

# Missed opportunity

**JOE AIKEN** on the opportunity near-misses provide to test your safety management system.

Major disasters like the Pike River mine explosion are rare but they are not the “out of the blue” result of coincidental failures of otherwise successful systems that you might have thought. Investigations into these disasters consistently reveal that poor management systems contributed by allowing many ‘small’ failures to accumulate until the inevitable disaster happened.

Following a disaster we make changes in an attempt to prevent it ever happening again. Instead of having to kill people, can we learn from failures that don’t turn into disasters – the near-misses?

It is difficult to identify the potential seriousness of something that didn’t happen, so we don’t usually hear about near-misses, except for those that occurred before a disaster and which are revealed during a subsequent enquiry. Take a look at the examples in the table to see if you agree with my definitions of a near-miss.

By identifying a near-miss and treating it as though it had actually resulted in a disaster, the company can perform appropriate inquiries and root-cause analysis to identify the causes and take corrective action. It can also use these internal inquiries to test ‘for real’ the performance of the appropriate parts of the company’s safety management system.

This can also be an opportunity to re-examine the safe operation of the company’s whole management system, including the corporate priorities and safety culture. Many disasters (eg BP Texas City, Esso Longford, Pike River) have been examples of how a business focus on finances and cost-cutting can create a management culture which puts the safety of the operators at increased risk. Management can become focused on short-term financial ‘success’ without appreciating the associated risks which can contribute to a consequential disaster.

Lost-time injuries can become the main focus for safety because they are easy to measure and they are a short-term cost-benefit to the operation, but they actually have no relationship to the long-term risk of a disaster on the site. Longer-term safety features are frequently the first

Description	Near-miss?	Comment
A vessel rupture creates a large flammable gas cloud and a gas detector shuts the plant down. The gas disperses without igniting/exploding.	YES	Very obvious. The final safeguard worked successfully to limit the release and by sheer chance the gas cloud didn’t find an ignition source. The disaster didn’t happen.
Operation of a correctly-sized relief valve prevents the rupture of a vessel (by sending gas to a flare) that would have released a cloud of flammable gas that could ignite.	YES	Obvious. While other parts of the system failed, the relief valve worked as designed and prevented a local release which could have resulted in a disaster.
A significant number of small failures within the plant have accumulated, including safeguard systems.	YES	Not obvious because no immediate risk. Shutting the plant down for maintenance/ minor repairs is expensive, but just one more failure could result in a disaster because safeguards are not operating.
Unsafe practices are identified during an audit. For example, a safeguard is regularly disabled by operators because it goes off every week during changes to the operation.	YES	Not obvious because no immediate risk. The operator might forget to re-enable a safeguard that would otherwise prevent an issue escalating into a disaster. Unsafe operating practices can result in an operator causing or contributing to a disaster, instead of preventing it.

things to go when reducing operating costs and can result in death by a thousand (cost) cuts. Examples include training, completing corrective actions, document and drawing updates, performing regular maintenance, and retaining staffing levels.

Over time, the culture within a company and on a site can become contaminated with bad habits and poor morale. Management and workers stop taking their safety responsibilities seriously and people pass the buck or assume that others will pick up the slack. Management can turn a blind eye to the unsafe working practices that develop because they “get the work done”, or avoid the need to spend

money, and they think it’s not their fault if someone gets hurt or killed as a result.

“The culture of any organization is shaped by the worst behaviour the leader is willing to tolerate.” (Grunter and Whitaker). If that behaviour and culture can be considered as unsafe then perhaps it is only a matter of time before the inevitable disaster strikes (again). ■



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