

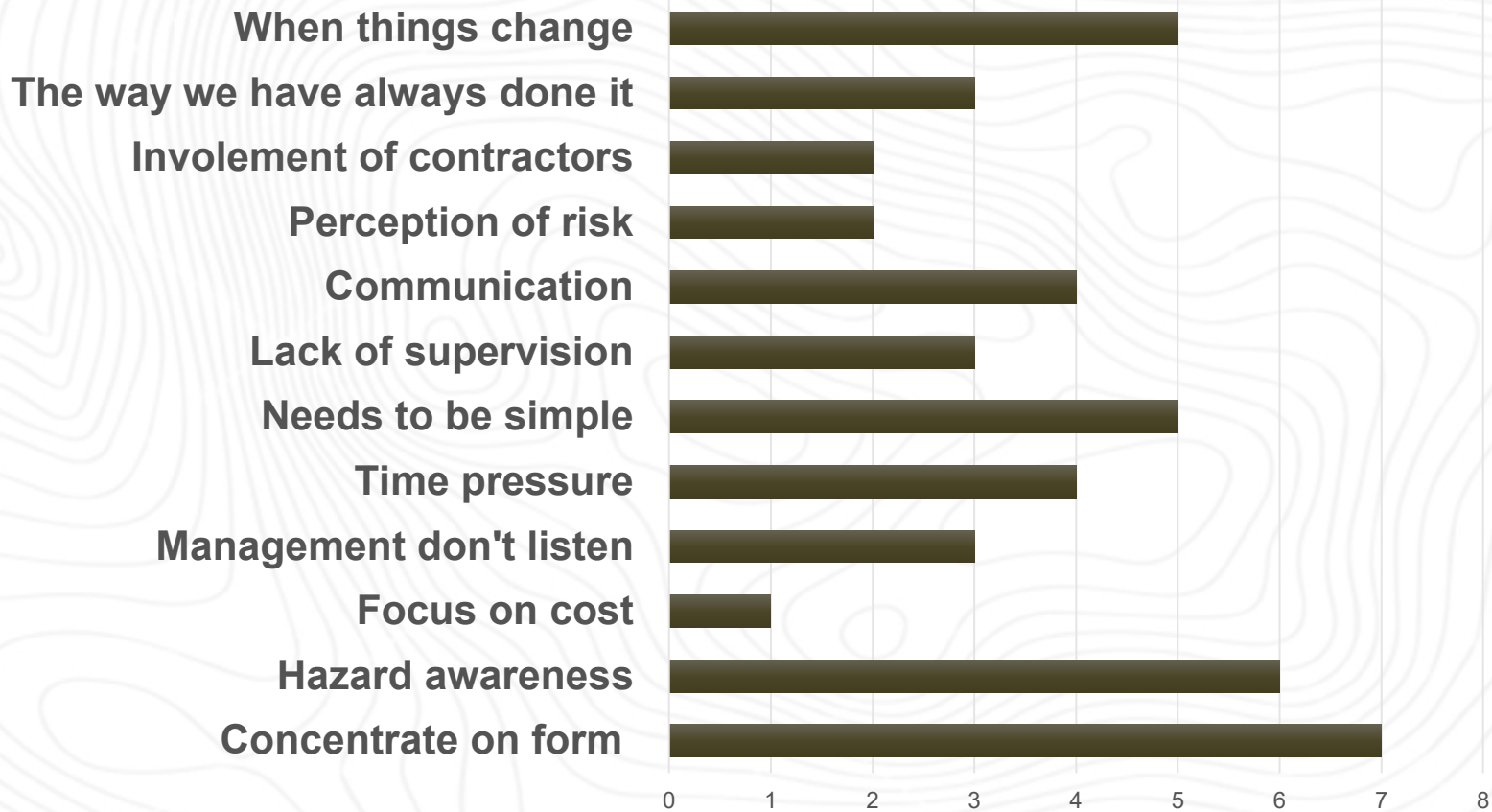
Effective Risk Management



Why is it we keep hurting people?



What problems are you having with Risk Management?



Perception of Risk

- We all have a different perception of risk.
- What is yours ??
- What is Risky Behaviour ??





Amazing Excavator Driving Skills!



What is risk assessment?

A risk assessment is simply a careful examination of what, in your work, could cause harm to people, so that you can weigh up whether you have taken enough precautions or should do more to prevent harm.

Workers and others have a right to be protected from harm caused by a failure to take reasonable control measures.

