

# Why are so many contractors involved in fatalities and serious accidents?

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### **Purpose**

The purpose of this paper is to raise awareness regarding the significant number of contract employees involved in recent fatalities and serious accidents. In addition the paper highlights the continually repeated contributing factors identified during investigations and provides industry with information to strengthen their Contractor Management Plan.

### **Scope**

The content of the paper is based on a review of the findings of investigations conducted into fatalities and serious incidents that have occurred in Queensland coal mines. A review was conducted of the seven most recent mining fatalities and ten serious high potential incidents (HPIs).

### **Synopsis**

The *Coal Mine Safety and Health Act 1999* (the Act) places the obligation on the Site Senior Executive to develop and implement a single safety and health management system for all persons at the mine. It also places the obligation on contractors to ensure, to the extent that they relate to the work undertaken, that provisions of the Act and any applicable safety and health management system are complied with.

Coal mine safety and health management systems generally contain a contractor management plan. A major function of this plan is to ensure contract employees operate under the safety and health management system endorsed by the Site Senior Executive. A senior person within the management structure at the mine must have responsibility for managing the contractor management plan.

### **Introduction**

An analysis of the most recent seven fatalities and ten HPIs investigated by the Mines Inspectorate was performed to identify recurring themes in contributing factors. The same contributing factors can be seen in the vast majority of these incidents.

One significant issue that stood out in the analysis was that six out of the seven fatalities and nine of the ten HPIs involved contractors. Four of the fatalities occurred at open-cut mines and three occurred in underground mines. Eight of the HPIs occurred at open-cut mines and two occurred in underground mines. Contractors now account for approximately 41% of full time equivalent employees in the Queensland mining workforce, and are disproportionately represented in the majority of fatalities and high potential incidents.

Historically contract employees were engaged to perform specialised and often high risk tasks. Today they still perform such tasks but are engaged in much more diverse activities such as labour hire.

It wasn't too far in our past that a contractor was treated very differently to a company employee. They had a separate bathhouse, carpark and cribroom. In some mining town's contractors were not welcome in the front bars of hotels. While the general industry appears to have changed its acceptance of contract employees, evidence suggest we are still treating them differently.

## **Legislation**

*Coal Mine Health and Safety Act 1999*

Part 42 Obligations of the site senior executive for coal mine

*“A site senior executive for a coal mine has the following obligations in relation to the safety and health of persons who may be affected by coal mining operations—  
(c) to develop and implement a single safety and health management system for all persons at the mine;*

Part 43 Obligations of contractors

*“A contractor at a coal mine has an obligation to ensure, to the extent that they relate to the work undertaken by the contractor, that provisions of this Act and any applicable safety and health management system are complied with.”*

## **Fatality Data**

The investigation reports for the seven recent fatalities in the Queensland coal mining industry were analysed for contributing factors using the ICAM methodology. A graph of the contributing factors and the number of occurrences can be seen in *Figure 1*. Contractors were involved in six of the seven fatalities, and work procedures were identified as a significant factor. Four contractors utilized procedures that were not part of the mines safety and health management system. Three were unfamiliar with and/or did not follow the work procedure.

A lack of risk assessment prior to the incidents was also an issue identified in the analysis. Three of the cases had no personal risk assessment performed and no risk assessment for the task was completed in three instances.

## **High Potential Incidents**

The same analysis process was conducted of ten of the most recent HPIs where a worker has or workers have been injured. Contractors were involved in nine of the ten incidents, as shown in *Figure 2*. Inadequate supervision was a contributing factor in six of the ten incidents. In five of the incidents, workers not attending the prestart meeting and therefore not receiving important information about their work area, was a contributing factor. Risk assessments not being conducted were also a factor in this group of incidents with five not completing a risk assessment for the task, four not following the procedure for the task and four not conducting personal risk assessments.

## **Contributing Factors**

The analysis of both sets of data was then combined to highlight the recurring contributing factors, as shown in *Figure 3*. Inadequate supervision was involved in

the largest number of incidents. The contributing factors identified in the investigations are discussed in more detail in the dot points below.

