

April 5th, 2016

The Chemistry Industry Association of Canada

**Annual SHARE 2016 Networking Meeting & Joint
CIAC Process Safety Group**

Vancouver, British Columbia

Impacts of the Westray Mine Disaster

1992 – 2016

What has changed?



Gordon Walsh, CRSP

ENFORM

Manager Health & Safety Training

Is Westray Old News?



*Approximately 1,000 Canadians a year have died at work since
Westray (1992)*



Still Work To Do

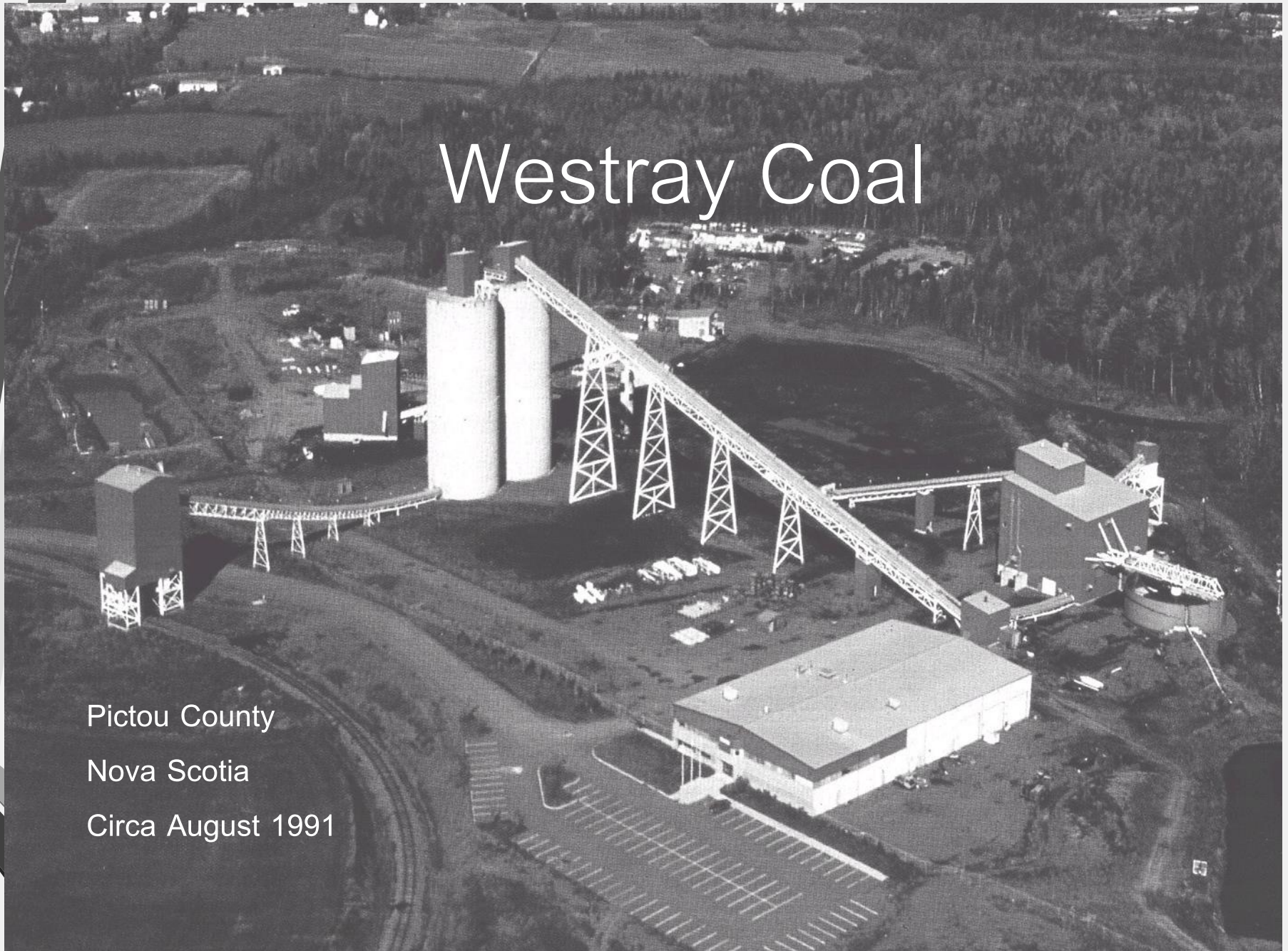


Westray Coal

Pictou County

Nova Scotia

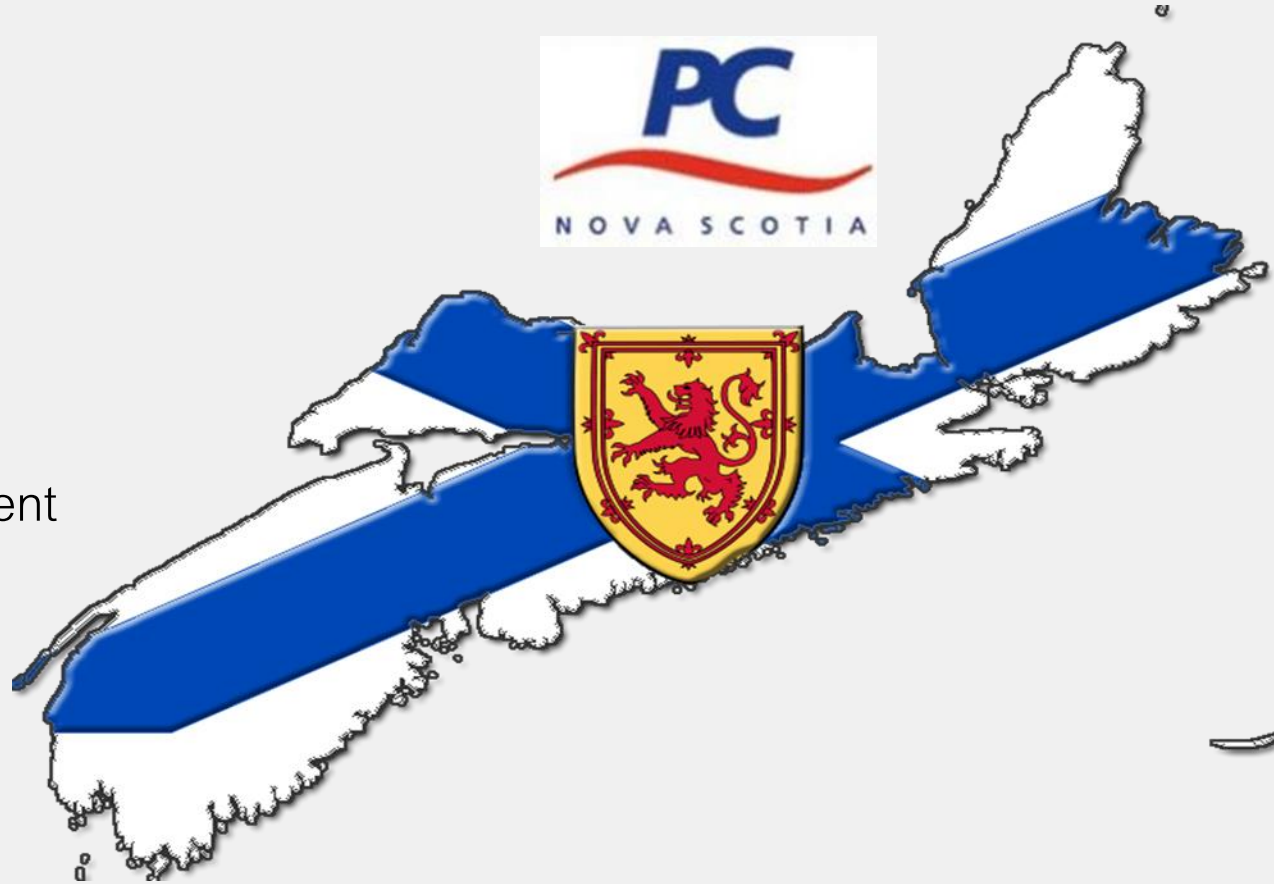
Circa August 1991



Westray Coal

Official Opening:
September 11, 1991

- Training
- Company culture
- Conveyor belt incident

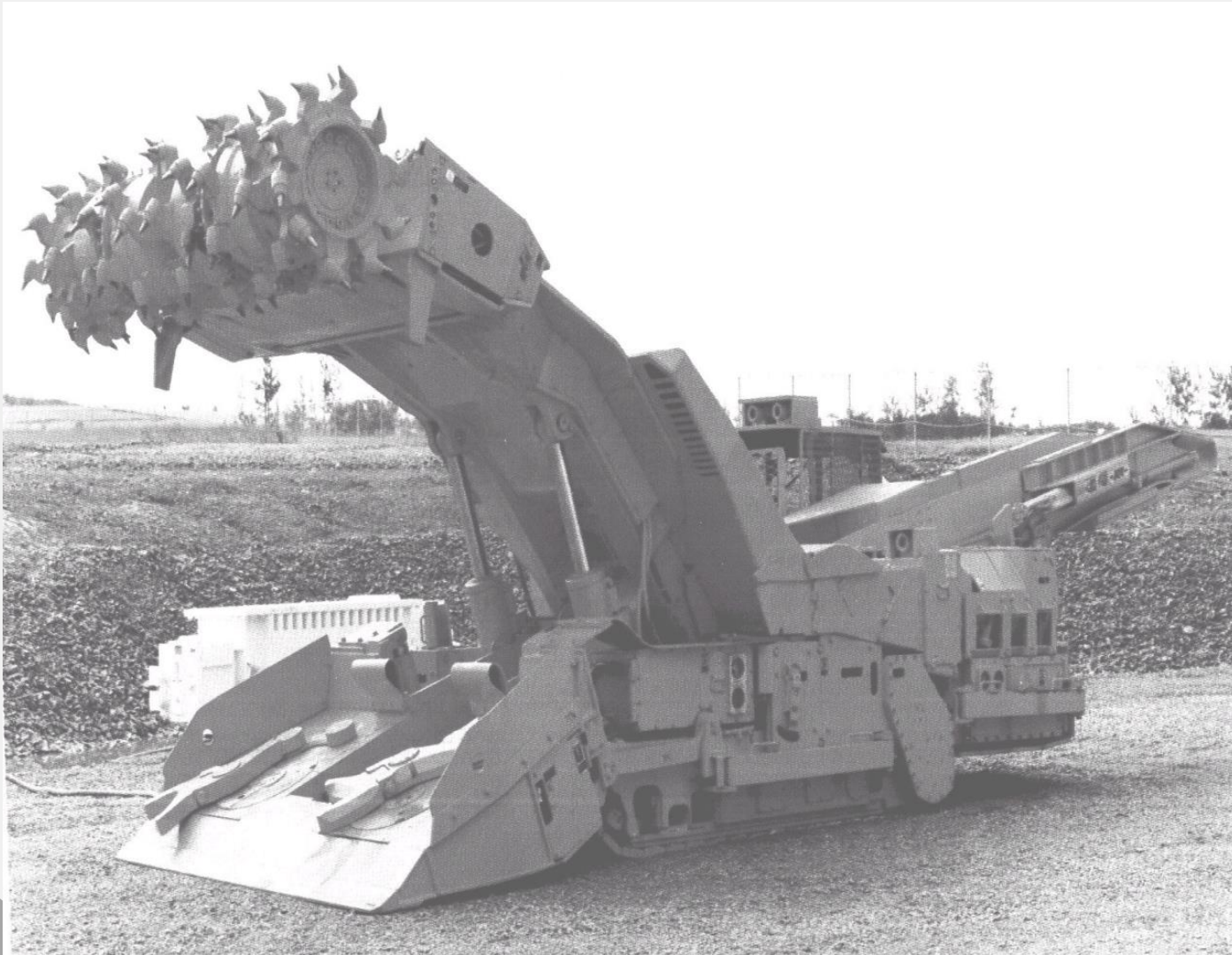


Equipment

