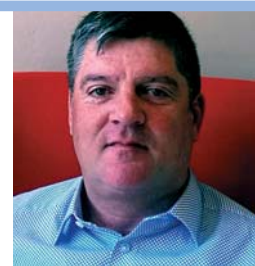
This inspection requirement also formed part of the Construction Regulations 2003, Regulation 9, with the consequence that all structures completed after July 2003 must have been inspected as required.

## CONCLUSION

Table 1 summarises what to note when considering the age of a building in relation to the legislative maintenance requirements.

- Owners of buildings must
- actively ensure building structural integrity during operation
  - appoint competent persons to manage this aspect
  - identify the aspects to be maintained
  - implement a maintenance programme and
  - execute.

“The safety of the people shall be the highest law.” Marcus Tullius Cicero, Roman philosopher born in 106 BC.



Gerhard Geyser B.Proc (UP) is a director at Legricon. His interest in Occupational Health and Safety Law started in 1994 as Regional Court Prosecutor, Specialist Division, Occupational Health and Safety. He was a Legal Consultant at NOSA from 2000 until 2003 when he became part of the founding team of Legricon – Legal Risk and Compliance Consultants. At Legricon he assists clients in achieving and maintaining legal compliance in the field of occupational safety, health and environmental management. He is extensively involved in the provision of training, legal compliance auditing and consulting services for many of South Africa’s leading companies.

Buildings completed before September 1985:	Buildings completed after September 1985 but before July 2003:	Buildings completed after July 2003:
<ul style="list-style-type: none"> <li>• Comply with the Constitutional duty of providing an environment that is not harmful to persons; and</li> <li>• Comply with binding Municipal bylaws.</li> </ul>	<ul style="list-style-type: none"> <li>• Comply with the Constitutional duty of providing an environment that is not harmful to persons;</li> <li>• Comply with binding Municipal bylaws; and</li> <li>• Comply with the National Building Regulations.</li> </ul>	<ul style="list-style-type: none"> <li>• Comply with the Constitutional duty of providing an environment that is not harmful to persons;</li> <li>• Comply with binding Municipal bylaws;</li> <li>• Comply with the National Building Regulations; and</li> <li>• Comply with the Construction Regulations.</li> </ul>

Table 1. Summary of what to note when considering the age of a building in relation to the legislative maintenance requirements



# South Africa's Largest Health & Safety Conference

OHS CONFERENCE 14 - 15 MAY  
GALLAGHER, JHB  
**2019** **HEALTH & SAFETY**  
Saioosh



**14 – 15 May 2019**  
**Health and Safety Conference**  
**Gallagher Convention Centre**

5 CPD  
Points

[www.saioosh.co.za](http://www.saioosh.co.za)



Saioosh is recognised by the South African Qualifications Authority (SAQA)  
as the professional body for Occupational Health and Safety in South Africa.





## A Dow DuPont Collaboration

*DuPont supports waste pickers with protective safety outfits for their daily work*

**W**aste pickers, the informal waste recyclers who forage through our refuse bins looking for recyclable objects, are a common sight in our suburban streets.

It's a dangerous, dirty and hazardous occupation, yet they are contributing in a large way to keeping the environment clean, and minimising the amount of refuse that reaches landfills.

These workers start their laborious work in the early hours of the morning and then trek the long way to the sorters, sometimes only reaching there late in the afternoon.

Destination Green Recycling (Pty)

Ltd, a waste management initiative located in Tembisa, was founded in 2015 by Zwelibanzi Mnguni and Faith Diketane, both graduates from the University of the Witwatersrand, who embraced the importance of recycling after their final University year in Resource Management.

They identified the need for collection and sorting stations in Tembisa, and through this encouraged recycling where possible. This minimises the non-compostable waste that is being sent to landfills, helps improve the living conditions of the citizens by cleaning up the neighbourhoods and reduces overall land pollution. After the waste has



*Zweli Mnguni Director and Kekina Phiri Marketing Manager of Designation Green Recycling test their Tyvek® 500HV*

been sorted, it is transported to the different recycling depots to be repurposed as recovered materials. The support from the community and other businesses has been encouraging. Local citizens are becoming knowledgeable about the benefits of recycling, and awareness has been raised at schools through demonstrations, clean-ups and lectures. The township economy has benefited by the employment opportunities provided.

Dow Chemical, a sponsor of Destination Green through their initiative Project Butterfly, is one of the largest polyethylene producers in the world and a leading collaborator in the development of new technologies and applications for high



*Unfortunately not everything is recyclable, and plenty of waste still reaches the landfills*



*Waste pickers who are delighted with their Tyvek® 500HV coveralls*



*Richard Ntombela of Dow Chemicals*

growth markets in packaging, health, hygiene and transportation. They are one of the key players in solving plastic pollution, and a main partner for the Plastics Alliance which is dedicated to cleaning the oceans of plastic waste. Through their ongoing R&D combining science, technology and knowledge which targets repurposing plastics, they anticipate the impending roll-out of new products and uses for non-perishables.

DuPont have also embraced working with Destination Green, and are now giving support by donating Tyvek® 500HV coveralls to the waste pickers. Tyvek® 500HV was chosen because of its breathability, durability and high visibility properties that don't wash out.

### CONCLUSION

Waste picking is hazardous work and Tyvek® 500HV is ideal for working in dangerous environments.

The donation of coveralls from DuPont gives the workers safety and dignity, and because of its high visibility qualities minimises the chances of accidents as they travel to their work during dusk and dawn.

The overalls also protect the waste pickers in poor weather conditions.

For more information, please visit:  
[www.Safespec.dupont.co.uk/](http://www.Safespec.dupont.co.uk/)  
Tel: +27 (0)11 218 8674



*Below: Noleen Clarke, of DuPont and Richard Ntombela, of Dow Chemicals, standing with waste pickers who are proudly showing off their newly donated DuPont Tyvek® 500HV coveralls*





# Remembering Heinrich's work – WHERE ARE YOU?

In this article, I share details of a new report from the Campbell Institute which recommends a redesign of Heinrich's safety triangle, which states that for every major injury (the point of the triangle), there are 29 minor injuries and 300 non-injury incidents. The triangle treats minor incidents and near misses as if they had potential to be fatalities or

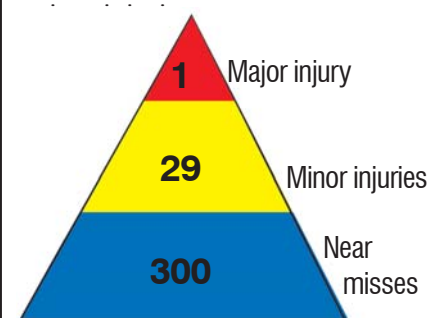


Figure 1. The Heinrich 300-29-1 Model

The report, *Serious Injury and Fatality Prevention: Perspectives and Practices*, notes that despite gains in safety in the past 50 years – the total recordable incident rate dropped from 8.5 incidents per 200,000 hours worked in 1993 to 3.0 incidents per 200,000 working hours in 2016 – fatal incidents and serious, life-altering injuries have not decreased.

The National Safety Council reports that worker fatalities are at an



Dr. Bill Pomfret brings an unrivaled perspective on risk, regulation and liability with his 50 years of experience as a safety consultant working for leading companies around the world. He also spent nearly a decade in the North Sea exploration and production as a safety manager. Dr. Bill is a passionate advocate for safety training.

eight-year high, with 5,190 workers dying of fatal injuries in 2016 in the U.S.A.

"Companies in our report know that safety is a work-in-progress with the goal of continuous improvement," said John Dony, director of the Campbell Institute, the center of excellence for environmental, health and safety at the NSC. "To be at the top of their game, these companies recognise that they have to do more to protect their workers. While such incidents may not occur with frequency, implementing a serious injuries and fatalities prevention programme is how these organisations move to the next level of maturity."

## A NEW PREVENTION MODEL

Released during the 2018 National Safety Council Congress and Expo, the report takes an in-depth look at serious injuries and fatalities and illustrates a new prevention model suggested by safety experts. It recommends a redesign of the classic safety triangle, which consists of non-injury accidents, minor injuries and major injuries.

This model treats all minor incidents and near misses as if they had the potential to result in a more serious injury or fatality and diverts attention away from the incidents that have the most potential to result in something serious.

The report states: "While this triangle was accepted as the gold standard for decades, safety professionals today realise that there is a flaw in this theory, namely that not all non-injury incidents are equal in terms of their potential for resulting in serious injuries and fatalities (SIF). Only some near misses have the precursors that could lead to recordable injuries, lost-time injuries and even fatalities. In order to prevent SIF from occurring, many organisations have realised that they

cannot look at the entire triangle, at least not in the way Heinrich originally conceived of it. Instead, they have to isolate that part of the triangle with the potential for SIF and prevent those incidents from occurring."

## IDENTIFY INJURIES AND FATALITIES ON THE JOB

The updated structure is based on identifying the root causes and contextual factors that lead to serious injuries and fatalities on the job. While a fatality is easy to identify, a serious injury could be defined differently by different organisations. The report defines a serious injury as one that is life-threatening or life-altering. To reduce serious injuries and fatalities, the report suggests that organisations do not need to "fix the worker," they need to redesign work processes to eliminate the potential for human error. This makes safety less dependent on employee behaviour and more dependent on the safety system.

The report highlights how several organisations have developed serious injury and fatal incident prevention programmes and offers examples of how they did it.

Thus, because the events are similar, all 330 of the events could have caused a major injury, but 329 did not because of a split second or some other circumstance.

As time went on, people modified Heinrich's Pyramid. There was my old friend the late Frank Bird whose modification - Loss Control Management: Practical Loss Control Leadership, 1969 - see figure 2.

People interpreted this graph as meaning that for every major injury there would be 600 unsafe acts. Sometimes people didn't say that the unsafe acts had to be capable of causing the major injury.

Also, there was the Krause, Hindley, and Hodson Pyramid (The Behavior-

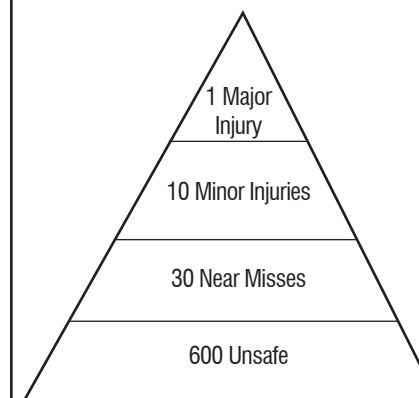


Figure 2. Loss Control Management: Practical Loss Control Leadership

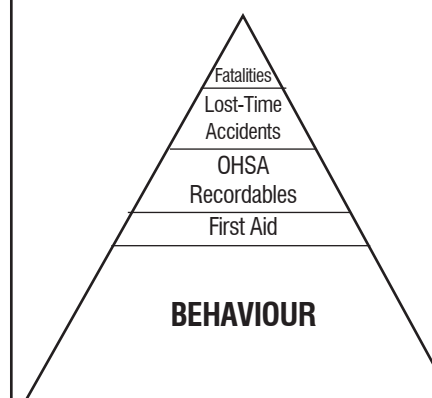


Figure 3. Behaviour based safety process

Based Safety Process, 1990):

This replaced many of the terms on the pyramid and introduces behaviour as the ultimate cause of injuries and fatalities.

