

"Vision Zero" a Workplace Without Harm

Alex Gryska - Bogota Colombia September 2019

Eight dead in Zimbabwe mine explosion

② 1 week ago 🎍 Mining Editor 💆 3 Min Read

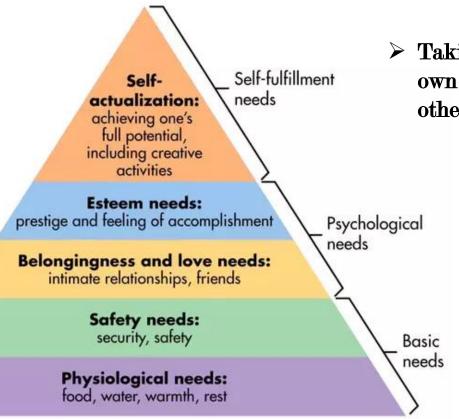


Reality Check

- > Raise of hands if....
 - >A family member has died in a mining incident.
 - ➤ You have lost a friend/colleague in a mining incident.
 - > You suffered a serious injury in a mining incident.
 - >A friend/colleague has suffered a serious injury in a mining incident.



Maslow's Hierarchy of Needs As it Applies to Safety



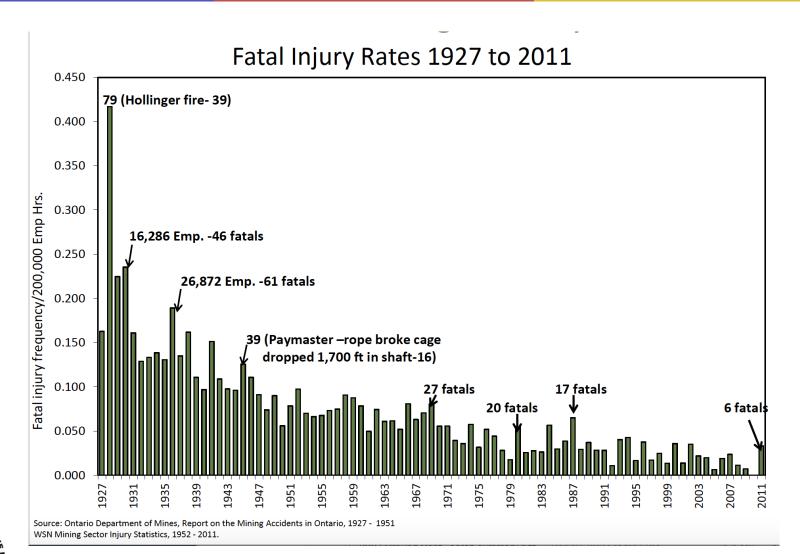
> Taking responsibility for our own safety along with the safety other workers.

Recognizing that we are responsible for our own safety.

> Belief that others will take care of our health and safety.