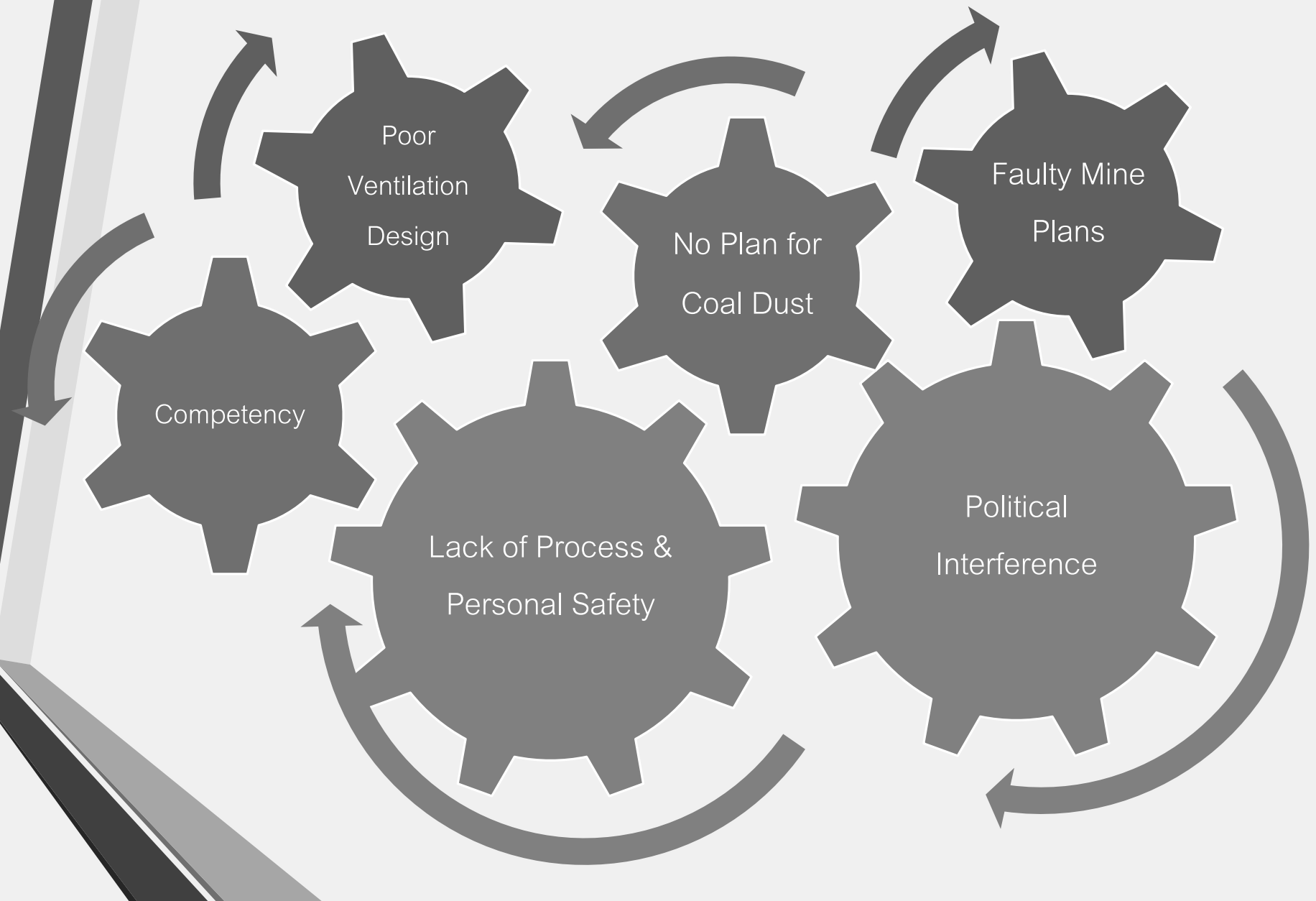


Fletcher roof bolter

Equipment



Setting the Stage for Disaster



Conditions Prior to Explosion

- Poor leadership – frontline
- Unstable roof conditions
- High levels of methane gas, explosive coal
- Intrinsically safe environment compromised (machines)
- Strained relations – staff and managers
- Focus on coal production targets – bonus



May 9th, 1992



- 6:45 am notification
- Fears realized
- Surreal
- Worksite conditions

May 9th, 1992



- Approximately 5:18 am
- Controlled access
- Miners allowed to enter site
- Visible damage
- Attempted rescue and recovery effort

May 9th, 1992



- Massive explosion
- 26 men perish
- Windows blown from cars
- Mine destroyed
- One miner leaves mine minutes before explosion



