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Safety Culture Transformations

Safety Governance

Lessons from the Dreamworld tragedy

Executive Summary

In October 2016 four park guests were killed when their raft capsized on the Thunder River Rapids Ride at Queensland's Dreamworld Park. Ardent Leisure was subsequently charged with three offences under section 32 of the Queensland Work Health and Safety Act. They pleaded guilty to all charges and were fined $3.6 million.

The incident inflicted a massive personal toll on the victim's families. Sydney mother Cindy Low, along with Canberra mother Kate Goodchild, her brother Luke Dorsett, and his partner Roozi Araghi, were the four people killed in the incident. Nearly four years later, on the day of the sentencing, Prosecutor Aaron Guilfoyle read out victim impact statements which described, inter alia, *"loneliness in terrible grief, severe mental health consequences, and ongoing trauma*."

While much has been written around the engineering failures of this incident, the objective of this report is to highlight the systemic, cultural and governance failures at Ardent Leisure, so that board members and executive officers of other organisations can consider the all-important reflection – **Could this happen in our organisation?**

Page four of the report describes the relevant obligations for company officers under the WHS Act, with the key point being that an officer's obligations under the Act are personal and cannot be delegated to management.

The Coroner's Inquest clearly showed that it is possible to have the appearance of a good safety system in place but without the right culture to shape behaviours and decisions such system can be largely ineffective. This is clearly one of the most important factors from the Inquest, and Coroner McDougall, in his scathing attack on Ardent Leisure, makes the point that it is the responsibility of the Board and CEO to establish and maintain this culture:

"Such a culpable culture can exist only when leadership from the Board down are careless in respect of safety. That cannot be allowed".[1]

The challenge of course is that many company officers lack the OHS knowledge and experience to know what must be done. The report provides guidance on what must be in place and working effectively to achieve the right culture. This includes:

- A strong and visible safety culture where it is clear to all that safety is the highest priority. Every member of the Board has a clear responsibility to demonstrate this priority. It is vital that each Board member understand that safety is a personal legal obligation and cannot be delegated.
- Reporting systems that inform the Executive and Board of the effectiveness of controls over safety critical risks.
- Risk assessments of key processes that are completed by experienced, multi-disciplinary teams.
- Rigorous reviews of all serious incidents, including 'high potential' near misses. These were those vital warning signs that were missed by Ardent Leisure. This process must ensure that corrective actions are closed out and then periodically tested.
- Effective independent audits of the safety system and safety culture. This requires personal participation of officers in the review of key audit findings – and challenging them where necessary.
- A robust system for verification of qualifications and competency of staff in key roles.
- Systematic training programs with periodic refresher training.

[1] Coroner's Inquest into the deaths of Kate Goodchild, Luke Dorsett, Cindy Low & Roozbeh Araghi at Dreamworld, October 2016. P270

Introduction

The Australian Institute of Health and Safety recently reviewed a number of high-profile court cases where significant deficiencies in governance processes at board and 'officer' levels were uncovered. These included the Dreamworld Coronial Inquest, Aged Care Royal Commission and National Inquiry into Sexual Harassment in Australian Workplaces.[2]

The challenge for many board members is that it is possible for their organisation to have the appearance of good safety systems and governance in place, yet fail to meet their due diligence obligations under WHS law with closer examination. We have used the Coronial Inquest into the Dreamworld tragedy as a way of demonstrating these crucial shortcomings. Hopefully, the reader will clearly see how underlying systemic and cultural failures resulted in crucial warning signs being missed.

We also sought advice from Nerida Jessup, Special Counsel of leading legal firm Herbert Smith Freehills, who confirmed these judicial findings are not just isolated cases but part of a wider trend which has implications for board members and executive officers:

> **'The Coroner's willingness to sheet operational failings to the Boardroom is consistent with the recent observable trend in safety enforcement, which is focussed on holding officers accountable for WHS incidents.**
>
> **We've seen sharp focus in the investigation and prosecution approach of regulators on achieving enforcement outcomes against officers. The raft of recent WHS law reform, with the introduction of Industrial Manslaughter laws and lowering of thresholds in NSW to achieve category one prosecutions, is consistent with this trend."**

[2] Donaldson. C : *WHS Oversight*. OHS Professional. AIHS. Dec 2019.

