My Defining, Best and Most Challenging Events in 4 Decades in Safety

Because they go to work in Australia, 10 people per hour, 24 hours a day, 7 days a week, 52 weeks a year have their lives permanently altered (Geoff McDonald)

INITIATING CHANGE

• When initiating change remember “People support what they create”

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Introduction

I am indebted to Dr. Robert Long for helping me develop the focus of this eBook. After nearly 4 decades in OHS I have had a number of best events and a larger amount of challenging events. What follows is critical reflection on my personal experiences in safety; comment is sometimes given about what I learnt as the result of the event.

This is the fifth of 5 safety eBooks, the first is Guidance for the beginning OHS professional, the second Broader management skills for the OHS professional, the third What it means to be an OHS professional and the fourth is Lessons I have learnt about management, safety, people and life. The papers: What makes a safety management system fly, 30 ways to stuff up a safety management system and What you Need to Know about Health & Safety Leadership” (Available on request to fgrobotham@gmail.com) have also proved popular.”

B. Three (3) Defining Events

Early in my safety career I experienced 3 defining events.

At one organisation the production manager and I reported to the location manager. I had a lot of support from the location manager whereas the production manager and the location manager frequently clashed. There was a safety issue that I could have handled better by involving more people in my decision making process. The technical basis of what I did was sound but I did not explain it to some of the stakeholders. The production manager blew the issue out of all proportion, tempers got flared and there was a lot of noise. When the fuss had died down I quickly and easily resolved the issue by working with one of the production manager’s direct reports.

I could not understand why the production manager got so excited over such a minor matter. One of the other managers told me what was really happening was the production manager was taking an opportunity to get back at the company manager by pointing out my mistakes.

At another location I used to run a 2 day accident investigation course with the central theme that personal damage occurrences (Accidents) were the result of People, Machine and Environment essential factors. I emphasised there was a lot more to safety than blaming the people.

A new manager started whose focus was finding out who was to blame for accidents and kicking their rear end. My training, while technically sound did not go over very well with him and he complained very loudly to senior management. There was a great deal of excitement. He displayed considerable inflexibility in his approach and was eventually told by senior management to pull his head in. My manager made it clear to me that he expected me to keep doing what I was doing.
At another location the manager the site OHS person reported to contacted me because he was concerned about the technical basis of how the site safety person was conducting a particular aspect of his job. The manager had researched the issue to a certain extent, had his concerns justified but had no luck in getting change. I researched the issue very thoroughly and forwarded the results to the manager. The manager then requested I visit the site and influence the site safety person.

I had a large pile of well researched information to prove my case but the site safety person would not shift his approach. I later discovered he spent a fair bit of time piling crap on me to anyone who would listen. He amused people at a meeting of all company safety people by saying my definition of a reasonable man was one who agreed with me.

As a relatively young OHS person I came to the realisation that no matter how technically sound your approaches, the people issues can bring you undone.

C. Best Events

Internal Standards of OHS Excellence

One of the best pieces of OHS work I have seen was when one organisation implemented 18 internal standards of OHS excellence.

Standards were visitor safety, contractor safety, compliance with statute law, use of personal protective equipment, management commitment, hazard identification/risk assessment, safe working procedures, loss prevention & control, employee involvement, emergency procedures, accident investigation, education/communication, inspections, health & fitness, injury management, etc and compliance with these standards must be audited.

One company I was associated with introduced the above standards and it put a massive increase in the focus on safety. What excellence in implementation of the standards would look like was defined and people were trained in this. A detailed set of audit questions, based on the fore-going was developed as was a detailed set of auditing guidelines and roles of auditors defined. Sites to be audited were briefed on the auditing guidelines and auditors were trained on the audit questions and auditing guidelines. A series of annual Executive Safety Audits was introduced at the various sites with an audit team led by a senior manager to give the process significant management horsepower. The largest audit team I was involved in had 10 auditors and audited the site for 4 days. A quality assurance approach where NCR (Non-compliance reports) were issued was used and formal processes were introduced to follow-up on audit recommendations.

The technical basis, training and preparation for the audits were sound but the key to success was the fact the audits were driven by senior management.

OHS Change Project

Safety Essentials was a major, multi-million dollar organisational change project designed to revolutionise management of OHS in XYZ. I was one of 12 OHS Managers appointed to run specific elements of the project. I had only little contact with the other OHS Project Managers and have no recollection of what they were working on. I think I was with XYZ for about 5 months.

My main task was to lead a team of 6 electrical workers and 2 OHS Professionals developing what were referred to as “Control plans” for 21 identified high risk activities. XYZ were pretty good with their electrical safety but not managing their non-core risks all that well.
The identified high risks I can remember were - electrical work, fatigue, driving, noise, access to premises, use of personal protective equipment, manual handling, office based ergonomics, animal control, power poles, traffic control, access to safety information, use of compressed gas equipment and so on.

Tasks were divided between me and the team according to expertise with the aim of providing written information on how to manage particular risks. The electrical workers required some assistance from me in their tasks as it was different from their normal occupation.

Some of the things my team did were-

Look at what documentation already existed. In the electrical area a wealth of good information that had been developed was discovered that had been buried in the system and not routinely used.

Examine how the risks were currently managed
Research reliable sources of information such as standards, legislation, published guidelines
Tap into research by universities and other bodies
Speak to similar organisations about how they managed all their risks
Speak to non-electrical multi nationals about how they managed their non-electrical risks
Networking with personal contacts
Circulated initial drafts widely for comment and input

XYZ management were very pleased with the work of the team and hosted a celebration for us. When the team phase was over I worked with commercial trainers developing training programs to implement the control plans. I had to report on project progress to a senior Change Management Team on a regular basis.

I would have to say this was one of the most successful OHS projects I have been involved in.

Geoff McDonald

Australian safety researcher Geoff McDonald has been my advisor/coach/mentor/guide in my safety career. Geoff McDonald has a system of classifying personal damage occurrences ("Accidents ") that goes something like this-

Class 1-Permanently alters the future of the individual
Class 2-Temporarily alters the future of the individual
Class 3-Inconveniences the individual

Geoff has investigated many thousand Class 1 damage occurrences in his career and maintains the most effective way to make meaningful progress in safety is by focusing on the class 1 phenomena. I have been involved in 3 projects with Geoff where we have either analysed critical incidents or personal damage occurrence experience and I found the results very impressive, the analysis of the critical incidents and personal damage occurrences really targeted control actions in an appropriate manner.

Geoff has a view that many of the things that are traditionally done in safety programs are "displacement activities", a displacement activity is something we do, put a lot of energy into but at the end of the day there is little logical reason to do it. My safety career has seen no shortage of displacement activities. Given Geoff’s immersion in serious personal damage I believe he brings a unique perspective and knowledge of what works and does not work in safety and I value his opinion. Geoff is very dismissive of zero harm and risk assessment.
Analysis Reference Tree-Trunk Method of Personal Damage Occurrence Investigation
(Developed by Geoff McDonald)

I have used this technique for ages and believe it produces very high quality investigations. I have been trained in a few other investigation methods and have read widely on the topic, I still keep coming back to A.R.T.T. For a number of years I used to teach a 2 day course on this method and some excellent investigations resulted. The course also allowed people to challenge the more common beliefs about safety.

Essentially the personal damage occurrence is represented by a tree-trunk lying on the ground, at the end of the tree-trunk you have Person elements, Machine elements and Environment elements, along the length of the tree-trunk you have 6 time zones and the annular or growths rings of the tree represent a number of Ergonomic elements. Instead of looking for “causes” you look for “essential factors” (an essential factor is one without which the final personal damage could not have occurred) There are good reasons why the term “cause” is not used. The idea is to look for essential factors where the various categories of the model above intersect.

A.R.T.T.

There are 2 mental shifts required to use A.R.T.T.