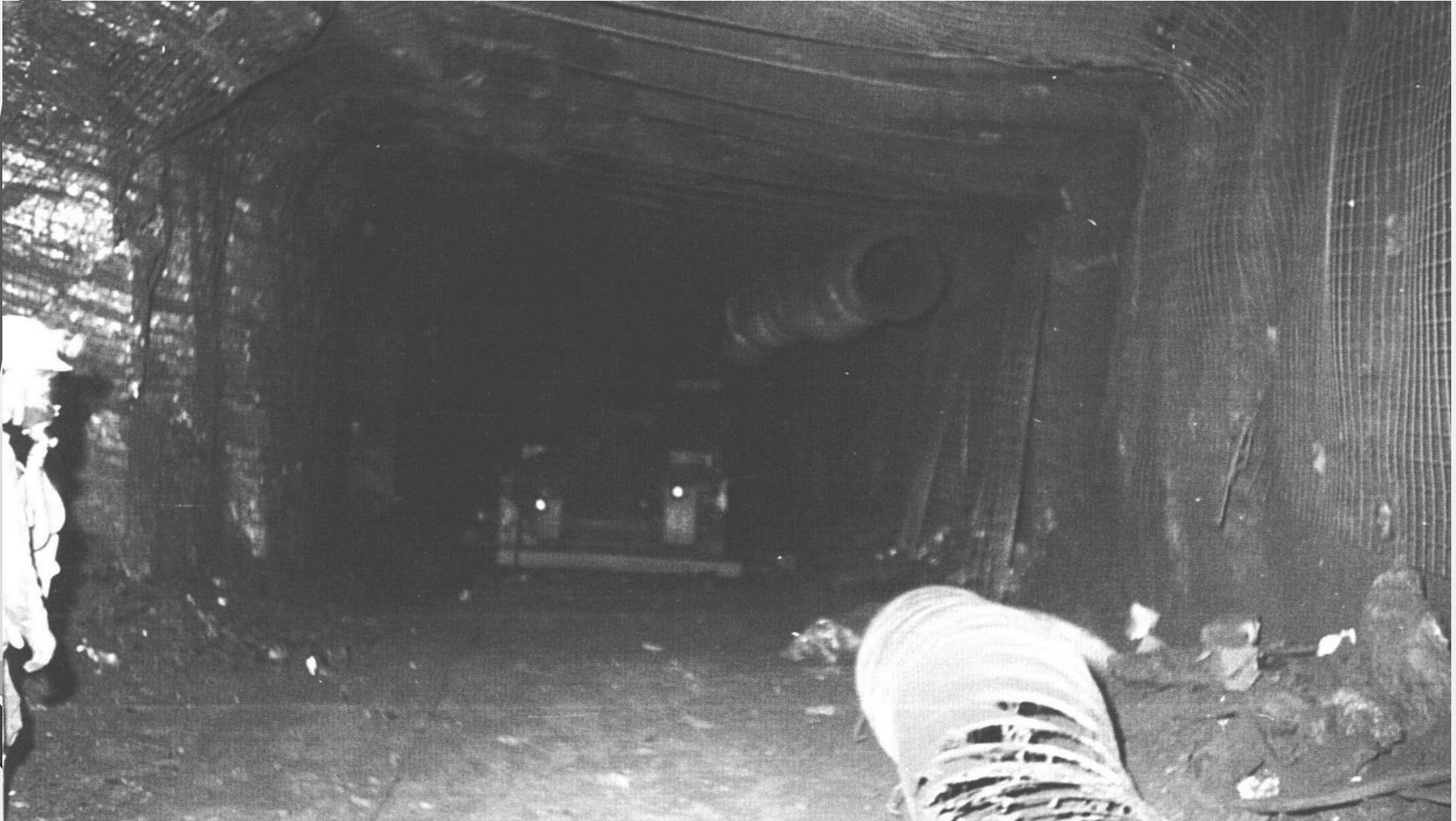
Blast effects

- 15 recovered bodies were autopsied
- High levels carbon monoxide
- 3 bodies blunt force trauma
- Superficial charring to 4th degree burns
- 1 body found but unrecoverable
- 10 bodies never found



