POSITIVE PERFORMANCE INDICATORS FOR OHS

BEYOND LOST TIME INJURIES

PART 2 - PRACTICAL APPROACHES

FOREWORD

Participative management of health and safety is essential for productive workplaces and to developing and maintaining employee commitment to business objectives.

With remuneration increasingly tied to business success, the development of positive performance indicators (PPIs) is currently being discussed and debated by Australian industry. These new indices of workplace productivity need to be understandable to employees and reflect their contribution. Health and safety performance, with its consequences for the wellbeing and livelihood of workers and the efficiency and effectiveness of organisations, has to be part of such productivity measures.

The papers in these publications (Part I Issues and Part II Practical Approaches) record the proceedings of a Worksafe Australia workshop, Beyond Lost Time Injuries, held in Sydney in May 1994. Presenters and participants explored the reasons for moving from Lost Time Injury Frequencies (LTIFs) as the measure for OHS success to more positive measures.

International guests with expertise in the development of PPIs for OHS were among the 120 managers and OHS professionals at the workshop.

There was spirited debate about the value of Lost Time Injury Frequency Rates (LTIFRs) as a measure of OHS performance and how more useful measures could be developed. PPIs were strongly endorsed as the way ahead.

Debate showed that people are still grappling with how PPIs will work in practice. Developing enterprise - specific indicators poses difficulties for some. The majority, however, are of the view that though organisations can borrow ideas for indicators, the measures actually applied must reflect the culture and needs of the particular enterprise.

Worksafe Australia will continue to encourage the development and application of PPIs as part of an integrated approach to the management of health and safety at work.

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CONTENTS

MEANS OF ENCOURAGING BEST PRACTICE IN OCCUPATIONAL HEALTH AND SAFETY

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1. A FRAMEWORK FOR BEST PRACTICE IN OHS

Workplaces that have been successful in continuously reducing the level of occupational injury and disease are in almost all cases shown to be workplaces with a coordinated and global approach to occupational health and safety.

Three major elements have been identified which characterise the OHS systems of successful workplaces. All three elements are necessary to ensure that continuous improvement in OHS performance is achieved in the medium to long term. They can be described as:

- The *culture* of the organisation at all levels is one of commitment to OHS, of care for the well-being of everybody who works in the organisation, and of a belief that workplace injury and disease can be prevented. The culture emphasises quality in all aspects of the organisation's operations, including OHS (ie. doing the job properly and avoiding superficially easy solutions to problems which do not rectify systemic deficiencies). The crucial factor in creating an OHS culture is the commitment of senior management, and communication of this commitment to all levels in the organisation.

- The organisation's management systems (the *software)* are geared to the practical and systematic implementation and maintenance of the OHS culture. Software includes the organisation's policies, working standards, procedures, training systems, level and types of supervision, and communication systems. OHS management systems reflect the organisation's quality management systems. Both systems are consciously and consistently linked. The OHS management system is subject to regular and rigorous audits. Employees and all levels of management are involved in the planning, development, implementation and review of the OHS management system.

- The physical components of the organisation's working environment (the hardware) are purchased and installed with OHS considerations in mind. Hardware is operated or used according to the manufacturer/supplier instructions, and is regularly maintained as prescribed by them. Ongoing suitability for the task is regularly reviewed in the light of OHS requirements, and hardware is replaced as necessary. The hardware includes plant, equipment, substances, materials and working conditions. Finance devoted to the purchase, maintenance and replacement of hardware is also a critical factor. In workplaces that have been successful in continuously improving their OHS performance, there is a clear link between the hardware and their OHS management systems. These systems cover matters like purchasing decisions, maintenance schedules and most importantly, mechanisms for regular review.

While all three elements are present in the OHS regimes of successful workplaces, clearly they are not equal in their importance.

There is an obvious link between hardware and software: the existence of effective OHS management systems ensures that the benefits deriving from appropriate hardware are optimised through proper maintenance and ongoing audit and review. Without the proper software, the purchase, maintenance and replacement of the right hardware tends to be hit-and-miss.

The software reflects and codifies (in a dynamic rather than a static way) the organisation's OHS culture in workplaces that are successful in the medium to long term. Without a stable and pervasive positive OHS culture, the software becomes an end in itself - just a layer of bureaucracy and paperwork. This kind of software can usually deal with the most obvious workplace hazards and issues. However it fails to gain the active cooperation of everyone in the workplace and therefore fails to identify and eliminate or minimise all hazards.

The OHS culture has a determining influence on decisions made regarding the organisation's hardware, particularly financial decisions. This culture exerts great influence on staff attitudes to cooperation and basic on-the-job (workplace level) decision making and sets the tone of communication within the organisation at its most basic level. The respect of the workforce can be so easily lost though a poorly developed culture where the organisation's most precious asset is lost in the "bottom line".

Thus, the OHS culture in the workplace is clearly the determining factor.

Within this model it is then possible to think about what factors might encourage best practice and what performance indicators might be developed for culture, software and hardware.

The elements of best practice can be depicted as the hierarchy shown in the diagram below.
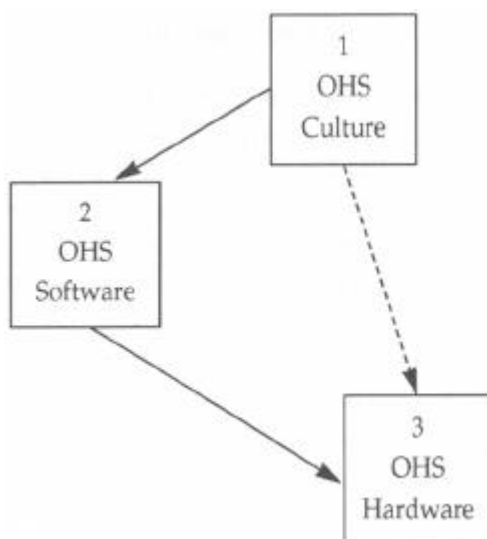
2. TOOLS FOR INFLUENCING WORKPLACES TOWARDS BEST PRACTICE

Given the outlined framework, means to encourage best practice can be identified and evaluated. The tools described in the following section are primarily at the disposal of government. How individual enterprises assemble their tools of influence is different.

Several tools are available to society to encourage workplaces to achieve best practice in occupational health and safety. OHS regulatory authorities have access to many of these tools; others rest wholly or partly in the hands of the workplace parties, the public and other government agencies.

Tools that are effective in motivating organisations to achieve minimum compliance with OHS standards will not necessarily be effective in motivating them to adopt best practice. Regulatory authorities need to develop strategies aimed at both levels of performance and target each strategy in a way that is appropriate to the industry and organisation.

For convenience the tools available to OHS regulatory authorities can be classified as legislative, financial, educative, promotional and influencing commercial relationships. A brief discussion of these tools follows.

2.1 Legislative Tools

The development and enforcement of acts and regulations requiring workplaces to comply with prescriptive conditions have been society's traditional method of raising OHS performance in workplaces. An obvious limitation of this approach - if applied in isolation from other tools - is its focus on minimum standards rather than best practice in workplaces. Minimum standards can apply to any workplace whatever size, location or industry. The application of the elements of best practice in OHS will vary according to the characteristics of the individual workplace.

By its very nature the legislative approach focuses chiefly on the hardware. It is relatively easy for a

regulatory authority to verify, for example, whether a machine is adequately guarded - and to convince a magistrate (should this be necessary) that it had not been. With the use of more sophisticated auditing techniques by the regulatory authority, the legislative approach can also be applied to software elements (eg. through prosecutions under Section 21(2)(a) of the Victorian OHS Act for failure to provide safe systems of work).

The prescriptive legislation approach does not address the OHS culture of the workplace, except perhaps in a negative way by encouraging minimum compliance and evasion of inspection/audit by the regulatory authority.

Prescriptive legislation also has an insidious influence on culture through the attitudes it engenders and encourages. It results in employers adopting a "they will tell me if I do the wrong thing" attitude and employees adopting a "they will protect me" attitude.

The other major drawback is that it encourages the perception that government has most responsibility for the management of occupational health and safety risks. The corollary of this is that the workplace parties do not take "ownership" of health and safety and ultimately best practice cannot be achieved without everyone's participation. Performance style legislation, by its nature offers the possibility that more innovative solutions will be developed and thus may contribute to a best practice approach.

The legislative approach on its own is ineffective in motivating poor-performing workplaces to improve their OHS management systems at even the most basic level. A study recently carried out by OHSA which considered a survey of 25 organisations (that have been prosecuted) concluded that there had been no significant difference in accident rates before or after prosecution. The report concluded that alternate means of supplementing enforcement apparatus were required. Although only a sample, this study indicates the weakness of "stand alone" measures to improve health and safety (OHSA, 1993).

