

## **Keeping rail on track: good practice work health and safety in the Australian rail industry**

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**Abstract.** How organisations manage work health and safety is a reflection of their organisational culture. The Australian rail industry is diverse: organisations operate urban passenger networks, heavy haul in the Australian outback, or shift freight over large distances. The aim of the present study was to test lessons developed from earlier research in the Australian mining industry, the *10 Platinum Rules*, as a framework for action towards improvements in organisational culture and WHS management in the Australian rail industry. A survey, focus groups and semi-structured interviews were conducted with employees from three rail industry sectors. Data were analysed inductively using an open coding technique to identify key themes. There was a good overall fit in the data with the *10 Platinum Rules*, indicating that these rules may provide a useful framework for organisational self-reflection and for developing interventions leading to improved practice in WHS in Australian rail.

**Keywords.** Organisational culture, work health and safety (WHS), occupational health and safety management (OHSM), rail industry

### **1. Introduction**

Work Health and Safety Management (WHSM) is a vital component of the management of all workplaces, but is particularly important in safety-critical industries such as mining and transport. The *10 Platinum Rules* of WHSM outline basic principles and actions that promote a safe and healthy workplace (Shaw et al., 2007). These rules were the product of the *Digging Deeper* study; a large-scale, mixed-methods investigation into aspects of Work Health and Safety (WHS) in the Australian mining industry using a composite survey (n=1,667), interviews and focus groups (n=585), large-scale Future Inquiry Workshop (n=146; Blewett & Shaw, 2013) and analysis of WHS statistics and documents from 53 participating mining firms. While it is intuitive that the *10 Platinum Rules* may also apply to the safety-critical rail industry, especially given the interconnectedness of mining and rail in Australia, there is currently no evidence to support this proposition. Thus, the aim of the present study was to test the *10 Platinum Rules* as a framework for action towards improvements in organisational culture and the management of WHS in the Australian rail industry.

This research was predicated on the understanding that the concept of ‘safety culture’ is limited, while taking an organisation-level perspective on culture has greater potential benefit for our understanding of the cultural aspects of WHS, as well as in developing intervention strategies (Blewett & Shaw, 2001; Fernández-Muñiz, Montes-Peón, & Vázquez-Ordás, 2007; Westrum, 2004; Zohar & Luria, 2005). Therefore, we

focused this research on the nexus between organisational culture and WHS, rather than testing the more mechanistic aspects of the WHSM, 'safety culture' or behaviour-based safety.

## 2. Methods

### 2.1 *The Participating Organisations*

This research was grounded in the data from three rail organisations we have called *Urban Passenger*, *National Freight* and *Heavy Haul*. These three operators are examples of firms in the three principal rail sectors in Australia. Ethics approval was obtained from the CQUniversity Human Research Ethics Committee.

### 2.2 *Data Collection*

The data presented consist of the qualitative components of a mixed-methods study. Initially, a survey was administered at each participating organisation (preliminary quantitative survey data reported in Blewett, Rainbird, Dorrian, Paterson, & Cattani, 2012), which included a page of free text inviting people to add their comments. All 340 employees of National Freight were invited to complete the survey. In Heavy Haul, the 330 people employed in rail operations and offloading were included in the survey. In Urban Passenger the survey was restricted to the 776 people with track access, supervisors of these people, and others with safety critical roles. In total we received 456 valid responses to the survey and of these, 135 responses (29.6%) contained additional, free-text comments.

Focus groups and semi-structured interviews were held on-site with 229 participants drawn from a range of positions representing the organisational hierarchy of each of the firms. These included senior management, WHS personnel, WHS committee members, workers' elected Health and Safety Representatives (HSRs), line managers, front line employees and contractors. Focus group participants were at the same peer level; any supervisors were asked to leave and invited to attend a different focus group. Written, informed consent was obtained from each participant and permission sought to take notes and record the discussion, in line with our ethical research requirements. A series of open-ended questions were used to allow the discussion to find its own direction.

### 2.3 *Data Analysis*

Interview and focus group notes and recordings and comments from the free text field of the surveys were analysed inductively using an open coding technique to identify key themes. This enabled patterns in the data and recurring themes to emerge and for data to be grouped accordingly. This method of analyzing and understanding the data was based on a commonly used qualitative data analysis technique (see Blewett & Shaw, 2001; Huberman & Miles, 1994). The findings of this analysis were then considered in light of the *10 Platinum Rules* to determine if these rules applied; that is, the *10 Platinum Rules* were used deductively as a post-hoc analytical framework. In the interest of brevity, the Platinum Rules are only outlined below, a full description of the 10 Platinum Rules from *Digging Deeper* can be found in Shaw et al. (2007).

