



CASE STUDY.

Gladstone Area Water Board.

WORK HEALTH AND SAFETY ACT.

BACKGROUND

The Y model demonstrates compliance with the WHS Act.

Gladstone Area Water Board agreed to a pilot study conducted by R2A to ensure compliance with the new Workplace Health and Safety (WHS) Act. The organisation wanted to have self-sustaining system in place by 1 January 2012, when the new legislation was introduced.

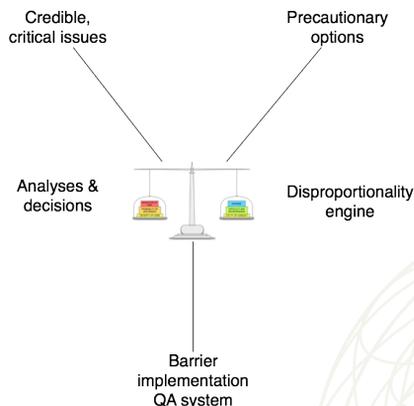
The objective of the pilot study was to -

- Have a useful and effective (manageable) risk register.
- Identify additional precautions for immediate implementation.

The outcome of this assessment is shown below. This provides a model case study of how this process can be applied to other organisations in the water industry.

Process

The ‘Y’ model below demonstrates the due diligence process for compliance with the WHS Act.



R2A favour the use of the treat and vulnerability technique.

Step One - Identification of all Credible Critical Issues

The first step is to build an argument as to why all credible, critical issues have been identified. This can be done in a number of ways. R2A favour the use of the threat and vulnerability technique, which is derived from the military intelligence community.

In essence this asks the question: *What exposed groups are we trying to protect and to what credible threats are they exposed?* An exposed group can be vulnerable to a number of threats.

Step Two - Identifying all Practicable Precautions

The second step is where all available practicable precautions are to be established. R2A has determined that threat-barrier (sometimes known as bow-tie) diagrams are one of the best ways to demonstrate this.

Step Three - Decision and Barrier Implementation

Based on the balance of the significance of the risk vs the effort required to reduce it (the courts common law disproportionality decision making engine) which precautions are justifiable and then implement these.

Sample Outcome

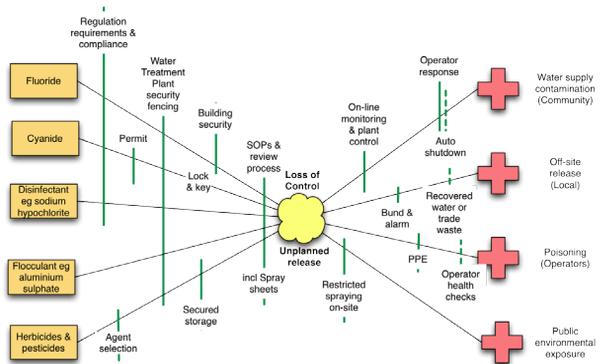
Credible Critical Issues

The table below shows a sample of water industry WHS issues and exposed groups.

| Credible threat | Exposed groups | | | |
|---------------------------------|----------------------|---|---------------------------------|---------------|
| | Dam safety personnel | Public incl. visitors, end users, trespassers etc | Water treatment plant operators | Meter readers |
| Biological hazards (pathogens) | | X | | |
| Fire / explosion | X | | | |
| Hazardous / dangerous chemicals | X | X | X | |
| Bites & stings | X | X | | X |
| Mobile plant operations | X | | X | |

Precautionary Options

The following threat barrier diagram shows representative available precautions for the hazardous /dangerous chemicals threat scenario.





CONCLUSION

Client Outcome

Barrier Implementation & Quality Assurance

Based on this analysis, Gladstone Area Water Board were able to review additional barriers based on the balance of the significance of the risk verses the effort required to reduce it can then be implemented. A robust and active quality assurance system then ensures all barriers are sustained.

“The simple fact is, your current OHS processes are not sufficient.”

Work Health Safety Act

The new Work Health and Safety Act is presenting extraordinary challenges to the way safety risk management is undertaken in Australia. This legislation is the biggest change that most senior managers have seen in their careers. Gladstone Area Water Board were proactive in their risk management strategy.

The simple fact is, more likely than not, your current OHS processes are not sufficient to demonstrate due diligence as required under the new Act.

The process outlined above will assist organisations to positively demonstrate due diligence and meet the requirements of the WHS Act. This position has been tested and confirmed with various legal counsel.



WHERE TO NEXT



Talk to R2A
about your WHS
compliance.

If you would like to know more about how to manage due diligence in your business you can:

- Contact R2A to organise a briefing for your executive management team.
- Book an In-House Course or Private Briefing.
- Buy a copy of the 9th edition R2A text: Risk & Reliability: Engineering Due Diligence. Order online.
- Receive R2A's email newsletter.
- Attend the two day Engineering Due Diligence Workshop presented by Richard Robinson.
- Attend the one day Defensible Risk Management Techniques course presented by Richard Robinson on behalf of Engineering Education Australia.
- Enrol in the postgraduate unit 'Introduction to Risk and Due Diligence' Postgraduate Unit at Swinburne University, also presented by R2A.



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