Mental shift 1

Look for essential factors not causes. An essential factor is one without which the final damage would not have occurred. Cause is an emotionally laded term that infers blame and it should not be used.

Mental shift 2
Essentially the personal damage occurrence is represented by a tree-trunk lying on the ground, at the end of the tree-trunk you have Person elements, Machine elements and Environment elements, along the length of the tree-trunk you have 6 time zones and the annular or growths rings of the tree represent a number of Ergonomic elements. Instead of looking for “causes” you look for “essential factors” (an essential factor is one without which the final personal damage could not have occurred), the idea is to look for essential factors where the various categories of the model above intersect.

There is a worksheet that incorporates the foregoing that guides your thinking in identifying essential factors.

The model is very easy to use and usually at least 30 essential factors will be found in each personal damage occurrence. This widens your options for control over some other methods of personal damage occurrence investigation.

Brisbane-based OHS consultants, Intersafe conduct reportedly excellent courses on the essential factors methodology and A.R.T.T. Look up their web site and give Roger Kahler a ring.

Critical Incident Recall (Coordinated by Geoff McDonald)

There is a paper on my web-site ohschange.com.au that talks about this work; the paper probably undersells the technique. This technique is awesome.

Taxonomy

This is an incredibly simple technique that it is rare to find used. Essentially taxonomy is a collection of like. The most well known taxonomy is the phylum of plants, their botanical names.

Awhile back I was associated with taxonomy of the more significant personal damage occurrences in the Qld mining industry which I thought was particularly effective in setting priorities for the industry. It is important to do the taxonomy on an industry basis as it is unlikely even the big companies will have enough of the more serious events to be able to develop statistically significant determinations.

The Qld mining industry has a standard personal damage occurrence report form that is sent to the inspectorate. The hard copies of the forms were obtained and sorted into like, i.e. the spinal column damages caused by driving a haul truck were put together, the spinal column damage caused by lifting gas cylinders were put together, the eye injuries caused by grinding were put together and so on. The personal damage occurrences were then examined for their frequency, severity and the essential factors (An essential factor is one without which the final damage could not have occurred). This process gives insight into where your principal problems are occurring and guides preventative action.

In these days of computerised data systems I still feel it is necessary to go back to the original hard copy report for full details unless this has been scanned into a data base.

I recently had a conversation with Geoff McDonald on this topic which revealed I only have a rudimentary understanding of the importance, benefits and process of this topic. Geoff is preparing a paper on the topic which I will make available.

Access to Earthmoving Equipment
When I was in the corporate safety department of a major mining company I developed a gut feel that we were having a lot of injuries when people were getting on & off the massive, open-cut earthmoving equipment. My statistical analysis said it was a major loss area so a project was mounted to investigate the issue. Field investigations and discussions were carried out and a report with recommendations developed. I quickly realized the problems being experienced were not unique to my employer. Through the employer association we successfully applied for Federal Government funding to extend the original research work. This work (led by Geoff McDonald) provided significant input into the writing of an Australian Standard for "Access to Earthmoving Equipment", detailed access purchasing and maintenance guidelines were developed and subsequently most earthmoving equipment in open-cut Australian mines now have hydraulically operated access arrangements. Taxonomy of the industry access personal damage occurrences was part of the process. Many of the recommendations are applicable to access to non-earthmoving equipment, eg. Trucks.

Some of the access guidelines

Access systems should have a fully developed and coordinated system of foot and hand supports and have the bottom step rigidly mounted within 400 mm of the ground. In many cases, this can only be achieved by a mechanism allowing the access system to be taken out of its use position and stored in a damage free location whilst the machine operates

The foot supports must provide a strong grip along and across the support on both the nose and major support area

Foot and hand supports should be visually conspicuous

Hand supports must be continuous and provide adequate grip

One of the most effective means of avoiding access accidents is to eliminate the need for access. Remote sensing of liquid levels, bottom filling of fuel tanks, centralised greasing systems will all help

Stairs will often be better than a ladder

A foot support material should be selected to maximise grip for contaminated conditions

It is useful to interlock the access system with the parking brake system so the access system could not be operated unless the parking system of the machine is applied.

Where the machine is used at night directional lighting should be used to highlight the foot support edges

Access should not begin in front of or behind the direct path of the vehicles wheels.

The mechanism shall not create the risk of injury. Potential injuries from mechanisms include crush points, shear points and nip points.

Note-The above is only a brief summary of the recommendations; you really need to refer to the full report. I can provide further advice if necessary.

Force-Field Analysis

I was introduced to this technique on my Bachelor of Education, with a skilled facilitator it can get some really worthwhile discussion happening.

Force-field analysis (similar to S.W.O.T. analysis) is a simple, yet powerful technique, useful at the beginning of a project to define the nature of the beast you are dealing with. It is particularly useful when seeking to develop new Safety Management Systems. Refer to the paper on my web site.

Supervisor and Manager Safety Training
The following outlines one company’s approach to supervisor and manager learning.

<table>
<thead>
<tr>
<th>Course</th>
<th>Duration</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Identification / Risk Assessment / Hazard Control</td>
<td>4 hours</td>
<td>For all levels of personnel</td>
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<tr>
<td>Types of hazards</td>
<td></td>
<td></td>
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<tr>
<td>Practical exercise recognising hazards</td>
<td></td>
<td></td>
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<tr>
<td>Risk assessment-practical and theory using probability, consequence and exposure</td>
<td></td>
<td></td>
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<tr>
<td>Practical and theory of hazard control using the hierarchy of controls</td>
<td></td>
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</tr>
<tr>
<td>Introduction to Occupational Health and Safety</td>
<td>1 day</td>
<td>For leading hands, supervisors and managers (mandatory course to be promoted to a supervisor)</td>
</tr>
<tr>
<td>Company safety policy and procedures</td>
<td></td>
<td></td>
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<tr>
<td>Supervisors responsibility for safety</td>
<td></td>
<td></td>
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<tr>
<td>Common law principles as they apply to safety management</td>
<td></td>
<td></td>
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<tr>
<td>Workers compensation and rehabilitation</td>
<td></td>
<td></td>
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<tr>
<td>Statutory obligations of supervisors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accident Investigation</td>
<td>2 days</td>
<td>For members of accident investigation teams, leading hands. Supervisors and managers (mandatory course to be promoted to a supervisor)</td>
</tr>
<tr>
<td>Size of the accident problem</td>
<td></td>
<td></td>
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<tr>
<td>Myths &amp; misconceptions about safety</td>
<td></td>
<td></td>
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<tr>
<td>Influence of design on accident causation</td>
<td></td>
<td></td>
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<tr>
<td>Cause versus essential factors</td>
<td></td>
<td></td>
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<tr>
<td>Theory and practical (including practical exercises) application of Geoff McDonald Accident Reference Tree-Trunk method of accident investigation</td>
<td></td>
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</tr>
<tr>
<td>Introduction to Occupational Health</td>
<td>1 day</td>
<td>For supervisors and managers (mandatory to be appointed as a senior supervisor)</td>
</tr>
<tr>
<td>History of occupational health and industrial hygiene</td>
<td></td>
<td></td>
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<tr>
<td>Occupational health principles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals control</td>
<td></td>
<td></td>
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<tr>
<td>Toxic hazards in industry</td>
<td></td>
<td></td>
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</tbody>
</table>
Methods of control of occupational health problems (eg. audiometric testing, noise testing, dust testing and control, control of radiation hazards, RSI, back care)

Supervisors role in occupational health

<table>
<thead>
<tr>
<th>Management developments in occupational health &amp; safety</th>
<th>1 day</th>
<th>For the senior management team at an operating location</th>
</tr>
</thead>
</table>

Latest Occupational Health and Safety developments-employer association, union, A.C.T.U., and legislative trends

Significant Occupational Health and Safety issues in the company and emerging trends

Advanced safety techniques (eg. auditing, fault-tree analysis, Hazop, safety communications, job safety analysis)

Analysis of the effectiveness of the sites current safety approach

Generally I thought these courses I presented a major part of put a much needed focus on safety and gave the participants needed skills

Job Safety Analysis

A section of one organization I was employed at had an event where a person came close to being killed. The regulator investigation gave the organization 6 months to examine and develop safe working procedures, if the regulator was not satisfied with the work done the operation, a vital part of the whole operation, would be shut down. I trained the whole department of some 200 personnel in Job Safety Analysis (refer to the paper on this topic on my web-site ohschange.com.au) and oversaw the development of the Safe Working Procedures. I saw this work as quite positive but I am conscious that Safe Working Procedures are not necessarily the answer to a maiden’s prayer and sometimes it is easy to rely on them unduly. The issue of what you rely on the workers competency for versus what you put on paper is something I have difficulty coming to grips with.

