



Welcome to the 2008 February edition of the R2A Newsletter.

This edition focuses on the change in risk thinking by the Victorian parliament and the implications for boards and directors.

Commissions recently completed include: Shellsol Exposure Fire Modelling for Roan KMT (Congo) (Finite Element Analysis) and the Williamtown Airbase Stand-down Airspace Collision Risk Review.

R2A has been commissioned for a significant number of safety case and technical due diligence studies early in 2008. These include:

- TasPorts Pilotage Safety Cases (Derwent and Tamar)
- Dairy Australia
- Avalon Airport Aeronautical Study for the Office of Airspace Regulation - CASA
- NZ Civil Aviation Authority - Palmerston North Aeronautical Study Independent Advisor
- Warragamba Dam Gates FMECA and HazOp for Montgomery Watson Harza

A new one day Enterprise Availability Modelling Course is also being conducted for Engineering Education Australia in 2008 by Richard Robinson. See the EEA website at www.eeaust.com.au for details. Sydney 14 March & Melbourne 16 May.

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Courses Risk & Liability Management

Richard Robinson continues to present this two-day public short course for Engineering Education Australia.

See the EEA website at www.eeaust.com.au for further details and registration.

2008 dates are as follows:

Adelaide:
2-3 July
26-27 Nov

Brisbane
16-17 April
20-21 August

Canberra:
2-3 April

Melbourne:
4-5 June
29-30 October

Perth:
14-15 May
17-18 September

Sydney:
12-13 March
23-24 July

Safety Case Guidelines

The second edition of the Engineers Australia Safety Case Guidelines is now available on-line at Engineers Media www.engineersmedia.com.au/bookshop/epub.html

With the growing emphasis on performance based legislation, the safety case is not only a mechanism for achieving safety goals but is increasingly becoming a document that enables organisations to demonstrate due diligence and is an important liability management tool.

On Risky People

In one sense, competent risk people are like time travellers. We try to range up and down all the possible futures, guessing as to the view. Of course, unless it is the very near future, mostly our guesses are wrong.

The difficulty for decision makers is that our guesses, like all informed guesses, happen to be better than uninformed guesses. And the failure to hear our cries leaves decision makers open to sanction.

Marlene Kanga R2A Senior Associate



R2A Senior Associate Dr Marlene Kanga has recently been elected to the Engineers Australia Council. Her role will focus on communications and marketing.

Marlene is also currently the Chair of the National Women in Engineering Committee. The Committee was recently awarded the Presidents Prize at the 2007 Engineering Excellence Awards for the Year of Women in Engineering Project.

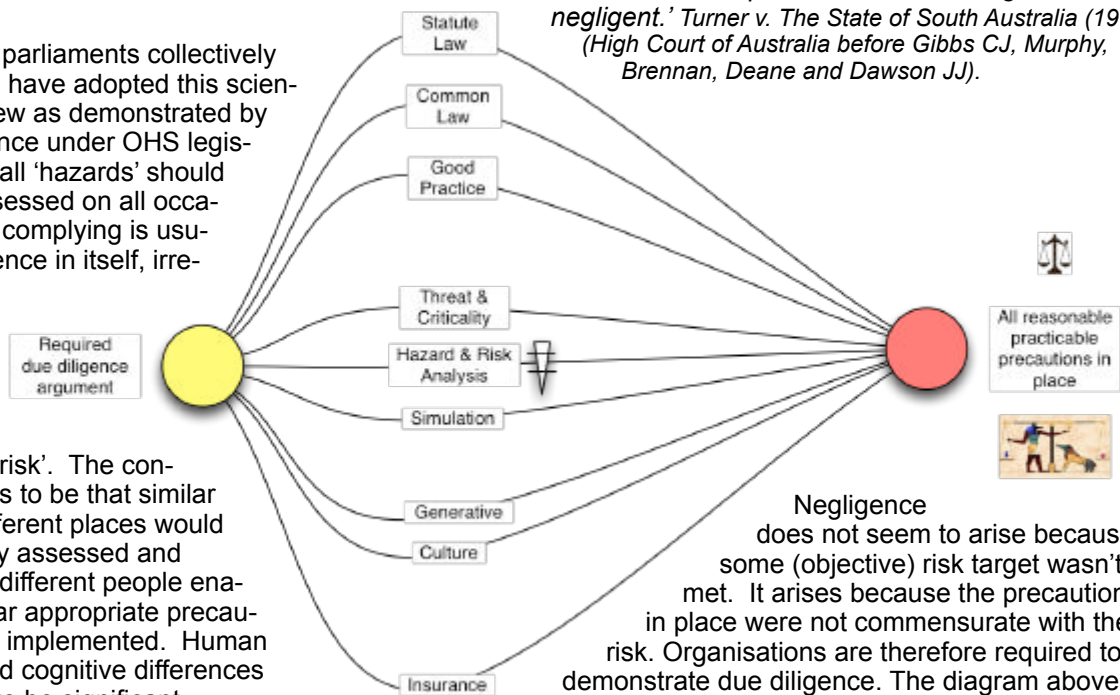
Marlene is a Director of BT Risk Services and iOmniscient Pty. Ltd.