HSE Five steps to risk assessment 2011



RISK MATRIX - ADAPTED FROM ISO 31000:2009

E - Extreme Risk - Detailed action plan required to manage risk before progressing
 H - High Risk - Needs immediate senior management attention
 M - Medium Risk - Specify management responsibility
 L - Low Risk - Manage by routine procedures

LIKELIHOOD	Probability	Historical	5	Almost Certain	CONSEQUENCE				
					People				
					Injuries or ailments not requiring medical treatment	Minor injuries or First Aid treatment	Serious injury causing hospitalisation or multiple medical treatment cases	life threatening injury or multiple serious injuries causing hospitalisation	Death or multiple life threatening injuries
				insignificant	Minor	Moderate	Major	Catastrophic	
					1	2	3	4	5
	>1 in 10	Is expected to occur in most circumstances	5	Almost Certain	M	H	H	E	E
	1 in 10 - 100	Will probably occur	4	Likely	M	M	H	H	E
	1 in 100 - 1000	Might occur at some time in the future	3	Possible	L	M	M	H	E
	1 in 1000 - 10 000	Could occur but doubtful	2	Unlikely	L	M	M	H	H
	1 in 10 000 - 100 000	May occur but only in exceptional circumstances	1	Rare	L	L	M	M	H

Dangerous access to crusher

A labour hire worker was trying to shut the bin door over a crusher from the walkway around the crusher. He experienced difficulty and called for help from the contract engineer via the RT.

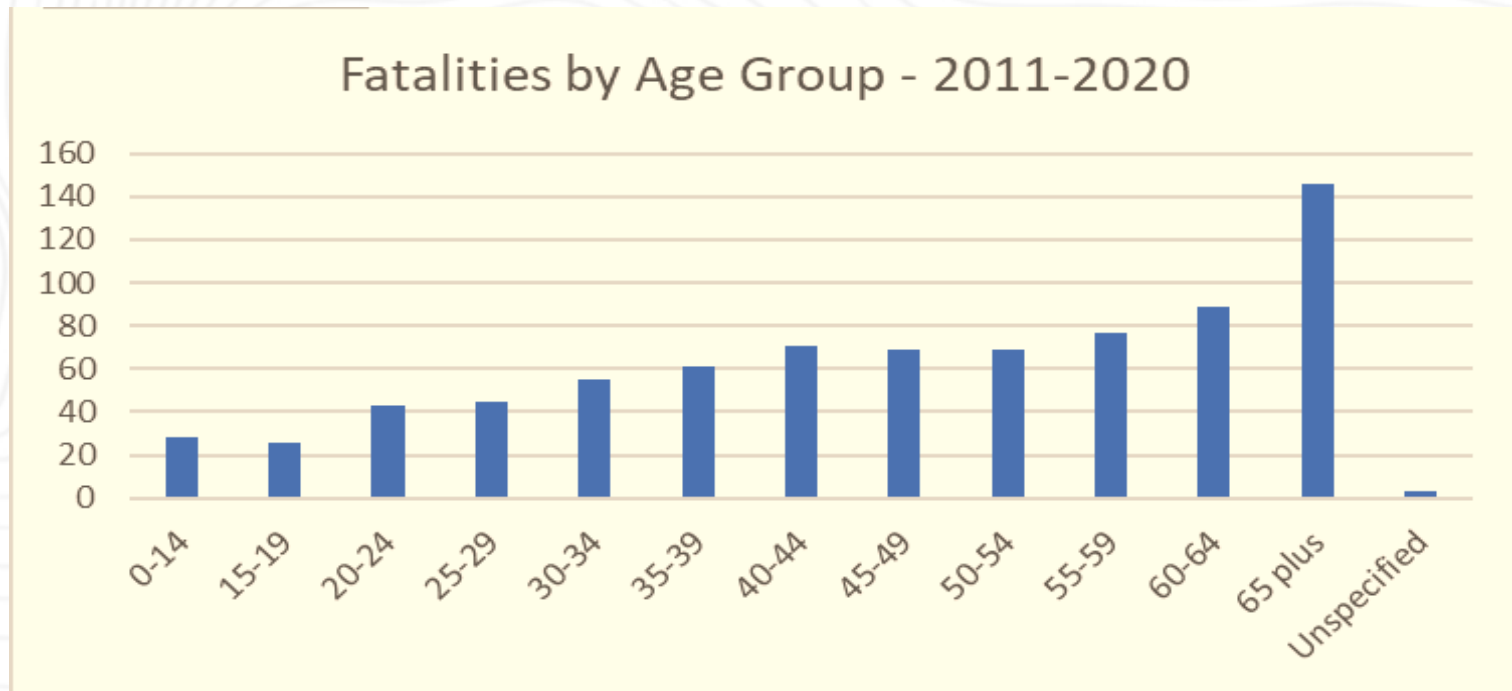
The contract engineer climbed over the handrail and stood on the brackets supporting the chute, while straddling the chute to access the lever to close the bin door. The crusher was operating at the time.



“it’s just common sense !!!!”



