Technical authority: can we balance governance, risk and efficiency in management of change?

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ABSTRACT

Poorly judged or under-appreciated change plays a role in many major accidents. In particular, operational changes related to continuous improvement, maintenance and introduction of new technology can lead to unintended safety (and other) consequences.

This paper provides an overview of the role of management of change in the prevention unwanted impacts on safety, community relationships and the environment. It draws on a range of incidents covering mining, minerals processing, refining and smelting where ineffectively or inadequately assessed change led to significant safety, environmental or community consequences. The paper will also highlight cases of well-managed complex change and the underlying model of decision making in place to make those decisions. All these examples are drawn from Noetic's experience in response to accidents or working with sites to improve their management systems.

The paper will report on the challenges of applying conventional risk assessment approaches to complex or technically significant change. These typically result in either onerous and lengthy change procedures that are prone to workarounds or poor implementation. Conversely, 'light-touch' or efficiency-driven change processes present the risk of intended consequences by failing to bring appropriate expertise to bear in decision making. Such balances can be resolved by considering the designation of 'technical authority' with appropriate expertise to consider the change and deconflict any production, cost or schedule trade offs.

Finally, the paper will reflect on the key components of management of change systems in the context of major accidents, highlighting good practice in how they are implemented. This will consider the integration of existing corporate processes, risk management and organisational structures into management of change systems, not just the content of change forms and procedures.