Hazard Identification / Risk Assessment / Hazard Control Training

I developed the 4 hour course, facilitated the course, trained safety staff in how to facilitate the course and briefed consultants hired to facilitate the course.

Hazard identification-Discussed about 15 types of hazards & then had a hazard identification exercise in the workplace.

Risk Assessment-Spoke about the risk assessment process and then did a risk assessment on a real job. It was emphasized that the risk assessment process will only give a rough guide and not to get too hung up on the risk ratings.

Hazard control-Spoke about the hierarchy of controls and applied to the job they had just risk assessed.

The course proved very popular and some sites put the entire workforce through the training.

The view of many was that the workers were much more aware of the risks of their work and took appropriate action to decrease the risks.
**Communications**

From my studies of Management of Organisational Change I adopt a communications and management philosophy that “People Support What They Create”

While with B.H.P. I worked with Professor T.J. Larkin of Harvard University analysing safety communications in the company. There were 3 main messages to come out of this research:

- Use face-to-face communications,
- Use the supervisor to communicate and
- Frame messages relevant to the immediate work area.

With written communications I aim to be succinct, have an appropriate structure and utilise management summaries with major reports. I use photographs, diagrams, flow-charts etc. to illustrate main points. Important written communications must always be followed up by a face-to-face meeting. The BHP guideline for general correspondence is that if it takes more than 2 pages to write it is too much for busy people to write and read. The world of safety is famous for well-meaning, ponderous, glossy publications that no one really knows about, cares about or uses. Safety communications are also famous for the use of “weasel-words”. “Weasel-words” promise a lot but deliver little. Corporate OHS people are experts at producing technically brilliant safety communications that the workers do not connect with. Trying to communicate safety change through the company newsletter is a recipe for disaster. T.J. Larkin’s book Communicating in a Time of Change is a must read for OHS people.

Action and Experiential learning models must be used for communicating learning as opposed to lecture style presentations.

Professor T.J. Larkin says “If it is not face-to-face it is not communication”.

**A Learning Revolution**

Company X revolutionised their approach to learning. I was heavily involved in this work in my role as Senior Safety Adviser in the Brisbane-based corporate OHS department. Company X had 7 open-cut mines, 1 underground mine, 2 ports, 2 coal quality laboratories and 5 town offices, with a workforce of approximately 5,500.

The following are the steps that were taken as best I can remember it.

A Learning Manager was appointed with a reputation for challenging the status quo and practical outcomes.

Existing learning programs were examined and costed, many millions were being spent and it became obvious much of this money was wasted.

An exhaustive learning needs analysis was carried out. One of the 7 open-cut mines was chosen for this and for about 6 months operated at half capacity due to an intense focus on learning needs analysis. This worked formed the basis for the introduction of competency-based learning in the Australian mining industry.

Doctor Stephen Billett of Griffith University was engaged to research preferred and effective modes of delivering learning. Not surprisingly learning by doing coached by a content expert was favoured. A lot of people saw classroom learning as largely a waste of time. Carrying out authentic tasks in the workplace was seen as important.

External trainers and internal trainers, of which I was one, had to attend a week course with a unit that specialised in advanced learning techniques from the Qld. Department of Education. This emphasised interactive techniques and Action and Experiential learning.
Consultants were engaged to prepare self-paced, competency-based modules in many areas. The modules were given to learners and they were assigned a content expert to refer to as needed. In the safety area there were 10 modules that gained National recognition towards a certificate IV in Occupational Health & Safety. My role was to do the T.N.A., write modules, liaise with the consultants writing the modules, assess learners, coach learners and where necessary facilitate the modules.

I completed some of the learning techniques modules and because a thorough approach was used in their development, was able to get exemptions from 2 of my subjects on the Bachelor of Education (Adult & Workplace Education) at Q.U.T.

A system was introduced whereby the supervisor had to engage with the learners to develop an action plan to implement the lessons learnt from a learning experience.

A matrix of mandatory and recommended learning for all levels of employees was developed. For example at some locations completion of a certificate IV in Occupational Health & Safety was made mandatory for all supervisors and managers.

The performance appraisal process put a high emphasis on learning with the result that individual learning plans were developed for all employees.

The organisation truly became a “Learning organisation” and a high value was put on learning.

A communications plan was developed to communicate processes to employees. Various available media were used to communicate learning change.

Development of the learning materials involved many project teams and a philosophy that “When initiating change, People support what they create” was used.

Assessors of the self-paced learning modules completed learning and set about assessing learners.

I was never privy to the cost of this work but I am told there were massive savings because people were not traipsing off to classroom sessions of dubious quality all over the countryside and the learning was really targeted to needs. It was summed up for me when I was sitting in a mine manager’s office that overlooked the coal stockpile and the mine manager said” There was a time when I had evidence the bulldozer operators did not always know what they are doing and the machines were not always well maintained, since this new training I no longer have these concerns”

The company X Learning Manager went on to develop a very successful International Learning consultancy business based on the company X approach. An indicator of his success that he pointed to was gaining the contract to develop the complete learning system for Company Y, an American company with 350,000 employees.

The precursors to success were the very thorough learning needs analysis and the establishment of the preferred and most effective means of learning.

Hazard Control Model

When developing controls for hazards the common wisdom is to apply the hierarchy of controls. It is my experience that applying Haddon’s 10 countermeasures will yield improved results.

Various hazard control strategies and models have been developed by safety professionals over the years. One of the most effective but still easiest to apply is that devised by American researcher Bill Haddon.

Haddon’s model for hazard control is as follows:

| Countermeasure | Prevent the marshalling of the form of energy in the first place. |
eg. Ripping seams - instead of blasting, substitution of radiation bin level sources with ultra-sonic level detectors, using water based cleaners rather than flammable solvents.

