

# **20<sup>th</sup> International Railway Safety Conference**

## **Hong Kong 2010**

### **Conference Paper Theme:**

**Human Factors - Global Perspective for Managing Performance**

### **Conference Paper Topic:**

**Human Factors in Challenging Financial Times**

**- Some Unexpected Safety Concerns - An Australian Perspective**

**Presented by David Edwards**

**Executive Director**

**Australasian Transport Risk Solutions Pty Ltd**

**Sydney, Australia**

The past ten years or so has seen a slow but encouraging awareness and increasing understanding of the importance of human factors across all aspects of the rail industry, including the understanding that "for humans to err is normal" and "fallibility is part of the human condition".

In that time we have come to understand and use terms such as organisational culture, safety culture, learning culture, and just culture. Some rail organisations have employed human factor professionals, we have all been involved in the development and implementation of various human factor programs such as targeted recruitment and selection, improved training and assessment, no fault incident reporting, confidential incident reporting, and just culture accident and incident investigation.

We have also achieved some success (in selected rail organisations) in replacing the past use of disciplinary procedures in favour of employee performance management process where it is just as important to manage good performance as it is to manage poor performance.

Just when we thought that significant cultural and safety change was occurring, along came the Global Financial Crises (GFC), and how quickly some parts of the Australian rail industry reverted to type.

While I do not have all the answers, by raising this concern within our IRSC community, I am endeavouring to share this safety concern, encourage debate, and as rail safety professionals challenge ourselves to develop and implement strategies to prevent an industry retreat on the human factors management safety gains made in recent years.

This is more worrying when you consider further European and American warnings and predictions of another potential round of financial mayhem leading to a double dip recession.

In Australia we have been very lucky through the first GFC going into it with a substantial Government surplus and providing the ability for Government stimulus spending which protected the Australian economy from the worst that others have experienced. Indeed, Australia today has the lowest GDP debt of any developed country, low unemployment, and relatively low interest rates.

What has this meant for rail in Australia. During the GFC while prices for export coal and iron ore dipped, they have now returned and in some cases exceeded pre-crisis prices, and during that time volumes continued to increase and the reliance on rail transport for bulk haulage was again reconfirmed. In terms of passenger rail transport, all Australian State Capital cities continued to record significant growth in commuter and regional passenger numbers and available services.

So what has gone wrong?

Notwithstanding our confidence in the Australian economy, when Europe or America catch a cold, we also start sneezing, don't ask me why as I am a simple rail safety professional and not a banker, share trader, or economist, but at least I can sleep at night.

For the right or wrong reason, many organisations in the Australian rail industry appear to have taken the opportunity (or excuse) presented by the GFC to launch into significant restructuring programs designed to reduce overheads, staff and operating costs to improve the bottom line for what I suggest is a short term gain. However, this strategy appears to be without any medium to longer term vision or understanding as to the possible latent safety failures that may result from these wholesale changes and safety service level reductions.

What has been the result?

Evidence in some rail organisations is that despite the public statements, the first cut backs that occurred were in human resource management, safety management, employee welfare, rail safety worker training and development, and accident causation investigation.

Other safety depletion aspects have involved some principal safety manager positions being pushed down the organisational structure from a level 2 (reporting to CEO) position to a level 3 or even a level 4 position in some cases.

Also observed has been a reduction (in some areas) of any meaningful independent safety compliance audit program and incident investigation, and a dramatic increase in organisations shedding or failing to recruit key railway technical expertise.

All of which has impacted dramatically on the developing discipline of human factors and its continued acceptance as a legitimate investment for future organisational growth, cost efficiency and improved safety performance.

Faced with the GFC, some rail organisations immediately appeared to forget about investing in the safety future and the good work undertaken over recent years changing the organisational cultures. The recent maturing organisational safety cultures that appeared to understand and accept that a safe organisation will be a profitable organisation appears in some cases to have been lost.

For a number of years we have been advocating that managing rail safety should be considered as a "profit centre", not as a "cost centre", however, the GFC bean counters appear to have convincingly won that battle with a number of rail company safety areas either abolished, devolved, or reduced to such a level that the on-going effective safety management in some organisations is at risk of failure.

Further, faced with significant cost restraints, some rail organisations immediately erased all of the corporate history of past incidents and accidents and all of the associated safety and HF lessons from the past. We may all agree that without those critical HF lessons from the past, how is it that some organisations continue to make the same mistakes that they always have, but they expect to achieve a different outcome.

Spanish/American Philosopher George Santayana once said "Those who do not remember the past are condemned to repeat it". Perhaps Mr Santayana had the modern rail industry in mind when he made the statement nearly 100 years ago.

While not all organisations have reverted to a past less informed and less safe HF cultural environment, any simple analysis demonstrates a growing divide between the public sector owned rail entities when compared with the private sector fully commercialised sector.