The recent Worksafe funded National Safety Council

study of machine guarding related accidents confirms what OHSA has been saying for many years, ie. inspection of individual deficiencies fails to motivate change. The study found the root causes of machine guarding accidents to be failures in management systems, although hardware components were the key control solutions (Worksafe Australia, 1993).

Overall it can be said that legislative tools will not be a major component of a strategy to encourage best practice in workplace OHS, their retention is necessary to encourage maintenance of minimum OHS standards. Hence sanctions and financial disincentives must remain an integral part of any comprehensive preventative strategy.

2.2 Financial Tools

Financial tools can be classified as either *financial disincentives* (eg. costs to workplaces of occupational injury and disease or fines resulting from prosecutions) or *financial incentives* (eg. reduced WorkCover compensation premiums or subsidies).

Financial disincentives are extremely potent as they relate directly to the organisation's marketplace performance and its returns to investors. They provide a key to the critical element in encouraging a positive OHS culture and management commitment.

Regulatory authorities have identified the type of direct and indirect costs that result from poor OHS performance. However, a difficulty faced by authorities is that these costs, and the benefits of best practice in OHS, have not been quantified. There has been little research into the costs and benefits of best practice in either OHS or academic circles. Further, the OHS authorities have found it difficult to communicate what little is known to decision-makers.

Fines imposed through legislation are potentially a major financial disincentive, although to date fines imposed by magistrates and judges have not been large enough to act as a significant disincentive. There are signs that the judiciary is beginning to adopt a more realistic attitude to the effects of workplace injury and disease.

In a recent Victorian case involving Australian Defence Industries, the magistrate, Mr Robert Tuppen, commented that the major objective in sentencing in this area was to make it uneconomic for employers not to comply with the required safety standards.

Fines encourage organisations to comply with minimum requirements but they are of little value for encouraging progress towards best practice in OHS.

Financial incentives can also be a potent tool. There is scope for greater tuning of the WorkCover levy system to allow for rewards for workplaces that achieve certain benchmarks. OHSA's *SafetyMAP* program offers a set of suitable benchmarks and performance indicators that can be used to measure progress towards best practice in OHS and can be linked to financial incentives. These will be covered in more detail later.

The actual impact of financial incentives is not crystal clear. Experience based premium systems theoretically drive improvements in health and safety but they can also be distorted by suppression of claims to achieve budgeted premium levels.

OHSA has some experience with administering subsidy programs, particularly for tractor roll-over protection. However, in a recessionary economic period only very limited funds are available for subsidy schemes. Subsidy programs need to be accurately targeted to avoid their effect being diluted. Since senior management commitment is a critical factor in creating a positive OHS culture in workplaces, subsidising programs for senior managers should be considered (eg. well presented executive seminars aimed at linking OHS and quality management in the minds of the target group). The experience of subsidy schemes in OHS is not dissimilar to labour market programs in that the action threshold is often at a very high subsidy level.

2.3 Educative Tools

The philosophy embodied in the Victorian OHS Act emphasises education and training as a major tool for promoting change in workplace OHS practices. Since 1985 employer and employee groups, the Authority and training bodies have dedicated considerable resources to training on the operation of the Act, workplace consultative mechanisms and the identification, assessment and control of risks. Primary target groups for these training programs are health and safety representatives and managers/supervisors.

An OHSA review of the Victorian training approval system recently addressed the major issues in this area. Because of their important influence on the workplace OHS culture, the review proposed that manager/supervisor training courses be accredited with the Vocational Education and Training Accreditation Board. This proposal would help the integration of these courses into broader manager/supervisor training. Another important proposal of the review, particularly relating to post-introductory OHS training, was for a greater focus on training in OHS management systems (ie. the software).

Apart from training in the areas mentioned above, use of the educative tool to influence workplace culture has been neglected. Three target groups can be identified - senior managers, technical professionals such as engineers and workplace designers, and the general community.

Senior managers, as already identified, are crucial to the establishment of best practice in OHS. There is scope for OHS agencies (either directly or through Worksafe Australia) to actively promote the OHS awareness and inclusion of OHS in management education courses at universities and colleges. Employer and senior manager associations also have a role in educating their members and promoting the experience of organisations that have been successful in continuously reducing their level of workplace injury and disease. The link between OHS and quality (the "sexy" issue for Australian management in the 1990s) is crucial.

An important aim in developing educative strategies for senior management is to create the mind-set that

employees and unions need to be consulted on OHS issues in the workplace, and to be involved in finding solutions to these issues.

The National Commission has done some work to promote the integration of OHS into the professional education of *technical professionals,* particularly engineers. Focus of this approach is chiefly on the hardware element. Nonetheless it should be encouraged since people like engineers have a critical role in the practical application of best practice principles, eg. they design the plant, equipment and processes used in the workplace; they have a major part in making purchasing decisions; and they are responsible for the operation, maintenance and replacement of hardware.

General community education assists in creating an OHS culture of commitment to OHS, care for the well-being of others and belief that workplace accidents and disease are preventable. Until now OHS regulatory authorities have paid little attention to educative (as distinct from promotional) programs for the general community. One exception was the Victorian project to develop materials for secondary school students in 18 VCE study areas. The project was funded by the former Victorian Department of Labour and conducted jointly by the former Victorian OHS Commission and the Victorian Curriculum and Assessment Board. With a high levels of adoption by secondary schools and higher school retention rates in recessionary times, it is believed that these materials have been used by a sizeable proportion of young entrants into the workforce, and have contributed to a generally improved community understanding of OHS. Similar projects were mooted in the early 19905 for Year 10 secondary students and for primary education.

Consideration needs to be given to developing educative programs for specialised target groups within the general community that can have a role in influencing workplace health and safety. One such group that has been identified is rural women. Such programs would be most effective if delivered by organisations that represent the target group - in the example of rural women these might be rural women's networks, the Country Women's Association, the Victorian Farmers' Federation and service and church organisations. Educative programs need to be tied in closely with promotional strategies.

2.4 Promotional Tools

Victoria has invested a high level of resources in promotional activities since 1985. OHSA has run multi-media campaigns that have been successful in focussing attention on OHS as a workplace and community issue. The Authority publishes extensive materials on OHS legislation and on specific hazards and issues. The Authority's free quarterly newsletter *Workwords* has a circulation of 16,000 and reaches many diverse Victorian workplaces. Other regular publications include ALERTS on specific hazards or issues, and summaries of recent prosecutions. OHSA's Information Network actively uses ethnic radio to express the OHS message to the non-English speaking community.

The effectiveness of the Authority's promotional strategy in drawing attention to OHS issues is widely acknowledged. A recent particularly successful initiative in Victoria was the introduction of Workplace Health and Safety Week in 1993. This activity involved the Authority and workplaces across the State cooperating on a range of activities to raise workplace and community consciousness of OHS.

The Authority has sought to target some publications to the senior management group. One example was the booklet *"No Other Investment Can Offer Such Excellent Returns"* (OHSA, 1991), which was distributed to chief executive officers. Development of a wider promotional strategy aimed at influencing workplace culture through senior management should be considered. The first step would be to determine what type of promotional material is effective with this group (to change attitudes and behaviour) and to evaluate the current range of products in that light. A promotional strategy should tie in with educative tools such as high-profile executive seminars on OHS.

Particular consideration could be given to the role that could be played by employer associations, societies of senior managers and quality promotion organisations such as the Australian Quality Council in promoting best practice in OHS to senior managers.

A promotional strategy used by the Authority in a small way is publicising details of successful prosecutions in a regular leaflet entitled *Recent Prosecutions.* This type of publicity informs the public (who will inevitably make judgments about the organisations mentioned) and acts as a disincentive to other organisations which would wish to avoid similar publicity and disrepute.

2.5 Influencing Commercial Relationships

Within this category are a range of tools government can use to influence purchaser-supplier and principal-contractor type relationships. Requiring particular OHS standards to be met by suppliers to government for example is a direct way of encouraging best practice. The same approach is taken by individual organisations in their tendering specifications. The Authority views the work the Construction Industry Development Agency as good example of this mechanism.

In Victoria, Vic Roads has a comprehensive pre-tender qualification criteria, based on quality standards. SafetyMAP, which the OHSA has developed, could be used by organisations as a guide to the standards they wish suppliers to meet.

3. DEVELOPING PERFORMANCE INDICATORS

Having set a general framework and some means of encouraging OHS best practice, I will examine how performance indicators can be built.

SafetyMAP will be used as the basis for bringing together the discussion so far. By way of introduction, I will briefly examine a chart showing the path from a traditional form of OHS indicators to a modern one (see appendix). In the chart, three stages traditional, transitional and modern are set out. The chart illustrates the different approaches to OHS

and the implications for the kinds of measures that are likely to be used. SafetyMAP is located at the modern end of the scale.