<table>
<thead>
<tr>
<th>Countermeasure</th>
<th>Description</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Reduce the amount of energy marshalled.</td>
<td>eg. Radiation – gauge source strength, explosive store licence requirements, control number of gas cylinders in an area</td>
</tr>
<tr>
<td>3</td>
<td>Prevent the release of the energy.</td>
<td>eg. handrails on work stations, isolating procedures, most interlock systems</td>
</tr>
<tr>
<td>4</td>
<td>Modifying the rate or distribution of energy when it is released.</td>
<td>eg. slope of ramps, frangible plugs in gas bottles, seat belts.</td>
</tr>
<tr>
<td>5</td>
<td>Separate in space or time the energy being released from the susceptible person or structure.</td>
<td>eg. minimum heights for powerlines, divided roads, blasting fuse.</td>
</tr>
<tr>
<td>6</td>
<td>Interpose a material barrier to stop energy or to attenuate to acceptable levels.</td>
<td>eg. electrical insulation, personal protective equipment, machinery guards, crash barriers</td>
</tr>
<tr>
<td>7</td>
<td>Modify the contact surface by rounding or softening to minimise damage when energy contacts susceptible body.</td>
<td>eg. round edges on furniture, building bumper bars, padded dashboards in cars.</td>
</tr>
<tr>
<td>8</td>
<td>Strengthen the structure living or non-living that would otherwise be damaged by the energy exchange.</td>
<td>eg. earthquake and fire resistant buildings, weightlifting.</td>
</tr>
<tr>
<td>9</td>
<td>To move rapidly to detect and evaluate damage and to counter its continuation and extension.</td>
<td>eg. sprinkler systems, emergency medical care, alarm systems of many</td>
</tr>
<tr>
<td>Countermeasure</td>
<td>Stabilisation of damage – long term rehabilitative and repair measure.</td>
<td></td>
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<tr>
<td>----------------</td>
<td>---------------------------------------------------------------------</td>
<td></td>
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<tr>
<td></td>
<td>eg. clean-up procedures, spill disposal, physiotherapy</td>
<td></td>
</tr>
</tbody>
</table>

**Note**

Generally the larger the amounts of energy involved in relation to the resistance of the structures at risk, the earlier in the countermeasure sequence must the strategy be selected. In many situations where preventative measures are being considered the application of more than one countermeasure may be appropriate.

Countermeasures may be ‘passive’ in that they require no action on the part of persons, or ‘active in the sense that they require some action or co-operation on the part of the persons, perhaps in association with a design related countermeasure (eg. seatbelts).

Passive’ countermeasures tend to be more reliable in the long term. A short term solution to an immediate problem may require the adoption of an ‘active’ countermeasure eg. Toolbox sessions on replacing guards over a mechanical hazard, the long term or ‘passive’ countermeasure might be the fitting of interlocks to the guard so that power is off when the guard is off.

**Further reading**


**Appropriate Self-Disclosure**

I was introduced to and practised appropriate self-disclosure in a Psychology subject. You will find in a new relationship if you reveal a little bit of you (provided it is appropriate) the other party will reveal a little bit of them (provided it is appropriate), if you then reveal a little bit more of you (provided it is appropriate) they will reveal a little bit more of them (provided it is appropriate), and so the cycle goes on. This is very simple, incredibly effective and I use it all the time to build relationships. Of course if you really hang all your dirty washing out it will probably stuff up the process.

**Reflective Listening**

On a counselling subject I was introduced to and practised reflective listening. This is a very powerful technique to get to the core beliefs of those around you. Someone says something, you may say “If I understand you properly you think x”, this gives the other party the opportunity to expand on their view or “Correct me if I am wrong but I think you are saying y” I suggest all safety professionals read up on this technique, it can make your life much easier.

**Reflective Journal**
When I did my Bachelor of Education (Adult & Workplace Education) we had to do a reflective journal on the placements we did in company's doing practical learning work, when I did the assessment to be admitted to Chartered Fellow of the Safety Institute of Australia I had to do a reflective journal for 3 months on my work experience, I am involved in an adventure-based training program for “at risk” youth and the young people have to do a reflective journal and I have maintained a personal reflective journal for the last 8 years.

One of the prime ways adults learn is through critical reflection and the reflective journal is ideally suited to this. To write the journal you describe what happened or what you or others did and then critically reflect on what went well and what opportunities for improvement were presented. This can be a very powerful personal learning tool. To a certain extent this paper is a personal reflective journal on my work experiences.

Implementation of an Office Based Safety Management System

I was responsible for the implementation of an office-based Safety Management System in an office of some 350 personnel. Personnel consisted of mechanical engineers, electrical engineers, mining engineers, civil engineers, geologists, H.R. professionals, admin staff, payroll people, accountants, purchasing staff, learning personnel, various managers and support staff. Many of these people visited operating sites.

I was charged with implementing the N.O.S.A. (National Occupational Safety Association) Safety Management System out of South Africa in a Brisbane office. Prior to this implementation there was an enormous safety focus at operating sites but virtually nothing in safety was done in Brisbane office. The first step was to appoint Health & Safety reps. and form a Health & Safety Committee that met monthly. I selected an outside provider to train committee members in their role, duties and responsibilities.

The N.O.S.A. safety management system is a 256 element one, primarily designed for high risk environments, the challenge my team successfully overcame was modifying the system to be applicable to the relatively low risk office environment. I trained committee members in the N.O.S.A. Safety Management System and I facilitated a committee workshop where committee members decided which of the extensive N.O.S.A. requirements were applicable in our environment.

A booklet outlining which of the N.O.S.A. elements were applicable was produced and these were explained at the monthly tool-box meeting. In some cases I did this and in some cases I coached the reps in how to do this. Input into the S.M.S. was encouraged from staff. Either I or the reps conducted monthly tool-box meetings in all sections where safety issues were discussed, safety problems were raised and resolved and progress on implementation of N.O.S.A. was discussed and monitored.

The following are some other initiatives introduced-

Revision of the office safety induction and introduction of a site induction program for those visiting sites

A competition with a minor safety related prize to name the Brisbane safety system - Brisafe was decided upon

Publishing of a Brisafe guide book

Development of a safety induction handbook

Introduction of monthly safety inspections

Advanced driver training for those with company cars and their partners. This was an expensive exercise but management considered it a wise investment as it was clearly the highest risk task.
Fleet safety and management procedures were also introduced that saved considerable expense. Nowadays many question the value of advanced driving programs.

Training in the use of fire equipment
Upgrading of emergency procedures and training
Upgrading of incident reporting procedures
Fitting of earth-leakage protection
Improved reporting of safety performance
Off-the job safety promotions
Training in screen-based equipment ergonomics and an ergonomics survey
Noise survey, attenuation and replacement of noisy office equipment was carried out
Illumination survey
Fire risk survey
Chemical substances management system introduced
Emphasis on housekeeping & storage
Upgrade of first-aid facilities
Establishment of a safety reference library
6 monthly internal safety audits and annual external safety audits
Use of job safety analysis to develop safe working procedures, I trained people in how to go about this
Dissemination and explanation of workers compensation and rehabilitation procedures
I liaised with senior management to ensure they had a highly visible commitment to safety

*The majority of these initiatives were low cost ones I carried out, in some cases with help from the health & safety reps.

An extensive effort to introduce the above was carried out over some 8 months and we received a 4 star (out of 5 stars) effort rating at our first external audit.

**Project Management**

Over the years I have been a team member of and led a number of highly successful OHS projects driving significant OHS Management and OHS Learning change. OHS seems to lend itself particularly well to a project management approach. Research into the particular topic, good leadership, carefully selected team members, the use of team building principles and a thorough project plan with timelines for deliverables are amongst the necessary requirements.

**The Best Safety Leader I Have Worked With**

For about a year I worked with a General Manager Operations, John, who could best be described as a humble but focused leader who had an overriding commitment to safety. John accepted the role of Safety Champion. John would turn up at operating sites in the middle of the night to see how safety was being managed. He would jump on a haul truck and go with the operator while the truck was loaded, John would question the operators about safety and tell them that he expected safety to be their top priority. He would walk through the workshop and observe how work was being performed. He would then gather everybody together and give them feedback about safety and tell them what he expected.
He used to give the workers his mobile number and tell them to call him anytime if a safety issue was not solved to their satisfaction. This did not happen often but there was some big action when it did. The approach by John was not always appreciated by the business unit supervisors and managers as he often knew more about how safety was managed at their site than they did, they were kept on their toes.

John had a very simple approach to safety audits, he chose ten things his wide experience told him had been known to cause fatalities and the associated prevention methods. He audited to see if the required preventative actions were in place. At the audit closing meeting he reported on the status of the items and said he expected the required actions to be in place by the time he came back in six months. All this was said in a soft, slow, Southern drawl but the managers and supervisors knew their jobs were on the line.