Workplace Fatalities New Zealand



5 Failure Modes of Site Risk Management

- 1. Not recognising or appreciating the HAZARD**
- 2. Being driven by forms not outcomes**
- 3. Relying too much on the '5 by 5' risk matrix**
- 4. Not focussing on controls and their effectiveness**
- 5. Not recognising the right 'Value'**

Jim Joy – www.jktech.com.au

5 Failure Modes of Site Risk Management

Not recognising or appreciating the HAZARD

- **Hazard awareness, perception of risk**

Being driven by forms not outcomes

- **Concentrate on form**

Relying too much on the '5 by 5' risk matrix

- **Needs to be simple, concentrate on the form**

Not focussing on controls and their effectiveness

- **Lack of supervision, involvement of contractors**

Not recognising the right 'Value'

- **Focus on costs, Management don't listen**

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HSE Five steps to risk assessment 2011

So... How do we make our risk management more effective ?

Let's not worry about the form for now

- engage our people
- supervise
- physical checks and inspections
- the right equipment, well maintained
- training & competency



The best ways to engage with your workers

- **Share information and decisions in a timely manner**
- **Give workers reasonable opportunities to share their views, raise work health or safety issues, and contribute to decision-making processes**
- **Consider the views of workers (listen!!)**



Supervise/Physical checks and Inspections

- **Physical checks of risk assessments and other risk management processes**
- **Physical workplace inspections, including task observations**
- **Review of risk assessments after completion of task (Workplace Inspections)**



The right equipment, well maintained

- **Use the best equipment for the task**
- **All Plant and Equipment fit-for-purpose and used in accordance with OEM requirements**
- **Ensure plant is maintained in accordance with OEM requirements including prestart checks**



Training and Competency

- **Model specific equipment operator training and competency assessment**
- **Do workers understand the need for risk assessment and how to carry these out effectively?**
- **Does everyone have the time and resources to complete their work safely AT ALL TIMES?**



