FINKINGSAFF DIHEERENATY

Kevin Stevens - Head of SHEQ FM Conway

CPI Biennial Health and Safety Conference June 2022 'Health, Safety and Wellbeing - Hearts, Minds and People'



Safety Evolution

A brief history of safety

- 1900 **Technical** humans are cogs in a machine: mechanical improvements, better technology, physical controls, reductionist thinking,
- 1980 People humans are hazards that need to be controlled: compliance training, rules based safety culture, behavioural safety.
- 2010 **Organisational** humans are storybuilders, values based culture, systems thinking, human performance, what's going right not wrong.

2022



Safety Traditionally

"Our overall approach to safety management today is based on an assumed correlation between frequency and severity of accidents, which needs to be reviewed".

- Prof. Sidney Dekker -





(Re) Defining Safety

"Safety is the capacity that enables things to go right across varying conditions." - Daniel Hummerdal -

Survive and Thrive

"People don't come to work to be safe. They come to work to work. Safety can only thrive when it is an active partner with the objectives and success of the organisation as a whole."

- Kelvin Genn -



Remaining Relevant

"Evolve. Or run the risk of becoming professionally obsolete."

- Jeff Altman -



Safety Differently

"Safety Differently is about relying on people's expertise, insights and the dignity of work as actually done to improve safety and efficiency. It is about reducing the bureaucratization and compliance of work."

- Prof. Sidney Dekker -



Traditional Safety Thinking

- 1. Workers are the problem to be fixed, more rules leads to safer workers.
- 2. We must tell workers what to do and, what more importantly not to do.
- 3. Safety is about the absence of negatives accidents.

Safety Differently Thinking

- 1. Workers are the solution, dynamic problem solvers in complex environments, less rules.
- 2. We ask our workers what they need, not tell them what they can have.
- 3. Safety is **not** the absence of accidents it is the presence of capacity.





Why 'Zero' doesn't work for me!

Ideology or practical

LGI's all to often hide a harsh reality

"Zero harm has become a corporate brand rather than a meaningful vision [only] delivered with the right programme".

- Mark Ormond -



- Steven Newman, CEO Transocean, 2010 -

Asymptotic Symptoms

"Severe accidents or fatalities are a reality; and will happen even with the highest level of compliance and safety culture.....

.....because fatalities and serious accidents are not like traditional industrial safety problems – they are outliers and anomalies that can't be predicted".

- Dr. Todd Conklin -

"An MSc in Risk, Crisis, Disaster Management opened my mind to look beyond what we are traditionally taught, critic the norms, challenge thinking and above all make it real!"

- Kevin Stevens -

Prevention

- Behaviors
- Policy/rules

Accidents

Enforcement



- Not like other failures
- No near misses
- Exist in success



More rules will not make you safer!

"Workers subjected to too many rules – some of which are overly complex, contradictory, outdated, or inapplicable to their specific jobs – often forget, cannot prioritize, or simply ignore many of them."

- Prof. Robin Bowen -





Are workers really the problem?

Asking what not who failed

"Humans make 95% of their decisions using heuristics. Heuristics are mental shortcuts to help people make quick, satisfactory but not perfect decisions.

- Gary Wong -

Just Failing

Chatsworth Rail Disaster, California, USA, 2008

"Tragically, an instant message turned an ordinary commute into a catastrophe."

- Deborah Hersman, NTSB -



Drift & Accumulation

HOW WORKERS ACHIEVE WITHIN COMPLEX SYSTEMS



Human error

"Human error is both universal & inevitable". - Prof. James Reason -



Identify Prevent Execute Recover





Strong Defences

"How many operations do you have where the workers only defence against injury is their training, or that they'll do the job right every time?"

- Dr. John Green -

Simplification

"Simplicity is the ultimate in sophistication."

- Leonardo Da Vinci -





Creative Innovation

"Although 'creativity' isn't a word we use much in safety, there's an argument to say that we should."

- Anna Keen -



People: The Solution

The challenge ahead is not one of winning hearts and minds, but one of enabling organisations to unleash their own potential to assess, adapt, improve, create and innovate.

- Marc McLaren -

Health & Safety in FM Conway

OUR



Equipment

Capacity for safe operations – a clear focus on effective controls for high consequence events. No preoccupation with reducing minor accidents. Culture

Improve engagement – lead differently. Stop telling workers what to do, ask them what they need.

Process

Reduce complexity – simplify and standardise as far as possible. Clear the clutter, focus on the vital few.



SAFETY DIFFERENTLY

PHILOSOPHY

Systems

Systems approach – look at the context not the outcome. Move from asking "who failed" to "what failed"

WECANNOTSOLVEOUR PROBLEMS WITH THE SAMETHINKING WEUSEDWHEN WE CREATED THEM -Albert Einstein



SAFETY DIFFERENTLY

"Safety is no longer about preventing failure, its about having the ability to fail – safely – and then recover without suffering severe consequences."