And finally, the nuclear safety iceberg, Figure 4.

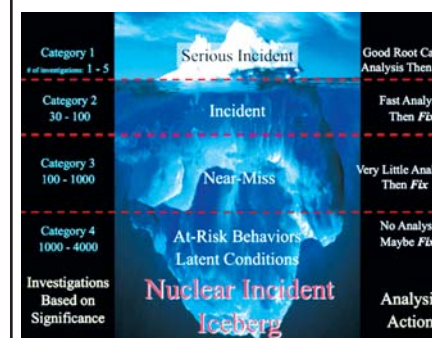


Figure 4. Nuclear safety iceberg

Which once again, focussed on behaviours and latent conditions and didn't mention the significance of the Safeguard that was being weakened.

From these new pyramids, people got the idea that focusing on unsafe

acts and behaviours could stop major accidents.

However, many lost the idea that the behaviours or unsafe acts had to be capable of causing a major accident fatality or removing a Safeguard to a major accident or fatality.

Thus, people started focusing on any small injury as a way of preventing big injuries or small problems to prevent reactor meltdowns.

However, stopping paper cuts won't prevent major process safety related accidents or industrial safety fatalities.

None the less, some safety programmes were misleading into thinking that stopping first aid cases would lead to an end to fatalities. Many programmes were overwhelmed by small problems to investigate and they started using questionable root cause analysis tools to speed up the investigations.

Thus, even incidents which had the potential to cause a major accident / process safety disaster/fatality were investigated using questionable root cause analysis tools.

The result was ineffective corrective actions that may have reduced minor incidents but didn't stop major accidents.

Companies improved their first-aid cases (or at least less were reported) but continued to have fatalities and major accidents at about the same rate.

## EXAMPLE OF SUCCESS

I worked at a site where supervisors learned to carry a first-aid kit to treat injuries and stop people from going to the site nurse/doctor. The result? First-aid cases dropped dramatically. Was this a safety improvement?

About a decade ago, some of the same people who revised the Heinrich Pyramid realised that correcting the causes of first-aid cases was not preventing fatalities.

Thus, began the research on significant injuries and fatalities (SIFs). The researchers came up with a new model - see figure 5.

This put the emphasis on industrial safety back on the activity (energy) that could kill you and the Safeguard



SIF = Serious Injury or Fatality



Figure 4. significant injuries and fatalities

that kept you safe.

This was a good start but insufficient. Why? Because some activities (process safety or driving) could always kill you.

In the process safety, there are so many Safeguards that people begin to take the hazard (energy) for granted. Examples? Three Mile Island, Texas City Refinery explosion, Chernobyl, Deepwater Horizon.

In driving, there are very few Safeguards to prevent the accident, but several incorporated into the design of the vehicle to try to prevent a fatality.

For process safety, you need to focus on maintaining the multiple, redundant Safeguards and investigate the failure of any Safeguard as an incident.

Process safety requires an abnormal level of attention to detail.

In traffic safety, the focus on individual skills, adequate rest (fighting fatigue), and highway safety improvements seems to be the most logical approach.

Now to the title of this article.

## WHERE ARE YOU?

- Are you still investigating incidents that aren't worth investigating?
- Are you using ineffective root cause analysis tools to save time?
- Are you improving (or at least getting less reported) small incident but still having fatalities?

Perhaps it is time to learn about advanced root cause analysis and how it can be applied to small incidents that could cause major accidents "Loss severity potential", (precursor incidents) and how this can be done in an efficient manner?



**From fields to factories, construction sites to underground mines - Wayne has a gumboot solution engineered to the specific needs of your industry and application.**

With over 60 styles, an array of safety features, lengths, cuts and industry-relevant colours, our wide range of products has the right gumboot for the job.

**GUMBOOT  
SPECIALIST  
SINCE 1940**



**Egoli 2**



**Duralight Mens 1**



**Egoli 2 - Metaguard**



**Polyurethane Boot**



**Chest Waders**





## Effective health and safety **TRAINING**

When you are driving on the streets of Johannesburg, South Africa and pull up at a traffic light, you often come across street vendors selling a variety of items. As they walk between the vehicles, they look out for any driver that has their eyes focussed on what they are selling.

If a driver is looking straight ahead at the traffic light, is distracted by something in their car or in conversation with a passenger, the vendor will most likely walk past them.

However, if the driver so much as glances in the vendor's direction, they immediately approach this prospective customer.

Street vendors have just a few seconds between the traffic light changing from red to green to identify a customer, approach them and sell something. Over time, they have mastered the skill.

The better they are at it, the higher their chances of success.

### **CAPTURING WORKERS' ATTENTION**

Whenever a group of workers assembles for health and safety awareness training, tool box talk, briefing etc, the presenter has just about an equal chance as the street vendor to capture their audience.

Get off on the wrong foot, and everyone will gaze at you like they are

looking at a red traffic light.

The crowd will be visibly irritable, unresponsive and waiting for the green light to pick up their stuff and get out of there.

As an experienced health and safety trainer that has come across different audiences all over South Africa, I have learnt over the years that training health and safety is not as daunting as it may appear at first provided that the presenter adheres to the following five rules.

#### **1. Know your subject matter**

People are smart. It does not matter what level of qualifications they have. If a presenter is not aware of what they are talking about, an

audience can quickly pick up on it. It is inconceivable that a health and safety trainer will conduct a training or safety briefing on something they know nothing about.

Before a presentation, the trainer must research, prepare well and take time to think of the questions that may be raised during or after a presentation and how to answer them.

#### **2. Tailor your presentation for the audience**

For anybody to pay attention to a health and safety presentation, they look at how the content being presented appeals to them.

If you are training hazard identification in an organisation to administrative staff, it would be futile to only make reference to hazards located in their production department.

Content must be tailored for an audience to ensure that it addresses how health and safety has an impact on them.

#### **3. Steer clear of technical jargon**

A few years ago I went to a health and safety exhibition in Johannesburg where different exhibitors were showcasing their safety equipment, services, software etc.

At a booth for one of the leading manufacturers of Personal Protective

Equipment (PPE), I came across a young sales representative who gave a brilliant demonstration of how now to sell PPE. The sales pitch was filled with so much technical jargon on the product that you could not identify what he was talking about. It was an embarrassing effort at trying to convince the audience that he knew about working at heights.

It's always great to keep things simple so that people can pick up on things and follow the discussion.

#### **4. Keep the discussion focussed**

Football commentators spend 90 minutes talking about the game that viewers are watching. Although they may share other news, stats and general comments, this additional information shared usually still has to do with the game or how it has a bearing on the game currently underway.

Similarly, a presenter must ensure that their health and safety discussion does not waffle and go off topic. Often, some members of the audience may try to deviate from the topic and ask irrelevant questions. The challenge for the presenter is to identify these non-related issues and exclude them respectfully.

#### **5. Engage and interact with the audience**

Have you ever come across a presenter weaving their way through a power point presentation in a monotone voice? It is flat, cringeworthy and a total waste of the audiences time.

### **CONCLUSION**

Training health and safety should be fun, engaging and thought provoking. Without posing short questions to the audience and establishing a conversation with them on health and safety, a training session becomes a one way sermon that has a tendency to be ineffective.

Enjoy training in 2019 and ensure that everybody leaves your training room with a health and safety lesson that they will carry with them for life.



*Wellington Mudenha is an experienced and qualified professional in the field of Safety, Health, Environmental and Quality Management. He has a wealth of experience in SHEQ legal compliance as well as SHEQ ISO management systems development, implementation, maintenance and audit. Wellington is also a SHEQ trainer / facilitator and SETA registered assessor.*

E-mail: [admin@iosm.co.za](mailto:admin@iosm.co.za) / Tel + 27 12 809 3023 / Website: [www.iosm.co.za](http://www.iosm.co.za)

## **FRAUDULENT ACTIVITIES** by registered IOSM members

It has recently come to the attention of the Institute of Safety Management that there are people out there who are using IOSM certificates fraudulently.

In one case a person who was a member a long time ago, changed the date on his certificate to acquire a job and issue audit certificates. In another case an ex- member upgraded his certificate to be allowed to do DHET audits.

There may of course be other cases that we are not aware of and we thought it prudent to highlight a few things.

### **SAFETY CREED AND CODE OF ETHICS**

The IOSM as a professional body has the responsibility to oversee the conduct of our members. Not only is this a matter of good practice, it is also prescribed by SAQA, in order to maintain our professional recognition.

This we do, amongst others, by the implementation of our Safety Creed and Code of Conduct.

Each member receives this Code of Conduct when he joins the IOSM and is expected to practice according to those rules.

I am not going to repeat the whole Code of Conduct here but the following extract speaks directly to examples as indicated in the beginning.

Members Shall Conduct Their:  
“Professional Relationships – with the highest degree of integrity, limiting their involvement in such endeavours to those areas in which

they have specific training, knowledge and competence whilst maintaining the highest degree of expertise;

Promotional Practices – Members shall not participate in exaggerated or misleading statements of their qualifications, experience or standing and shall not present their work in a manner which may in any way reflect unfavourably or bring discredit to the profession”

The IOSM has the responsibility to enforce this Code of Conduct and has the responsibility to investigate all instances of misconduct and to sanction members found to transgress in this regard.

### **DHET Requirements**

One area which seems to be the target of such practices recently is the auditing of educational institutions and specifically institutions related to the Department of Higher Education (DHET). DHET has, after consultation with the Professional Bodies, set out standards for the audits and auditors required for the annual OHS audits that they expect from all institutions registered with them.

The IOSM sent out a circular to all our members in 2017 with all the

requirements of the DHET.

The DHET acknowledges professionally registered practitioners, at our middle or higher levels (ROSPrac and ROSProf) only, to audit Private Higher Education Institutions.

New SAQA Validation process

SAQA themselves are experiencing high levels of fraud when it comes to educational qualifications, they also recently had to change the procedure to verify any qualifications registered on the NLRD.

They have a new process if anybody wants to request a record of learning from them.

You now have to complete and sign a consent form, scan the consent form, attach a certified copy of your ID or your passport and e-mail the scanned documents to [verifications@saqa.org.za](mailto:verifications@saqa.org.za) under the heading 'Record of Learning', upon which they will send your Record of Learning to your designated e-mail within 14 days.

All members of the Institute should please be on the lookout for any fraudulent activities and please report any such suspicions to [admin@iosm.co.za](mailto:admin@iosm.co.za) and we will deal with them from there.