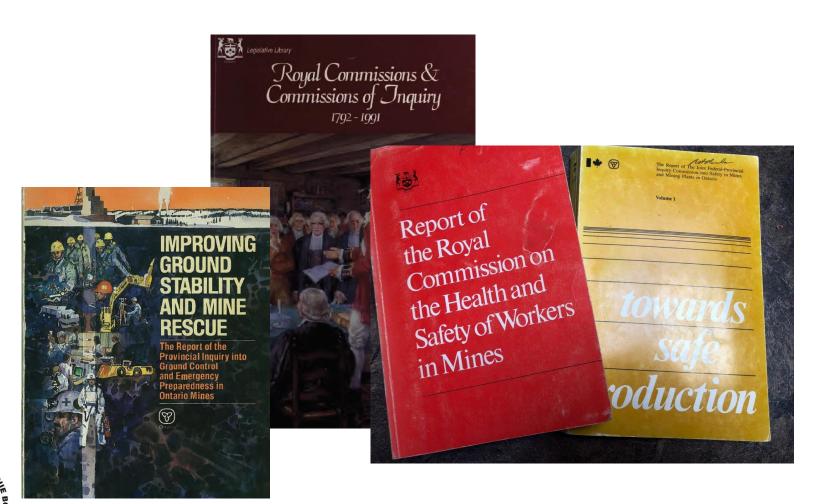


Ontario Mining Industry





Ontario Mining Industry is High Profile



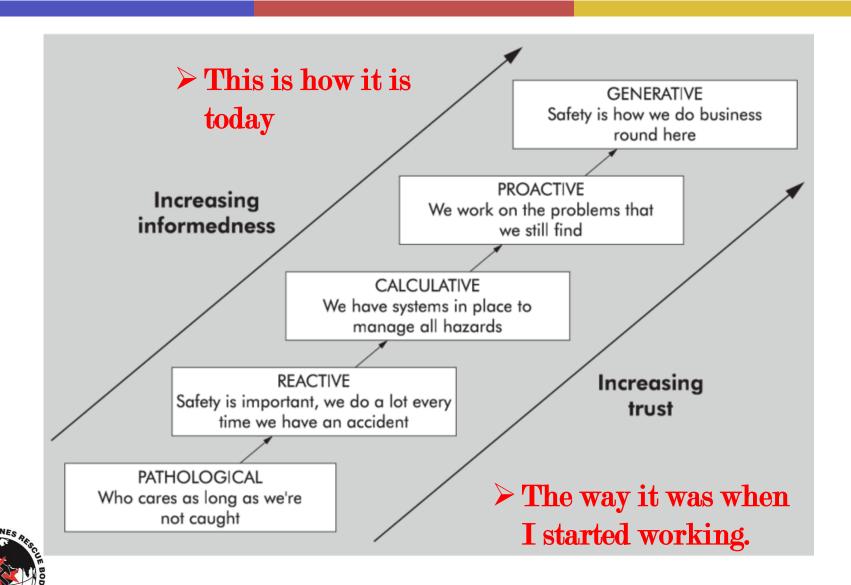


Prevention Begins with Investigation

- > Hollinger Mine Inquiry 1928 Godson Report
- > Royal Commission on the Health and Safety of Workers in Mines 1976 Ham Report
- ➤ Joint Federal-Provincial Inquiry Commission into Safety in Mines and Mining Plants in Ontario — 1981 Burkett Report
- ➤ Improving Ground Stability and Mine Rescue 1986 Stevenson Report
- ➤ Mining Health, Safety and Prevention Review 2015

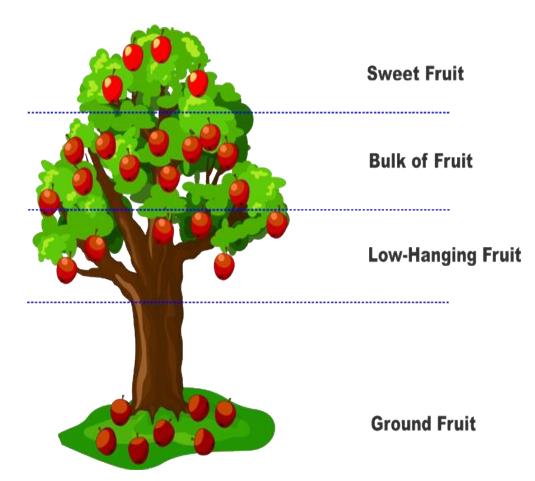


Evolution of Safety Behaviour



Changing "Impossible" to "Possible"

- Getting to "Zero Harm".
- > Making significant improvement.
- > Identifying and tackling the easiest tasks first.





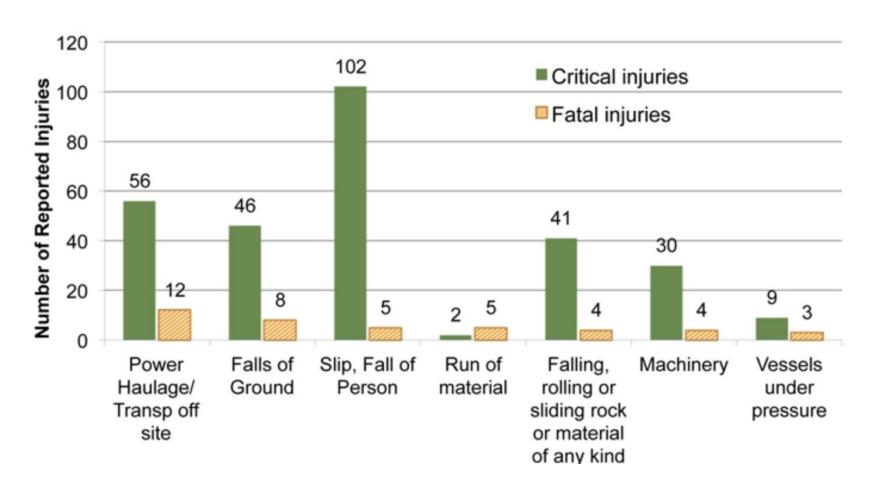
Competency Based-Training is Essential

- > Hard Rock Underground
- > Soft Rock
- > Mill Process Workers
- > Diamond Drillers