That is not to say that the government rail organisations have also reduced funding, some have, however, the scale of cut back is far less dramatic and generally not associated with all aspects of HF considerations. Indeed, it could be said that without some of the principal Australian public sector rail organisation, there would be no HF professionals employed in the industry.

One trend that is consistent across both the public and private sector rail organisations in Australia is the increasing decline of capability and competency in railway network rules safeworking management. Once a "sacred cow" within the rail industry, this very specialist competency area is now diminished to a such a level within some organisations that the manager responsible for the network rules does not hold any technical training or competence in this safety critical area. This decline in technical competence across a range of rail safety critical roles has a direct correlation to the reduction in training and employment opportunities.

Another example challenging the more enlightened HF thinking has been the purchase by road transport (trucking) companies of segments of the Australian long distance freight rail business and the impact of the trucking industry methodologies on the rail industry.

While the rail industry must always be accepting of change and a number of implemented changes have added value, some of the proposed road transport led changes have no basis in safety management and do not stack up in any form of HF analysis. The safety critical area of train driver route knowledge is one such example where it may not be appropriate to have train drivers operating trains over the same extreme long distances in Australia as occurs in the road trucking industry. In the current environment of reducing operating costs at any cost, having a HF professional consider and advise on such proposed operating changes is just not an option.

Maintaining some balance has been the existence in Australia of a robust system of State based rail safety legislation and associated accreditation processes without which perhaps the organisation GFC cut backs may have been even more savage. However, it remains to be seen how effective the rail safety regulators will be at understanding and managing the organisational changes as the rail industry moves into an era of complex private sector organisational ownership with diversification, multiple company structures, contracting out, and the establishment of multiple accreditations held by single entities with less than clear lines of responsibility and accountability.

Also providing some human factor balance to the debate on "what level is safe enough" is the Australian Rail Industry Safety and Standards Board (RISSB) which has continued to grow in stature and, now with Standards Australia certification, has provided a rail safety circuit

breaker that has established a set of minimum standard safety and technical standards and codes of practice that may now be considered as "industry best practice" and therefore establishing an industry bench mark that should not be lowered by any industry organisation.

My colleague, Mr Kevin Taylor, General Manager, Australian Rail Industry Safety and Standards Board (RISSB) will expand on the RISSB GFC industry led counter measures.

Also as a consequence of the GFC, we have seen the rapidly expanding concept of "contracting out" many of the traditional risk and safety management, rail safety worker training and assessment, and technical services in the rail industry that previously were considered critical internal resources. While not all aspects of this contracting out trend are negative, the rate and speed of the change to contracting out such services must cause some concern.

Indeed, while most thinking rail safety professionals would identify such a change as being significant to any safety management system and require a liberal application of safety risk assessment and management, the concern is that in the rush to reduce the bottom line costs, assessing the risks associated with the change and managing those risks in an informed and considered manner has in itself become a casualty of the GFC.

In summary, there is no such thing as "human error", just bad management of human performance.

This paper has not purported to be able to answer all the questions or indeed to provide a magic solution, however, it has attempted to raise this safety critical HF issue in the hope that being aware of the impact of the recent and on-going financial crisis, we may be better prepared to retake the safety initiative, or to manage the future which is sure to be with less financial and human resources.

In attempting to raise this difficult question, I am concerned that the GFC has been used as an excuse by some to revert to past "bad management" practices, and has provided an environment where some people and some organisations are potentially putting "production ahead of safety" and rejecting all of the recent hard won gains in human factors management.

If there is one objective that our industry needs to hold on to as we continue this journey through the GFC and its ramifications, it is the worthy ideal contained in the definition of a just culture.

Professor James Reason describes a "just culture" as one that acknowledges the inevitability of human error by supporting safety management systems and practices that promote learning

from past errors/mistakes, uncensored reporting of near miss incidents, full employee participation in investigative processes, and a comprehensive analysis of human error types contributing to accidents and/or incidents.

A “just culture” is also transparent and establishes clear accountability for actions, and as such, contrasts markedly with both “blame free” (awarding total immunity for actions) and “punitive” (enacting a disciplinary response regardless of whether or not the acts were intentional or deliberate) cultures.

May we work together to ensure that we can achieve an environment where the above culture is accepted as normal business and not one of the first ideals to go in a GFC.

Perhaps the fault has been within our own rail safety professional ranks in that we have potentially failed to secure senior management long term support for the HF initiatives because we failed to sell the concept and to foster internal champions.

Perhaps also we just focused on the "safety case" and failed to recognise the growing importance of building the associated "financial business case" that is the first and perhaps most important HF defense in any GFC environment.

The questions for us as rail safety professionals are "what effect will this GFC trend have on rail safety performance now", "how can we prepare for the suggested potential second GFC", and "what lessons can we take from this crisis into the future"?

End of Paper

Date:

29 August 2010