Officer's Due Diligence Obligations

Ardent Leisure charged under s.32 of the Qld WHS ACT.

Failure to comply with health and safety duty—category 2

A person commits a **category 2 offence** if—

(a) the person has a health and safety duty; and

(b) the person fails to comply with that duty; and

(c) the failure exposes an individual to a risk of death or serious injury or illness.

Officer's Due Diligence obligations

Under the Act, safety is a personal obligation which cannot be delegated to management. Due diligence includes taking reasonable steps to:

a) **acquire and keep up-to-date knowledge** of work health and safety matters

b) **gain an understanding of the nature of the operations** of the business and generally of the **hazards and risks associated** with those operations

c) ensure that there are available for use (and implemented), **appropriate resources and processes to eliminate or minimise risks** to health and safety

d) ensure that there are **appropriate processes for receiving and considering information regarding incidents, hazards and risks** and responding in a timely way to that information

e) ensure that there are **processes for complying with any duty or obligation** under the Act

f) **verify the provision and use of the resources and processes referred to in paragraphs** (c)–(e)

Similar WHS legislation in each state

While the Coroner's Inquest into Dreamworld is subject to Queensland WHS law, each state and territory have broadly the same requirement of a 'Primary Duty of Care'. This responsibility cannot be delegated to management.

Case study

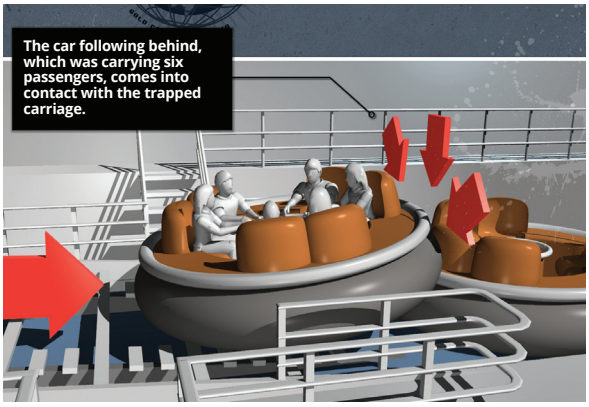
The Dreamworld tragedy

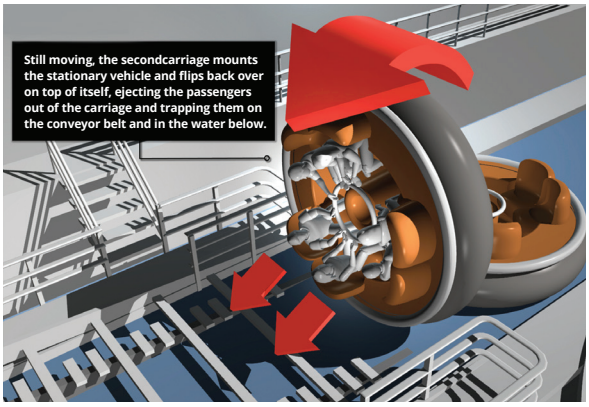
> “Such a culpable culture can exist only when leadership from the Board down are careless in respect of safety. That cannot be allowed.”

The Dreamworld tragedy

The Coroner's Court of Queensland published its 274 page findings (October 2019) into the deaths of four guests of Dreamworld in October 2016. The incident occurred on the Thunder River Rapids Ride (TRRR) when one of two large water pumps stopped and the water level in the ride system was lowered to a point where a raft became stranded on elevated skids and the following raft, with six people on board collided, flipped vertically and was dragged into the conveyor mechanism. Two people survived and four were killed.[3]

While much has been written about the lack of engineering safeguards in the design and operation of the ride, this article will focus on the underlying management systems and leadership behaviours which failed to ensure the safety of park patrons and staff.





[3] McDougall.J *Inquest into the deaths of Kate Louise GOODCHILD, Luke Jonathan DORSETT, Cindy Toni LOW, & Roozbeh ARAGHI.* Coroners Court of Queensland. 2020.