3.1 SafetyMAP

As previously mentioned, OHSA has developed SafetyMAP (Safety Management Achievement Program) to assist workplaces by offering a set of benchmarks and performance indicators that can be used to evaluate progress towards OHS best practice. The SafetyMAP program is consistent with the thrust of performance based legislation and quality management trends. It was developed to improve OHS management and is a preventive strategy for assisting organisations to develop, implement and maintain management systems that integrate occupational health and safety into all their operations. The program has 3 core components - ASSESSMENT, AUDIT and ACHIEVEMENT.

- ASSESSMENT involves organisations independently assessing "where they are at" in OHS management - placing themselves on the SafetyMAP.

- AUDIT requires "in-house" examination of the organisation's OHS management system, this verifies the system and provides feedback to enable the organisation to "step forward" on the SafetyMAP.

- ACHIEVEMENT requires an audit by the Occupational Health and Safety Authority in which the organisation must satisfy specific SafetyMAP criteria.

Gaining ACHIEVEMENT level in SafetyMAP demonstrates that the organisation is a leader in health and safety.

3.2 Structure

For the purpose of the SafetyMAP program, OHS management systems are broken down into 12 elements which are used to determine the status of OHS management within the organisation. SafetyMAP provides criteria for each of these

elements against which organisations can audit their system and "benchmark" OHS performance.

The SafetyMAP program is very "user friendly" and can be fully implemented, introduced in stages or only partially implemented in organisations. For workplaces just starting on the OHS system journey, the ASSESSMENT component is most significant whereas organisations with highly developed management systems will be attracted to the AUDIT approach which provides feedback on how well their system operates. The ACHIEVEMENT level of SafetyMAP will be useful to organisations with existing comprehensive management systems, seeking to realise greater flexibility in the way in which particular risks are managed.

SafetyMAP offers organisations a way of moving at their own pace from the ASSESSMENT to the ACHIEVEMENT stage with the final goal of attaining a system which secures a safe and healthy, workplace. The 12 system elements have specific sets of associated audit criteria which together enable a comprehensive assessment of an organisation's OHS management. The performance against criteria also provides direction for continued improvement of the system elements.

SafetyMAP elements and audit criteria are aligned with relevant sections of AS 3901 elements and many of the principles of Quality Assurance and Total Quality Management are already incorporated in SafetyMAP. The program can be used to benchmark OHS performance and measure ongoing improvement. SafetyMAP provides organisations with the tools to conduct their own safety audit program.

SafetyMAP presents the characteristics of safety management programs which are effective, comprehensive and cost efficient. It provides organisations with a way of improving OHS performance. SafetyMAP is also capable of growing with an organisation and ensuring that during its expansion the highest OHS standards are maintained.

3.3 Deriving performance indicators from SafetyMAP elements

SafetyMAP is based on 12 elements, these are as follows:

- Element 1   Building and sustaining commitment.
- Element 2   Documenting strategy.
- Element 3   Design and contract review.
- Element 4   Document control.
- Element 5   Purchasing.
- Element 6   Working safely by system.
- Element 7   Monitoring standards.
- Element 8   Reporting and correcting deficiencies.
- Element 9   Managing movement and materials.
- Element 10 Collecting and using data.
- Element 11 Reviewing management systems.
- Element 12 Developing skills and competencies.

The elements are set out in the following section with an indication of possible measures that could be adopted.

Element 1 - Building and Sustaining Commitment

A dynamic health and safety culture requires organisation-wide commitment which demonstrates that the organisation actively manages its health and safety responsibilities.

Audit Criteria

- A published and endorsed OHS policy statement.
- Defined and communicated OHS responsibilities.
- Management accountability.
- Scheduled reviews of policies and operations.
- Active employee involvement and consultation.

Possible Measures

- % of job descriptions with OHS responsibilities defined.

Element 2 - Documenting Strategy

To attain high level achievement in health and safety, a management system must be established and

documented. It must identify major hazards and outline specific strategies for managing them in manuals. Good manuals are clearly laid out and well structured, they invite involvement. Theyalso provide forms and other proforma that can be used to record information, report hazards and manage specific activities. The better manuals are "living" documents and are regularly revised - having been assembled in a manner that enables easy additions and deletions.

Audit Criteria

- Identification of major hazards and risks.

- OHS strategy planning.

- Documentation and manuals.

Possible Measures

- Level of awareness and use of manuals.

- Duration between documentation updates.

Element 3 - Design and Contract Review

Outstanding health and safety performers view health and safety as being integral to all management activities. Such an approach encompasses the areas of design and contracting. When a process, product or workplace is designed and built with health and safety in mind, the number of reactive (add-on) procedures required to manage hazards will be minimised. If contracts are de veloped with due consideration of health and safety, organisations can maintain standards more easily.

Audit Criteria

- Incorporation of OHS at the contract stage.

- Incorporation of OHS in design.

Possible Measures

- $ value of projects with OHS elements in contracts reviewed compared to all project value.

Element 4 - Document Control

Because health and safety documents set standards and regulate action, they must be authoritative. This means that they should be issued by a legitimate source, comprehensive and current. Out-of-date information - sometimes given "new life" through reprocessing - relays a negative message, ie. health and safety is not important. Up-to-date information relays a positive message and encourages action.

Audit Criteria

- Systematic development and identification of documents.

- Systematic prompt distribution of documents.

- Systematic removal from circulation of obsolete documents.

Possible Measures

- % of obsolete procedures in all documentation.

Element 5 - Purchasing

Through proper management of purchasing many potential health and safety problems can be avoided. Purchasing decisions must be coordinated and those responsible for selecting goods and services must be aware that senior management requires their consideration of health and safety issues. Preferred suppliers should be considered as a control mechanism. Auditing of suppliers is often more efficient than auditing the goods or services themselves.

Audit Criterion

- Incorporation of health and safety considerations into purchasing.

Possible Measures

- % of purchase orders with OHS requirement specified.

Element 6 - Working Safely by System

Health and safety in the workplace is achieved through management of the work process and must be integrated into the management of all work activit ies. Risks should be managed with appropriate control measures. Hazardous operations or locations

should be strictly controlled and plant and equipment should be regularly inspected and serviced. System-based control methods which use standardised routines or physical barriers to prevent incident are superior to methods which rely on the judgement and cooperation of individuals.

Audit Criteria

- Workplace and work design that minimises risk.

- Hierarchical risk control.

- Effective work method control and supervision.

- Effective work method control for maintenance, cleaning, repair and inspection of plant and equipment.

- Emergency plans and procedures.

Possible Measures

- % of system controls to individual controls.

Element 7 - Monitoring Standards

Information is the lynch-pin of sustained performance in health and safety. The workplace is never static - changing competitive conditions alter work routines, inputs and the composition of management and the workforce. Therefore, it is necessary to monitor the workplace and to gather information about potential hazards, lapses in procedures, and action that can be taken to improve control mechanisms. Surveying and inspecting must be carried out in a manner that encourages participation and open dialogue about problems to assist the gathering of data.

Audit Criteria

- Hazard inspections in the workplace.
- Appropriate environment monitoring.
- Appropriate personnel health monitoring.

Possible Measures

- % of OHS standards in conformance.

Element 8 - Reporting and Correcting Deficiencies

Accidents and incidents can happen even with the most active health and safety management system.

Where they occur it is crucial that a suitable investigation is carried out and that action is taken to ensure that they will not recur.

If the management system is at fault, reporting to the executive should indicate changes likely to eradicate the problem. Where other weaknesses are determined (eg. inadequate protective equipment, poor written procedures, inadequate safety apparatus or deficient training) specific recommendations and a timetable for remedial action should be outlined.

Audit Criteria

- Accident and incidents reporting system.

- Accident and incident investigation procedures.

- Remedial action.

Possible Measures

- % "cases" where remedial action was taken within the defined time frame.

Element 9 - Management of Movement and Materials

The storage, handling and movement of materials can give rise to a variety of hazards. These hazards need to be identified, the risks assessed and a program for the implementation of control solutions developed.

Audit Criteria

- Safe manual and mechanical handling of materials.

- Safe transport and storage of materials.

- Identification of materials (including hazardous substances).

Possible Measures

- Ratio of risk assessments to defined handling operations.

Element 10 - Collecting and Using Data

Information is crucial to the operation of an effective health and safety management system. Without high quality information, management activities lack direction. Information quality is assured by systematic collection of data and analysis. Health

and safety records must also meet legal and legislative requirements, therefore information management systems must correspond with formal requirements in their structure, maintenance and preservation.

Audit Criteria

- Systematic data collection.

- Observation of legislative record-keeping requirements.

- Systematic data analysis.

- Publication of OHS performance reports.

Possible Measures

- Level of record keeping required by regulation against potential recorded events.