Blast felt 7 kilometres from the mine site

Understanding What Occurred



Understanding What Occurred



Understanding What Occurred



Rescue & Recovery Work

- Rescue crews from all over the Maritimes
- Operated bulldozer removing debris
- Transported rescue crews
- Emotionally taxing
- Rescue plans disorganized

Rescue & Recovery Work

- Rescue ends and recovery begins
- 15 of 26 miners' bodies recovered
- Westray officials questioned by the media
- Funerals scheduled
- Miners expose work conditions to media



Immediate Costs of Disaster

Westray

Explosion

26 lives lost

Families shattered

Community grief

Loss of an industry

Government loans unpaid

Loss of trust

Liability – Who's on the Hook?

- ▣ Company and Senior Mine Officials charged with Criminal Negligence
- ▣ Prosecutors unsuccessful building a case
- ▣ Criminal charges dropped
- ▣ Public Inquiry conducted
- ▣ Coal mining experts verify Westray's problematic history

Public Inquiry

"a complex mosaic of actions, omissions, mistakes, incompetence, apathy, cynicism, stupidity and neglect"

Justice Peter Richard

WESTRAY LEGACY

Bill C-45 Criminal Liability of Organizations

- Criminal Code changes: C-45 becomes law in 2004
- Legal Experts & Safety professionals in Canada respond to new laws
- Due Diligence – word of the day
- Company leaders fear personal prosecution
- Documentation of safety program activities intensifies

The Business of Safety Today

- Safety professionals and increased use of safety consultants
- Third party auditing of safety management systems commonplace
- (IRP's) Industry Recommended Practises shared
- OHS Registries introduced/required
- Safety Associations play bigger role with industry
- Government focus on alternative means to improve safety statistics

Thoughts and Observations

- Safety management has become complex and arduous for most companies to administer.
- In our quest to reduce liability, we have created a paper monster... (FLRA misuse, JSA overuse).
- Competency vs training- what's the difference?
- Challenges - difficult to recruit, develop and promote key supervisory staff!
- Society is shifting, less personal responsibility for one's actions, companies beware!!

Bottom Line

- Bad luck does not exist, poor planning does
- Understand and accept that human factors must be considered and anticipated with every job planned
- Consider and implement process safety
- Anticipate where man, machine or processes will interact
- Create a strong safety culture that supports personal safety
- Do not rest on past safety achievements
 - *Great safety stats for 2013!!!*
- Look at each day as an opportunity to solve a problem before it develops

Leading Change

Leadership is the key

- Top down (BOD, President, CEO, CFO)
- Create a vision and sell it
- Define objectives and understand stakeholder motivation
- Identify barriers to success and remove them
- Honestly assess RISK and avoid resource draining pretend exercises
- Safe work is productive work and makes financial sense
- “Safety” must focus on supporting operations, not competing for resources

Evolution is Critical

- Evaluate and improve project design and planning
(engineer out the hazard and lower the risk)
- Recruit managers, supervisors and contractors who demonstrate ‘Safety Focused Leadership’
- Own the challenges of your business
 - Pre-plan to lower risk
 - Anticipate human behaviours
 - Consistent management of human resource; daily, hourly, as often as needed

Humans will not magically change their behaviour!!

Final Thoughts

- Unless we start a project with a comprehensive plan that includes a vision for safe work, commitment of key people and the correct motivation, it is impossible to react fast enough to anticipate the potential risk hazards pose.
- Systematic thinking to the point of anxiety.
- Relentless, methodical and consistent.
- Quote: *“The bottom line in leadership isn’t how far we advance ourselves but how far we advance others”.*
- *John C. Maxwell*
- *The 21 Irrefutable LAWS of Leadership (pg 51)*

In Memory



Twenty-seven past five, fast asleep
Awoken by family
My memory will keep
My father, my guide
Taken away
By the deep underground
Which brought us this way.
Twenty years ago
Our lives changed forever
Once a child full of hope
Is now a man full of rage and sadness.
Oh, how I miss you Dad
Tear on the page.
As a family we don't forget
Only those that do are full of regret
You're close at heart
But still underground
I love you, father
I miss you, father
I remember father.
Do they? [SON- SIMON]

Thank You