Risk like Money, is a Human Construct

One of the stranger beliefs that emerged in the risk 'business' in the last decades of the 20th century was the idea that risk assessments could be wholly scientifically objective.

That is, a belief that risk is purely a physical property of the natural material time-space universe that can be independently and objectively measured.

Australian parliaments collectively seemed to have adopted this scientific risk view as demonstrated by the insistence under OHS legislation that all 'hazards' should be risk assessed on all occasions. Not complying is usually an offence in itself, irrespective of the precautions adopted to address the 'risk'. The concept seems to be that similar risks in different places would be similarly assessed and judged by different people enabling similar appropriate precautions to be implemented. Human cultural and cognitive differences ought not to be significant.



Amongst other things, if all this were true, two independent experts assessing the identical threat scenario would arrive at similar risk characterisations. In practice, this simply does not happen, to the frustration of regulators, senior decision makers and the community generally. And, it is not a position with which the courts have ever necessarily agreed.

The review by Maxwell QC of the Victorian OHS Act in 2004 culminating in the adoption of the new OH&S guidelines in July 2007 appears to confirm this. (Chris Maxwell is now a Victorian Supreme Court Judge and President of the Court of Appeal).

The Regulatory Impact Statement, Occupational Health and Safety Regulations 2007, Equipment (Public Safety) Regulations 2007 indicates that:

'Further, mandating risk assessments may be a barrier to the implementation of risk controls. For example, where hazards and risks are well known and there are universally accepted control measures, a duty holder may identify the hazard and implement the appropriate control without doing a risk assessment. In these cases, a risk assessment would yield no new knowledge and would be likely to delay the implementation of controls.'

He is less interested in risk and more interested in precautions. This has been the common view of judges. For example, High Court Chief Justice Sir Harry Gibbs in 1982 noted:

'Where it is possible to guard against a foreseeable risk, which, though perhaps not great, nevertheless cannot be called remote or fanciful, by adopting a means, which involves little difficulty or expense, the failure to adopt such means will in general be negligent.' *Turner v. The State of South Australia (1982)* (High Court of Australia before Gibbs CJ, Murphy, Brennan, Deane and Dawson JJ).

Negligence does not seem to arise because some (objective) risk target wasn't met. It arises because the precautions in place were not commensurate with the risk. Organisations are therefore required to demonstrate due diligence. The diagram above attempts to show the usual paths by which such legal due diligence is demonstrated. Unless called up by statute, risk targets in this context are a step on one of the possible due diligence journeys and not ends in themselves.

Project Risk Now a Second Currency

Money isn't real, it does not exist in a state of nature. It is an intellectual device mankind has adopted to help make sense of complex decisions. For the most part it seems to work well enough.

It seems that risk now falls into the same category. Risk has become a second currency at least for projects. If a new project is mooted for example, the first hurdle is how much will it cost (meaning what community resources are required) and the second question is, has there been a risk sign-off? Risk sign-off includes compliance with statute and common law provisions in addition to probity and other issues. These days, both money and the risk hurdles must be met for the project to proceed.

The 7th edition of the R2A text, 'Risk & Reliability - An Introductory Text', is available for purchase:

Black & white, soft cover: \$100 + GST + postage & handling
Colour, coil-bound: \$200 + GST + postage & handling