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The Risk Assessment Process

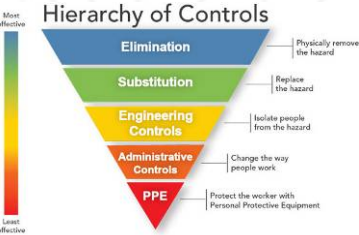
The Task

Engage with workers

Stop when there is a change

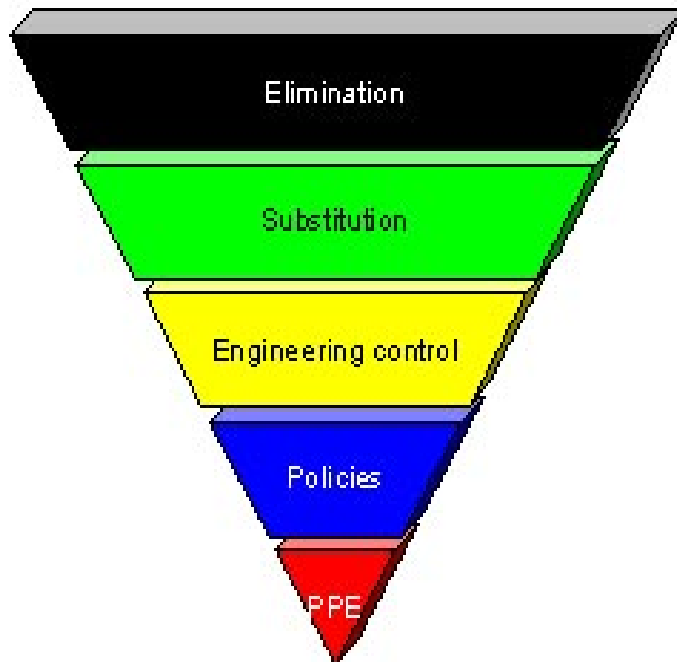


Controls in place are specific, clear and understood by all



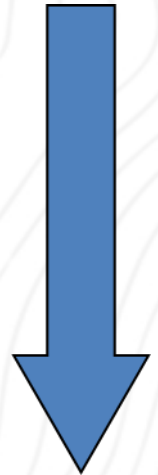
Hierarchy of Controls

Hierarchy from most effective to least effective

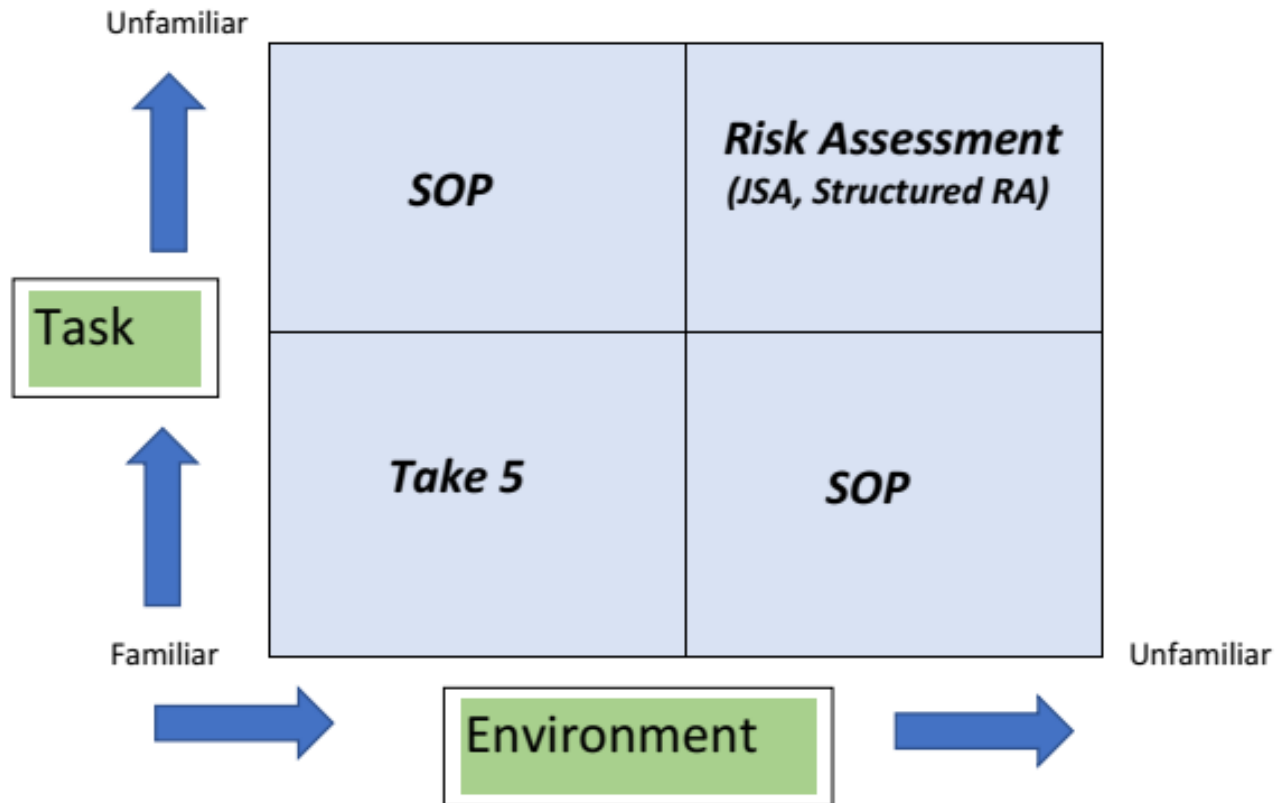


Evidence suggests the following:

- **PPE**
- **Administration**
- **Engineering (Separation or Redesign)**
- **Substitution ??**
- **Elimination ??**



Now we can consider the form



Acknowledgement: Dave Loach

Risk assessment forms

- Keep it simple
- Use the same format if using multiple forms
- Design forms with input from workers



RISK ASSESSMENT SHEET			
COMPANY / OWNER: _____		WORKPLACE LOCATION: _____	
		LOT: _____	
NO.	SPECIFIC ACTIVITY	HAZARD – RISK (What Can Harm You? – What could go wrong?)	CONTROLS
	<small>List each specific task or steps taken to do this work activity eg. Place out signage, Lift pipe, Remove wheel.</small>	<small>List the hazards and risks identified when doing each specific step or task eg Moving vehicles, size or weight of object, slope or slippery batters.</small>	<small>List controls used to reduce the risk for each specific step or task eg use barrier truck, use of crane.</small>
1	Benching of Quarry Face	Working in base of face, Falling from edge (machinery and human)	<ul style="list-style-type: none"> • Catchment bund in place • No go zones - 6m • Competent personnel • Bench heights to an economical minimum
2	Managing Pit Water	Drowning	<ul style="list-style-type: none"> • Pit pumped out to manageable level frequently • Edge protection /security fencing
3	Accessing Quarry Site	Unauthorised access, road conditions	<ul style="list-style-type: none"> • Secured gates • Staging area for visitors • Bunding of access roads as required • Signage
4	Construction of ramp to feed bin	FEL accident, fall to ground	<ul style="list-style-type: none"> • Use sound material to build ramp • Compact ramp adequately • Edge protection
5			•
Prepared by (Risk Assessment team): _____			
Date: _____			
Approved by: _____			
Date: _____			

Leadership is the Key !!

- Live the vision (make it measurable)
- Focus on High Potential events
- Recognise fallibility (maintain sense of vulnerability)
- Use the Hierarchy of controls



So where do you see issues with your risk assessment processes?

- How effective is your process?
- What do you think of the documents used? What do your workers think?
- Do you check controls are in place and effective?
- How do you assist workers in identifying hazards?
- What would you or your workers change if you could?





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