

CONTENTS

EXECUTIVE SUMMARY -----	5
BACKGROUND -----	7
METHODOLOGY -----	11
FINDINGS-----	14
MAJOR CHANGES IN INDUSTRY – EMERGING THEMES -----	14
OHS MANAGEMENT WITHIN INDUSTRIES -----	17
IMPLICATIONS OF INDUSTRY CHANGE FOR OHS EDUCATION -----	20
RESPONSE BY TERTIARY EDUCATION SECTOR TO INDUSTRY CHANGE-----	24
THE ROLE AND USE OF THE NOHSC <i>GUIDANCE NOTE</i> -----	25
THE ROLE AND USE OF THE ACTRAC <i>CURRICULUM</i> -----	26
CONCLUSION -----	27
ISSUES AND IMPLICATIONS -----	28
1. ECONOMIC FACTORS – OHS PERIPHERAL -----	28
2. RESTRUCTURING – FLATTENING OF MANAGEMENT STRUCTURES-----	29
3. CONTRACT WORK -----	30
4. TECHNOLOGICAL CHANGE -----	30
5. OHS LEGISLATION -----	31
6. DECENTRALISED INDUSTRIAL RELATIONS -----	32
7. WORKERS COMPENSATION -----	33
8. COMPETENCY BASED TRAINING -----	33
9. INDUSTRY/COMPANY MATURITY -----	34
10. WORK ORGANISATION-----	35
11. EMPLOYMENT ARRANGEMENTS-----	35
12. NATURE OF THE WORKFORCE -----	36
13. HAZARDS WITH LONG LATENCY -----	36
14. OPPORTUNITIES TO BUILD ON OTHER REFORM INITIATIVES -----	37
15. RESTRUCTURED OHS FUNCTION -----	37
16. EXPECTATIONS OF OHS EXPERTISE-----	38
A WAY FORWARD-----	39
A FRAMEWORK TO CONSIDER OHS EDUCATIONAL NEEDS -----	39
THE IMPLICATIONS-----	40
OHS AS A PROFESSIONAL DISCIPLINE -----	41
CONCLUSION -----	43

ATTACHMENTS	44
1. INTERVIEWS WITH INDUSTRY REPRESENTATIVES	44
2. INTERVIEWS WITH VET AND HIGHER EDUCATION SECTOR	54
3. INTERVIEWS WITH OHS PROFESSIONAL ASSOCIATIONS	64
4. LIST OF INTERVIEWEES	70
5. INTERVIEW TOPIC GUIDE – INDUSTRY REPRESENTATIVES	74
6. INTERVIEW TOPIC GUIDE – VET AND HIGHER EDUCATION	79
7. INTERVIEW TOPIC GUIDE – OHS PROFESSIONAL ASSOCIATIONS	83

ACKNOWLEDGMENTS

The team from NE&A which undertook this project comprised Laurie Stiller, Dr Anne Long, Patricia De Pommeroy (who conducted most of the interviews with industry and educational insititutions), Anne Wyatt (who conducted interviews with professional associations) and Leyla Oxley.

We were ably guided by Jill Gutteridge from the NOHSC.

Thanks must also go to:

- All interviewees
- Industry Training Advisory Boards, Educational Insititutions and Professional Associations who identified industry representatives prepared to participate in interviews.

ACRONYMS

ACOHN	Australian College of Occupational Health Nurses Inc
ACTRAC	Australian Committee for Training Curriculum
AFOM	Australasian Faculty of Occupational Medicine
ANZAOHSE	Australian and New Zealand Association of Occupational Health and Safety Educators
AWU	Australian Workers' Union
ER	Employee Relations
ESA	The Ergonomics Society of Australia Inc
HR	Human Resources
IFAP	Industrial Foundation for Accident Prevention
IR	Industrial Relations
ITAB	Industry Training Advisory Board
NOHSC	National Occupational Health and Safety Commission
NSC	National Safety Council

OHS	Occupational Health and Safety
SIA	Safety Institute of Australia
VET	Vocational Education and Training

EXECUTIVE SUMMARY

The aim of this project was to begin the process of determining the scope of the long-term professional development needs of OHS generalist practitioners in the context of significant industry change and to assess the role and impact of the NOHSC *Guidance Note for the Development of Tertiary level Courses for Professional Education in OHS*.

This issues paper is seen as **the first step** in a more comprehensive and consultative process. It draws on interviews conducted with a relatively small sample of representatives of industry, VET and higher educational institutions with OHS courses, and of OHS professional associations. The paper provides a window into some of the issues and a discussion of some of the implications of those issues for further, more extensive debate.

The predominant theme emerging from interviewees discussing industry change related to increased local and global competitiveness and consequent pressure to achieve more with fewer resources. This, combined with deregulation and decentralisation of industrial relations, has led to significant changes in the way work is organised and managed. Restructuring, downsizing and outsourcing are now commonplace in most industries.

These economic pressures have driven other changes, including increased levels of outsourcing, the flattening of management structures with the consequent loss of middle management positions, and rapid and continuing technological change.