- Each has a introductory modules,
- > Specialty modules and
- > Modules for supervisors



Identifying Key Sources of Harm





The Need for Data Collection and Analysis

Identifying "Killer" violations

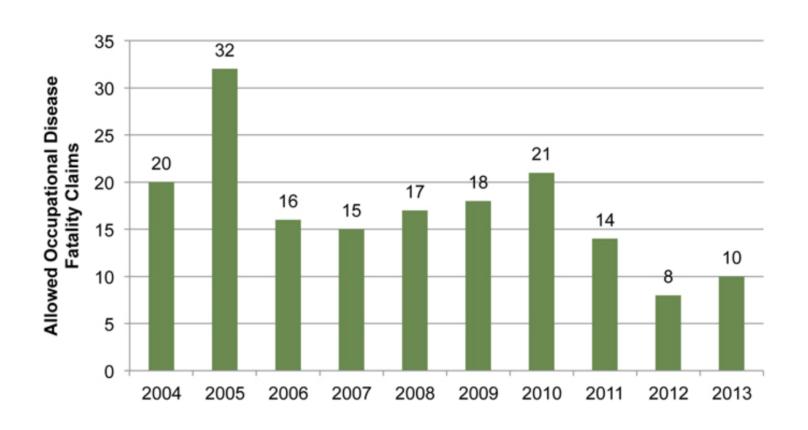
- > Ventilation
- > Explosives use and handling
- > Mobile equipment.
- > Rockbursts and falls of ground.
- Falls of persons.

And the yet unresolved issue

➤ Occupational Health related injury.

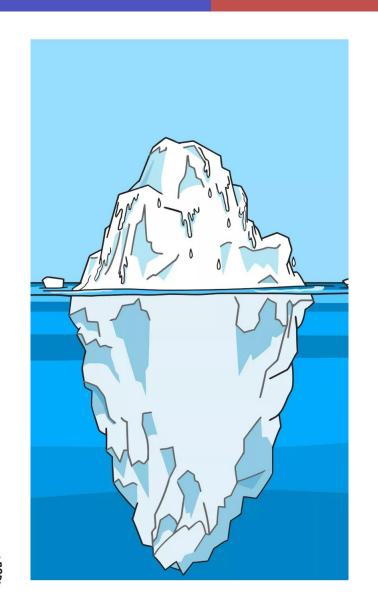


Occupational Illness Claims Ontario





How much Does a Lost Time Injury Cost?



Ontario 2007 (Average)

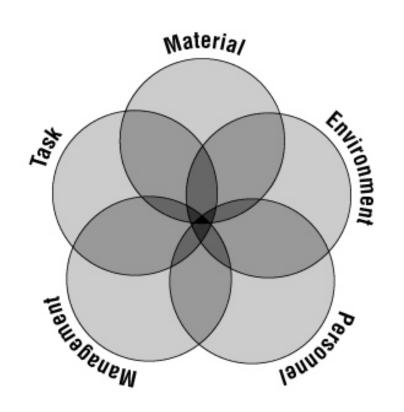
- ➤ Direct cost \$21,300,
- ➤ Indirect cost \$85,200.

➤ Total Cost \$106, 500



Thorough Investigation - Determine "Root Cause"

- **Training**
- > Supervision and Instruction
- > Policies and Procedures
- > Work environment







Mandatory Mining Inquests

- > Who was the deceased?
- > Where did the death occur?
- > When did the death occur?
- ➤ How did the death occur (medical cause)?
- > By what means did the death occur?

Jury may make recommendations that will prevent a similar event from occurring again in the future.