### **Risk Management**

- Risk assessment not performed or inadequate for tasks being conducted
  - No processes were in place to ensure risk assessments conducted by contractors were approved before use by a supervisor.
  - Contractor risk assessments were being performed by only one person who may not necessarily have the skills to conduct it properly.
  - Contractors were unaware of mine's risk management process which was not covered in the induction.
  - Time pressure saw shortcuts being taken in risk management.
- Workers didn't conduct personal Risk Management Process
  - Some workers saw personal risk assessments (such as SLAMs or Take 5s) as a tick and flick exercise.
  - Mine had no process to ensure workers or contractors were actually conducting SLAMs or Take 5s.
  - SLAMs or Take 5s were conducted in advance of the activity being conducted.

### **Change Management**

- Change management process not implemented
  - The change management process was not followed when there was a major change to the scope of work performed by contractors.
  - Contract employees were not aware of the change management procedure.
  - Time pressure saw shortcuts being taken in change management.

### **Work Procedures**

- Workers not trained in or didn't follow work procedures
  - Workers were not provided training on relevant procedures.
  - Workers did not have access to work procedures.
  - Procedures were located on intranet site which contractors didn't have access to.
  - Training needs analysis didn't identify what procedures the contractor needed to be trained in.
- Contractors used their own procedures which had not been adopted by the Site Senior Executive.
  - Contractor procedures written without a risk assessment being conducted prior.
  - Contractor procedures were of a lesser standard than that of the mine.
  - Contractor procedures made reference to procedures from another mine.
  - Contractor procedures identified controls not available at the mine.

### **Supervision**

- Inadequate frontline supervision of contractors
  - Contractors saw the need to commence a task knowing no supervisor/Statutory Official was present.

- Contractors work area not inspected as required by the safety and health management system.
- Supervisors allowed contractors to conduct work that did not comply with the safety and health management system.
- Supervisor allowed workers to work hours outside the fatigue policy.
- Mine did not ensure supervisors were assigned to the work being conducted by the contractors.
- Supervisors/Statutory Officials were unaware of contract workers in their area.
- Contractors were unaware they needed to inform Statutory Official they were entering their district.
- Contract supervisors did not have the required knowledge or competency to be appointed as a supervisor.
- The contractor supervisor was not authorised by the Site Senior Executive.

### **Pre-start Checks**

- Pre-start checks not conducted or inadequate
  - Contractors used pre-start documents that didn't comply with mine standard.
  - Contractors saw conducting pre-starts as a waste of time.
  - Contractors used pre-starts from another mine.
  - Contractor used pre-start checklist for heavy vehicle on a light vehicle.
  - Contractors did not perform pre-start checks on vehicles for several weeks.
  - No process in place to ensure contract employees conducted pre-start inspections.
  - Defects found during pre-starts were not entered onto defect reporting system.

### **Work Area Familiarisation**

- Workers not familiar with the work area
  - Induction for contractors did not include a requirement for work area familiarisation.
  - Work instructions were not updated to ensure correct details for work areas.
  - Contractors were not familiar with the emergency equipment or egress from the mine.
  - Management allowed contractors to work in an area they were unfamiliar with.

### **Communication**

- Critical safety information not passed on
  - Supervisor did not convey critical safety information to the contract supervisor.
  - Contractors were not invited to or included in pre-start meetings.
  - No documented process for conducting the pre-start meeting, including who should attend and how information should be presented. No mechanism to ensure all persons attended the pre-starts.
  - The importance of prestart meetings was not conveyed to contract employees.

- Time constraints affected contractor willingness to attending pre-start meetings.

### **Work Planning**

- No mention of the contractor's activities on the daily or weekly plan
- No process to ensure contractors activities were reflected in the electronic mine planning system
- Contractors not involved in mine planning meetings
- Mine management unsure where contract activities were being conducted

### **Investigation Follow-up**

- Previous investigation findings not implemented
  - Investigation recommendations by contract companies not implemented
  - Findings from investigations not passed on to the contract company
  - Safety and health management system did not ensure that contractor investigations were closed out.