John let his subordinates know he expected nothing less than 100% commitment to safety, those who did not comply were encouraged to lift their game. Word quickly got around about his safety expectations, single handed he raised the profile of safety in the organisation. Unfortunately after John left there was no one to carry on his work at the same level.

**General Norman Schwarzkopf**

Schwarzkopf commanded Operation Desert Storm, successfully driving out Saddam Hussein’s Iraqi forces from Kuwait in 1991. He died recently at age 78.

I was fortunate enough to attend one of his presentations on leadership a few years back. The central message was that failures in leadership were invariably failures in character rather than competence. He said leaders have to be highly ethical in everything they do, if they are not they will be found out eventually.

The presentation was the most powerful I have seen anywhere, I bought his autobiography “It Does Not Take a Hero” and found it inspirational. My exposure to leadership from the General has led me on a significant journey learning about leadership. A highlight for me was facilitating a Safety Leadership workshop in a National forum in Canada. I continue to learn about leadership.

A few other things from the General -

Do what is right, not what you think the high headquarters wants or what you think will make you look good.

You learn far more from negative leadership than positive leadership. Because you learn how not to do it.

The truth of the matter is that you always know the right thing to do. The hard part is doing it.

When placed in command, take charge.

Leadership is a potent combination of strategy and character. But if you must be without one, be without strategy.

**Lock out Project**

I was given the job of leading a project to examine the feasibility of introducing lock out isolation to complement the existing tag out isolation in a Qld. mining organisation. The first step was to form a project team which consisted of me, an Electrical / Mechanical Superintendent and a mixture of mechanical and electrical tradesmen and supervisors. A rigorous project plan was developed.
The company appeared to have high compliance to the use of tag out isolation but the commercial safety management system the company had introduced demanded lock out isolation be used to complement tag out.

The first team challenge was to convince the team members that a change to lock out was necessary and feasible. There was considerable concern about the cost of converting existing switches, valves, controls etc to accept lock out devices.

Through a contact at Ballarat University we organised visits to 3 companies around Melbourne that were successfully using lock outs. This started the process of the team thinking lock outs were a viable option. We then attended presentations by 2 suppliers of lock out hardware and this eased concerns about the physical fitting of lock out devices.

The team returned from Melbourne and recommended the organisation introduce lock outs. Our end of project report outlined what we had learnt in Melbourne and recommended each business entity form their own project team to examine the practical implementation of lock out devices.

Confined Space Project

Following a fatal L.P.G. explosion on a dragline in another company I convinced my company to review confined space working. A project team consisting of supervisors and workers from where confined space work was done was formed. A rigorous project plan was developed.

The first step was to review the current work procedures and compare them to the relevant Australian Standard. At most sites the procedures left a lot to be desired. The project team developed generic safe working procedures for a number of confined space applications.

The team recommended each business entity form their own project team to examine the practical implementation of confined space working procedures.

Psychology

I see the fact that most OHS people have very little understanding of psychology as a major obstacle to significant progress in safety. Despite the mission statements, complex safe working procedures, ponderous paperwork and detailed safety management systems, safety is essentially about the people. There have been so many events in my work life where I have wished I had a better understanding of people so I could drive significant safety change. People are not like machines and often cannot be relied upon.

While I am no expert on psychology I have completed minor study in the area, this study has convinced me an understanding of the area is vital for safety people.

A principle I have noted from accident investigations is that often the human being will do things by the Least Time-Least Effort way. Often this is well intentioned and done for good reasons. Sometimes this leads to personal damage occurrences (Accidents)

There are so many things in the world of traditional safety that are just plain hard work, you should not be surprised when they do not happen!

Dave Collins from Riskex recently spoke about the management lessons he learnt as a young engineer running a concrete plant. I thought it was a very good example of practical psychology principles in use.

Treat everyone with respect, despite their differences in background or appearance

Talk to them and find out what makes them tick, don’t rely on what others tell you

Realise that everybody wants to do a good job – if they can

Think about and meet peoples basic needs before stressing about the big stuff
Despite what you think, “workers” are smart and resourceful, treat them like crap and they will find a way to bring down you and your plans – provided they can get away with it!

Find out what other hidden talents and ideas they have and let them use them

Realise that if you are a Manager then you work for those in your team – NOT the traditional arrogant arrangement

Give people goals and objectives, give them what they need and break down any barriers.

THEN GET OUT OF THE BLOODY WAY

Trust

One thing that runs through the leadership literature is the vital importance of trust. I have worked for a few people I did not trust and had a few occasions when people have acted like they did not trust me. Lack of trust ruins relationships and erodes effective management of organisations.

Having worked in industrially volatile environments it is obvious the world can turn to crap when trust goes out the door. Asking people for their opinion is a simple way of building trust. You will not always end up doing everything others want you to, it is important to get back to them with reasons.

Interpersonal and Communications Skills

Particularly when younger I have had a number of occasions where my interpersonal and communications skills have failed me. An observation of mine is that despite having great OHS technical skills a number of OHS people are let down by their communications and interpersonal skills.

As I get older my critical reflection on practice tells me communications skills and interpersonal skills are just as important as OHS technical skills. There is not much point having a great message if you cannot get it across, if you have great technical skills but cannot get along with people you will not succeed.

The Real World

I have left this to last as it is extremely important. For a number of years I was employed in the corporate safety department of a major mining company and the corporate head office (Commonly referred to as Bulldust Castle by people in the field) was located in Brisbane and the mines were miles away in the bush. Those at the mines used to refer to those of us in head office as “Seagulls” and they said we would fly up, S..t all over them and fly away. As a young, keen corporate Safety Adviser I used to arrive at a particular mine and tell the field Safety Adviser about the latest safety brainwave from head office. Sometimes he would say “That’s a great idea but will it work in the real world?” There were a number of times he convinced me the theory we had developed in head office just would not work in the real world. Everything we promote in safety must pass the real world test. Not involving the workers in the development of your safety strategies is bound to fail. My experience is sometimes safety initiatives are driven by emotion instead of logical analysis.

D. Challenging Events

Lorraine’s Story

An 18 year old office girl drove a company car from the mine to the nearby township to do company business, on the return journey she was observed driving excessively fast. She was attractive, friendly, vivacious and liked by all. What ended up happening was such a waste. On the return trip she was driving very fast around a curve and lost control of the car, the car rolled
several times and she was catapulted out through the windscreen. She was not wearing a seat belt.

I comforted her until the ambulance arrived. As she lapsed in and out of consciousness she said “George, please do not let me die” We put her on the aerial ambulance to Rockhampton Base Hospital where she died the next day. Subsequent investigation revealed some sensitivities about the causes. Had the organisation been more responsive to her problems and needs the incident could have been prevented.

I do not mind admitting I did not handle her death well. Of course this was before the days of critical incident stress de-briefing.

The Reversing Story

An employee on an open-cut coal mine was killed when a service truck reversed into him, one of the essential factors was that the service trucks reversing beeper was not working. Whilst not necessarily relevant in this case it has been noticed drivers of trucks and operators of earthmoving equipment display all sorts of innovative ways of disabling reversing beepers because they find them annoying. A massive price was paid for an event that could have easily been prevented.

The Snake Story

Draglines have a crew of 3 to operate the dragline and the associated bulldozer and 4wd. An employee drove the 4wd near the bulldozer and got out and spoke to the operator. He then walked back to the 4wd and commenced to get in it. When earthmoving equipment operators are working on a standard path they often do not look behind themselves when reversing, people who work around earthmoving equipment know they have a responsibility to be vigilant about the proximity of the earthmoving equipment. The bulldozer was reversed into the 4wd, killing the employee. During the investigation a snake trail was discovered in close proximity to the 4wd. The hypothesis was that the employee who was killed was distracted from the proximity of the bulldozer by the snake.