## 3. Results

There was a good overall fit in the data with the *10 Platinum Rules*. Results below focus on commonalities between the three organisations, with specific differences

highlighted throughout as necessary.

### *3.1 Platinum Rule No. 1: Put people first*

The adage of ‘zero harm’ was common, particularly in Heavy Haul and National Freight. Many participants felt that while harm minimisation was a positive goal, assertions such as “every accident is preventable” were unrealistic and placed stress on employees, leading to a culture of blame. In contrast, clear and reasonable accountabilities were seen as a positive aspect of organisational culture. Failure to acknowledge human limitations was raised in regards to over-work and irregular rest breaks, this was particularly the case in Urban Passenger where on-time running was a key performance indicator (KPI) of the business. High levels of fatigue and feeling unable to report fatigue were reported across all operators. Similarly, whilst the majority of participants acknowledged the importance of work-life balance, it was also apparent that this was difficult as a result of the irregular hours characteristic of the rail industry. Across all operators, trust was raised as a valued construct related to Rule 1. Trust was particularly high across peer groups of colleagues, but there were reports of ‘risk-takers’ who compromised trust. There was a high level of trust between management and employees, with the exception of Urban Passenger where there was some evidence of mistrust and conflict.

### *3.2 Platinum Rule No. 2: Consult and communicate*

Across all organisations, workers reported a desire to be involved in the design and conduct of their work. Poor feedback to workers was cited as one way to undermine the value of communication in each organisation. HSRs in each of the organisations were passionate, engaged and well-respected by their colleagues and represented a positive manifestation of Rule 2. Engaging staff who did not work ‘typical’ hours such as contractors, shift workers and part-time employees, was a challenge for all organisations. While all participating organisations had established formal communication and consultation processes it was also evident that there were a number of informal processes useful for disseminating information and hearing from people. These were primarily casual conversations in the workplace but their value appeared to lie in their informal, friendly nature.

### *3.3 Platinum Rule No. 3: Don’t let issues fester*

All participants in this research were committed to positive WHS development. However, there were differences in how this was approached based on the individual’s role within the organisations. Managers tended to focus on changes to processes and procedures, whereas front-line workers focused more on practical changes, for example to personal protective equipment or radio communication devices. There were some reports of incidents not being fixed quickly and of slow or no feedback on reported hazards or suggested improvements. This tended to result in employees feeling that WHS had no priority within their organisations. In line with this, open and prompt feedback on reported issues emerged as a way to improve reporting and WHS outcomes in each organisation.

### *3.4 Platinum Rule No. 4: Rationalise paperwork and systems*

There was a general consensus that paperwork at participating organisations was an area for improvement, with the primary issue being the volume of paperwork required. There were similar concerns, primarily from front-line staff across organisations, about the relevance and complexity of some procedures. Overall, the greatest tension seemed to

be between employees wanting clear boundaries but also some allowance for ‘common sense’; that is the capacity to vary rules in response to local conditions. Heavy Haul in particular was less prescriptive in their approach to policies and procedures, allowing some decisions to be made at a local level. There was also some concern, particularly in Urban Passenger, that policies and procedures were not well communicated across the organisation.

### *3.5 Platinum Rule No. 5: Develop skills in WHS*

Training in each organisation was often reported to be reactionary, occurring only for people who had experienced an incident. Similarly, formal training was often outsourced. One weakness identified was the maintenance of competence through training. Participants felt they were not always kept up to date with their required training. ‘Safety’ was likely to have different meaning for different levels in the organisations with concomitant differences in the management of WHS. For management, there were conflicting pressures between safety and performance demands that were recognised by workers. Many front-line workers reported feeling that management were out of touch with the practicalities of the operational work and WHS. In line with this, there were mixed feelings about the approachability of safety professionals within each organisation.

### *3.6 Platinum Rule No. 6: Hear bad news*

In each of the organisations there was considerable discrepancy in reports from front-line employees compared to management about reporting incidents and near-misses. Senior and middle managers described a healthy reporting culture and reported that employees felt comfortable reporting hazards, incidents and near-misses. However, workers reported feeling that they could not report these things without a change in the way they were treated and viewed in the workplace. Systems used for reporting were reported as difficult, or not well understood by front-line workers. Workers also considered that the response to reporting was often the attribution of blame. Both of these factors decreased reporting behaviour.