Element 11 - Reviewing Management Systems

To ensure that the OHS management system is functioning effectively, regular reviews must occur. Auditing provides a systematic and structured framework for verifying that activities conform with planned arrangements.

Audit Criteria

- Auditing of the management system.

- Reporting of deficiencies.

- Review of suggested improvements.

Possible Measures

- Duration between reviews.

Element 12 - Developing Skills and Competencies

The actions of the individual are central to the effective operation of a health and safety system. Programs of human resource development must be undertaken. The three main forms of development relevant to OHS are:

- specific instruction on defined operations;

- general instruction on safe work practices; and

- instruction on the management of emergencies.

Methods of instruction will vary from organisation to organisation, as will balances between formal "off-line" training and informal workplace-based instruction but the objective is the same - behaviour modification based on an understanding of hazards.

Audit Criteria

- Planning of OHS human resource development.

- Generalised and specialised OHS training.

Possible Measures

- % of staff assessed as conforming to skill standards.

So for each audit criteria a range of process measures can be developed to tell the organisation how well it is maintaining its chosen level of health and safety. It is very important that performance indicators relate to explicitly chosen levels, rather than simply reporting what has happened.

While it would be optimistic to think that all these positive process measures could become the dominant part of a "prevention culture" - it is a reasonable objective. Failure measures will still play a role but their usefulness in choosing levels of performance is dubious. As often said, setting targets for LTI's is a little like the football coach exhorting players to do their best and try to lose by only 10 goals this week.

4. CONCLUSION

The elements of best practice in OHS can be summarised as:

- a positive OHS culture actively fostered by senior management;

- software (management systems) geared to the achievement and maintenance of the OHS culture; and

- hardware (physical requirements of the workplace) purchased, operated and maintained according to the requirements of a safe and healthy workplace.

Of these three elements, the existence of a positive OHS culture is what distinguishes a workplace that is carrying out best practice in OHS. So a strategy that

aims to encourage best practice in OHS needs to focus on the senior management level because of the critical role senior management play in creating and maintaining the positive OHS culture. To reach this level of management, the strategy needs to include programs that involve employer associations, societies of senior managers and quality promotion organisations.

Management commitment to build and maintain a prevention OHS culture will partly depend on the measures available to employers and employees to show how they are improving. The positive measures that relate to the software and hardware should be the basis for having confidence that a systemic approach can "deliver the goods".

Approaches which focus on achieving minimum standards in OHS obviously will not be effective in promoting best practice in industry and will ultimately produce inferior outcomes.

Implementing comprehensive programs such as SafetyMAP will assist workplaces to gauge their progress towards OHS best practice. In addition, the benchmarks and performance indicators in programs such as SafetyMAP could be linked to financial incentives since they provide a measure of how well an organisation is managing OHS rather than how badly (by using claims statistics).

Implementing best practice in OHS will help to minimise workplace death, injury and disease, and the considerable associated social costs. It will also assist to reduce the cost of doing business in Australia, reduce the costs of Australian products to consumers, and make our industry and agriculture more competitive in the international marketplace. Promoting best practice in OHS should be a major part of government OHS agencies activities in the remaining years of this 20th century.

Table 1
Managing OHS

	Traditional	Transitional	Modern
Primary Concern	Detection of hazards Not getting caught by authorities.	Control of risks.	Coordination and control of processes to achieve outcomes.
Emphasis	Reducing individual deficiencies as they arise.	Reducing risks in a systematic way.	Managing and improving systems of work to achieve goals and minimise failures.
Methods	Inspection – feedback on unsafe output.	Information and measurement to enable some control of inputs (control charts, statistical measures, monitoring).	Documentation and control of key processes and audit of such processes against benchmarks.
Typical Measures	Lost time injury. Frequency rate. % budget to remedy hazards.	Trend analysis. Saving achieved through prevention.	Performance to standard or benchmark. Positive measures of health and safety, (eg. number of audits conducted, etc).
Responsibility for OHS	OHS officer, employees.	OHS officer, line managers, employees.	Everyone – with senior management taking a visible leadership role.
Role of OHS Professional	Inspection. Training. Reporting. Checking.	Risk assessment. Co-ordination of effort. Liaison with line management.	Program design. Education and training. System audit.
Orientation	Inspect in safety.	Assess and control risks.	Build and manage in OHS.
Control Approach	Personal protective equipment (PPE). Training. Safe person.	Procedures. Redesign. Physical changes. Safe place.	Design out risks. Safe place/safe process.

Some Examples at a Practical Level

	Traditional	Transitional	Modern
High Risk Perimeter Work	Heavy duty suspended timber scaffolding.	Heavy duty suspended aluminium scaffolding.	Purpose built rigidly suspended work platforms.
Elevating Work Platforms	Direct hire of elevating work platform. Minimal operator training.	Pre-site inspection of plant, assessment of risks. Training of operator.	Owner/hirer provides complete inspection and maintenance program for plant. Structured training of operators.
Handling of Cement Bags	Correct lifting techniques. Worker selection.	Reduction in size and weight of bag. (40 kg – 20 kg)	Use of alternative materials and bulk handling.

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TOWARDS A SYSTEMS APPROACH IN THE MANAGEMENT OF HEALTH AND SAFETY IN THE AUSTRALIAN CONSTRUCTION INDUSTRY

**Prepared by the
Construction Industry Development Agency
for Barry Archer**

I would like to thank the Conference organisers for inviting me to speak with you today, to tell you about the work of the Construction Industry Development Agency, or CIDA, and to share with you the approach to the management of health and safety in the construction industry being advocated in the *Australian Construction Industry Pre-qualification Criteria* for contractors and subcontractors.

But first I would like to take you through a potted history of CIDA.

In December 1991 the Prime Minister launched the Commonwealth Government's Construction Industry Reform Strategy following approaches from the industry. The focus of the strategy was the *Construction Industry In-Principle Reform & Development Agreement (IPA),* an industry agreed agenda for change.

The IPA has been signed by the Commonwealth and the majority of state governments, together with organisations representing owners, employers and employees.

The strategy is supported by the Construction Industry Reform and Development Act 1992, which establishes my organisation the Construction Industry Development Agency (CIDA).

CIDA has been given specific responsibility for progressing the implementation of the agreement and evaluating its effect on productivity. The Agency has been given unti130 June 1995 to achieve these objectives. We have a little less than fourteen months to go and we are all conscious of the clock ticking away and the job still to do.

Throughout this presentation I will refer to CIDA's Health & Safety Action Team. From the outset I

would like to give that group a more human face. The Action Team was one of twenty established by the Board of CIDA in 1992 to advance the health and safety undertakings contained within the *Construction Industry In-Principle Reform and Development Agreement (IPA).*

The Team was chaired by Peter Berents, Risk Manager, Optus Communications, who was joined by:

Michael Ball	Q-Build
Bryan Bottomley	Victorian Occupational Health & Safety Authority
Shane Goodwin	Master Builders Australia
Lindsay Fraser	CFMEU
Fred Hernandez	EPT Pty Ltd
Mark Keech	Baulderstone Hornibrook
Ron Owens	BLF
Anne McLean	Worksafe Australia
Dave Higgon	Multiplex
Jim Barrett	CIDA
John Henry	Standards Australia and myself.

The Team set out to provide a forum where good ideas could be encouraged and developed.

One of the Team's references drawn from the *IPA* was the commitment by the parties to the development of world class practices. That expression *world's best practice* has become a little hackneyed over the past few years, but when we set about our task with our small team, we aimed to bring about a re-think to the way the industry addressed health and safety issues, to search for the *best practices* in occupational health and safety. The approach we advocate is in itself not a new one, but it does require a change from the hazard hunting approach of the past, an approach which

focussed on the negatives, to one which is focussed on improving the way we work and on developing better systems of work.

The Commonwealth's reform strategy for the construction industry is based on the premise that the market should be used to drive reform. The Commonwealth is committed to using its purchasing power as a client of the industry to provide access to Commonwealth funded construction projects to those organisations who can demonstrate that they are part of the reform process in the industry.

The IPA also contains the following provision:

> "The industry parties note the express acknowledgment by the Commonwealth, State and Territory Ministers of the need to use the purchasing power of government as a vehicle for implementation of the reform process. It is also a clear expectation that practices implemented in the public sector will be adopted by the private sector as soon as possible."

> To this end, the parties agree to work jointly with government public works agencies to successfully introduce the full range of strategy initiatives for public works projects.

The Commonwealth is pursuing this commitment through the *Australian Construction Industry Pre-qualification Criteria.* It is our expectation that the Criteria will eventually be used by the majority of public and private sector construction industry clients to pre-qualify contractors, subcontractors and consultants.

The prime objective of the *Criteria* or PQC, is that the clients can reach an informed opinion as to the capacity of the contractor, and the risks associated with engaging that organisation.