### **IMPORTANT - PLEASE NOTE:** **IOSM contact details have changed**



E-mail: [admin@iosm.co.za](mailto:admin@iosm.co.za)

Telephone: +27 12 809 3023

Postal address: Postnet suite 546, Private bag X18, Lynnwood Ridge 0040, Pretoria

Physical address: The Hall, Silver Lakes Retirement Village, 33 Muirfield Road, Silver Lakes Golf Estate, Silver Lakes, East of Pretoria



*Joep Joubert, Past President IOSM*





## Construction work - OHS REQUIREMENTS

### Many clients, project teams and contractors are clueless

Email requests for quotations of project construction H&S services are being received daily by SACPCMP registered Construction Health & Safety Agents (Pr.CHSA) and Construction Health & Safety Practitioners (CHS Managers & Officers).

The problem is that the emailed requests expect to receive the quotations based on inadequate project details or information, and in the case of one that I received, a reply deadline was by close of business that same day. Really?

The issue is that the email sender, often being a client, project professional team member or a principal or other contractor, doesn't seem to know what to include in their quotation request.

These emails generally don't have adequate project details or requirements.

#### REQUEST FOR QUOTATION

Following is an outline of what should be included in the request:

- The project title and physical location - giving travel distance and time to site insights;
- The scope of work - giving details of the actual construction work required, including the construction phases, if applicable/necessary;
- The anticipated project duration and project value - giving time

costings and level of CHS person required insights);

- The CHS person being required - a Pr.CHSA or a CHSM/O and if on a part or full time basis? This will be a major cost factor difference;
- Explaining what documentation / service is required - A baseline risk assessment, H&S Specification and Construction Work Permit as project phase 1 being required from a Pr.CHSA. Or a Contractor's H&S file including a H&S plan, construction risk assessment/s, fall protection plan, appointments and safe working procedure / method statements, and/or monthly contractor/s compliance audits, etc, for example for a CHS practitioner to quote on.
- Where available, the client H&S specification and baseline risk assessment should be provided
- Furthermore, any quotation format requirement documentation should be provided, in a non-PDF format for easy completion and response, for example, this would be similar to a quotation Bill of Quantities spreadsheet specifying the desired performance/service requirements.

#### What the emails should be requesting:

In one out of six recent quotation request emails that I received, a client's agent (a project manager) provided the quotation request together with project details, a detailed H&S specification and the project baseline risk assessment, as per Construction Regulations 5(1) (a and b). It is possible to quote based on that information, but it is not possible to quote when clients, contractors or members of the project's professional team request quotes like these:

1. The project Principal Contractor

had been appointed based on a tender and contract price, and now a client's project agent calls for a Pr.CHSA to quote to apply for the Construction Work Permit, for which the Pr.CHSA is legally accountable, when there has been absolutely no Pr.CHSA input into the early and design stages of the project, as required by the construction work legislation. Furthermore what cost provisions have been budgeted for, in the project funding or tender price, for the Pr.CHSA's services?

2. In another case the email requested Pr.CHSAs to urgently provide a rate per hour for a major construction work rehabilitation project according to the project title, for work on phase 2 and phase 3 of the project, with absolutely no further information. I informed them that I would not quote on that basis, and I was phoned to be told about major building rehabilitation and roof replacement work and the demolition of a 2 floor building and it being rebuilt with the same foot print because of a foundation failure. All that construction work services based on a rate per hour quotation. Really?

3. Another email I received had the principal contractor's appointment and tender price, requesting that a Pr.CHSA be appointed to provide services "as per the attached document", which was not attached to the email, nor was it provided to the contractor by the client, on my enquiry. The contract wording indicated that the contractor must appoint the Pr.CHSA for the project, where the Construction Regulations prescribes the client to appoint the Pr.CHSA.

4. Other emails that I have received indicate that the project has passed the concept, feasibility and design stages and now needs a Pr.CHSA to be appointed to apply for the Construction Work Permit for the project, while the legislation indicates that the Pr.CHSA should be appointed at project commencement, i.e. as a member of the professional project team, to ensure the OHS considerations are incorporated at each project management stage.
5. Another emailed Pr.CHSA quotation request had a Bill of Quantities attached listing everything for the contract tender pricing, such as the construction site entrance board, all the worker PPE provisions, worker training costs, etc which are not applicable for a Pr.CHSA's quotation.

The Council for the Built Environment (CBE) has 6 professional bodies, of architects, engineers, quantity surveyors, property valuers, landscapers and the SACPCMP (the Project and Construction OHS Management people).

Members from these professional bodies constitute the professional project team role-players, who need to be appointed as members of a project team at the start of the project. This must include the construction OHS person for all construction work projects necessitating a Department of Labour Construction Work Permit application, as it should be the Pr.CHSA who is required to prepare and sign the Construction Work Permit application

Another issue that clients and contractors seem to be unaware of, is

that health and safety specifications and contractor H&S plans are legally required for construction renovations where any non-domestic construction demolition or deconstruction dismantling is required (eg. office partitions, wall demolition, house deconstruction demolition for property developers, etc) or when fall risk work at height or construction excavations are required.

#### CONCLUSION

Hopefully these comments will help clients, project team members and contractors to provide the necessary project information in their CHS service request emails so that CHS Agent and CHS Practitioners can provide professional service quotes.



**The Safety Handbook is the most comprehensive occupational health and safety manual available for the South African market.**

**It is invaluable to anyone involved in OHS:**

- Managers
- Directors
- Students
- OHS Practitioners
- etc

**Save on printing and postage costs and order your digital copy today.**

**Go to: [www.skillstrainlms.co.za](http://www.skillstrainlms.co.za) Search for Safety Handbook**

**Or contact the**  
**Safety First Association**  
**email: [admin@safety1st.co.za](mailto:admin@safety1st.co.za)**  
**tel: +27 11 701-5054**  
**website: [www.safety1st.co.za](http://www.safety1st.co.za)**

**Order today, if you are serious about occupational health and safety in your workplace**



Leighton Bennett (Pr.CHSA)  
Benrisk Consulting, Insurance Surveyor, & OHS  
& Risk Management Consultant



# Preventing employees from being infected by BIOLOGICAL AGENTS

According to the Occupational Safety and Health Administration (OSHA), biological agents include bacteria, viruses, fungi, other microorganisms and their associated toxins. They can adversely affect human health ranging from allergic reactions to fatal conditions. They are widespread in the natural environment and require minimal resources for survival, becoming a potential danger in workplace.

Employees can be harmed by being infected by a biological agent, and exposed to toxins produced by the biological agent causing allergic reactions. These include entry through skin or mucous membranes, inhalation, swallowing, animal bites, the urogenital tract, needle stick injuries and cuts etc.

Through the recent outbreaks of Ebola, African Swine Fever and Avian Influenza, it became more apparent that safety measurements are needed in the workplace, especially when dealing with culling operation and carcass handling, where blood and body fluid spilled everywhere or onto frontline operators. Besides animal epidemic prevention, there are many sectors that are potentially dangerous listed as the following.

EN 14126:2003 is the standard to determine whether protective clothing offers necessary protection against infective agents, and prescribes the requirements for materials, seams and garments.

For protective clothing which passes EN 14126:2003, wording “-B” will be added behind “TYPE” classification, namely “TYPE 3-B”, “TYPE 4-B” and “TYPE 5-B”. A standard is reviewed every 5 years.

EN 14126:2003 includes 5 test methods to determine

the protection class against several specific biological hazards. The higher the protection class, the higher the protection level.

**ISO 16603:2004** - Resistance to penetration by blood and body fluids using synthetic blood

\*This standard was last reviewed and confirmed in 2014. Therefore this version remains current.

The synthetic blood is a mixture of cellulose, colouring, buffer solution and stabilising agents. This refers as “screening test”, to predict the pressure at which the subsequent test, using bacteriophage contaminated media, can be expected to penetrate through the material.

Classification according to ISO 16603 - Screening Test	
Resistance to penetration by blood and body fluids using synthetic blood	
Class	Exposure pressure [kPa]
6	20.0
5	14.0
4	7.0
3	3.5
2	1.75
1	0.0

**ISO 16604:2004** – Resistance to penetration by blood-borne pathogens using a bacteriophage

\*This standard was last reviewed and confirmed in 2014. Therefore this version remains current.

The “virus” test and classification are the same as ISO 16603, the only difference being that the contaminant used is a bacteriophage (Phi-X-174) instead of synthetic blood. A bacteriophage is a virus that infects and replicates within a bacterium.

The bacteriophage serves as a surrogate to stimulate viruses that are pathogenic to humans. It determines the maximum pressure (between 0 and 20 kPa) on a specimen to be tested during 5 minutes.

Classification according to ISO 16604 - “Virus” Penetration Simulation	
Resistance to penetration by blood-borne pathogens using a bacteriophage	
Class	Exposure pressure [kPa]
6	20.0
5	14.0
4	7.0
3	3.5
2	1.75
1	0.0

**•Biological Agents:** Allergens, Mites, Fungi, Bacteria, Microorganisms

**•Potential Diseases:** Avian Influenza, African Swine Fever, Allergies, Farmer’s Lung, Organic Dust Toxic Syndrome (ODTS), Zoonotic Diseases

**Agriculture**

**Animal Husbandry**

**Veterinary Service**

**•Biological Agents:** Moulds, Yeast, Bacteria, Endotoxins, Glucans, Enzymes

**•Potential Diseases:** Allergies, Skin irritations, Organic Dust Toxic Syndrome (ODTS)

**Food Industry**

**•Biological Agents:** Viruses, Bacteria, Fungi, Parasites, Prions

**•Potential Diseases:** Ebola, AIDS, Tuberculosis, Lassa Hemorrhagic Fever (LHF)

**Healthcare**

**Hospitals**

**Laboratories**

**•Biological Agents:** Fungi, Bacteria, Endotoxins, Glucans, Viruses

**•Potential Diseases:** Hepatitis A, Salmonellosis, Enterovirus, Leptospira Interrogans, Extrinsic Allergic Alveolitis (EAA)

**Waste Collection**

**Waste Treatment**

**ISO 22610:2018** – Resistance to penetration by biologically contaminated liquids

\*Previously ISO 22610:2006.

The test method involves superimposing the bacterial-contaminated donor material onto the test material and subjecting it to mechanical rubbing.

During 75 minutes, the sample is exposed to a bacterial contamination under a light mechanical charge and humid.

Classification according to ISO 22610 - Wet Bacterial Penetration	
Resistance to penetration by biologically contaminated liquids	
Class	Bacterial penetration [min]
6	> 75
5	> 60
4	> 45
3	> 30
2	> 15
1	< 15

**ISO 22611** – Resistance to penetration by biologically contaminated liquid aerosols

A bacterium solution (Staphylococcus Aureus) suspended in an aerosol is sprayed onto both unprotected cellulose-nitrate membrane and one covered with the test material (the pore size of the membrane is approx. 0.45 µm). Both membranes are subsequently analysed to establish their bacterial load. In order to classify the results, the penetration ratio (ratio of the load of the unprotected membrane to the load of the protected membrane) is calculated in log units.