Management systems in place at the time of the incident

Reading through the transcript, it is evident that Ardent Leisure Group (the owners and operators of Dreamworld) had management systems in place that, on face value, could appear to satisfy the requirements of due diligence:

1. Ardent Leisure Group had long experience in the leisure industry with assets operated across Australia, New Zealand and the USA. Dreamworld was the largest theme park in Australia.

2. The TRRR was designed by consultant engineers, constructed in-house by Dreamworld, approved by the Chief Inspector of Machinery, had been operating since 1986 and was the most popular in the park.[4]

3. There was a well-defined corporate structure with general managers of each function reporting to the CEO, who in turn directly reported to the Board. The CEO also chaired the executive safety committee, which held monthly meetings.[5]

4. The safety department consisted of 4 safety officers and a qualified safety manager who reported into the Ardent Leisure group safety manager. Health and Safety Representatives were elected from within the workforce and participated in safety audits with the safety team.[6]

5. The CEO had well defined responsibilities regarding safety which included that he ensured:
   a. Development of a Safety Plan;
   b. His team were aware of their safety responsibilities;
   c. That his team conduct effective risk assessments in line with the relevant code of practice;
   d. Annual reviews of the safety management system and audits of park operations were conducted;
   e. His participation in periodic (at least annual) safety inspections.[7]

6. Dreamworld had a large team (40) of highly experienced engineering and technical staff lead by a GM with long experience in the industry. He presided over an Engineering Management team which met weekly to review key engineering issues. The Park safety manager attended this meeting. Weekly staff meetings and daily toolbox pre-start meetings were held for all E&T staff. [8]

7. All Park staff received an induction which included information on their OHS responsibilities.

8. The TRRR received an annual preventative maintenance inspection which would involve 8 technicians and extend over 3-4 weeks.[9]

9. An external audit firm, who specialised in engineering and safety audits for amusement machines conducted periodic audits.[10]

[4] Dreamworld Inquest: pp 15-38
[5] P11
[6] pp 73-77
[7] p11
[8] Dreamworld Inquest: pp78-84
[9] Hopkins. A *"A Culture of Denial"* 2000. (A., 2000)
[10] P78 s293-294

A watchpoint for those in governance roles

A board member could be forgiven for looking at the list above and thinking that there are comprehensive management systems in place and 'safety governance' is in order. We are then left to ask ourselves, 'how did the Board and Executive get it so badly wrong'? Bad enough that Coroner James McDougall reached this conclusion about the Board of Ardent Leisure:

> **Such a culpable culture can exist only when leadership from the Board down are careless in respect of safety. That cannot be allowed."** [11]

In her review of the findings, Nerida Jessup of law firm Herbert Smith Freehills explains what should have been done:

"Officers' due diligence duties were recognised by the Boland review as one of the key success stories of the model WHS laws, responsible for taking WHS from the shop floor to the Board room.

While businesses should be supporting officers to meet their due diligence duties through establishing reporting and governance frameworks, it is a personal obligation, and it cannot be delegated to management.

In the case of Dreamworld, there was a pattern of early warning signs that were insufficiently investigated or inadequately closed out. In my experience of responding to serious safety incidents, that's a common story.

In that context, there is an important role for officers to proactively engage with WHS hazard/risk identification and management by the business. This should include having a good understanding of the critical risks of their business, ensuring the effective investigation of incidents and closing the implementation of controls arising following those incidents. "

While reading through the rest of this article, there are some key questions to ask yourself:

Would our Board and Executive have spotted the warning signs?

Am I confident that something similar could not occur in our organisation?

How should we demonstrate due diligence over our systems and processes?

[11] p270

Areas of underlying systemic failure identified in the Coronial Inquiry

Senior Management 'Ineffective'

From the accounts provided during the course of the inquest, senior managers of the park were often described as being ineffective in many key aspects of their roles. Much of this ineffectiveness can be traced back to either not identifying the important warning signs, or not acting on the ones that were identified.