Initially the PQC will apply to contractors where the tender value is in excess of $5m; for subcontractors where the subcontract value is in excess of $250,000, and the total project cost is in excess of $5m; and for consultants where the value of the consultancy is in excess of $250,000.

There are seven key performance criteria contained in the Code:

- Financial Capacity;
- Technical Capacity;
- Quality Assurance;
- Time Performance;
- **Occupational Health and Safety;**
- Human Resource Management; and
- Skill Formation.

The framework contained within the *Criteria* has been exposed to the industry in draft form on two occasions, and we believe has been strengthened with the advantage of that comment.

According to the recent Industry Commission draft report on Workers' Compensation in Australia, work related fatalities injuries and illnesses cost Australians and the economy dearly (Industry Commission, 1994).

Every year there are at least 500 deaths, 200,000 injuries and an unknown number of people who experience illness due to exposure to hazards in the workplace.

The Report estimates the cost to be in the order of at least $10 billion annually.

In February 1993, Worksafe Australia released a statistical summary of Industry Occupational Health & Safety Performance in Australia (Worksafe Australia, 1993).

The Construction Industry with 19,600 cases, accounted for 11% of all occupational injuries or approximately one in nine cases, and followed only the mining industry in incidence and frequency rates.

Construction with an incidence rate of 63 per 1000 wage and salary earners was twice the average incidence rate for all industries in Australia at 32 per 1000.

The industry experienced a frequency rate of 38 per million hours worked, which was 1.8 times the national average for all industries of 21 per million hours worked.

If there is any good news it is that the average workers' compensation cost per employee in the construction industry has declined from $1,376 in 1986/87, where it ranked second behind mining, to $1,021 per employee in 1990/91, where it ranked fourth behind Mining, Electricity, Gas & Water, and Manufacturing.

It should be noted however, that while this indicates a significant improvement, it is still $372 or 57% higher than the all industry average of $649 per employee.

While we can attempt to quantify direct costs such as premiums, lost working days, prevention and compliance costs, we can never measure the costs associated with loss of quality of life for injured workers, including pain and suffering and reduced life span, or the emotional trauma suffered by family and friends when a fatal accident occurs.

Health and safety as an issue pervades the *Construction Industry In-principle Reform and Development Agreement (IPA)*. One of the overarching objectives of the Agreement is "improvements in safety standards and the working environment" (IPA, Part C, xi).

We set out to develop a performance measurement framework which was systems based - that is, the principal objective was to encourage employers to establish and maintain effective systems to manage the risks to the health and safety of their employees and others arising from the nature of the work performed.

What we did not want to do was to create a new level of compliance on top of the maze of statutes, regulations, codes and standards already in operation. We did however aim to develop a framework which would sit comfortably within the normal operating systems of the organisation. We deliberately aimed to bring health and safety out of the cold, from being a specialty function within organisations, to being an integral part of operating systems and procedures.

The employer's general duties with respect to health and safety are broad and continuing. They require employers to do all that is reasonably practicable to establish and maintain a working environment that is safe and without risks to the health of employees, contractors and other persons in or near the workplace. This includes ensuring:

- that plant and systems of work are safe and without risks to health;

- that there are safe systems for the use, handling, storage and transport of plant and dangerous substances;

- that consultation with employees is at the core of setting up work processes, policies and procedures; and

- that employees and contractors are provided with instructions, information, training and supervision so that they can perform their work safely and without risks to their health.

There were several other important questions which the Action Team needed to address. These included:

- Who does the measuring?

- Who uses the results and to what purpose?

- What decision-making follows measurement?

- How do we judge performance?

Our objective was to develop a framework which addressed these issues. We were also mindful of the importance of the consultative process, recognising that this was now a key feature of many of the state and territory health and safety acts and regulations.

The new system was developed by the Action Team working with the National Safety Council (Queensland Division) with the active support and participation of Worksafe Australia.

In developing the system framework we agreed on the following design features. Following industry feedback on our earlier proposals, these became, if you like, our design brief.

1. It would be analogous with Quality Assurance by using the same system elements.

2. It would be based on a recognition of the continuous improvement process as the current industry best practice in health and safety management. The most familiar system of continuous improvement is the Total Quality Management (TQM) model.

3. It would be developed to overlay risk management processes, health and safety legislation and people factors on to the QA and TQM framework. Compliance with legislation was essentially set to be level 2 on a zero to 5 scale. Human resources and personnel issues were to be specifically addressed within a number of elements. Risk management philosophy was expected to be involved in a number of elements.

4. It would include a standard matrix to be used as the Balance Sheet to represent the current level of performance. This matrix is referred to as the Health and Safety Assurance Continuous Improvement matrix. The matrix sets out the levels of performance for each system element.

5. It would require organisations to determine internally the current level of performance for each System Element and set up an internal or external auditing system to confirm that level.

6. It would expect owners/developers/clients to specify realistically the levels at which they expect contractors and subcontractors to be for each system element. It would allow the client to specify the performance level it required to suit a particular construction project.

7. It would provide the equivalent of the QA certification process. Organisations would need to internally audit and set levels. A client could conduct a process of second party accreditation to check short-listed tenders or use the results of an independent third party accreditation.

8. It would allow a QA based organisation to include the health and safety elements as part of a Quality Plan and a non-QA organisation to include the system elements as part of a health and safety plan.

9. It would allow the compilation of a database indicating the performance levels throughout industry to permit industry benchmarking. It would also be feasible to allow organisations to establish a *rate of improvement* by indicating the improvement over 12, 24 and 36 month periods. Since the numerical scale would not be a true linear interval scale, such indices would need to be seen as approximate indicators of performance. These measures of system performance rather than traditional occurrence and severity rates would need to be one of the main features of the system.

10. It would include information on possible sources of objective evidence which the internal or external auditor can use to confirm the organisations' stated level of performance. It is not intended to set down precisely what evidence is needed to indicate performance at a particular level. This is the purpose of an independent audit. The organisation being audited would tell the auditor the level at which they believe they were performing and provide objective evidence as proof. The auditor would check the evidence and either confirm the level or identify non-conformance and set a lower level.

   It was not intended that the documentation be additional or onerous. To be able to improve something you must be able to measure it; and to measure it you must be able to define it. To achieve *best practice* through continuous improvement an organisation needs to have its own objective evidence of performance and documentation. The auditor would essentially be using this same evidence.

11. It would not rely on the traditional incident and severity indices as the basic performance measure, but would require the keeping of records and the analysis of such data to identify trends and risks. The analogy with QA would be that the organisation would not rely on the data concerning faults or defects to indicate performance, but relies on measurement of the system itself. The emphasis is on measuring the

presence of safety rather than the absence of safety. The system would expect organisations to use injury/incident statistics as a second check, not the prime measure. It would be possible for organisations to both compile injury/incident statistics on a project by project basis and as ongoing data for an organisation.

How does a contractor or subcontractor respond?

Included with the Health and Safety Pre-qualification Criterion is a standard format for contractors and subcontractors to provide information to a client.

The pro forma enables the contractor/subcontractor to be informed of the client's requirements in relation to health and safety. Accompanying the pro forma is a worked example.

The pro forma is not an end in itself. Apart from providing a vehicle for the client to record its requirements for health and safety, it requires contractors and subcontractors to record their assessed level of achievement against the 16 system elements set out in the Health and Safety Continuous Improvement Matrix.

The elements of the matrix are consistent with AS 3901, *Quality Systems for design/development, production, installation, and servicing.*

The worked example in the PQC identifies the client requirement at level 2 for all system elements. Level 2 is what we consider a minimum standard. At that level an organisation should be complying with legislative requirements. However there is nothing within the system to prohibit the client from determining levels (for one or more system elements) higher than level 2.

The contractor should be able to cite sources of objective evidence to verify the self-assessment and this assessment is subject to verification by second or third party audit.

By specifying the inclusion of health and safety within the Pre-qualification Criteria we have sought to ensure that working safely is treated with the same emphasis and weight as those criteria more sharply

focussed on the hard edged matters of financial and technical capacity.

It will be a major challenge for the industry to ensure that health and safety does not become a second grade Criteria. The industry and in particular clients of the industry, must defy the risk and work to ensure that health and safety performance is maintained at the same level of importance as the other six Pre-qualification Criteria.

Many clients will for the first time be challenged to consider, the health and safety performance of a contractor. Many will feel less than qualified to make judgements about performance levels, and therefore may assign a weighting to health and safety that belies its importance.

Our expectation is that clients will, during the phasing-in period, be prepared to accept the recommended minimum performance level, perhaps concentrating on identifying those contractors who are struggling to reach or maintain a level 2 rating. Others may choose to rely on third party audits to establish an early baseline to verify contractors assessments.

My own view is that over time contractors and subcontractors will themselves not be satisfied with level 2 performances and hopefully will see the commercial benefits of improving their own performance to level 3 and beyond.