Tom’s Story

Tom was cleaning inside a dragline and was overcome by solvent fumes. He squatted on the shoe of a dragline to clear his head and get his breath back and was crushed between the shoe and a walking platform when the dragline walked.

Most major bones in his body were broken and he received a punctured lung, he was made a paraplegic and had shortened life expectancy.

It was clearly a design fault in the dragline that was reluctantly recognised by the manufacturer. I would not be surprised if draglines are currently being constructed around the world with the same design fault.

The Electrician’s Story

An electrician was seriously burnt in a 415 volt switchboard explosion, he experienced massive burns with much scarring, psychological damage and about 18 months off work. Some of the essential factors were production pressure, inexperience, suspect high voltage testing equipment, the ergonomics of the switchboard and test and prove dead not carried out.
As a result of this incident the organisation carried out a comprehensive critical incident recall process that resulted in many safety enhancements. This process was by far the most effective safety change process I have ever seen.

Anne’s Story

Anne was a female secretary who was being harassed and bullied by a female supervisor. The manager decided to manage the situation himself without help from the people trained to work with these matters and he attempted to keep the matter under wraps because of the senior and sensitive position of the supervisor. By the time I became involved as a rehabilitation coordinator Anne had a certificate for 3 months off work with a stress-related condition, her lawyers had commenced legal action against the company in the Anti-Discrimination Commission and all parties involved were bitter & twisted. It was interesting to see how some in management closed ranks and made Anne out to be the problem. I emerged from this matter pretty disgusted about how Anne had been treated by a company that made a lot of noise about their commitment to health and safety.

The Oxy-acetylene Equipment Story

When I worked in the mining industry the industry experienced a number of potentially fatal explosions in oxy-acetylene equipment gauges and regulators. Investigations revealed coal dust was accumulating in the equipment through faulty design. It was a major task to get the equipment manufacturers to acknowledge there was a problem and change their design.

The Moura Disaster Story

When I was working in the corporate safety department of a major mining company I was focused on the 7 open-cut mines and had no responsibilities for the 2 company underground mines. My view was and still is that some of the safety work being done in the open-cut mines was very good.

On the 7th August 1994 Moura underground coal mine suffered an underground explosion that saw 11 men entombed in the mine and the mine closed. If my memory serves me correctly the head of the Mining Wardens enquiry into the disaster said “What happened at Moura represents a passage of management neglect that must never be repeated in the mining industry” The people who said what happened at Moura was an enormous stuff-up are understating the situation. Professor Andrew Hopkins wrote a book called “Managing Major Hazards” on the Moura disaster that I think should be compulsory reading for every manager, supervisor and OHS professional.

What happened at Moura was about the culture of the organization and communications as much as it was about safety. A small number of the local management team came under intensive criticism at the Warden’s enquiry. It is important to realize that the culture imposed by senior management and the expectations of senior management impacted on decisions made locally.

Those who complain about the effort and cost of implementing safety measures should have been around to see the slump in the company share price, shareholder dissatisfaction, pain and suffering, cost, effort, media crucifixion, ruined reputations, wrecked careers, psychological trauma, union backlash, enormous investigation effort, massive counseling effort, threat of regulator action, legal action against the company and company officials and strained relationships I saw.
There was a massive investigation effort after Moura and much chest thumping about implementing the lessons learnt. While I only have media reports to go by an incident in a New Zealand underground coal mine where a number of men were killed said to me some of the lessons from Moura had not been implemented.

**Kinetic Lifting**

In the 1970’s people were trained in Kinetic Lifting (keep the back straight, bend the knees) as a means of preventing manual handling injuries. I used to do a lot of this training and when I used to go back to audit the effectiveness of the training found no-one was using the techniques. Thankfully nowadays we have physios, O/T’s and ergonomists involved in this training as part of an overall process of developing and implementing manual handling injury prevention. In times gone by a lot of effort was expended on Kinetic Lifting, I now recognise it as a displacement activity. Research into how the human body works dispels some of the basic principles Kinetic Lifting was based on.

**Induction Training**

At one start-up operation I developed a comprehensive safety induction program lasting 2 days and put about 600 people through the training over about a year. I used to feel very proud that they left the training very switched on about safety. The reality was within a few days of hitting the workplace they realised that my safety world I had spoken about was not reality; the safety culture of the organisation did not support my training. The very clear message is anyone seeking to introduce learning programs must do learning needs analysis first (refer to the paper Safety Training Needs Analysis on my web-site ohschange.com.au)

**Commercial Safety Management System**

One company I was associated with introduced a commercial Safety Management System. The S.M.S. was technically weak, culturally unsuited to the industry, the back-up training was pathetic, the audits were not searching and people had difficulties relating to the consultants auditing and advising on the system. A huge amount of time, effort and money was wasted that would have been better off expended on existing safety approaches. Relationships were strained. The S.M.S. was rushed into by the senior management team without detailed examination and guidance from practical OHS professionals. The safety charge was led by a senior manager who knew very little about safety and was clearly out of his depth. The really disappointing part was that in his ignorance and arrogance he would not accept counsel from those who knew about OHS. Refer to the paper What Makes a Safety Management System Fly on my web-site ohschange.com.au for some suggestions for S.M.S.

**Safety Training Generally**

I have conducted lots of safety training on lots of safety topics and attended a number of train-the-trainer courses myself. I was not too far into my Bachelor of Education with an Adult & Workplace Education major when I realised much of the training I had conducted in the past was not particularly effective. In Australia the Cert IV Workplace Training & Assessment has become the most recognised training qualification, I would suggest this is only a learner’s permit. Adult Learning Principles as outlined on my web-site ohschange.com.au must be used. Refer also to the Safety Learning Discussion Paper on the web-site. Dr. Robert Long has a great short course that will help those facilitating safety learning.

**Safety Committees**
The first safety committee I was associated with was formed reluctantly by management when the unions requested it. The only trouble was the members had this unusual idea that they should actually achieve something. Many requests for action went to management and were ignored or countered with bulldust responses. Tempers got frayed, people got frustrated and at the end of the day the formation of the committee did more harm than good.

Safety committee members must be trained in their responsibilities and duties and fully supported by management. Meetings often become a whinge-fest with issues bought up that should be managed in daily operations. My advice is to give the committee a substantive job to do. It is best to have a senior manager as chairperson of the committee rather than the OHS person.

**Complexity**

Many organizations have safety standards, special emphasis programs, policy and safe working procedures that are very thorough and detailed. Unfortunately in the quest for thoroughness the number of words becomes immense and difficult to decipher. It ends up being an immense task for even the most dedicated to wade their way through the paperwork. There is room for succinct summaries of major approaches. OHS professionals should not be judged by the number of words they create.

**Lost Time Injury Frequency Rate**

One previous employer had some safety professionals who were experts at manipulating L.T.I.F.R.

The Lost Time Injury Frequency Rate impedes progress in safety.

The Lost Time Injury Frequency Rate is the principal measure of safety performance in many companies in Australia. The definition of L.T.I.F.R. is the number of Lost Time Injuries multiplied by 1 million divided by the number of manhours worked in the reporting period.

A Lost Time Injury is a work injury or disease where the injured party has at least 1 complete day or shift off work. Note that a fatality and a cut where a person has 1 complete day off work count the same in Lost Time Injury terms.

The following are my reasons why the L.T.I.F.R. impedes progress in safety.

The L.T.I.F.R. is subject to manipulation.

Some safety people cheat like hell with their L.T.I.F.R. statistics encouraged by managers with an eye to keep their key performance indicators looking good. The more the pressure to keep K.P.I.’s looking good the more creative the accounting. If the same ingenuity was displayed in preventing personal damage occurrences as is displayed in cooking the books we would be in great shape. All this makes inter-company comparisons of L.T.I.F.R. statistics less in value.