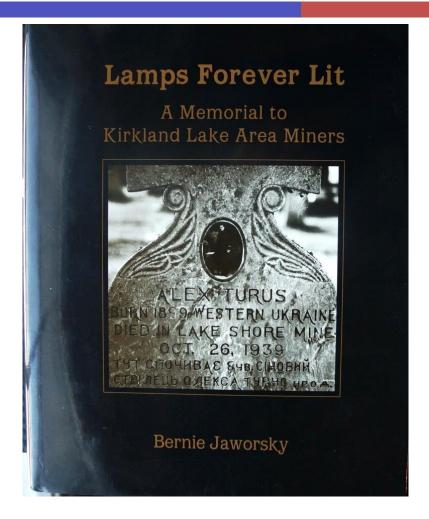
Fallen miner's wife hopes inquest 'can save somebody else's life'

Coroner's inquest jury makes nine recommendations, primarily intended to improve mine safety, after 38-year-old Pascal Goulet was killed while working at the Lac Des Iles mine on July 10, 2014.





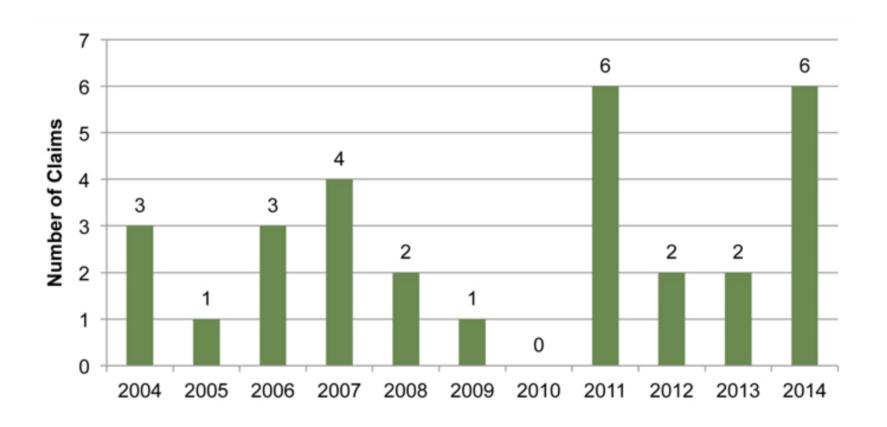
Understand the Impact of Loss



- Compilation of the more than 300 miners who were killed in Kirkland Lake mines from 1918 to 1999.
- > Stories of who these miners were, why they came to Canada and to the mines and what was important to them.
- > All wanted a better life for themselves and their families.



Traumatic Fatalities Ontario 2004 - 2014





Ontario Mining Sector Performance 2018

Workplace Health and Safety Snapshot for Ontario Mining Sector in 2018



Injury or illness severe enough to require one or more days lost from work



Bodily reaction and exertion (excessive physical effort, free bodily motion that results in stress or strain on the body,

assuming an unnatural position,

and repetitive motion)



or equipment (struck by or against object;

caught in, crushed, or compressed by equipment, objects or collapsing materials; and rubbed, abraded, or jarred by friction, pressure, or vibration)



(highway and non-highway incidents; contact with electric current; exposure to caustic, noxious, or allergenic substance; exposure to traumatic or stressful event; fire or explosion; and assaults, violent acts, and harassment)



on same level)

Most common lost-time injuries

Bodily reaction and exertion, includes injuries and illnesses resulting from repetitive motion, bending, climbing, crawling, reaching, twisting, slipping, tripping; and overexertion in lifting, pulling, pushing, carrying, or turning objects.

Contact with objects and equipment, includes struck by falling, flying, swinging or slipping object; struck by or against object; struck by or slammed in swinging door; stepped on object; caught in or compressed by equipment or object; rubbed or abraded by foreign matter; rubbed, abraded or jarred by vibration; and caught in or crushed in collapsing materials.

Falls, includes falls to floor, walkway or other surface; falls onto or against object; falls down stairs or steps; falls from ladder; and falls from non-moving vehicle.

Top 3 Occupational Diseases

Based on approved WSIB claims for healthcare, being off work, loss of wages, or permanent disability

Noise-Induced hearing loss

Hand-arm vibration syndrome

Injury and poisoning, includes burns, heat exhaustion and toxic effects of gases, bee and wasp stings.



Can You Imagine a Workplace Without Harm?



Always Remember!

"The most important thing to come out of a mine is the miner."

Frédéric Le Play (1806-1882)
French sociologist and inspector general of mines of France





Safety is Knowing What's Important