In summary, the approach to health and safety proposed in the *Pre-qualification Criteria* has the following benefits:

- it represents best practice in health and safety;

- it is compatible with all state/territory legislation;

- it can be used by both client and contractor;

- it can be used by both large and small organisations;

- it can complement an organisation's quality system or can stand alone;

- it can be used as a benchmarking system;

- it is compatible with the risk management and

self-regulation approach of health and safety legislation;

- it is directed towards prevention; and

- it is sufficiently robust to allow for internal and external auditing.

To support this work CIDA has just released an Occupational Health & Safety Performance Measurement Manual developed for us by the National Safety Council (Queensland Division) and sponsored by Worksafe Australia, which contains information on possible sources of objective evidence which an internal or external auditor can use to confirm the organisations stated level of performance.

The framework specified in the *Pre-qualification Criteria* recognises that the management of occupational health and safety is an ongoing process, a process that requires systems which:

- keep up with established OHS standards;

- develops OHS policies and procedures in consultation with employees and/or involved unions;

- develops information systems, and training and education programs to implement these policies and procedures;

- establishes responsibility for the implementation of these policies and procedures;

- monitors performance and develops new policies and procedures where necessary.

OHS Best Practice means superior OHS performance is established and maintained. It means OHS standards are continually being evaluated and improved.

While CIDA would like to consider its work in this area as pioneering the fact is that the move towards a systems approach to health and safety management is gaining widespread support.

On August 5 of last year Standards Australia hosted a Forum to discuss industry support for the development of a Quality Management Systems

Standard approach to Occupational Health and Safety.

As a result of that initiative it has been agreed that Standards Australia will be responsible for developing a Standard for occupational health and safety management systems, analogous to ISO 9000, which will in the fullness of time facilitate the introduction of effective and auditable systems in the workplace.

In closing I would like to acknowledge the invaluable contributions made by the members of the CIDA Health and Safety Action Team to this work, the support of Worksafe Australia and the contribution of the National Safety Council (Queensland Division) who have been instrumental in developing the project to this stage.

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THE OHS STRATEGIC PLANNING MODEL AND ITS IMPLEMENTATION

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Acknowledgments: The OHS Strategic Planning Model has been developed, over a number of years, by all the professional staff at SHOHSS. This paper describes a project undertaken for the Parkland Group, initially at Bayview Gardens, NSW. The project manager for this activity was Sue Kirk, a senior consultant with SHOHSS. Jim Joy, Alara Risk Management Services Pty Ltd, was the leader of the initial Priority Focus Session and, later, undertook an independent audit.

It was intended that this paper be jointly presented by Louise Nemeth de Bikal and Peter Metcalf, company secretary, Parkland Group. The Parkland Group has since been sold, so the paper is a sole presentation with the permission of the Parkland Group.

1. INTRODUCTION

This paper describes a project undertaken by Sydney Hospital Occupational Health and Safety Service (SHOHSS) for the Parkland Group. Although the project had a national focus, this paper describes the initial activities undertaken at Bayview Gardens. The paper is presented under the following headings:

The organisations involved

The OHS Strategic Planning Model

"Customisation":

> Project Objective
>
> Method
>
> Priority Hazard Analysis
>
> OHS Management Systems Audit
>
> Action Plans

Implementation

Independent Audit

The SHOHSS approach to this and all such OHS activities is based on:

- risk management principles of hazard identification, risk assessment and control, and evaluation;

- a consultative process which involves all relevant sections of an organisation;

- devolution of the OHS responsibilities; and

- and integration of all aspects of OHS into the management of the organisation.

2. THE ORGANISATIONS INVOLVED

The Parkland Group is a business unit of the Lend Lease Corporation. They service approximately 1500 customers through seven nursing homes and 12 retirement villages in NSW, Victoria, SA and WA. Bayview Gardens is located on a 7.4 ha site at Bayview, NSW, and provides three categories of accommodation: self care/independent villas and apartments, serviced apartments and a 73 bed nursing home. Activities include sales, administration, maintenance and refurbishment, personal care services, nursing, catering and laundry.

SHOHSS is a specialist unit of Sydney Hospital which provides consulting services in all aspects of OHS to both the private and public sectors throughout Australia. It is non-profit and predominantly self-funding, and employs over 20 professional staff. Services provided include environmental hygiene, health screening, education and training, occupational rehabilitation and OHS management.

3. THE OHS STRATEGIC PLANNING MODEL

The most effective and efficient way of integrating the OHs function is through the development and

implementation of an OHS strategic plan. The plan must reflect overall corporate objectives and is implemented via the OHS management system.

The initial planning process sets major and specific objectives, strategies and targets. Major objectives usually address legislative compliance and best practice. Specific objectives focus on prevention, accident/incident management, rehabilitation and claims management. Strategies are program based eg. hazard control program, and targets can be a combination of positive and negative performance indicators. "Positive" indicators focus on processes eg. 100% of hazards are reported, OHS included in purchasing decisions, OHS included in induction of all staff. "Negative" indicators measure for example percentage decreases in number of accidents, amount of lost time.

The second stage of the planning process leads to the development of an OHS Action Plan which identifies:

• activities (what has to be done);

• tasks (how the activities will be undertaken);

• responsibilities (who); and

• the time frame (when).

A partial example of an OHS Strategic Plan is presented below.

Figure 1
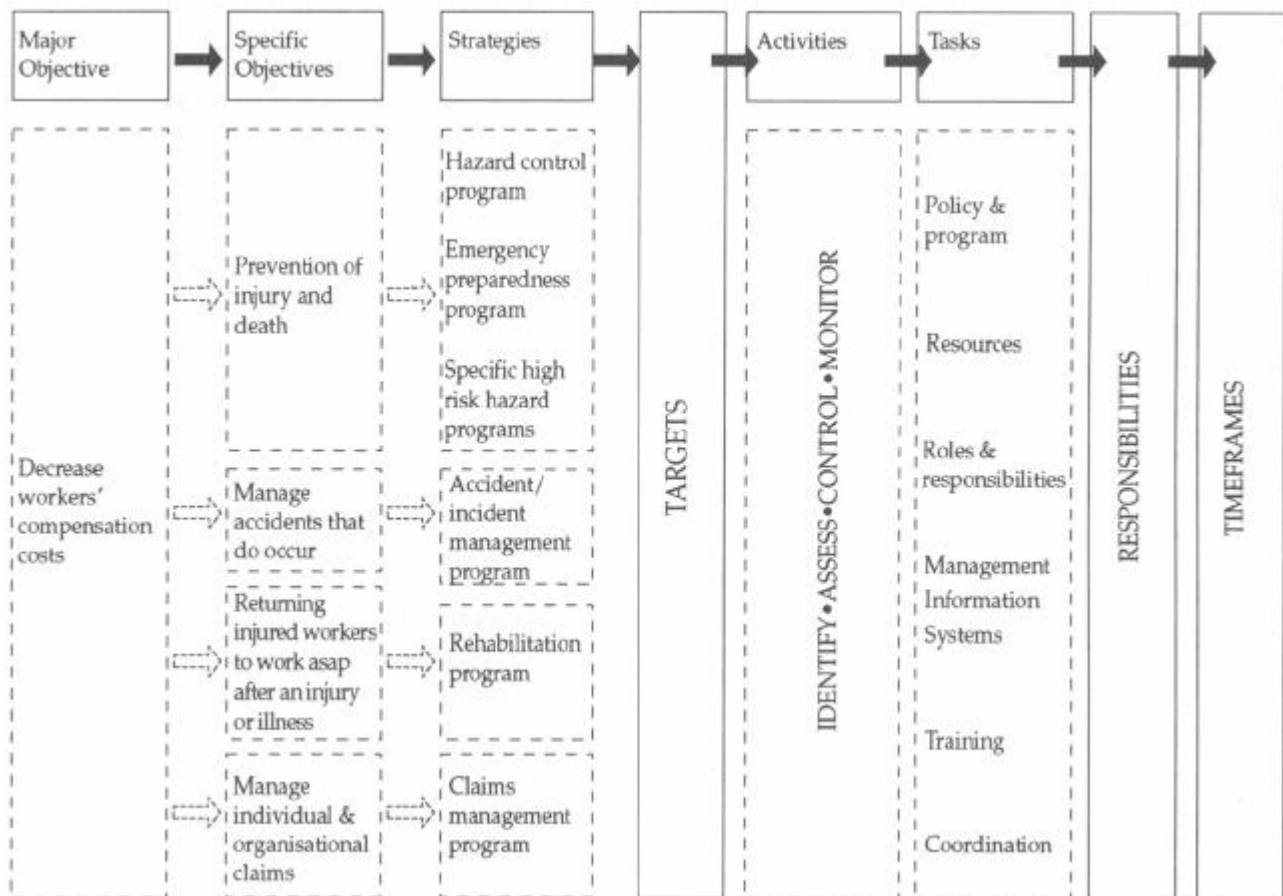
4. "CUSTOMISATION"

4.1 The (Parkland Group) Project Objective

The overall objective of the project was to review current OHS management systems at the Bayview site, identify priorities and develop an appropriate OHS audit system for the Parkland Group.