Dr Andrew Hopkins, Emeritus Professor of Sociology at the Australian National University has researched and written many excellent books on major safety incidents, including the Longford gas explosion, mining tragedies at Gretley and Moura and the Deepwater Horizon disaster. He has identified in each case there were warning signs which preceded the event, these should have enabled management to prevent the disaster.[12]

For the purpose of gaining insight, we will review two of the most important senior roles in the park and identify some of those missed warning signs that drew such harsh criticism from the Coroner:

The **GM of ENGINEERING** joined the Dreamworld engineering team in April 2012 and was promoted to Engineering Manager in January 2016, approximately 10 months before the tragic incident.[13] Although not a tertiary qualified engineer, he held an Advanced Diploma in Engineering and had previously worked for 12 years as the Engineering Co-ordinator with the Village Roadshow Group and had oversight of their major assets which included Sea World, Movie World and Wet 'n' Wild.

Given his deep engineering experience, why did the Coroner describe him as having *"only a scant amount of knowledge as to the design, modifications and past notable incidents of the TRRR?"*[14]

This 'scant knowledge' regarding design and modifications to the rides at Dreamworld were identified as far back as 2012 when he realised that the system of engineering and safety document control; where information about the rides, their safety systems, maintenance regimes and training is stored, 'was sadly lacking' and compared poorly to the Village Roadshow systems.

Document control is an area that usually makes one's eyes glaze over and can easily be discounted, yet the effect of a failure to maintain this system meant that vital 'corporate memory' was not available. This issue was significant and prompted him to make these comments at the inquest:

> **"Most of the platforms to manage safety of all asset management were failing because the information always wasn't available, and it wasn't available to everybody who needed it."** [15]

Dreamworld were working on addressing this shortcoming with their systems; however, their solution appears to be one of steady incremental improvement rather than aiming to swiftly address the system deficiency. This approach drew harsh criticism from the Coroner when it was acknowledged Dreamworld had not deemed it necessary to engage an engineer for the park *"who was dedicated or qualified to undertake full risk assessments of the rides from an engineering and hazard perspective."* [16]

[12] Hopkins. A *"A Culture of Denial"* 2000. (A., 2000)
[13] p78 s293-294
[14] p84 s326
[15] p78 s295
[16] p84 s330

This is consistent with Hopkins' findings that middle management often get caught up in day-to-day activities and can be reluctant to address unwanted news. The focus is on the efficient running of the operation and safety risks are discounted as the solutions are seen to divert attention away from the core focus of meeting targets.

While robust management systems with effective document control are vitally important, the most significant area of management failure, in our view, were the failures to learn from the previous similar incidents that occurred over several years. Described as 'past notable incidents' by the Coroner, they occurred on 5 occasions between 2001 and 2014. The 2014 incident was very serious and prompted the Engineering Manager of the time to record this comment in his report:

> **I shudder when I think if there had been guests on the rafts." [17]**

These incidents should have been clear warning signs that promoted encouraged effective investigations, identification of the real root causes, swift corrective and preventative actions and progress reports to the Board. Yet, while they were all investigated, many corrective actions were focused on operator error rather than identifying the engineering modifications that would have prevented the incident from recurring.[18]

At this point the reader may be wondering why the Safety Department at Dreamworld did not insist on more robust engineering solutions to prevent these recurring incidents. In the world of safety the 'Hierarchy of Controls' would direct an 'engineering solution' (such as interlocking water level detection with the ride system) to be implemented in preference to 'an administrative control' which relies on operators to intervene. However, when we review the transcripts from the park safety manager, it gives us insights into the reasons this did not occur:

[17] p71 s267
[18] p258 s 994

The Park's **Safety Manager (SM)** had dual reporting to the Ardent Group Safety Manager and also the Park CEO, who were the one's tasked with informing the Board on health and safety matters.

SM claims that *"he did not have decision making powers and did not get involved in safety audits or inspections, preferring to leave that side of things to external auditors arranged by the Group Safety Manager."*

He described the safety manager's role ***"as reactive to daily issues rather than proactively advancing safety management"*** and ***"the structure of his department as ineffective".*** Incredibly, he stated that he ***"was unaware of recommendations made by external auditors that his department should conduct safety assessments of rides and did not have a copy of the reports commissioned".*** [19]

When asked to describe his responsibilities as Dreamworld Safety Manager, he included a list of safety tasks that you would normally expect to be conducted by one of the safety advisors reporting to him:

- training of employees in safety matters such as inductions, lock-out and chemical handling;
- responding to issues raised through the Figtree data system;
- ordering PPE;
- investigating suspected breaches of operating procedures for the Human Resources team.[20]

Compounding this reactive behaviour, the four members of the safety team were described as frequently being 'pulled away' to conduct ride assessments for guests. They also were primarily first aid officers and paramedics, not experienced safety officers.[21]

The safety systems at Dreamworld were described by SM as 'quite immature'. The Figtree safety database recorded the usual hazards, risks and incidents and assigned corrective actions. However, there was no risk register in place to record all of the significant risks and when he tried to implement this system, he received 'pushback' for his idea based on lack of funding.[22]

These are clear warning signs and the reader may be wondering why the Dreamworld CEO and/or the Ardent Leisure Group Head of Safety did not address these shortcomings, given their specific responsibilities for health and safety. We know the safety manager was part of the park management team and they would meet often. SM claims to have raised these ongoing issues directly with the CEO. This question remains largely unanswered in the transcripts.

In his summation, the Coroner lists the failed systems identified in the safety department. They serve as watchpoints for all organisations and are provided in point form here so executives and Board members of all organisations may ask the question of their own people:

- Rudimentary safety systems;
- Poor document management;
- No formal risk register in place;
- Members of the safety team did not conduct holistic risk assessments;
- The safety team were not involved in drafting operating procedures;
- Significant segmentation between departments.[23]

[19] p74 s274-278
[20] pp73-74 s 275s
[21] p74 s278
[22] Inquest p75. Sections 278-282
[23] p260 s1002

Board members may be asking themselves at this point *how could I be expected to know about these shortcomings?* Under normal circumstances, independent third-party safety assessments and audits are conducted to directly inform the executive and Board of areas of systemic failure. However, as we will see in the next section, this key area of governance was fundamentally flawed.

Ineffective safety audits

Another consistent theme throughout the Inquiry was the ineffectiveness of the safety audit program. An audit firm was engaged roughly every two years between 2003 and 2013 to audit operating, engineering and safety compliance of all park rides. The final report was then presented to the Safety Executive Committee.

The Coroner's transcript listed several deficiencies which executives of all firms should consider:

- The audits were described as 'largely focused on aesthetic issues rather than the Australian Standard'.
- The audit firm appears to have raised recurring recommendations – the 2013 recommendations are essentially the same as the previous surveys.
- Dreamworld knew of the significant limitations with respect to the safety auditing being conducted but failed to act on it. [24]

One telling insight from the transcript was related to the 2013 audit and on this occasion, a different consulting firm was engaged to conduct an audit of the Safety Management System at the park. Their conclusion: ***"in essence, there was no documented Safety Management System in operation within the park".*** [25]

Audit is a key tool to provide independent advice and support to management and the Board and external stakeholders as relevant. A robust audit process requires the following components:

- Development of a systematic audit program and tracking of its progress.
- A clear definition of the scope and processes to be audited.
- The selection of independent auditors who are qualified for the audits to be conducted.
- Review of audit findings at the appropriate level and detail. Senior executives and the Board must be informed of any findings which identify areas of significant risk.
- Mechanisms to adopt and implement agreed actions in a suitable timeframe. This includes nominating the correct action parties and realistic action time frames that are then monitored for compliance.

[24] p257 s993
[25] Inquest p149

Outcome

Lessons for Board Members

“It is surprising, given the state of the safety management systems in place at Dreamworld, that a tragedy of this nature had not occured before now. It was simply a matter of time. That came on 25 October 2016.”

Lessons for Board Members

Ross Passalaqua of BWC Safety has an extensive background in safety and risk management from his corporate career, including experience with Shell and DuPont. Ross is also a long serving and active Board member with a number of high-profile organisations in Australia and regularly advises on Board governance.

We asked him to firstly consider the findings of the Dreamworld Inquest and then to provide advice on how Board members and senior executives in high performing organisations can address the types of governance issues raised in this case:

Ross Passalaqua
Senior Consultant
BWC SAFETY Pty Ltd

"According to the inquest transcripts, the apparent lack of meaningful action to systematically address the previous serious incidents suggest that Dreamworld lacked a strong safety culture. In organisations where such culture exists and is working optimally, safety is the highest priority and every person takes personal responsibility not only for their own safety, but also for those around them. All staff are empowered to address any safety concerns, including shutting down a plant if they deem necessary, with a confidence that the organisation will fully support them for any action taken.