### *3.7 Platinum Rule No. 7: Fix your workplace first*

There was a consensus that equipment and facilities were often poorly maintained because of cost-cutting and pressure for production, this was particularly true at National Freight and Heavy Haul. These two factors were consistently cited as the greatest impediment to a safe and healthy workplace and practices. Ensuring the maintenance and service of equipment led front-line workers to feel that their organisation valued WHS. There was the general belief that safe operation was the top priority at the organisation but there was considerable pressure for production. However, people reported that they were confident that they could stop operations for safety reasons but they believed that they had to be able to justify their decision. In Urban Passenger, interactions with the public were cited as a significant and often uncontrollable source of risk in the workplace. There was some discussion about the value of behaviour based safety systems and arguments were made both for and against the introduction of this kind of system. Some participants reported that worker’s unsafe behaviour was the main impediment to achieving ‘zero harm’. Other participants reported that focusing on behaviour was to ignore the root cause of hazards and encouraged a culture of blame.

### *3.8 Platinum Rule No. 8: Manage hazards*

Participants reported that the controls for minor hazards were often disproportionate, but acknowledged that minor hazards could easily escalate. There were a number of

inherent risks that were cited such as the sedentary nature of driving, the crowded space around the railway, dealing with the public, poorly maintained equipment and the challenges of shift work. Indeed, fatigue was consistently reported as a major safety risk, as was manual work. While there were some positive reports of improvements following incidents, participants also reported that improvements needed to be proactive, rather than reactive.

### *3.9 Platinum Rule No. 9: Monitor performance*

Each organisation relied primarily on lag indicators to gauge their WHS performance. Participants acknowledged that bonuses awarded based on safety KPIs often influenced their own and others' decision to report incidents. Some participants, particularly in management positions, reported that safety KPIs should be based on the number of reported hazards, with greater numbers reflecting positive performance as a means of identifying areas for improvement. In Heavy Haul, there was concern that the KPI related to proceduralised Safety Observations was having a negative impact on the workplace. Staff expressed that this drove the workplace towards a 'police state' and increased the focus on 'silly stuff' at the expense of effort on important hazard control. Participants felt that the focus should be on lead indicators for judging WHS performance.

### *3.10 Platinum Rule No. 10: Apply resources*

Participants felt that while senior management spoke of their commitment to WHS, this was not always apparent in their actions. Examples such as faulty equipment, failure to negotiate respectfully on rosters, sub-standard amenities and under-staffing were examples of this. There were consistent reports of inadequate time to complete tasks leading to time-pressure and rushing; particularly in Urban Passenger. Under-staffing was a common complaint across all organisations. The majority of concerns in this area were related to an inability, perceived or otherwise, of the organisation to spend adequate money to improve the workplace and workplace systems.

## **4. Discussion and Conclusion**

The aim of the present study was to test the *10 Platinum Rules* as a framework for action towards improvements in organisational culture and the management of WHS in the Australian rail industry. There was a good overall fit in the data with the *10 Platinum Rules*, indicating that these rules may provide a useful framework for organisational self-reflection and for developing interventions leading to improved practice in WHS in Australian rail.

There are a number of areas for positive action arising from this study. Providing clear and reasonable accountabilities, which acknowledge human limitations, will encourage a positive organisational culture where people feel valued and respected. This will also build trust between colleagues, particularly between management and front line workers, and may encourage informal conversations about WHS and the use of formal means of communication. When trust is high, it is more likely that WHS issues will be reported. Prompt feedback and action on reports will help to reinforce reporting behaviour. In line with this, systems, policies and procedures should contribute positively to WHS outcomes, particularly in regards to reporting. Encouraging and rewarding reporting will also help transfer the focus for performance measurement on to lead indicators. Resources should be applied where possible in order to improve the workplace. When resources are limited, being honest and transparent about the

organisation's ability to apply time and effort will maintain morale. Hazards should be controlled at source, with hazard controls relative to the level of risk presented by the hazard. Consultation and evaluation with front-line workers will help policy-makers to ensure that methods of hazard control are appropriate and effective. This will also highlight where on-going training is required.

There are some limitations of the present study that should be considered. The generalizability of these findings is limited by the focus on a few organisations in the Australian rail industry. This highlights the importance of considering the unique needs of different cultural elements when seeking to incorporate the *10 Platinum Rules* into a WHS management system. To determine the utility of the *10 Platinum Rules* more broadly, this research should be replicated in other cultural settings and in other industries. Overall, these preliminary findings provide the evidence base for a role of each of the *10 Platinum Rules* as a guideline for action towards improvements in organisational culture and the management of WHS in the Australian rail industry.

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