Classification according to ISO 22611 - Aerosol Test	
Resistance to penetration by biologically contaminated liquid aerosols	
Class	Penetration ratio without/with test material [log]
3	> 5
2	> 2
1	> 1

**ISO 22612:2005** – Resistance to penetration by biologically contaminated solid particles

\*This standard was last reviewed and confirmed in 2014. Therefore this version remains current.

A pre-sterilised material specimen is fixed in the test apparatus and administered with contaminated (Bacillus Subtilis) talcum powder.

An agar plate is placed underneath, and the test assembly is shaken.

The particles which penetrate are analysed after incubation of the agar plate, whereby a non-contaminated test specimen serves as control.

The results (mean values from 10 single results at a given time) are measured in penetration log units.

Classification according to ISO 22612 - Dry Microbial Penetration	
Resistance to penetration by biologically contaminated solid particles	
Class	Penetration ratio with/without test material [log]
3	≤ 1
2	≤ 2
1	≤ 3

## ULTITEC - THE SOLUTION

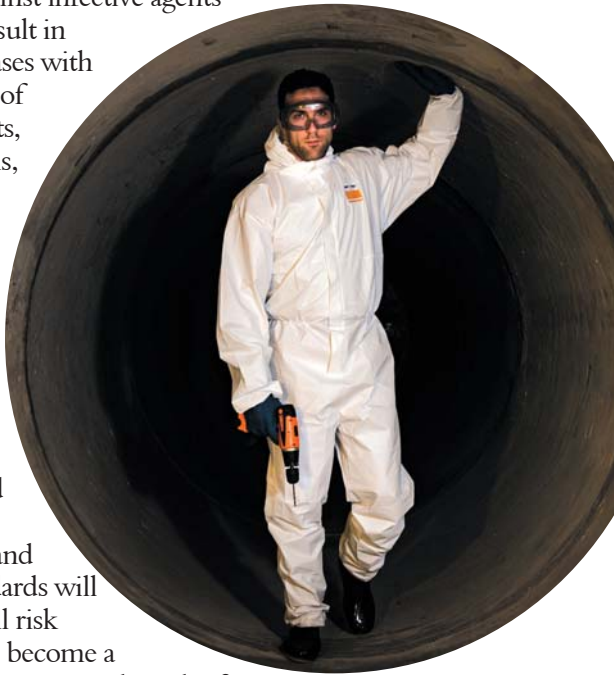
ULTITEC offers industry protective clothing against biological hazards from TYPE 3-B to TYPE 6-B, namely ULTITEC 2000, ULTITEC 3000T, ULTITEC 4000 and ULTITEC 5000.

Performance levels of the above exceed WHO protective clothing specification option 1 for Ebola infection control.

Operators are encouraged to wear appropriate protective clothing in the workplace especially in above mentioned industry sectors. This is to ensure sufficient healthcare protection against infective agents

which may result in potential diseases with consideration of infective agents, exposure levels, work nature, infection risk and fabric barrier performance.

Moreover, performance evaluation of the protective clothing based on these international and industry standards will assist in overall risk assessment, to become a standard in minimising the risk of workplace infection.



## REFERENCE

- Resistance to investive agents EN14126:2003
- Standards catalogue: 13.340.10 – Protective clothing
- Occupational Safety and Health Administration: Safety and Health Topics / Biological Agents
- OSH WIKI: Biological Agents

Ultitec is distributed in South Africa by Vanguard Fire and Safety

Tel: +27 (0)31 564 3200 /+ 27 (0)41 451-2461

Email: info@isscc.co.za / www.vanguardfire.co.za



## COMMUNICATION – the missing key

Communication has become an important factor to master for effective safety professionals.

We communicate with individuals, small or large groups depending on the function at hand. It can occur with fellow co-workers, contractors, clients, students, lead hands, front line supervisors, department managers, general managers, vice presidents, CEOs, board members and so on.

### THE IMPORTANCE OF COMMUNICATION

Often overlooked and misunderstood as an essential component, employees, supervisors and managers regularly don't understand its importance.

It is not only what we intend to communicate; it is which method we choose to make that communication.

### DEFINITION OF COMMUNICATION

So, what is communication? Actually, it is quite simple. It is conveying a message. Therefore, as professionals, we must always keep in mind what is the message we want to portray.

Communication can come in all kinds of forms:

- Verbal
- Non-verbal
- Written
- Actions
- Inactions



Christian Fournier, works for Mount Allison University as HR Consultant - Occupational Health & Safety as well as a First Responder Instructor Trainer for Saint John Ambulance. He is a member of CSSE (Canadian Society of Safety Engineering) and serves on the board of directors of the New Brunswick chapter where he is a director of Safety Services. He was awarded the 2018 Outstanding Service to the Safety Profession for the New Brunswick chapter of CSSE.

**Verbal communication** is the one most people understand as communication but they don't realise how we say those words has a profound meaning as well.

Knowing your audience is a vital part of your communication. You have to consider your message recipient's education, age (generation), industry, geography, state of mind, language (mother tongue or second language), ethnic origin, background, etc.

It's not only choosing the right words in your message but also the emotion that you put behind them.

In my experience, if you can be genuine in delivering your message, you will have greater success. But if you are sarcastic or talk over your audience, not only will your message not reach the recipients but you will end up upsetting them and consequently affecting future communication attempts.

**Non-verbal communication** is basically when your body portrays a message. Body posture is fundamental for good non-verbal communication.

Some examples of this are the way you provide eye contact, fold arms, rub your face, touch your hair, lean against a wall, stand straight, sit on a corner of a desk, sit on a chair, stand too close or too far from the message recipients.

Being nervous, tired, impatient, frustrated, intimidated, happy, empathic, optimistic are just a few of the emotions that can also affect your message.

**Written communication** is not as easy as you think. Again, we are not just talking about the words (spelling) themselves but the grammar, composition, etiquette and tone of the message.

It also makes a big difference whether it is an email, a memo, a presentation, or a text message. Who is your message recipient - your spouse or the president of the company?

How often have you written an email without really checking it first

and then you realised that it didn't actually sound quite like what you meant to say? Always double check an email before sending it, or even save it as a draft and wait to read it the next day especially if it is an important email or you are emotional while writing it. Once it's sent, you can't take it back.

Most supervisors, managers and senior managers comprehend verbal, non-verbal and written communications and their affects in communicating.

One of the bigger challenges I had throughout my career is to convince supervisors, managers and senior managers that they must pay attention to their actions or inactions and the message that it sends.

**Action** refers to the message you are sending by your actions. For example, if I walk through the mill wearing all the personal protective equipment (PPE) that I am required to wear, I'm communicating that wearing PPE is important. Or I could be the manager who only gives a verbal discipline a week after an incident.

This conveys the message that incidents and therefore employees are not important.

**Inaction** is basically the same but it is the message you are sending by you inactions.

A manager chooses not to participate in a safety meeting or ignores a safety procedure. The message that this sends to the employees is that safety meetings are not significant and safety procedures can be ignored.

As you can see, your actions and inactions do indeed serve as a form of communication.

### CONCLUSION

Remember that in all communications, knowing your audience and what message you want to convey to that particular audience are the two most important decisive components.

## Neuroscience in SAFETY

What is neuroscience and how can this have any impact on Occupational Health and Safety?

I will answer this two-pronged question, but let us first look at neuroscience before I tackle the second question.

### DEFINITION OF NEUROSCIENCE

"Neuroscience is the scientific study of the nervous system. It is a multidisciplinary branch of biology that combines physiology, anatomy, molecular biology, developmental biology, cytology, mathematical modelling and psychology to understand the fundamental and emergent properties of neurons and neural circuits." Wikipedia

### What is a neural pathway?

Neurons are nerve cells that transmit nerve signals to and from the brain.

The pathway along which information travels through the neurons (nerve cells) of the brain is a neural pathway.

### How is the neural pathway created?

We create new neural pathways every time we experience something new and different. Some pathways are created through chemicals sending signals within our brain which are temporary, and others through structural changes within the brain called neuroplasticity creating a solid pathway which becomes a habit.



Fabian Buckley  
President of HSE Connection Point  
Cell: 0828045838  
Email: fabian@hseconnection.org.za  
www.hseconnection.org.za

A lot of the programming of our body is "hard-wired" into us through neural pathways, this is also known as running on autopilot, like driving a car. We don't have to think about changing gears or clutch controls etc.

The more we do and experience the more we learn and grow. These learning experiences are beneficial to us, even if at the time it doesn't feel like a positive experience. After it is over, we often express how we learned from the experience and have grown to be a better person.

Unfortunately, a lot of what we experience doesn't always teach us the things that help us.

Neural pathways are responsible for the way we act differently around different people and how we react to different stimuli on a day to day basis. We have all kinds of stimuli that trigger different pathways and different responses.

### Why would I want to change my neural pathways?

Some pathways serve us well so there is no need to change these.

But some learned experiences or neural pathways do not serve us well, especially when it comes to unsafe behaviours - we need to unlearn some of these bad habits.

### How does Neuroscience apply to Occupational safety?

Studying neuroscience shows that it is possible to permanently shift our hardwired ways by eradicating old habits and forming new safe habits.

It is important to determine employees' true beliefs in HSE and focus on the development of new neural pathways or unfreezing. In this way, new ways of thinking and behaving safely becomes natural, thereby changing to a culture of "Doing it safely is the only way we do things around here."

Repeated attention can reshape the patterns within our brain. Leaders must be upskilled to be able to identify habits and to engage employees daily and adopt new and safer ways of operating.

We as HSE professionals, management, supervisors and fellow employees need to work together on our "hard-wired" thoughts, actions and beliefs with team-rewiring strategy sessions.

We must give people the tools for personal choice and not fear to drive sustainable outcomes. We must give leaders and their teams the skills to build new habits that have measurable safety results.

### So what works?

1. Stating the desired safety behaviours as a mantra creates a new pathway that can lead to new positive behaviours. As people start believing it then they will act on what they believe in.
2. Interactive discussions on proactive risk thinking produce better outcomes than paperwork.
3. Focus on noticing unsafe work practices as a team. This will build a permanent culture where people at all levels work mindfully.
4. Foster a safer environment and create positive changes through positive habit-forming programmes and fun interactive themes.

The results can be seen by people at all levels in an organisation who can SSS.

**See** - identify our own actions and those of others at an early stage as warning signs.

**Say** - report the individual performing the unsafe act (unsafe habit) and get involved.

**Solve** - shift from 'the safety officer or management owns the problem to 'what can I do here today and how do we avoid this next time?'

### A PRACTICAL EXAMPLE

A boilermaker does not have an angle grinding spanner to open and remove a cutting disk, which he wants to replace with a grinding disc. So, he holds the locking mechanism and hits the disc onto a piece of shutter board or wood until the nut becomes loose enough for him to





remove the cutting disc and replace with the grinding disc.

### What's wrong with this?

If the disc gets damaged while striking it onto the wood, it can shatter and injury or even kill him when it is used.

What does this have to do with neuroscience?