I am reminded of one mine I used to deal with who drove L.T.I.F.R. down so they won the inter-mine (out of 7 mines) safety award yet had significantly higher workers compensation costs per employee and a number of compensation days off cases that never made it onto the L.T.I.F.R. statistics (the vagueness of the Australian Standard for Recording and Measuring Work Injury Experience was exploited, very easy to do, particularly for back injuries).
Then there was the mine that won a prestigious Queensland government mining industry safety award and a taxi full of “walking wounded” turned up just as the award for no lost time injuries for the year was being presented. The award was subsequently withdrawn.

Ponderous deliberations

Safety people spend inordinate periods of time obtaining rulings on what to count and how to count it from bodies such as the Australian Standards Association. Often answers obtained are imprecise and the decisions are left to personal opinion. One is reminded of a sporting analogy where it is more important to play the game than keep the score.

Measuring failure

Most measures in management are of achievements rather than failures such as the number of Lost Time Accidents. There is a ground swell in the safety movement talking about Positive Performance Measures in safety (refer to the National Occupational Health & Safety Commission and the Minerals Council of Australia web-sites for a discussion on this topic) It is relatively simple to develop measures of what you are doing right in safety as opposed to using outcome measures such as L.T.I.F.R. Positive performance measures can be used to gauge the success of your safety actions.

Great L.T.I.F.R., pity about the fatalities

I have personal experience with a company that aggressively drove down L.T.I.F.R. to a fraction of its original rate in a space of about 2 years yet killed 11 people in one incident.

The Lost Time Injury Frequency Rate dominates discussions about safety performance. How can a company be proud of a decrease of L.T.I.F.R. from 60 to 10 if there have been 2 fatalities and 1 case of paraplegia amongst the lost time injuries? The L.T.I.F.R. trivialises serious personal damage and is a totally inappropriate measure of safety performance.

Behavior-Based Safety

My view is that there are a number of proponents of B.B.S. who make outlandish claims about the success of the technique without rigorous research studies to back up their assertions. Some of the arguments for the technique get emotive.

I was associated with 4 B.B.S. implementations that ended up being fizzes. With the first one the process failed because one of the things the workers were asked to do was observe and report on their mates behaviors. Australians do not “dob” in their mates and the process just did not work. The other 3 implementations were done in the same department at 3 different sites in the one company and for 6 months or so worked very well and a lot was achieved. At all 3 sites after 6 months or so the process was abandoned because both workers and management thought it was too much like hard work and there was not sufficient return for the effort. My view is that you have to have good safety systems and engineering controls in place before you consider introducing B.B.S. There are some safety professionals whose opinion I respect highly who tell me they have had good success with Dupont B.B.S. systems.

Management Commitment

The life of an OHS professional working with a management team that is not committed to safety is very tough. One of my ex-managers used to make the right noises about safety but there was never any action. I organized a course for the health & safety representatives with an external training provider, opened the course and left to do other business. About 2 hours later the training provider came to me to say the participants wanted to discuss a few safety issues with me. Some of the issues were within my power to fix and we developed a plan to fix them.
Most of the issues required senior management action and I asked the manager in to address the participants. Well talk about a Yes Minister performance! I lost count of the number of times he told us how committed to safety he was but he danced around and would not commit to action. Eventually the group got sick of him and told him to leave.

At this point I decided it was a waste of time dealing with the manager on safety so I cut him out of the equation, something you will not always get away with, and turned my attention to the junior managers who were more receptive. One of the best ways of getting supervisors and managers on side is to train them in statute and common law so they can be aware of their personal liability for personal damage occurrences. Training in safety leadership is also beneficial. Going over your manager's head to his boss or a senior company officer is fraught with danger and you want to be sure it will end up being a positive move. Besides from the above I have no magic solution to this one, sometimes it is easier to move on to somewhere where you are appreciated. Trying to manage any aspect of business without excellent leadership is simply hard work.

Safety Incentive Schemes

For the 20 years I was in the mining industry we had a variety of safety incentives. There were stubby coolers, belt buckles, caps, jackets, sports bags and so on. Awards were given for various periods without a lost time accident; often a more valuable prize was given for greater periods without a lost time accident. One of the things we found was people using the vagaries of the lost time accident classification system to not count compensable injuries as lost time. We also found the employees came to expect the award as just another perk of employment that had no relationship to safety. There were occasions when employees were injured due to management failures and they argued they should still get the award. These things are also quite painful to administer. The question was also raised about why people should need / deserve an award for working safely. The costs were substantial and some people argued the money could be better spent stopping personal damage occurrences. At the end of the day I believe safety incentives are a distraction and have no place in a safety program. There is plenty of literature to support this view.

Zero Harm

Zero harm goals are neither realistic nor achievable and I have some doubts about whether they are even desirable. This is yet another safety fad propped up by fuzzy thinkers. I recently encouraged discussion on zero harm on Australian and Canadian safety discussion forums and a paper that discusses the findings and my conclusions can be found on my web site.

The most common problems I hear about zero harm approaches is that they have no credibility with the workforce, organizations expend too much effort on minor issues and they lose the focus on permanently life altering personal damage. There is also a tendency to drive reporting underground.

Confined Space Work

I started with this company with the remit to review the Safety Management System.
Was there a week and they came to me and said, by the way we have these and presented me with 32 Improvement Notices and 5 Prohibition Notices. There has to be a record for one visit from a safety inspector. These were overdue for a response to Workplace Health & Safety Qld.

A number of the Improvement notices were about confined space work. The company made water tank bodies for mining haul trucks, large mixing bowls for concrete mixers and some other confined space work.

Got on talking to the workers and got a few war stories about people being partially overcome by fume in the confined spaces and having had to be assisted out. The workers said they had been trying to get management to improve confined space work procedures in the workshop but the management ignored them.

The interesting thing was some of the workers did confined space work with the company product at the mines and were aware of and used the mines strict confined space working procedures when on the mine-sites.

Some of the problems I discovered were no confined space risk assessments, no confined space entry permit, the fume extraction was not effective particularly in the large water tanks with many baffles, there was no pre-entry test of the atmosphere, there was no continuous monitoring of the atmosphere, there was no off-sider to ensure the worker inside the confined space was safe, there were no emergency procedures, the respiratory protective equipment being worn was inappropriate, there had been no training in confined space work and what procedures that existed were not being followed.

All in all the biggest stuff-up in safety I have ever seen, particularly when you consider we are talking about something that can make a real difference to the workers lives.

Rapidly became obvious management was not interested in my findings or making changes so I got an outside organisation to audit the organisations confined space work. The auditor’s report was very damning as I knew it would be.

George goes about implementing the auditor’s recommendations and eventually the General Manager becomes aware of what is going on and tries to stop the process. He & I had what could be described as a forthright expression of views at a safety committee meeting where he tried to browbeat me into submission. I told him he should get advice from his solicitors on the matter and reminded him this came about because of an Improvement Notice from the government safety inspectorate.

A couple of days later there was a major transformation from the General Manager, I am guessing he saw the solicitors, very keen to see the changes completed.

New gear was bought and other changes made. The union rep. came up to me & said he had been trying for 2 years to get the confined space work changed and I was a bit of a hero to a number of the workers.

As a safety person I was treated like crap by the management team, the same as the way they treated the workers.

While I was with this employer I attended a review by the company solicitor of the circumstances behind a life-altering personal damage occurrence that had occurred previously. It was quite obvious the company managed the issue poorly.

Since then I have noted the company has been the subject of an Enforceable Undertaking with the Qld Government. Not a surprise to me, slackest outfit on safety I have ever come across.