OHS is seen as peripheral to the economic factors driving industry change. Many industries, and particularly small to medium sized businesses, are still coming to terms with performance OHS-based regulation. While there has been an increase in awareness of OHS, the resources applied to it have not necessarily increased.

Structurally, there appears to be a reduction in the number of dedicated OHS positions. The integration of OHS into mainstream management is apparent, particularly in larger businesses, and with this comes an increase in the range of managers and other professionals involved in OHS. The outsourcing of OHS expertise in this context is also a growing trend.

These changes have considerable implications for the role and development needs of the OHS practitioners; indeed the role and function of the OHS practitioner varies considerably from one organisation to the next.

This paper suggests that these changes have increased the necessity for everyone involved in OHS, from senior management through to the OHS practitioner, to have a common core of OHS knowledge, skills and attitudes.

OHS specialists (e.g. ergonomists, hygienists, physicians etc.) and those involved in developing OHS strategy need to add to their OHS technical skills a broad base of business knowledge and skills, and the capacity to be change managers, critical thinkers and problem solvers, so that they can implement measurable cost-effective solutions. Expertise in occupational health, in addition to safety, is also important to deal with emerging occupational health issues.

Senior and line managers and other functional managers (e.g. human resource managers) need to be able to adopt an integrated systems-based approach to OHS, apply methodologies to deliver cost-effective outcomes and have the capacity to recognise the need for additional OHS expertise specific to the task.

Those implementing OHS activities need targeted knowledge and skills on specific issues to add to the common core, and an understanding of the scope of OHS together with project management skills.

The extent to which those engaged in OHS activities – whether at the specialist, strategy development, management or implementation levels – have the knowledge, skills and attitudes necessary to undertake the activities and roles expected of them is unclear, but questionable. There are clearly issues in terms of the quality, relevance and delivery of OHS education from both the VET and higher education sectors.

Both the NOHSC *Guidance Note for the Development of Tertiary level Courses for Professional Education in OHS* and the ACTRAC *Occupational Health & Safety Curriculum, Module Descriptors* are being used in curriculum development. Both are considered useful, while subject to criticism, by representatives of VET and higher educational institutions. The context in which the NOHSC *Guidance Note* was conceived and written has changed dramatically.

A rethink of the professional development needs of OHS practitioners is needed **and is supported** by interviewees from the educational sector and the professional associations.

In particular, the evidence suggests that there is a need to consider the needs of 'those engaged in at least some OHS activities' as well as those 'totally or predominantly employed in OHS', and that there is an opportunity and a need to do this holistically.

BACKGROUND

PROJECT OBJECTIVES

The objectives of this project, commissioned by the National Occupational Health and Safety Commission (NOHSC), were to:

- scope the long-term professional development needs of generalist OHS practitioners trained in the VET and higher education sectors in relation to changes in the Australian industrial environment
- assess the role and impact of the *Guidance Note for the Development of Tertiary level Courses for Professional Education in OHS* [NOHSC:3020(1994)].

The research sought to identify industry needs and any educational gaps. The outcome of the research – this issues paper – is seen as the **first step** in a more extensive process to determine what action should be taken by the National Commission with respect to the provision of generalist OHS practitioner education.

CONTEXT

Since the mid-'80s with the revision of OHS legislation and an increased focus on OHS by federal and state governments, there has been an increased demand from industry and government for people with OHS expertise. Consequently there has been a steady growth in OHS courses offered by the tertiary and TAFE sectors.

OHS has traditionally been discipline specific at a professional level – physicians, hygienists, ergonomists etc. – and there has been considerable debate in this country and overseas on the need for, and the nature and scope of, a core generalist curriculum that would bring a common, consistent, professional approach to OHS practice.

Major initiatives in this area have been undertaken by the NOHSC, the Australian Committee for Training Curriculum (ACTRAC) and the OHS professional associations.

NOHSC initiatives

Following a Workshop on Higher Education in 1990, the NOHSC developed its *Guidance Note for the Development of Tertiary level Courses for Professional Education in OHS* [NOHSC:3020(1994)]. The *Guidance Note*, published in 1994, was developed in consultation with educational institutions and education authorities, unions and employers. Its aims were to:

assist the development or modification of occupational health and safety education programs throughout Australia and is intended as a guide to minimum requirements. The guidance note should be particularly useful to institutions in justifying resource and curriculum requirements, as well as students, employers and unions to evaluate the suitability and potential standard of a particular course.

The *Guidance Note* targets, in particular, occupational health and safety professionals, including:

- ergonomists
- hygienists
- inspectors
- OHS managers
- OHS officers and trainers
- OH nurses
- occupational physicians
- occupational toxicologists
- safety engineers

The *Guidance Note* promotes the principles of consultation, prevention, management and promotion, and sets out core learning objectives in seven areas:

- prevention
- hazard identification, assessment and control
- information provision
- record keeping and data analysis

- communication
- legislation
- management

ACTRAC initiatives

In 1993, the ACTRAC funded a project to produce a series of modules and a framework to support 'courses at Certificate, Advanced Certificate and Associate Diploma Level'.