THANK YOU FOR LISTENING

BIG TEN

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THNKHNGSAFE DIFFERENTLY

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Putting Thinking Safety Differently

Kevin Stevens Head of SHEQ

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Our HS Journey



• AFR's

- 1 Fatality in 60 years (*reversing vehicle MOP non culpable*)
 RIDDOR 0.14/100 000 average (best year 0.05/100 000)
 LTIFR 0.4/100 000 peaking at 1.9 in 2014
- Near Misses increased 350/yr to 53 000/yr
- TBT from 10 000 to 35 000/yr
- Utility strikes reduced by 45%
- A 'Just Culture' Business
- Maturity Modelling
- IOSH Safer & Healthier by Leadership (MPA) Leading the Industry





Despite all of the success on the back of a significant period of growth.

We could have killed 5 people in 2019!









DO YOU KNOW THE TEN BIG RISKS?

Let us help you identify and prevent potential risks that can have life changing or even life ending consequences.







 Post: back free post form
 Email: tenbigrisks@fmconway.co.uk

 Phone: 020 8636 1504
 Scan: QR code or visit

 Mobile: 07760 362 362
 www.fmconway.co.uk/tenbigrisks





BIG TEN IN 10







STRUCTURES



Point: Angle Point: Angle Point: Angle Point: Angle Point: Angle Working at Height Temporary Works Confined Spaces Isolation & Guarding Occupational Road Risk Microsoft I Actual 0 45 N/A N/A N/A N/A Potonti 57 N/A N/A Potonti 205 N/A N	1
	Excel eet
Point:AnglePoint:AnglePoint:AnglePoint:AnglePoint:AngleLifting OperationsSafe Digging PracticesSubcontractor ControlOccupational HealthTraffic/Pedestrian InterfaceActual045N/AN/AO45N/AN/AAndePotenti110N/A113N/AO81N/AN/AOtenti6584N/AN/AN/AN/AN/AN/AN/A	

RISK PROFILING - 111,846,000 life changing harm activities every year.





BIG

INTERVENTION EFFECTIVENESS





9

HIERARCHY OF CONTROLS







Using KPI's to drive performance



Lagging

Leading





DIVISIONAL CONTRIBUTORY INDICATORS





DIVISIONAL CONTRIBUTORY INDICATORS





DIVISIONAL CONTRIBUTORY INDICATORS





BIG RISK AUDITS































INSPECTION CORRECTIVE ACTIONS







PRACTICAL EXAMPLES











28.006.8.833 TO DATE click on images



AUTOMATED DRUM CLEANING

ACTION: Automated dryer drum cleaning system installed at FM Conway asphalt plants to eliminate the need for confined space entry

OUTCOME: In addition to eliminating confined space operations, the automated cleaning system has eliminated **6,250 potential exposures** per hour for HAVS, dust, noise and manual handling

NEXT STEPS ON OUR JOURNEY



2.8 million further Big Ten in 10 improvements have been identified and are currently in development







AUGMENTED REALITY





LOW LOADERS



REMOTE PLANT



DYNAMIC MONITORING OF TEMPORARY WORKS



Leadership & Engagement



GAME OF HRONES



Valued - Visible Felt Leadership



Doing the right things

So people feel that your influence and drive are directed at the right things

A sense that you really have value for doing those things





Big Ten Forums



- Big Risk Champion Groups
- Represented 80/20 split between Operatives and Managers
- All Divisions represented
- Blue Sky thinking lunches/sessions
- Innovation Leads
- Thinking outside the box



RISK ENGINEERS



Health & Safety professionals of the future

Data Scientists

Innovation Leads

Safety Differently Advisors

Big Risk Managers



Workforce Engagement





- Workforce engagement recognised as a key success factor
- Big Ten in 10 imagery, branding and marketing support
- Simple, relatable and consistent messaging
- High levels of Big Ten in 10 awareness among workforce
- Supply chain engagement (legacy)



Thinking Safety Differently - Summary





- Operational reality of risk (Corporate Honesty)
- Leadership buy in (a RROI)
- Predictive culture (Risk Profile)
- Track and respond to real time risk
- Sustainable critical fail safe controls for each 'Big Risk'
- Communication (Stop the Blizzard)
- Build familiarity around the 'Big Risk'
- Branding/Association
- Recognisable
- Believed



Understood and respected at the coal face

What is happening outside



Thinking Safely Differently









Supply Chain Health & Safety Leadership Group

Update 26th May 2022







V2



Vision

To eradicate any occurrences of fatal harm from **"significant risks"** throughout the complete lifecycle of all National Highways assets by 2030 and prevent occupational health lifechanging harm by 2040, by elimination, substitution, isolation and/or engineering controls. SUPPLY CHAIN SAFETY LEADERSHIP GROUP

CEO & MD's Support

Commitment of time and

resources

IPPLY CHAIN SAFETY

TRADE

BODIES

Risk Profiling Results



PRIORITY GROUPS



IDENTIFYING THE RISKS

RISK PROFILE - A FIRST FOR INDUSTRY



Occupational Road Risk

People Plant Interface (including Incursions)

Working at Height

Temporary Works

Underground – Overground Services

Occupational Health – Noise – Dust – Manual Handling

Plant Turnover

Lifting Operation



Future Focus and Approach



HIERARCHY OF INTERVENTION EFFECTIVENESS

HIERARCHY OF CONTROL



- We still kill and have health concerns
- Health and Safety Performance needs to be sustainable with Leading Indicators as a measure of performance. We can decide what H+S performance looks like rather than what we do at the moment which is the absence of accidents

What's next?

