

Predicting Occupational Fatalities: The Common Fatality Factors

Mike Dwyer, Director
ArcelorMittal

Peter Susca, Principal
OpX Safety

Has Anyone In Senior Management Asked This Question?



Connecting The Dots – Before a Fatality

Organizational Factors within the Company	Operational Factors at The Mine	Management System Weaknesses	Work Process and Safety Program Issues	No / Weak Controls	HIGH RISK Situation (Near Miss)	OUTCOME
<ul style="list-style-type: none"> • EBITDA is the forcing measure • Not investing in equipment • Loss of employees to other companies due to low salary • Cuts in SG&A – reduced staffing • Task assignment system is flawed • Training not geared to social and cultural environment • No new manager training • Poor two-way communication 	<ul style="list-style-type: none"> • Delay in preparation of reserves (more produced than prepared for) • Poor peer to peer support • Loss of experienced personnel • Insufficient degassing process • Weak system of geological forecasting and planning 	<ul style="list-style-type: none"> • Low capacity of safety staff • Poor accountability for safety • Poor performance of behavioral audits • Insufficient training on the safety program • Risk assessment processes not consistently in place 	<ul style="list-style-type: none"> • Poor hazard recognition /knowledge • Individuals assigned lack training • New employees • Employees afraid to bring serious safety issues to supervisor • No risk assessment prior to start of work • No one inspects to ensure proper work performance • Supervisor allows work to continue without proper safety controls 	<ul style="list-style-type: none"> • 35 employees regularly exposed to high gas hazards • Monitors not inspected • Personal alarms missing or turned off • Poor ventilation • Employees used to working in high gas levels 	<p>8 workers working at 110% of the Methane LEL</p>	<p>4 workers die from gas explosion</p>

The Common Fatality Factors

Our experience has found that the following 6 factors are always in play prior to a fatality:

1. Fatality hazard(s)
 2. Exposure or potential exposure
 3. No, low level or ineffective controls
 4. The organization is not effectively assessing and respecting #'s 1-3
 5. **Change** creates a tipping point
 6. The organization has problematic Management Systems, and Organizational & Operational Factors
- } What's The Business Value?
-

Note: This is based on acute exposure and acute harm events

Thank You!

Peter T. Susca, Principal
Operational Excellence LLC (OpX Safety)
Email: opxsafety@cox.net
Phone: 860-713-8050
Website: Opxsafety.com