4.2 Method

To achieve the project objective, the following activities were regarded as essential:

- review overall operations of the Bayview site

- review current OHS documentation, policy and procedures

- identify the relevant elements of the OHS management system

- identify specific hazards and determine priorities

- establish the staff's perceptions and understanding of OHS at the Bayview site.

Therefore, the project methodology involved the following sequential steps:

i) Meeting with relevant Group and site management to determine specific processes and identify key staff groups. It was decided that the best approach for the Priority Hazard Analysis was to split the site into two: nursing home/services apartments and the rest of the "village" ie. laundry, gardening, hairdressing, cleaning, kitchen and dining room, maintenance and reception.

ii) Conduct preliminary audit of Bayview site.

iii) Run a Priority Hazard Analysis session for each of the two groups identified.

iv) Conduct interviews with representatives from all levels of staff ie. management, supervisors and employees, to determine their perceptions and understanding of the OHS management system. The OHS management system audit developed by SHOHSS was used to conduct these interviews.

v) Collate the results of the Priority Hazard Analysis and the OHS management system interviews.

vi) Develop Action Plans for

- The Priority Hazards - Nursing Home and Serviced Apartments

    - Village

- The OHS Management Systems

This approach investigates:

A   - what happens in practice,

then knowing

B   - what should happen (legislative, organisational & hazard specific requirements) analyses the "gap" between A & B which leads to the development of

C   - a strategy to ensure A matches B.

4.3 Priority Hazard Analysis

In order for an OHS management system to function effectively, it must focus on priority hazards or risks. The Priority Hazard Analysis sessions conducted identified possible loss scenarios and rated the probability and consequence of the loss occurring, the resultant rankings provided a system to identify priorities within the Bayview Site.

The system must also be change sensitive, responding and adapting to change within the organisation as well as in the external environment. It is essential that the OHS management system becomes integrated into the overall management systems for the organisation. It is recommended that this be done by linking of objectives for managing OHS to the objectives of the organisation, through the previously described strategic planning model.

Two Priority Hazard Analysis sessions were conducted at the Bayview site, with representation from all staff groups within the village. This representation was essential to gain the most information on hazards and risks on the site. The aim of this system is to use the information gained from those who best know how things work; what

goes wrong; possible consequences of the event and how to fix it.

The objective of the sessions was to:

i) identify the risks related to the operation of the village

ii) assess these risks to determine priorities

iii) review existing controls in place to decrease the risk

iv) identify new controls that will further decrease the risk

The two Priority Hazard Analysis sessions followed the same process, with theory presented first, followed by the practical tasks of working through the Hazard Analysis on the Bayview site.

The Theory section included the following:

i) Review of Bayview OHS policy, procedures and committee structures

ii) Presentation of the model of an effective OHS management system

iii) Work through the risk management process for hazards within the Bayview site

iv) Review methods to assess/calculate risk

v) Review the hazard categories ie. chemical, electrical, etc.

The practical Hazard Analysis section included the following:

i) A review of the operations and occupational groups to determine the best way to break down the process/organisation so as to be able to identify all possible risks.

ii) Each participant identified the risks related to their work duties, environment, equipment and their dealings with the residents. For each of the risks they stated the potential "loss scenarios".

iii) Once all loss scenarios were identified (approximately 110 for each session), the

system for assessing the risk was presented to the group.

Risk = Consequence x Probability

Each group determined their own rankings for consequence and probability. In the end, both groups determined the following:

Table 1

Rank	Consequence	Probability
1	Death or permanent disability	Occurs once a month
2	Serious lost time injury	
3	Lost time injury	Occurs once per 6 months
4	Minor lost time injury	
5	First aid treatment only	Occurs once per 2-3 years

iv) Each loss scenario was then given a ranking for both consequence and probability.

v) The following table was used to provide a risk ranking for each loss scenario.

Table 2

Quantitative Risk Scoring

Probability

Consequence		1	2	3	4	5
	1	1	3	6	10	15
	2	2	5	9	14	19
	3	4	8	13	18	22
	4	7	12	17	21	24
	5	11	16	20	23	25

vi) The risk rankings were used to prioritise each loss scenario.

vii) High priority loss scenarios were addressed to identify current controls in place to reduce the

risk and also discuss options for new controls that might further reduce the risks.

Note: Time restrictions limited the number of loss scenarios that could be addressed. The Nursing Home and Serviced Apartments covered all loss scenarios with a risk ranking of 1-5; the village staff addressed all loss scenarios with risk rankings from 1-4.

The hazards identified in the sessions were (in order):

- fire and emergencies
- sprains/strains
- slips and trips
- electrical safety
- hazardous substances
- vehicle safety
- environment
- sharps

The results of the Priority Hazard Analysis were presented in the following format:

Occupational Group/Time	Loss Scenario	Risk			Control	
		Prob	Cons	Rank	Existing	New

4.4 OHS Management Systems Audit

The OHS Management System includes administrative, operative and auditing components. Each of these components is made up of a number of elements which must be relevant to the organisation as a whole. The relevant elements for the Parkland Group were identified through meetings with the Parkland and Bayview Management, review of the OHS documentation and information gained through the Priority Hazard Analysis Sessions.

The OHS management system which was developed to suit the requirements of the Parkland Group is illustrated in the following diagram.

This system will meet the needs of any organisation. All components identified under "Administration", "Operation" and "Audit" will be relevant, but the degree of relevance and importance will depend on the specific site.

The Priority Hazard Analysis sessions provided the necessary flexibility in the system to identify and meet the specific needs of each site. This change sensitive approach, using on-site resources, encourages "ownership" and is not an imposed "one size fits all" package.

The elements of the OHS management systems audit for the Parkland Group were as follows:

1.0 ADMINISTRATION

1.1 Leadership and Commitment

- Policy Statement
- Program Objectives
- Coordination
- Line Management Responsibility and Accountability
- Performance Measurement

1.2 General Promotion

1.3 Information Transfer

- Personal communication
- Committee and Group Working Meetings

1.4 Training and Personnel

- Management and Supervisor Training
- Selection, Recruitment and Induction

2.0 PROGRAM OPERATION

2.1 Hazard Management

- Hazard Identification
- Controlling Hazards
- Health Control
- Records and Reports\
- Personal Protective Equipment
- Purchasing Specifications
- Engineering Controls

2.2 Accident Management

- Accident Prevention
- First Aid
- Medical Treatment
- Accident Investigation
- Records and Reports

2.3 Rehabilitation

- Rehabilitation
- Records and Reports

2.4 Workers ' Compensation

- Procedures
- Coordination
- Monitoring
- Claims Management
- Premiums and Cost Accountability

2.5 Emergencies

- Emergency Planning
- Records and Reports

3.0 PROGRAM ASSESSMENT

3.1 Planned Workplace Inspections and Audits

3.2 Accident/Incident Analysis

3.3 Total Program Evaluation

Undertaking the audit involved interviews with representatives from different areas and levels of the workforce at Bayview.

Nursing Home and Serviced Apartments interviews were conducted with representatives from:

- Management
- Supervisors
- Nurses Aids

Village interviews were conducted with representatives from:

- Management
- Kitchen and Dining room
- Gardening
- Maintenance
- Laundry

The results of the OHS Management Systems Audit were presented under 3 main headings:

- The OHS management system elements and specific activities
- Comments made by the interviewees on each of the elements
- Recommendations re activities to improve the current OHS management system

4.5 Action Plans

Action Plans were developed as a result of both the Priority Hazard Analysis sessions and the OHS Management Systems Audit.

Action Plans from the Priority Hazard Analysis, were developed for:

i)   The Nursing Home and Serviced Apartments

ii)   The Village

The Plans were presented as follows:

Priority/ Rank	Loss Scenario	New Controls suggested	Action to be taken	Responsibility (name)	Target Date for completion

These plans are used by the committees to address each of the priority hazards/risks.

The Action Plan resulting from the OHS Management Systems Audit was presented as follows:

• The elements of the OHS management system.

• Recommendation for action on each element.

• A column for Bayview/Parkland Management to note whether action should be taken (Yes/No).

• A column to note who is responsible for activities to be undertaken.

• A column to note the target date for completion of the activities.

This plan was designed for use by Management of Parkland and Bayview to address each of the recommendations.