### **Management Structure**

- Management structure did not allow effective implementation of safety and health management system.
- Contractor management structure not integrated into mine management structure
- Competencies were not identified for contractor senior managers and supervisors
- No roles and responsibilities were developed for contract employees

### **Contractor Management Plan**

- Contractor management plan was not reviewed or audited.
- Contract holders not trained in contractor management plan
- Contract holder had not seen or was not aware of safety requirements contained in contract
- Audits not conducted of contractors as required by contractor management plan

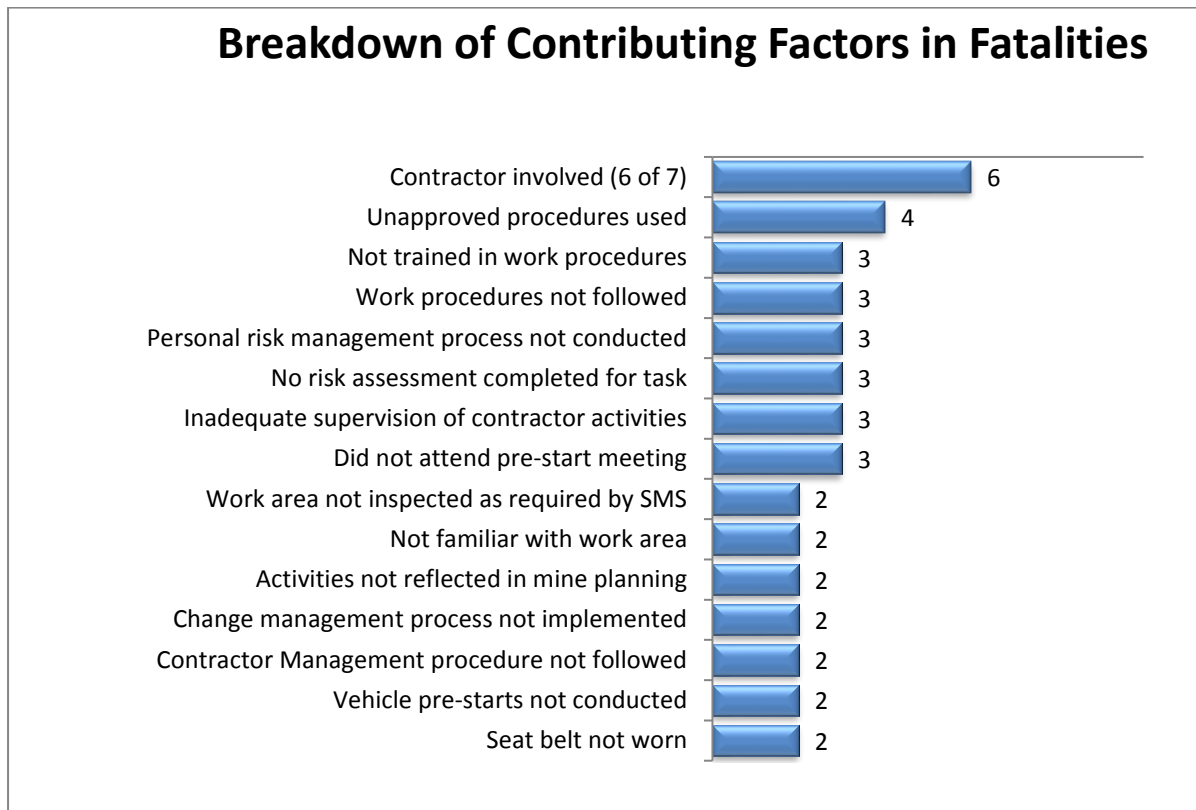
### **Conclusion**

Based on the recurring contributing factors identified in this analysis, best practices were identified. Implementing these best practices will assist in the elimination of occurrences of the contributing factors identified. This list is by no means exhaustive and is meant to spark discussion into best practices for operations in contractor management. It must be noted that the implementation of these identified practices will assist the overall reduction of site incidents.