A stronger safety culture with concomitant higher levels of personal safety ownership and heightened sense of the main safety issues, would arguably have alerted management and the Board to the level of risk to which the business had,

perhaps unknowingly, become exposed. Dreamworld apparently also lacked the systems, processes and procedures to appropriately address previous incidents. A robust incident investigation process should have addressed and actioned contributing factors to previous incidents.

Based on the number of serious incidents recorded, it is also highly probable there would have been numerous near misses, plus an associated range of unsafe acts and conditions in the operation of not only the TRRR but also the general operation of the business. If this is indeed the case, then staff and management either deliberately or unknowingly continued to expose the business to an unacceptable level of risk. This then raises the question of the extent to which the Board understood and met its obligations under the Corporations Act 2001 which requires, inter alia, that Company Directors have a common law duty to act honestly, in good faith and with appropriate care, diligence and skill.

Directors are personally responsible to always exercise the requisite due diligence as detailed above and again, apparently, there was not the process, appetite, or understanding to meet this requirement. While it is not necessary that all Board members are safety specialists, each Board member is, however, required to take reasonable steps to exercise appropriate due diligence.

The Boards of the safest and best organisations nearly always incorporate two key components in their safety governance. The first of these is to treat safety as their highest priority. By setting the 'tone at the top' they are best able and therefore usually most successful in cascading a strong safety culture throughout the organisation. Typically, they will employ a range of leading and lagging performance measures and periodically test their viewpoints using independent WHS reviews which are benchmarked against best performing organisations.

The second component of effective safety governance is a robust and effective risk management framework which is based on the identification and analysis of all risks to which the company is exposed and the development, implementation and ongoing monitoring of appropriate control mechanisms to reduce risks to as low as is reasonably practical. Risk management is then a key agenda item at each Board meeting where management is responsible for demonstrating to the Board that all previously identified risks are being managed within the organisation's risk appetite and that there is a sound process in place to monitor any changes that affect existing risk and to identify any new and emerging risks.

Ultimately, a strong safety culture supported by appropriate safety management systems and tools and a robust risk management framework would arguably have addressed many of the factors that contributed to the Dreamworld incident."

Conclusion

The Dreamworld tragedy is just that. The loss of one life is tragic enough but this incident resulted in four deaths, three from one family. These people came to Dreamworld with the expectation of an enjoyable, not a deadly, experience.

The Coroner's report revealed a litany of warning signs that, if actioned, would have prevented this disaster. The report also makes it abundantly clear that the responsibility for safety starts and stops with the Board.

One of the hallmarks of great organisations is a great safety culture. Such culture must be visibly driven by the leadership team, starting with the Board. The coroner noted that the Dreamworld tragedy was the result of a "culpable culture" that "can exist only when leadership from the Board down are careless in respect of safety."

The clearest lesson from the Dreamworld tragedy is that Boards and individual Board members need to be not only aware of, but also to fulfil, their due diligence obligations. This includes practically demonstrating their understanding that safety is a personal responsibility for each Board member that cannot be delegated away.

The Dreamworld tragedy was clearly avoidable. The fact that it occurred should send a clear message and challenge to every organisation to openly and genuinely reflect on their safety culture and the extent to which their due diligence obligations are being fulfilled. Where there is uncertainty in this regard an independent assessment should be conducted.

The hope of the authors is that leaders in all organisations so reflect and take any and all steps necessary to ensure another Dreamworld tragedy cannot and does not recur.

Coroner's concluding remarks

> **"It is surprising, given the state of the safety management systems in place at Dreamworld, that a tragedy of this nature had not occurred before now. It was simply a matter of time. That time came on 25 October 2016."**

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This publication was produced by the team at BWC Safety as part of our ongoing research into workplace health and safety. We are very grateful for the contributions of the following people :

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Should you have any questions about this report or wish to discuss options for an independent safety assessment of your organisation, please contact Bernie Walker directly on 0407 453 340.