5. IMPLEMENTATION

Implementation was the responsibility of Group and site management and was based on the extensive Action Plans which had been developed. Policies and procedures were reviewed and updated, and roles and responsibilities were clarified.

The major 'outside' involvement in the implementation process was a request from Parkland Group for SHOHSS to develop an OHS Manual for the Group for use nationally.

Using the outcomes of the project, the manual was developed under the following broad headings:

• The OHS management system

• Working together

• Hazard management

• Planning for emergencies

• Accident management

• Occupational rehabilitation

• Orientation and training

• OHS and the law

• Information

It was designed specifically for village managers, Directors of Nursing and workplace group leaders, to provide them with a framework for managing health and safety in the workplace.

6. INDEPENDENT AUDIT

Twelve months after commencement of the project, Alara Risk Management Services Pty Ltd undertook an audit, the relevant aspects of which were:

• to review the OHS Manual versus good principles of manual content and design plus business specific hazard based requirements; and

• to audit OHS activities at Bayview versus a 12 element model of requirements.

Selected site personnel were actively involved in the audit process.

Four levels of performance were used to assess 12 elements and the OHS audit matrix was developed (see Appendix 1).

To quote from the resulting audit report:

"In general, all aspects of the audit were found to be good by general industry standards and, for

this type of business, above average. The OHS Manual is superior as a useful, well detailed document for management and staff. The activities at Bayview were also seen to be satisfactory, scoring in the "OK" level of the audit tool in most areas. (See Appendix 2). However, with little effort many of the scores could be increased to "Good" status or "Best Practice". (See Appendix 3). This is especially impressive considering the relatively recent introduction of the entire approach to health, safety and environmental risk management."

7. CONCLUSION

The significant issues which need to be emphasised as a result of the project with the Parkland Group, and which lay the foundations for the ongoing effective management of OHS in any organisation are:

- a clearly demonstrated commitment from senior management;

- an organisational culture which encourages and expects all employees to participate in OHS activities; and

- identified roles and responsibilities with associated accountability.

Although the "numbers", mainly lost time injuries and costs ie. "negative" performance indicators, can provide useful, and sometimes essential information on the "health" of an organisation, the activities/processes ie. the "positive" performance indicators, provide a much more meaningful and useful tool for management to aim for and achieve "best practice" in OHS.
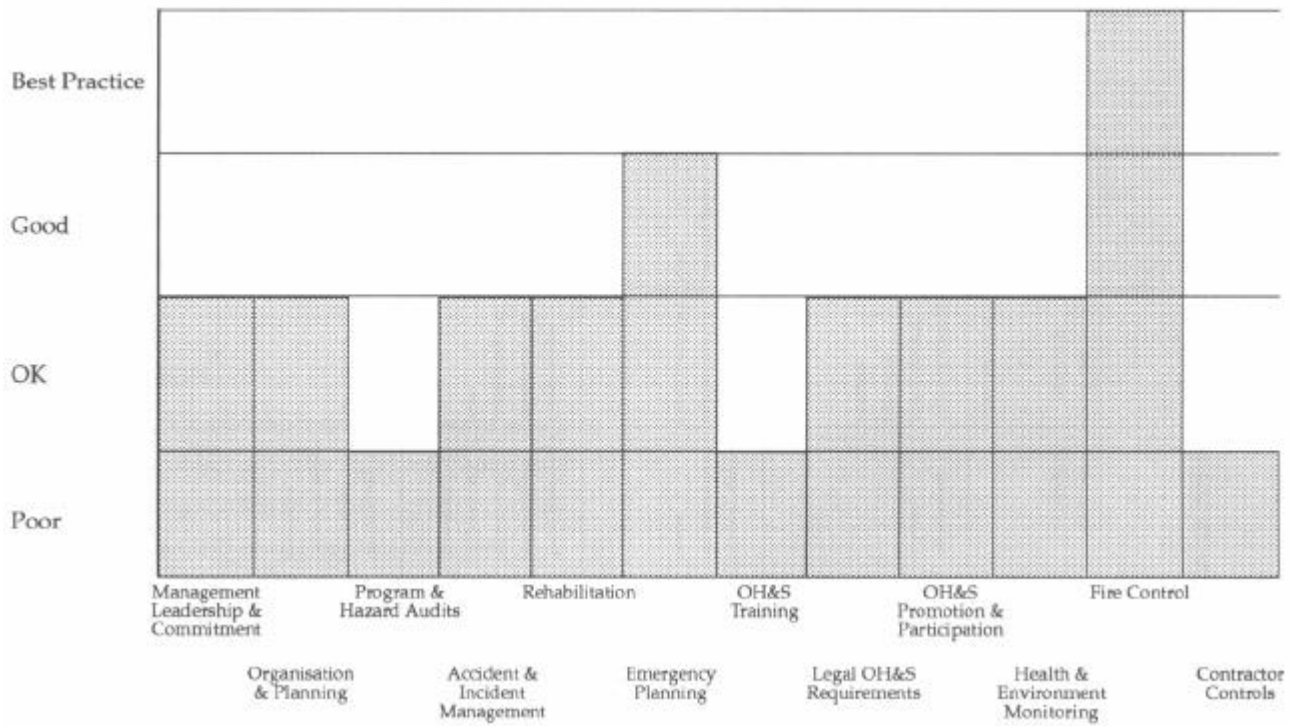
APPENDIX 1

Parkland Group – Occupational Health and Safety Audit Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
LEVEL	MANAGEMENT LEADERSHIP & COMMITMENT	OHS ORGANISATION & PLANNING	PROGRAM & HAZARD AUDITS	ACCIDENT & INCIDENT MANAGEMENT	REHABILITATION	EMERGENCY PLANNING	OHS TRAINING	LEGAL OHS REQUIREMENTS	OHS PROMOTION & PARTICIPATION	HEALTH & ENVIRONMENTAL MONITORING	FIRE CONTROL	CONTRACTOR CONTROLS
Best Practice	OHS management given the same priority as other business functions.	*Site is successfully implementing all aspects of its OHS plans & objectives.	*All known hazards are systematically, identified, assessed & controlled in a documented fashion.	*Every accident & incident is investigated & results lead to OHS systems improvement.	*Application of Rehabilitation Policy & Procedure is above legislative requirements.	*Emergency plans exist for all major foreseeable events.	*OHS training program is used as a model for other organisation.	*Site exceeds legal requirements.	*Employees are actively involved in the OHS program & its development.	*The health risk of all identified hazards have been reduced through corrective actions.	*Effective hazard identification & control procedures mean that the probability & consequences of a fire are minimal.	*Employment of all contractors (both short & long term) follows detailed OHS appointment, induction, training and monitoring procedures.
Good	*OHS commitment & leadership is well defined.	*Site OHS organisation & planning processes are established however, objectives are unlikely to be achieved.	*Most hazards are systematically identified, assessed & controlled in a documented fashion.	*Accident & incident policies & procedures are appropriate & are defined, documented & applied.	*Rehabilitation Policy & Procedure complies with statutory requirements.	*Emergency plans exist for most major foreseeable events.	*Annual OHS training plan is established & is effective.	*All relevant legislative obligations have been identified.	*Process to involve employees in the OHS program are established.	*Environmental monitoring program exists.	*Fire control equipment and/or procedures are adequate.	*Employment of most contractors follows detailed OHS appointment, induction, training and monitoring procedures.
OK	*OHS leadership & commitment is vague or poorly defined.	*Site OHS organisation & planning is haphazard re-active or inappropriate.	*A pro-active hazard management system exists but is either not used or is inadequate.	*Accident & incident policies & procedures are appropriate & are defined & documented but not applied.	*Rehabilitation Policy & Procedure has been established but is not followed.	*Emergency plans exist only for some major foreseeable events.	*Some training is provided.	*Limited understanding of personal or corporate OHS & Workers Compensation legal responsibilities.	*Limited employee consultation for OHS program management occurs.	*Employee health monitoring program implemented.	*Fire control equipment and/or procedures are developed but are inadequate.	*Employment of a few contractors follows some of the OHS appointment, induction, training and monitoring procedures.
Poor	*No measurable activity.	*No measurable activity.	*No formal & planned hazard management and program audit system is in place.	*No formal & planned accident or incident analysis takes place.	*Rehabilitation Policy and/or Procedure do not exist or are inappropriate.	*Either, Emergency plans exist but they have not been reviewed or, are inappropriate. *Or, no Emergency plans are established.	*Either training provided has been inadequate or none has been conducted.	*No understanding of OHS & Workers Compensation legislative responsibilities.	*Little or no attempt is made to promote OHS.	*No monitoring programs exist.	*Fire control equipment or procedures are inadequate.	*Few if any contractor OHS controls exist.

APPENDIX 2

Parkland Group Occupational Health and Safety Results

APPENDIX 3

Parkland Group Occupational Health and Safety Results with Potential "Easy" Improvements