- Phase 2 Risk Profiling focus on exposure hours
- Redesign Common Intent and Raising the Bar Templates - Significant Risk Thinking and Simplification
- What is currently available to manage Significant Risks?
- Introduce Risk based compliance auditing performance measures
- Create Significant Risk Groups with Leading Indicators
- Transform health and safety performance monitoring





Significant Risk Groups





Establish Max of 4 Significant Risk Groups. Each Group will be led by a SCSLG Member + members from Safety Hub and supporting organisations

Additional Groups to be established are Health and Safety by Design, Communications and Health and Safety Performance

Groups will be required to deliver:

- Vision + Leading Indicator with 2 year milestones
- Background information plus detailed risk analysis and frequency of exposure
- A review of transferable innovations
- The application of Reverse Triangle and Hierarchy of Intervention going Above the Line
- The removal human error what are the performance influencing factors (PIF's)
- Leading Indicators and HS Intelligence weak signals
- Legacy and Embedment (Significant Risk Compliance)
- Communication of achievement

What it could look like - Contact with Moving Plant/Vehicle



Over the last 15 years reversing manoeuvres still remain one of the biggest killers in the construction industry but by implementing new technologies, we can help to eliminate the potential risk of vehicles coming into contact with people.

- Ensure safety critical controls (SCC) are developed wherever we are reliant on a human to save a life.
- 3.2 Million reversing manoeuvres protected with SCC on 3 loading shovels – Human recognition camera linked to braking system
- Automatic Near Miss Report from machines – Major Hazard – equipment now contributes to near miss reporting



Depot - Reversing Vehicles current position

HIERARCHY OF INTERVENTION EFFECTIVENESS

Depot - Reversing Vehicles the possible

HIERARCHY OF INTERVENTION EFFECTIVENESS

Planned Framework Structure

Health Safety Performance

More health measures

Primary: David Shaw

Secondary:

Members:

PPVI

Primary:

Secondary:

Members:

Comms

Challenge existing coms and embedment

Primary:

Secondary:

Members

Incursions + IPV strikes

Primary: James Haluch

Secondary

Members:

Healthier and Safer Design and Delivery

HEALTH Physical! Design of scheme plus construction equipment

Primary:

Secondary:

Members:

Occupational Road Risk

Primary:

Secondary:

Member: Nick Holt

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FATAL 6 5 2 3 (4) 6

afequarry App	The FATAL 6	1.Contact with moving machinery
afar by compationce	Mitigating the high consequence bazards in	and isolation
est practice	the Mineral Products Industry	2.Workplace transport and
oolbox talks	94% of fatalities in the industry fall within these 6	pedestrian interface
cident Alerts	common themes - Please view the video The	3.Work at height
ot Topics	FATAL 6	4 Workplace
uldance		Respirable
ublic Safety	-	Crystalline Silica
ideo Library		5.Struck by moving
ther resources and uppliers	IN THE	6.Road traffic
egister for alerts	62	accidents
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3 Shane 0 🈏		

MPA is setting up a working group for each theme. They are tasked to develop recommendations and resources to help the industry to identify the high consequence hazards and to mitigate the risks in these 6 areas.

The Fatal 6 are listed in the right hand column click on these to find out more about the new

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FATAL 6 6 5 3

Safequarry App	Mitigating the high consequence hazards in	1.Contact with
Fatal 6	the Mineral Products Industry	moving machinery and isolation
Safer by competence	FATAL 1 - Contact with	2 Workplace
Best practice		transport and
Toolbox talks	isolation	pedestrian interface
Incident Alerts		3.Work at height
Hot Topics	-	4.Workplace
Guidance	22% of fatalities in the industry are as a result of	Respirable Countralling Cilian
Public Safety	 contact with moving machinery often associated with reactive maintenance and a failure to correctly isolate all sources of energy. 	Crystalline Sliica
Video Library		5.Struck by moving or falling object
Other resources and	controlly isolate an obtailed of energy:	or running object
suppliers		6.Road traffic accidents
Register for alerts	- 9,	
Quarries Partnership Team		
f Share 0 🍑		

Fatalities or serious injuries mainly due to a failure to isolate machinery, poor guarding, inadequate exclusion areas, poor procedures or a failure to follow them. These tragic incidents often involve horrific injuries associated with entrapment, crushing, amputations, pinching, lacerations or burns.

In many cases these incidents were forseeable and avoidable. Reducing C . L . C . H

THANK YOU FOR LISTENING

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