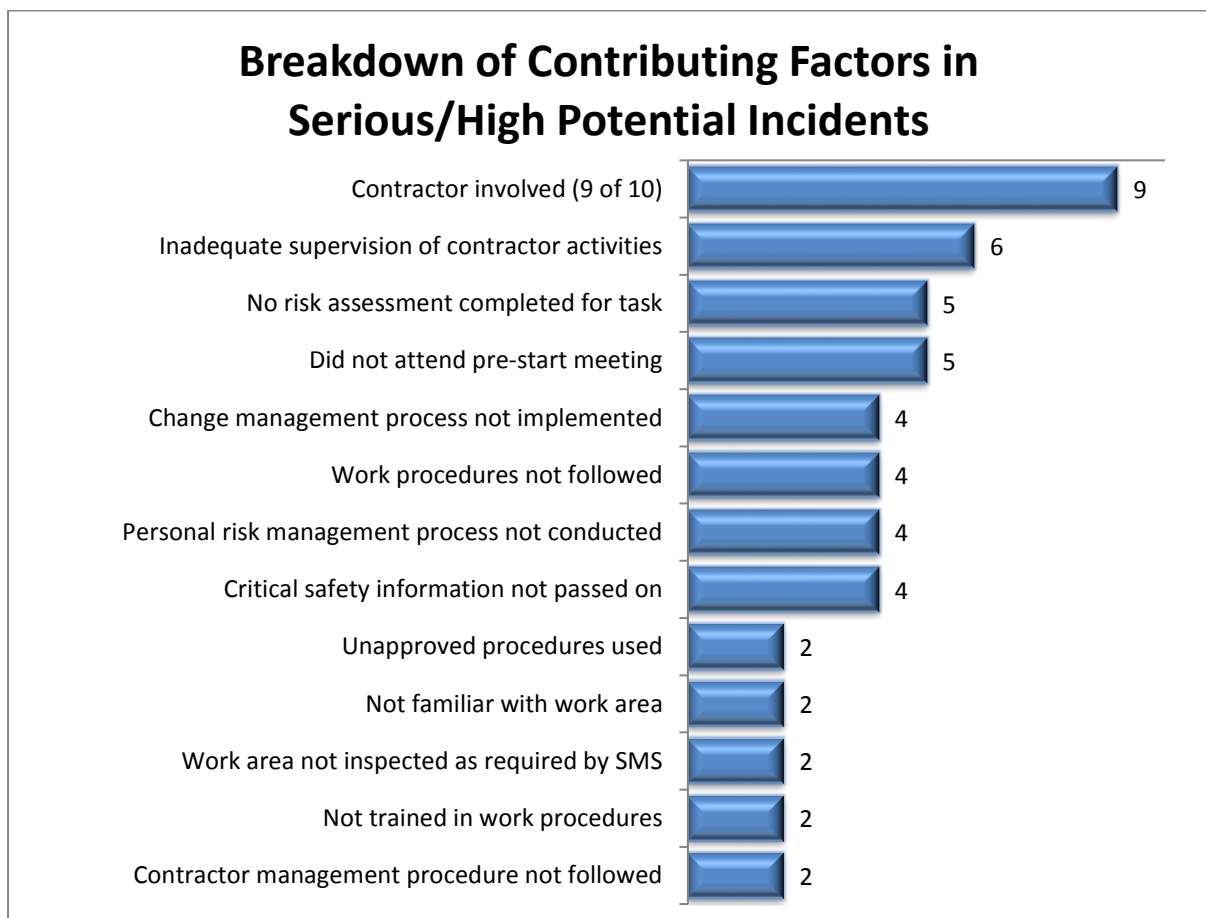
- Mines must have a single safety and health management system owned by Site Senior Executive. The contractor cannot use their own safety and health management system unless it's been endorsed by the Site Senior Executive.
- Audits of the contractor should be performed on a regular basis to ensure compliance with the safety and health management system. This should be included in the regular audit schedule.
- Contractors should be included in the mine planning meetings as necessary.

- Mines must have a process to ensure that contractors attend pre-start meetings.
- Contractors should present at the prestart meetings about the activities they will be conducting.
- Photos, PowerPoint or written information provides better transfer of information than verbal alone.
- Mines should have a process that identifies the supervisor responsible for the contractors work area
- Mines must have a process to ensure contract supervisors have the required knowledge and competencies for the positions they are appointed to.
- Mines must ensure all supervisors are authorised by the Site Senior Executive. This process should include an interview and a review of experience and competencies.
- Mines must ensure that change management procedures are applied to contractor activities.
- Mines must have a system in place to ensure availability of work procedures to contractors: either site intranet access should be provided to contractors or a paper copy of work procedures should be available to all shifts.
- Mines save an authority to work process for contractors on site.
- Mines must have an approval process for risk assessment and work procedures developed by contractors.
- Mines must ensure that a risk management process is applied to all contractor activities.
- Mines must encourage contract employees to report incidents without fear of reprisal.
- Mines should conduct exit interviews with contractors.
- Having a clear strategy for how contractors are integrated into the workforce is crucial.
- Contractors are not different, so let's stop treating them as if they are.

**Figure 1**



**Figure 2**



**Figure 3**