The habit of this unsafe act being done repeatedly will result in the creation of a neuropathway and a road map fixed in the boilermaker's self-operating motor mechanisms.

### How can he unlearn this habit?

There are no simple answers, but "Practice does make perfect".

In the same way that he learned this unsafe habit by doing it repeatedly, the dangers of his action must be highlighted and he must be allowed to practice the correct way repeatedly until the positive habit forms in doing it the correct way.

This may sound like a long shot, but believe me if one can unlearn a bad habit and form a new neural pathway, the old habit will be replaced by the new positive reinforced habit.

From a management perspective we need to ensure we have the tools and equipment available for our employees to use, if not, the employee will find that old dusty road again and the bad habit will be right back.

Another way of approaching this is for the employer to create a programme to decide what changes need to be made, then to set out a plan of action, and do it over and over until it becomes second nature, and a new habit has been formed.

### CONCLUSION

In closing, we have learned something about neuropathways and how we can use this science to break bad habits by forming new habits.

With the new road map a safer and more productive working team will be seen.

It's time to reboot our brains and change how we do things focusing on a positive safety culture each day, every day.

## Guarantee of **EMPLOYMENT** through changes in legislation

In this article, I will outline how I have been pursuing a project which if successful could generate approximately 5,000 jobs specifically for people who protect employees on construction sites around the country.

Although this project is aimed at securing employment for construction health and safety officers / managers / agents on residential communities, it will also affect the whole construction industry.

Construction affects us all continually, and maintenance goes on forever.

When we started marketing the compliance to the Occupational Health and Safety (OHS) Act, Act 85 of 1993, and the Construction Regulation, as one of the regulations promulgated under the OHS Act, we constantly encountered negative feedback and an unwillingness of entities to stand up to their responsibilities.

Problems arise from within the OHS Act because it did not stipulate the direct supervisory entities that have to ensure compliance. This means that there are no guards to

guard the guards - meaning who should be overlooking that these requirements are implemented and controlled.

After various meetings with residential estate managers, we concluded that the managers think they have no power to enforce compliance of the construction regulation onto full-title stand holders in their estates, nor building control managers of developments inside the municipal border.

Although section 8.(g) of the OHS Act discusses "on premises under his control", the managers fear that they still do not have the power to enforce compliance of the Construction Regulation on the property owners and merely act as a statutory entity.

We had a meeting with the regional chief inspector at Department of Labour in Gauteng and concluded that we would draft a document addressing this issue and submit it for his opinion.

In 2017 we submitted a draft document, which eventually changed so much that it ended at version 11 after consultations with various stakeholders. We had both negative and positive responses. This document is referred to as a "Notice" which could eventually be gazetted by the Chief-Inspector at Department of Labour.

The regional inspector immediately arranged for a meeting with his superiors and pushed to get this idea stamped into legislation.

I continued to push this forward into a professional document. Once a meeting with the national Chief Inspector was arranged again the document had totally changed format into a legally prepared notice in a draft format. After every meeting or discussion more information was formulated and included in the Notice.

It was then proposed that this Notice would be presented to the Ministers of Labour's Advisory



*De Munck Menderoi  
OHS Practitioner has been in the construction industry since an early age due to his family business. He has attended various courses at the Eastern Cape branch of MBA, as well as others such as welding, marine construction etc. De Munck has been involved in the physical hard work in construction, giving him the edge in understanding the direct environment and conditions employees have to work in.*

Council meeting for recognition and acceptance.

Entities mentioned in the Notice include bodies corporate, home owner associations, asset management teams, building control officers and financial service providers.

These entities all handle the preliminary documents of the constructing client, but decline to take responsibility by ensuring compliance.

A few facts of the legal relationship described in the OHS Act to the responsibilities of these entities includes "Premises under his control" or "any person who is employed by or works for any person and remunerates that person or is entitled to receive any remuneration...". Even the financial service providers have a responsibility to ensure that the bond owner complies with the regulations.

The Building Control Officer (municipality) often insists that he has no power as he is not an AIA (Approved Inspection Authority) under Construction Regulation 32, and therefore cannot demand compliance on a construction client's premises, but this is not true, as they approve a plan submitted to them for which the client has to pay a fee to the municipality (indirect remuneration).

A restriction is included in the Notice not allowing only one entity to prosper, but rather than the full fraternity to benefit. For example, a health and safety practitioner may only operate in a 50 - 100km radius of his primary (head) office and cannot represent more than a specific amount of communities.

The accumulation of information to reach this point could easily end up as a dissertation explaining the steps

and reasoning behind the requirement.

I waited for the October 2017 sitting of the Minister of Labour's Advisory Council meeting, but was informed a few days before the meeting that the document was not distributed early enough (2 weeks) to the members and I would have to wait for the next sitting which take place early in 2018.

At HSE Connection Point we've send emails to Department of Labour, but have not had a response to proceed.

If this Notice was implemented, more than 5,000 jobs would be secured in the H&S fraternity throughout SA on the +3,000 registered residential estates, building sites financed by the banks and asset managers controlling new developments.



**YOU ARE ALWAYS CONNECTED**

**215-977 NPO**

**Mobile: 082 804 5838**

**Email: [fabian@hseconnection.org.za](mailto:fabian@hseconnection.org.za)**

**Website: [www.hseconnection.org.za](http://www.hseconnection.org.za)**

**Company Registration No: 2017/431079/08**

### Why should I join HSE Connection Point?

**I have been seeking employment.** We have daily, and weekly jobs posted of current work opportunities;

**I have been struggling to resolve my issues and concerns with the SACPCMP.** Being a VA with the SACPCMP they must respond to us and we assist all members with their concerns;

**I am a candidate and need a mentor to guide me through my SACPCMP process.** We provide mentorship assistance with our candidate SACPCMP members;

**I have recently become a junior safety officer and I don't know who to speak to for help.** We have a large group of professionals assisting juniors and other HSE professionals who ask questions and get answers;  
We are the helping hand to other junior and less experienced safety people who are now required to register without being given the guidance within the industry.

**I have many questions in HSE, but I don't know who to ask.** Once you have joined you immediately have access to our interactive Blog page and WhatsApp groups where you can ask your questions and get answers;

We share our knowledge freely amongst each other and ensure we help each other progress;

**I would like to study but most courses are too expensive.** We have negotiated substantially reduced prices up to 50% discounts from Sheilds for Nebosh & other International qualifications;

**I don't have access to HSE documents.** We share requested HSE related documents and information;

**I have legal questions and concerns which I would like answers to, but I don't know who to ask.** We have a network of members with senior members consisting of advocates, lawyers and many corporate managers country wide;

**I am unemployed and I can't afford training.** We have been arranging free training courses for some members with training organisations who have been donating courses to us as their way of giving back.

**Join us:** [www.hseconnection.org.za](http://www.hseconnection.org.za)

**Request your membership forms:** email [fabian@hseconnection.org.za](mailto:fabian@hseconnection.org.za)

**Membership fees:** Junior Safety Officer R300 p.a. / Safety Officer R400 p.a. / Safety Manager R500 p.a.





## Putting the **PRESIDENTS PEN** to paper

Dear Colleagues,

It's still early enough to wish all of you everything of the best for 2019. I wish each of you a blessing for each day of the year. 2018 passed in a blur. ACHASM has been growing slowly, but steadily. Our Registrar Yasmeeen (Jackie) Fort has been the backbone and the support working to deal with the day-to-day issues.

We face a number of challenges as ACHASM, we need to stay relevant to our members and the community in which we work and eke out our livings. Our economy and the society in which we work is in the 4th Industrial Revolution, which is bringing a range of unknowns, and new risks we probably could never have dreamed of. As such we have to think and act differently. The construction sector has been in a very serious decline and we have all been affected in some way, I am sure.

I have cherry picked some of our achievements over 2018 and then will highlight our wish list for 2019:

- We managed to continue publishing in National Safety;
- We have uploaded all the presentations, papers and information to the website that have been generated at our various symposiums;
- We have engaged with PrivySeal and all paid up members will be able to reflect their current membership status in real time, which for new members still registering or upgrading their registration status will afford them 5% of the application score;



Dr Claire Deacon  
Association of Construction Health and  
Safety Management (ACHASM)

- We retained discounts on the PROCSA training webinars, and RAG Strategists Dispute Resolution. We urge all of you who are working as consultants to ensure you have proper service level agreements;

- Our members manage to (and hopefully continue to do so) serve on committees with the SACPCMP, and other strategic stakeholders that benefit us all. Such committees include the disciplinary and voluntary association;

- Prof John Smallwood and I held at least 6 Designing for Construction H&S (DfCHS) across the country, as well as the annual symposium and two summits in Johannesburg and Cape Town respectively. The effects of the economy were felt, and we were disappointed with the lack of support for the programmes;

- ACHASM continues to be represented with our critical stakeholders, and while the wheels of these appear to move very slowly, all of us are working very hard to ensure our voice is heard, and that we are noticed.

- Initial meetings were held with a number of other built environment voluntary associations to stimulate compliance at all the registered levels of health and safety, whether the PrCHSA, or the CHSM, and CHSO.

I completed a term on the 4th term SACPCMP Council and am serving a further term on the 5th term Council. I further have been appointed by the Minister of Public Works to serve on the Council for the Built Environment (CBE) for their 5th term Council. The two boards work at quite different levels, the CBE provides oversight for all the 6 Councils. There has been a surge in the numbers of registered health and safety persons being reported for poor behaviour and unprofessional conduct. So I would urge you to all ensure that you support each other and assist where you can to prevent such occurrences. Regarding 2019 and

what is planned:

- We will continue with the DfCH&S seminars in Cape Town, Limpopo in the planning stages, so please support and encourage participation;

- We are aiming our next one day seminars at the CHSOs as this has been a request from members;

- We are on the OSHAfrica conference committee which will be an exciting conference addressing a range of topics with international speakers, so please try to attend, and

- The employment sector has been worked on as a module on the website, and we hope this will be active in 2019. The module will assist both those seeking work and seeking employees.

I challenge you all to a number of issues that are close to myself and my fellow directors. ACHASM survives because of its members, who, I like to believe, wish to make a difference to the society we live and work in. The challenges are as follows:

- Be present and participate, drive membership and your Chapter. If there isn't one, start one, or be an active member! The Chapters are there to provide support and to network. I have seen that many battle on their own with issues, it is better when done together;

- Play it forward – assist candidates to full membership. If we each take 2 candidates per annum, we can grow each other and the sector;

- If you can sponsor an activity such as webinars, speaker gifts, a speaker, a student, we would be very grateful;

- Increase the awareness among your professional colleagues, architects, engineers, quantity surveyors etc., invite them to Chapter meetings, make the topics relevant to them. They can also accrue CPD hours by attending.

On behalf of ACHASM and its Directors, we wish each one of you a safe, healthy and prosperous 2019.