Construction Safety Management Plans

When I started with X construction organisation the senior OHS person explained to me that an important part of my duties was to prepare safety management plans for the start of every
construction project. The organisation had a big template safety management plan and the idea was that one should identify the type of work being done eg confined space, trenching, manual handling etc. and put the required safety precautions for this type of work from the template into the safety plan. Basically the safety precautions in the template were based on the statutory requirements for the particular class of work (assumes of course the legislation was right and catered for varying circumstances). I did a few safety plans and noted the expectation was these are done in the office. There was no inspecting the site or discussion with the workforce and only limited communication from those in charge of the project.

About a month after I started I got a call that an excavator had hit a power line on a road construction job and I go over to investigate. After interviewing the excavator operator and the supervisor I go to the project office and ask the Project Manager for the safety management plan so I can check out what is said in the plan about operating equipment near powerlines (The safety management plan had been prepared by the senior safety person) Much scrambling in filing cabinets and cries of “it is here somewhere” Finally the safety management plan was located and I noted there was nothing on it about operating equipment near powerlines. I talk to various workers and it rapidly became obvious none of them were aware a safety management plan existed.

From then on I tried to ensure the development of the plan included input from workers, involving a walk-through of the site and input from the project manager and supervisor. Prior to each new project being started I would endeavour to have a safety induction that included discussion about the safety management plan. There was a fair bit of resistance to the foregoing approach from, particularly, project supervisors.

This incident was the start of about 5 incidents over 6 months where equipment struck power lines. Fortunately the electrical protection in the system blew and there were no injuries. There were issues about how adequately insulated the operators were from the cab of their equipment. There were many meetings and discussions about the topic and eventually a set of procedures were developed to be included in the safety management plans. The thing that made the most sense to me was the fitting of “tiger tails” on the power lines in the area where equipment was operating to improve visibility of the power lines (operators in the various incidents said they simply did not see the powerlines) A senior member of management held a series of meetings with the workers and supervisors to explain the new procedures.

A week later I go to a road construction job with earthmoving equipment, tip-trucks and excavators operating under power lines. No “tiger tails” The project supervisor (who had attended one of the sessions with the senior manager) got offended when I suggested, in a caring and gentle way, that he should lift his game. When I complained to the manager he said he was not surprised as supervisor x was pretty slack on most things including safety, this was just accepted and there were no disciplinary actions.

Drink Driving

I spent my late teens and early 20’s in the Australian Army, late 20’s and 30’s at mine sites, tough, male orientated environments where heavy drinking was encouraged. I used to regularly drink & drive, obviously at odds with my safety role at work.

When I started my first mining safety job the company decided to put me in a day shift relief mining supervisor’s job for a month to get to know the blokes and understand the operations. My first job Monday morning was to drive down the haul road to see how many guide posts had to be replaced. The haul truck drivers used to start the first shift of the week 11 pm Sunday night and come into work tired and/or drunk from the weekend. They used to lose attention, drift off the road, knock out the guide post and the theory was the stimulus of drifting into the table drain used to wake them up. Sunday night was always the worst time for guide posts.
Was probably 1976 at Blackwater mine when I was at a Christmas function at the mine, got a call that a company car had rolled and the 2 occupants were trapped in the car, I gather together a few mine rescue squad people (all of us drunk), jump in the mine rescue vehicle and proceed to extricate the 2 drunk occupants of the rolled vehicle. Even though they had quite a few injuries they did not want to be taken to hospital as this would attract the attention of the coppers.

Was probably 1979 I had an advanced driving consultant come to another mine to run a course for supervisors, he gets to talk about drink driving, one participant says he cannot understand all the fuss about drink driving as it is only a 6 pack trip from the mine to town (about 20 kilometres)

After a bushfire came through the road from the mine to the town you could see the sun glistening off the empty stubbies on the side of the road from where people threw them out while driving home from the mine.

Driving from a mine to the nearby town we come across an overturned car, the passenger is sitting in the table drain and the driver is in the upside down car, I cut him out of the seat belt, take him out of the car and lay him on the ground, when I check his pulse there is none. The 2 blokes had had a gut full of grog at a happy hour at the mine.

For a number of years my company used to have annual mine picnics at the oval at the mine, great affairs with lots of entertainment for the family. Everybody had a gutful of grog & tucker and people were often seen leaving with a 6 pack for the trip back to town. After far too many car smashes the company put an end to the mine picnics.

The Qld mining industry has had random drug & grog testing at work for many years in an attempt to combat 2 major problems.

I have been very careful about drink driving for many years, I like to tell myself I am more responsible now but I have to admit that lurking in the back of my mind is the fact that I think I have a pretty good chance of being caught if I do drink & drive. I rarely go to a pub and am content to have a few drinks at home.

Despite my advice all of my 3 boys have gone for D.D. The fine, the inconvenience, the humbling requirement to rely on me to get them to work & uni and their realisation that if they do it again they will get caught has changed their behaviour.

Drink driving is no longer socially acceptable and in some areas in Australia you have a good chance of being caught.

Risk Assessment

My coach / adviser / mentor / guide on safety, Geoff McDonald is a big critic of risk assessment and I recently explored his thinking on this topic. He has compelling arguments against the technique backed up by extensive research and literature. Rather than present his arguments half-heartedly I will leave it until Geoff finishes preparing his paper on the topic.

I have developed 3 risk assessment courses in my time, being an enlightened adult learning facilitator I made sure there were lots of practical exercises where participants could play with and critically reflect on the concepts. One thing I noticed on all 3 courses was that when different groups were set a risk assessment task on the same job the risk ratings were often different. When questioned on this the groups had good reasons why their ratings for Probability, Consequence and Exposure were different. Variations seemed to stem from differences in group members experience with the particular risk and their personality type. All this said to me the risk assessment process was subjective, it is not a precise method and it is dangerous to get too carried away with the risk ratings and make go / no go decisions based on risk assessment only. Risk assessment is the cornerstone of much safety legislation and many company safety approaches, my advice is to be aware of its limitations.
E. Something to Finish up with

Thank others for their input and celebrate success
Resolve to being a lifelong learner and read widely
There is not much sense in taking on a battle you have little chance of winning, having said that it is fun to do the impossible
Deal with the issue not the person
I used to make the mistake of letting issues become personal, gives you a lot of aggravation and achieves little
Often it is the relationships you build not your technical skills that determines success
My mentor, Geoff McDonald talks about displacement activities. A displacement activity is something we do, something we put a lot of energy into but which there is little logical reason for doing it. Geoff says safety is full of displacement activity. Just be sure what you are doing is not a displacement activity.
Management focus is the key to quality safety performance. Like all other management functions highly effective leadership is essential in OHS.
Learn the context, culture and past before trying to make changes. Unless a crisis situation is apparent realise effective change requires a lot of effort and time.
Kotter speaks of 8 steps for successful large scale change - Increase urgency, Build the guiding team, Get the vision right, Communicate for buy-in, Empower action, Create short-term wins, Do not let up, Make change stick.
People judge you by what they see you doing not by what you say you are doing.
Learn the skills of reflective listening and appropriate self-disclosure will help with interpersonal relationships.
A major sin in business is long, overly complicated policy, procedure and other written documentation. Busy people do not have time to write it and busy people do not have time to read it. Keep it simple and ask yourself if it is too much like hard work to read. Use 1 page maximum for routine correspondence.
Have huge but realistic goals.
Do the simplest thing that will work.
Remember the 6 P rule-Prior Preparation and Planning Prevents Poor Performance.
Ask for and give regular feedback.
Communicate your expectations.
Good amounts of quality time for you, family and friends is essential for high performance at work.
Concentrate on the things that give the biggest bang for your buck.

F. Conclusion

Tertiary study has been an important part of my learning but at the end of the day it is hard to beat practical experience. Critical reflection on the practical experience is where the most
learning occurs; ask yourself what went well and what opportunities for improvement were presented.

George can be contacted on fgrobotham@gmail.com; he welcomes debate on the above (it would be indeed a boring world if everybody agreed with George)

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