## PPE and workwear - **KNOW WHAT YOU ARE BUYING**

### 5 STEPS TO KNOWING YOUR WORKWEAR & PPE

As with almost everything consumers purchase, there is the chance that you might not receive what you request and pay for, and safety gear such as PPE and workwear used by you or your staff is no exception.

There are many reputable PPE and Workwear providers in South Africa and whether you've been buying from the same supplier for a few years or you're buying from a new one, it's good to check on the quality you're receiving.

At Dromex, we can guide you with some helpful hints that will help you make the right choice by asking the right questions before you purchase. This information will also show you how to check what you receive.

#### 1. WHAT WORK WILL THE WEARER BE DOING?

Workwear can be purchased for a few reasons

##### a) General wear

Employers often purchase entry-level garments so that staff don't damage their clothes. These are often for low-risk industries such as gardening, warehousing etc. Preferences for these industries lean towards 80/20 Poly Cotton, 65/35 Polycotton and J54 100% Cotton Conti Suits. The decisions here are generally based on budget, i.e. an 80/20 Polycotton Conti Suit is cheaper than a J54 100% cotton Conti Suit which is more expensive but more breathable and comfortable due to the cotton content.

##### b) Hazard specific protection

Workwear is bought to protect the user from an incident that will cause them bodily harm e.g. petrochemical, electric arc flash, mining, fire, chemicals, etc. Flame Acid, Arc Suits, J54, Nomex and Poly Viscose suits are required for these purposes. This workwear is often governed by specific standards such as SABS, SANS, ISO and NFPA in the case of fire garments.

For hazardous industries we offer a

complimentary PPE Assessment to ensure the correct PPE and workwear is used and safety requirements are met.

#### 2. BE SPECIFIC

When requesting quotes for safety wear always try to be as precise as possible and include the following information:

- Garment type / product: e.g. D59 flame suit / leather welding glove
- Nature of use / industry: e.g. welding (whether you do or don't know which garment or product you need, inserting this info will ensure that the supplier quotes you on a garment fit for purpose)
- Number of employees or quantity required: e.g. 500 staff – 3 suits per person or 1500 units

Including the above information will assist the supplier with providing you pricing that is accurate and the correct workwear that is required for your usage.

#### 3. ASK FOR A SIZE CHART

A SABS fit workwear garment from your chosen supplier could have different sizing to a branded in-house fit, which could also be different to an eco/budget fit garment, which is commercially acceptable.

Ask your workwear supplier for a size chart pertaining to the specific garment and match with the wearer's measurements to make sure the garment is a suitable fit. It's important to note that under-sized PPE and workwear is uncomfortable for the wearer and can also be dangerous if it's too big should there be the possibility of getting caught in machinery.

#### 4. GET A COPY OF CERTIFICATIONS

If you or your customer require products with specific standards, ask for the certifications from the supplier. Entry-level workwear garments such as an 80/20 Poly Cotton Conti Suit won't have a certification, however when there is a specific requirement such as a 65/35

Poly Cotton or J54 100% Cotton Conti Suit then insist on a fabric certification document. Using PPE that has an approved EN standard is advisable to ensure quality safety protection, and the supplier should be able to provide you with the applicable certificates.

#### The check

Always check the label in the jacket. If you specifically requested a 65/35 Poly Cotton Conti Suit and the label simply says "Poly Cotton" there is a chance it has been made with 80/20 Poly Cotton and not 65/35 Poly Cotton, which you've most likely been quoted on and paid for. We therefore advise you to request a test report from your supplier to verify the garment.

For all other PPE, check the item for a mark of the appropriate EN Standard. For example, eyewear must have an EN 166 stamp.

#### 5. WHY IS THE PRICING SO DIFFERENT FOR THE SAME GARMENT OR SAFETY ITEM?

You've requested a price for the same SABS D59 Flame Acid Boiler Suit from different companies but the pricing you've received is very different. Don't just buy the cheapest one to save money – there are a few possibilities.

##### a) Quoting error

It could simply be a clerical error, which is easily resolved with a phone call or email.

##### b) The fabric or garment standards are not the same.

There is a possibility that the cheaper garment is marketed as a Flame Acid suit however the fabric is uncertified and hasn't been produced at a SABS facility. Both standards are regulated, so request the relevant certifications from both suppliers.

##### c) Check the reflective detail

When purchasing workwear with flame retardant properties, ensure that the reflective tape is also flame retardant. Standard reflective tape is



cheaper, which can account for a price difference between garments. Risking your employee's safety isn't worth it.

If the tape is flame retardant, your supplier should be able to supply you with a copy of its certification.

#### d) Request a sample

If you've followed the above steps and received the necessary paperwork, request a sample. Once you've seen both garments and you're satisfied that they meet all the standards and that the quality is equal, then make your decision based on price.

## The SCIENCE behind SAFETY

**SAPEMA experts provide the answers to those important questions**

*Compiled by Ray Strydom of Tiffy Safety*

**Q** How long does a respiratory filter last?

**A** A respiratory filter (which includes cartridges and canisters) is fitted onto a half-face or full-face mask and is designed to last more than a single shift. A filter should clearly be changed if it becomes visibly damaged. Beside that obvious time to replace a filter, you may have heard answers like "30 days", "40 hours of use" or something else when trying to establish when to replace a respiratory filter. Actually the answer depends on a number of factors related to the work environment, the person wearing the respiratory protection or the type (e.g. class) of protection itself.

#### Environmental Factors:

Concentration of the contaminant(s), type of contaminants (solid, liquid, viscosity, gas / vapour and boiling points), humidity, temperature, ventilation, exposure time, care and storage all play a role in how long the filter will last.

**Personal Factors/ Work load:** The breathing rate of the person wearing the respiratory protection is also key. This is impacted by the type of work being done (sedentary or manual labour) so you could have a different filter service life for two people in the

This process can be used for all safety wear including gloves, eyewear, hearing protection and even footwear.

At Dromex we believe that all employees are entitled to maximum safety protection and that employers should never have to compromise on the quality of the PPE they provide their staff.

Feel free to contact our technical team for assistance with any PPE and workwear queries our at our Durban, Cape Town or Johannesburg branches.

same company or work environment. **Filter Factors:** The amount and type of sorbent / filtration material in the filter is a critical element in determining how long the filter will last. Filters are not all made equal. All the above factors will impact on the life of a filter. The short answer is that filters should be changed when breakthrough is achieved for gas and vapour cartridges (when you smell or taste the contaminant while wearing the respiratory protection correctly). This will be different from person to person due to the individual's sensitivity to the contaminant in the area. One should not solely depend on this. Human smell thresholds vary and the sensitivity can even decrease after exposure and some contaminants are even odourless. Particulate filters should be replaced when an increase in breathing resistance shows that the filter has become saturated.

For anyone who wants a more definite answer and is exposed to organic vapours above the recommended exposure limit, organic vapour cartridges with indicator strips are available on the market taking the guess work out of the "how long will this cartridge last?" question.

*Do you have any safety questions you would like answered by SAPEMA experts, then email [admin@sapema.org](mailto:admin@sapema.org)*

SAPEMA

## BBF wins award



BBF Safety Group was recognised in multiple categories at the Durban Chamber of Commerce KZN Exporter of the Year Awards held at the Durban International Convention Centre November 2018.

The workplace safety solutions provider – who now exports to more than 20 countries globally – was named the winner in the Emerging Markets category. With entries having been open to all exporters in KwaZulu-Natal, this was a top achievement.

The BBF Safety Group was also named a finalist in the following categories:

- Manufacturers – all companies operating in the manufacturing sector in KZN
- Africa – companies who export into Africa

The awards are a showcase of emerging and established KwaZulu-Natal based exporters of a wide range of goods and services, with the aim of stimulating the growth of the province's economy.

"We are honoured to have been recognised in these categories and want to extend our sincerest gratitude to our clients in both the export and domestic markets for their ongoing support and continued business. As a trusted partner to hundreds of businesses across Africa and beyond, we remain deeply committed to our purpose of keeping people safe at work and continue to maintain excellence and innovation in all that we do", said Tven Heyer BBF Group Export Manager.

SAPEMA

## FIREBREAK SA – everything you need for rescue



**FIREBREAK SA**  
SAFETY APPLIANCES PTY LTD

Firebreak SA (Pty) Ltd – a Level 2 BBBEE company has for the last 23 years worked towards providing solutions for technically challenging safety issues.

To achieve this Firebreak have partnered with :-

- Du Pont ® (Chemical suits)
- MSA (SCBA's / Gas detection)
- Latchways (Fall Arrest / Harnesses)
- Lifeloc Technologies (Alcohol / drug detection)
- LYMAE (Fire clothing)
- Bullard; Task Force Tips ® (Fire products)
- Zartek (Specialised torches / spots)
- Darley ® (Specialised fire products)

The team are specialists in confined space entry and hazmat response,

with advice on breakthrough times (permeation) for chemical clothing through to:

- Chemical clothing selection
- Airline / breathing air / escape
- Lowering / retrieving / rescue harnesses and equipment
- Intrinsically safe lighting
- Gas / air monitoring and distress signal units.

Training and certification on the use of these products which include alcohol and drug detection completes the programme offered by Firebreak SA.

Firebreak SA also offer full repair / calibration of their products and exceptionally quick turn-around times.



*Firebreak team visiting Paddy Mallett while he was recovering at Flora Life Care hospital. Left to Right is Duncan Ramsden, Duane Basson, Freddy Allworth, Paddy Mallett (c/w new Aorta valve), Ramesh Jeram and Blane de Meillon.*

## My Procure Zone – merging technology with sales



My Procure Zone has been running for over 5 years. Initially it specialised in electronic test equipment imported from the USA.

The concept of My Procure Zone (Pty) Ltd originated over a year ago with the view of merging traditional sales with current technology, so a concept was drawn up to develop a platform to enhance the sales experience which is in the process of being implemented.

My Procure Zone has homed in on a range of products that compliment a basket offering to our customers.

Essentially, it is becoming a one stop shop where customers can purchase an array of industrial consumable products.

We have targeted various sectors in the market where similar products are used daily. Safety gear is a mandatory component in most businesses today and we intend to service our customers with a suitable range that meet their specific needs.

My Procure Zone's focus is on building strong relationships with both supplier and customer, by providing quality products and competitive pricing with superior service.

We supply a large range of industrial products that range from electric motors, pumps to lubricants and safety gear.

We joined the SAPEMA family to ensure that we are in the forefront of safety gear development and to be able to network with manufacturers, importers and other suppliers to maintain constant improvement in our offering and service levels.



Tel: +27 11 (0)63 442 9935

Email: [admin@sapema.org](mailto:admin@sapema.org)

[www.sapema.org](http://www.sapema.org)



**Advertise in National Safety, South Africa's premier and oldest occupational health and safety magazine, and widest OHS circulation**

Contact: Email - [delinds@mweb.co.za](mailto:delinds@mweb.co.za)  
Mobile: 083 266 6662



## FRAUD uncovered

The rate of qualification fraud has reached an alarming rate in South Africa, with multiple industry respected individuals being uncovered as having produced fake qualifications to climb the ladder.

Fraudulent Certifications are illegal, and such happenings must be eradicated.

Over and above the legal aspect, this practice could lead to life-threatening situations as unqualified people undertake work that requires specific knowledge to be completed accurately and safely.

The South African Refrigeration and Air Conditioning Contractor's Association (SARACCA) was almost dragged into such a scam. A vigilant employee at the Department of Public Works whilst checking the credentials of a tenderer who was in line for a maintenance contract found that the qualification certificate provided was false.

When SARACCA's Director, Barney Richardson was shown the certificate, he could immediately see that the certificate with the SARACCA Logo and name was a fraudulent document.

"We are very encouraged that government departments are utilising associations such as SARACCA and SAQCC Gas to verify qualifications",

said John Parry, SARACCA President and one of the directors at the Southern African Qualifications and Certifications Committee of Gas (SAQCC Gas).

He also added "Corruption is rife and we must work together to rid South Africa of the scourge. We often assume that corruption and government go hand in hand, but it was the government who uncovered this fraudulent certificate by a private company.

"In addition, we need to remove this notion that corruption is acceptable".

Fraudulent Certificates are inexcusable, SARACCA under its mandate has a vast range of training providers dedicated to providing substantial and practical training that arms practitioners with essential skills as per their specific industry specialties.

SARACCA has appointed training providers specialising in areas of all A1 and A3 refrigerants on commercial, industrial, automotive and B2 Ammonia.

Training providers are situated in the Gauteng, KwaZulu-Natal, Eastern Cape and Western Cape region.

For information on training, visit [www.saracca.co.za](http://www.saracca.co.za)

### ABOUT SARACCA

SARACCA is an association of contractors who have individually and jointly agreed to a set of governing standards whilst operating in free competition against each other.

The common aim is to continually strive to improve the image and standards of the industry and the association provides a forum for this purpose.

In July 2009 the Department of Labour published the "Pressure Equipment Regulations" as part of the Occupational Health and Safety Act Number 85 of 1993. The South African Qualification and Certification Committee for Gas (SAQCC Gas) has been accredited by the Department of Labour to register "Authorised Persons". SARACCA, as a member of that committee, is tasked with registering refrigeration and air conditioning practitioners.



## ARE YOU MEETING ALL OCCUPATIONAL AND ENVIRONMENTAL CHALLENGES?

**"PREVENTION IS BETTER THAN CURE!"**

**Occutech is an inspection authority for the work and business environment surrounds approved by the Department of Labour**

- Indoor air quality assessment
- Risk assessors
- Occupational hygiene
- Environmental consultants

Occutech is able to recognise, evaluate and recommend cost-effective controls of occupational and environmental hazards



<http://www.occutech.co.za> / Email: [occutech@occutech.co.za](mailto:occutech@occutech.co.za) / Tel: (031) 206-1244 / Fax: (031) 205-2561



*OSHAfrica is the African platform for connecting professionals and bringing them together under one umbrella for collaborative work.*

*OSHAfrica members continue to promote safety and health in their different countries, and help empower the African continent to achieve the ultimate goal of zero accidents, zero incidents and zero fatalities.*

*The information in this article is extracted from discussions and sharing of information on the group's WhatsApp platform.*



### ILO

The ILO celebrates its centenary this year.

The ILO was formed by 44 countries who came together in 1919 to attempt to reshape the nature and conditions of work. Today there are about 198 member countries doing positive work by changing workplace safety and health and work conditions.

Let no man be left out on this, but continue to get involved and press the frontiers until every man or woman who leaves for work returns home unhurt and in one piece.

OSHAfrica will be involved in this centenary celebration.

### HEALTH AND EXERCISE

There is a minimum daily requirement of exercise to keep healthy. A sedentary life style is no friend to your heart.

Most guidelines recommend that the minimum weekly requirement of exercise is 150 minutes. The minimum daily recommendations for walking is 8km. This includes the short walks such as walking to the bus stop, taking stairs instead of elevators and walking to the supermarket.

### MEN'S HEALTH

In Africa, just as in most parts of the world, men tend to show poorer health seeking behaviour compared to women. In essence men are less likely to get help for health concerns at work, particularly when it comes to mental health. The reasons are diverse.

### SANITATION IN AFRICA

Over 650 million people in Africa lack access to basic sanitation services. Governments need to make bold policy shifts and boost investments to correct this problem. Sub saharan Africa has invested adequately in sanitation infrastructure since the 1960s. Population explosions and rapid urbanisation added to the problem.

But first a solution to the issue of water supply to service the hygienic toilets needs to be found. We need a proper alternative to water-borne sewerage - and pit toilets are not a solution given the infant drownings recorded in relation to these. Massive innovations and investments in water harvesting treatment and storage are needed before the upgrading of sanitation infrastructure.

### DO GMO FOODS POSE ANY HEALTH AND SAFETY RISKS?

While health and safety is of foremost importance, we cannot run away from the fact that GMO agricultural products do have potential benefits particularly for a food insecure continent like Africa. For example, with Oil Palm Research where Thailand and Malaysia have exceeded the African products because of a slow uptake of its scientific applications.



There are many other products to substantiate the practical setbacks, therefore we should proceed with caution but objectivity when considering GMO products. Many countries have been using GMOs for decades without any untoward effect (leave aside the economic debates around Monsanto and the seed politics at the WTO). Embryology is a process of constant probabilities which is why all life shows diversity - some good and some bad. Science uses these probabilities in GMO, gene therapy and other genetic research, especially now that DNA research is at very advanced stages. Rather than an outright condemnation or censorship we must try to understand the science better so that we can gain from its benefits and control its pitfalls.



## PREVENTABLE DEATH THROUGH EFFECTIVE HEALTHCARE COMMUNICATION

This was the theme at Ehi Iden's yearly Patient Safety Dialogue programme held in Nigeria. This issue of healthcare is critical because it puts patients and their needs at the centre of care. Patients need to be kept informed throughout all clinical processes and to be part of the decisions made.

Healthcare workers need to learn to listen to their patients - the ability to listen is a virtue and is very effective in arriving at the right diagnosis. Safe culture in healthcare is where you hear the voice of the patient before the patient hears the voice of the doctor.

Communicating with patients is an important part of the healthcare worker's responsibility. Unfortunately many healthcare providers believe that patients do not have the right to question them - this lack of understanding is generally due to inadequate training and ignorance and is not done on purpose.

Healthcare workers are exposed to extreme human suffering and psychological trauma on a daily basis, and to cope with pressure they have developed compassion numbness and a lack of emotion towards their patients.

The healthcare environment has little or no culture of safety and this impacts negatively on the safety of patients.

Safety At Design (SAD) relates to the safe designs of healthcare facilities where spaces need to be allotted properly and should communicate in the interest of patients. Safe process systems need to be established which allow the right to report incidences and create learning opportunities from these.

Unfortunately there are not enough healthcare workers in Africa to care for the large population. Added to this, they are faced with huge psychosocial risks on a daily basis leaving them overused, overworked and overdrawn, this also poses a risk to the patients. Fatigue makes a healthcare worker susceptible to mistakes that would not have happened if these important caregivers were not overworked.

We need a system that is balanced, otherwise patient safety is only a lip service.

## SUPPORT A GREEN ENVIRONMENT



Plastic is one of the major causes related to the Global Green House Effect.

Plastic materials are composed of different elements such as carbon, hydrogen, oxygen, nitrogen, chlorine and sulfur, and can be altered by inclusion of additives. When plastics are exposed to weather elements, methane and ethylene are released, two powerful greenhouse gases that can exacerbate climate change. Most plastics are made up from low density polythene LDPE which is the most common prolific emitter of greenhouse gases. Many every day items such as plastic wrap, snack bags, grocer bags, pack rings, sandwich and fruit containers etc are made of LDPE. When plastic is exposed to sunlight it ages and releases much more methane and ethylene. So as plastics degrade in the environment more and more green house gases will be emitted.

The following table shows how long various objects take to decompose:

Paper towel	2-4 weeks
Banana peel	3-4 weeks
Paper bag	1 month
Newspaper	1.5 months
Apple core	2 months
Cardboard	2 months
Cotton glove	3 months
Orange peels	6 months
Plywood	1-3 years
Wool sock	1-5 years
Milk cartons	5 years
Cigarette butts	10-12 years
Leather shoes	25-40 years
Tinned steel can	50 years
Foamed plastic cups	50 years
Rubber-boot sole	50-80 years
Plastic containers	50-80 years
Aluminum can	200-500 years
Plastic bottles	450 years
Disposable diapers	550 years
Monofilament fishing line	600 years
Plastic bags	200-1000 years



## DO TRUCK DRIVERS SUFFER FROM DIABETES?

From case reports many truck drivers have been found to be diabetic, and there's an assumption that truck drivers are exposed to poor nutrition which may predict diabetics in them.

While the two are related, one does not stem from the other. Truck drivers are in a seated position for long periods of time. The food they eat generally has an increased amount of sodium and preservatives. Fast foods that are convenient to buy along the way have poor nutritional values. Many truck drivers lack the education to select healthier options even if they are available. Therefore, it is their nutritional behaviour that may predict diabetes.

### OSH African from South Africa:

Various companies such as Engen Petroleum are aware that a bad diet choice combined with long working hours and the ergonomics of driving a tanker are all contributors to diabetes and hypertension. Medical surveillance has been increased at the company to ensure early prediction of onset- as well as lifestyle and diet guidance as a preventative measure.

### OSH African from Nigeria:

Outside the poor access to meals with healthy nutritional value, we must also recognise driving as a profession characterised with high sedentary behaviour which has been reported in many studies as a mediator of Type 2 diabetes. Studies have shown that drivers work about two to three hours more than office workers a day. A proactive approach could be to look into reducing the hours of driving.

### OSH African member from UK

To look at this problem, we need to keep the African continent in mind where it is difficult to implement shorter hours on many routes. For example a petroleum tanker driver in Nigeria driving from Lagos to Sokoto won't find many rest stations on these highways. The drivers are also under paid, so they can't afford more nutritious meals. A multi-dimensional strategy must be thought



up, both at governmental and employer levels.

### OSH African member from USA

Perhaps one way would be to change the offerings in the company cafeteria and vending machines. In addition drivers should be educated on the health benefits of healthy living, cooking classes can be offered as well as fitness courses. This can all be done after work hours with employees given an incentive to take the classes.

As safety professionals and corporations, we do a great job at articulating research and giving information. However we rarely succeed in complete implementation and lifestyle change. We need to speak directly to the employees and ask them what they think is making them have poor health.

### OSH African from Zambia:

This issue doesn't affect long distance haulage drivers alone, but every driver that drives long distances. Road traffic accidents are often attributed to "excessive driving". A root cause analysis of accidents involving long distance drivers would identify other important yet not so obvious causes.

### OSH African Nigeria:

We first need to recognise this as risk by both the government and employers. We could look at the scenario where many terminals and truck or bus stations are built along routes, so that when a driver clocks his permissible hours, another driver takes over the truck or bus while the earlier driver uses the resting place made available in that station. These stations will serve as handover points

and resting points for the drivers. This is an option that could work but it will be cost intensive and employers always think of profit before the safety of their employees.

### OSH African from Zambia:

A survey is being undertaken - Null hypothesis: Long haul truck driving does not cause diabetes. Alternative hypothesis: Long haul truck driving causes diabetes.

In a sample of 20 subjects; 10 are tested and are found to be **diabetes negative drivers** but are exposed. The other 10 subjects are tested and found to be **diabetes negative office workers** and are unexposed. Each subject is tested for diabetes each year. After about five years we will see which of the two groups - the exposed or the unexposed will develop more cases of diabetes.

From the conversation so far it seems that there's an association between long haul driving and diabetes.

In my opinion long haul drivers need regular diabetes monitoring just like miners have for TB.

Regular tool box talks with the drivers will create an awareness of the risk involved and help them better understand nutritional behaviour. At the macro level national policies of reducing the work hours of drivers should be passed.

### OSH African from Zambia:

Diabetes should not just concern drivers but all regular travellers. Travellers are exposed to quick unhealthy foods. Therefore, this problem must start with behavioural change and good nutrition for all regular travellers.



## ZAMBIA LAUNCHES VISION ZERO

Zambia launched its global Vision Zero campaign on 14th December 2018 in Livingstone at the David Livingstone Safari Lodge.

Minister of Labour and Social Security Joyce Simukoko told hundreds of delegates from Zambia and around the globe that the global Vision Zero campaign was premised on the belief that all occupational accidents and diseases are preventable.

In a speech read for her by Ministry of Labour and Social Security Permanent Secretary Barnaby Mulenga, Simukoko noted that occupational accidents and diseases, present colossal social and economic burdens to enterprises in the local and global economy.

She said that striving for a world without fatalities or injuries is one of the greatest challenges that confront all citizens. She went on to explain that it is important to respond to all these challenges, adding that there is a need to keep abreast with the latest existing occupational safety and health practices and standards in the country and world over.

She explained that government cannot single handedly deliver a vibrant social security system for employment injuries without support and participation of key players such as workers and employers.

Mrs Simukoko also seized the opportunity to urge employers and workers in the country to support government and other players on matters of safety and health by continually applying basic safety procedures and systems in order to eliminate accidents and diseases.

The Minister pointed out that government is pleased to note that the Workers Compensation Fund Control Board (WCFCB) has joined the international community to bring the Vision Zero Campaign in Zambia as one of the latest developments in safety and health practices and standards which seeks to cultivate a mindset change that all accidents and occupational diseases are preventable.



*Dr Elizabeth Nkumbula, the CEO of Workers Compensation Fund Control Board and an OSHAfrica delivering her opening address at the Zambia Vision Zero launch*



## Out of Zambia, yet Zambia in my mind



*Ehi Iden is Chief Executive Officer at Occupational Health and Safety Managers, Lagos Nigeria. He has over 20 year's practice at hospitals, workplaces and occupational health centres. He holds an MBA and MSc in Workplace Health and Safety. He is currently a PhD by Research student. He holds a number of International Certificates from institutions and universities across the world. Ehi is a prolific OHS blogger and has presented papers at many international conferences.*

Growing up was characterised by so many books to see and to read irrespective of the relevance they may be to your age or your current academic pursuit.

My father was a secondary school teacher and felt we must know as much as he knew, even in our very early years in life - we did not like this part of him. Through this quest of my father, I came across a book written by Kenneth Kaunda titled "Zambia Shall Be Free" - this was the first time I came across the name "Zambia". As I grew older, I began to hear other pleasant stories about Zambia, and little did I know that being in the leadership of OSHAfrica would afford me the opportunity to visit Zambia just as I did in December

2018 for the country's launch of Vision Zero.

For over two years now, I have been fortunate to know a number of people from Zambia through OSHAfrica, and there exists a very strong connection between us all each time we have the opportunity to talk.

While at the country launch of Vision Zero in Ghana, I met Dr Elizabeth Nkumbula, Chansa Kapema and a number of other colleagues from Workers Compensation Fund Control Board (WCFCB) Zambia. That meeting led me into visiting Zambia for the first time.

The Director General, Lagos State Safety Commission, Hon. Hakeem Dickson and I flew to Zambia together. We didn't know what to expect or look out for in Zambia, we have both heard of Lusaka but not much about Livingston, however we were sure that we would find it to be a great city.

### GETTING TO KNOW LIVINGSTON

We landed at the Livingston airport at about 2.30pm to the scorching heat of the sun. As we went through the immigration checks, we noticed a number of people waiting to welcome us with Vision Zero flags.

We were received and treated with so much respect and honour, and photo sessions alongside two other delegates from ISSA Mining and Construction who were also visiting Livingston for the first time. We were driven to the Avari Resort in immaculate white vehicles all branded with the Vision Zero logo. We knew that we were in for a good time in Zambia.

We drove through the stretch of reserved land with the kind of vegetation and topography that you may not easily find elsewhere in the world. We learned about the history surrounding Livingston which thrilled and awed us.

We arrived at Avari Resort totally blown away by the closeness to nature and the presence of animals - some of which we had only read about or seen in the discovery channels, here we were seeing them live.

We later met up with a couple of OSHAfrica members. Mowa Zambwe and co took us out to visit the David Livingstone Museum. Later that evening, we met Dr Elizabeth Nkumbula and others members of the WCFCB.

### VISION ZERO CONFERENCE KICKS OFF

On arrival at the venue of the Vision Zero country launch the next morning, we were met with very colourful and well-dressed men and women, dignitaries from different organisations and government agencies. There were flashes from cameras that were endlessly shooting photos of people as they entered.

We took our seats and the event commenced with a procession led by three beautiful, amazon-looking ladies from WCFCB. They held the WCFCB flag as they led each dignitary representing WCFCB, ISSA and the Ministry of Labour and Social Security onto the stage for the opening ceremony. This creative procession gave off a very positive energy and was one of my favourite highlights of the event.

The event started with a well delivered welcome address from Dr Elizabeth Nkumbula, and was followed by many other worthwhile and excellent speeches and papers.

I was impressed to see that Zambia has a country Vision Zero Ambassador - a Humanitarian Neuro Surgeon, Dr Kachinga Sichizya.

I enjoyed being in Zambia so much that I adopted a Zambian name "Kambukani" which means "you must remember" in Tonga language. This name will always remind me of this visit to Zambia and that firstly, I am an African.

Another highlight was a Zambian musical group who took "Vision Zero" and created a song out of it - this was strong in both content and lyrics. Hakeem Dickson, not wanting to forget this song, recorded it with his phone and plays it for me every time I visit his office. We were also entertained by a number of drama groups and local dance troops, all driving home the "Vision Zero"



message.

The lunch was an amazing choice of continental and local delicacies, we had lots to eat and drink.

At the end of the day we were taken to the water front for a 2 hour boat cruise on the Zambezi River. This was an experience I do not want to forget in a hurry - I saw a band of hippopotamus, an elephant as well as other animals. There was a lot to see, eat and drink on this cruise. With everyone now more relaxed, we laughed, networked and got to know each other better.

It during this cruise that I met people who today are all championing the Africa course.

The cruise guide had a lot of stories to share about the Zambezi River. After the cruise, we proceeded to a banquet where more delicacies and drinks were in excess and awards were handed out to companies and personalities that have done well in workplace health and safety in Zambia.

We got back to our rooms a little over fed with a feeling of sadness that we will be going back home the next day.

I woke up the next morning, and went to visit the much talked about Victoria Falls which was just behind Avari Resort.

We said an emotional farewell with friends hugging and wishing us a safe journey.

As I went to the waiting vehicle, I realised how much I have fallen in love with Zambia.

I am an African born in Nigeria, even though Zambia is home to me. I have long returned to Nigeria, yet Zambia is still in my mind.



## GHANA LAUNCHES VISION ZERO

The Vision Zero campaign for Ghana was launched in Accra 30 - 31 November 2018 with a call on stakeholders to take responsibility and ownership at the workplace.

It was jointly launched by Ms Emily Akumah, Country Coordinator of Ghana Vision Zero, Chief Director of Ministry of Employment and Labour Relations, Mr Rudolph Kuuzegh and the Director General of Lagos State Safety Commission, Mr Hakeem Dickson.

Ghana, is the third African country after Nigeria and Cote D'Ivoire to launch this global campaign that has seen over 1950 companies and trainers signed up.

Vision Zero is a global campaign launched by the International Social Security Association (ISSA), at the XXI World Safety and Health Congress in Singapore to improve safety, health and wellbeing at work.

The campaign was launched with the aim to engage enterprises to systematically cut down on occupational accidents and diseases by investing in a healthy and motivated workforce Worldwide.

Mr Ehi Iden, President of Occupational Safety and Health (OSH) Africa, presented the Vision Zero campaign called on African leaders to get involve and help fix the workplace challenges for the future.

This he said they could do by creating enabling policies that are people centred to reap the economic benefits of preventing workplace injuries and diseases.

He also called for the establishment of a Safety Commission to oversee and set standards and regulations with respect to occupational health and safety in the country.

The participants, made up of authorities in charge of Labour and



Employment in the region, labour experts, health, safety and environment experts, inter-regional and local organisations whose work relate to the corresponding fields,

They signed up for the Vision Zero and shared their commitment and programmes relating to the campaign.

## NIGERIA MARITIME ADMINISTRATION AND SAFETY AGENCY (NIMASA)

The Annual Maritime Administration and Safety Enforcement (MASE) HSE Workshop was organised by Nigeria Maritime Administration and Safety Agency (NIMASA), and held in Lagos.



# OSHAfrica 2019 Conference

18 - 20 SEPTEMBER 2019

EMPERORS PALACE, JOHANNESBURG, SOUTH AFRICA



OCCUPATIONAL HEALTH AND SAFETY  
IN AFRICA  
CHALLENGES AND ACTIONS

## IMPORTANT DATES

### EARLY REGISTRATIONS

Closes: 28 March 2019

### REGULAR REGISTRATIONS

29 March - 04 September 2019

### SCHOLARSHIP APPLICATIONS

Closes: 28 March 2019

OCCUPATIONAL  
HEALTH AND  
SAFETY IN AFRICA  
CHALLENGES AND  
ACTIONS





# uvex



## uvex x-fit

Modular eye protection system by professionals, for professionals

### Effective protection.

### Perfectly equipped.

The uvex x-fit range of safety glasses can be adjusted to meet your specific requirements.

The flexible modular system enables practical uvex x-fit accessories (e.g. uvex LED mini light or uvex head-band) to be attached to the side arms with ease.



### uvex x-fit

#### Reliable protection – at just 23 grams

The X-design of the lens ensures additional stability – for full protection. The translucent side arms give the uvex x-fit a modern, sporty look.



uvex x-fit  
family



uvex x-fit pro