The *Occupational Health & Safety Curriculum, Module Descriptors, ACTRAC National Project, 1995* was developed by a team of TAFE representatives from each state and territory working with industry and union working groups.

The groups targeted by this curriculum included:

- line supervisors and union representatives with a role in OHS at the workplace, e.g. safety committee member (certificate level)
- higher level supervisors who are assistant safety officers/representatives (advanced certificate level)
- lower to middle level management with a major role in OHS, e.g. as a safety officer or representative (associate diploma level).

The *Curriculum* outlines 28 modules, each specifying nominal duration, purpose, learning outcomes, assessment criteria, conditions, assessment method and content.

Professional association initiatives

Most OHS professional associations have defined competency standards for their membership. The intent has been to assist in defining and maintaining professional standards for membership, to influence educators in developing curricula and to advise potential clients of the competencies and standards of practice of those working in the discipline. For example:

- The Australian College of Occupational Health Nurses produced *Competency Standards for Occupational Health Nurses* in 1994. The ACOHN believes that the competencies can be used:
 - as a prerequisite for membership of the College
 - to maintain professional standards and to promote safe occupational health nursing practice

- as a means of specifying curriculum requirements
 - to develop position descriptions for employment purposes
 - as a focus for continuing education.
- The Australasian Faculty of Occupational Medicine (AFOM) has competencies and a training program. The competencies are used to guide the overall aims and objectives and individual components of the AFOM training program and are used as the basis for setting the Fellowship examination.
 - The Ergonomics Society of Australia (ESA) in collaboration with the New Zealand Ergonomics Society produced *Competency-Based Standards for Ergonomists* in 1998. The intent of the standards is to 'forge a lasting foothold in the professional arena ... to ensure that those who profess to practise within it are providing services at an appropriate standard'. The standards are also seen as a means to provide educators and potential customers with a clear understanding of the expectations of the profession as to the competencies of its members and the standard to which they should perform in the workplace.

DEFINITIONS

For the purposes of this task, generalist OHS practitioners are defined as the person(s) employed within or by organisations (e.g. on a consultancy basis) to advise/direct OHS strategy and activity.

The research does not focus on the training needs of specialist OHS disciplines such as ergonomists, occupational physicians etc., although the outcomes are relevant to the extent that these specialist disciplines are employed to fulfil generalist roles in industry.

METHODOLOGY

INTERVIEWS

Research was conducted by interviewing representatives from the following three groups:

- industry representatives (19 interviews)
- course designers from a representative sample of VET and higher education institutions (10 interviews)
- representatives of OHS professional organisations (5 interviews)

A complete list of interviewees is provided as Attachment 4.

Industry representatives

Industry representatives were identified through letters sent from the NOHSC to Industry Training Advisory Boards (ITABs). ITABs were invited to nominate an employer and a union representative, who was (preferably) still actively involved in enterprise management.

Nineteen phone interviews in total were made, with participants being sent a brief fax outlining the areas to be covered, prior to the phone interview.

The Topic Guide (Attachment 5) was tested with two industry representatives and revised prior to rolling out to the full sample.

The areas covered included:

- industry change and its impact on organisations and OHS
- employment and training of generalist OHS practitioners
- use of consultants.

Industry interviewees tended to be most comfortable identifying and discussing industry change, and the bulk of interview time was spent in this area. Trends in the employment and use of generalist OHS expertise was also covered, but in some cases the interviewees' knowledge in terms of what was happening across the industry was limited.

VET and higher education sector

The NOHSC prepared a comprehensive list of educational institutions and courses currently being delivered in Australia. The following criteria were applied to select representatives for interview from a list of courses provided by the NOHSC:

- National representation – at least one institution has been selected from each jurisdiction.
- Sector balance – a mix of TAFE and higher educational institutions as well as a private provider has been chosen. Within this selection, University of SA and University of Western Sydney have been included because they have integrated an OHS qualification within a business related degree/graduate certificate.
- Throughput – NSW and VIC have the highest throughput in terms of number of institutions/courses; two have been selected from these states.

These criteria were used to select 10 OHS course/curriculum designers for interview. A letter was sent to each institution from the NOHSC seeking nominees who were subsequently interviewed by phone.

The Topic Guide (Attachment 6) focused on:

- industry change and its implications for OHS practice and education of OHS practitioners
- awareness and use of the NOHSC *Guidance Note* and ACTRAC *Curriculum*
- evaluation activities on performance of graduates.

The summary report produced from this set of interviews was also sent to an additional five academics for comment and review.

OHS professional associations

The NOHSC wrote to all OHS professional organisations advising them of the project and seeking nominees to participate in phone interviews. The following five organisations were selected for interview based on size and an assessment of the extent to which membership would be employed in generalist practitioner roles.

- Australasian Faculty of Occupational Medicine (AFOM)
- Australian College of Occupational Health Nurses Inc (ACOHN)

- Australian and New Zealand Association of Occupational Health and Safety Educators (ANZAOHSE)
- The Ergonomics Society of Australia Inc (ESA)
- Safety Institute of Australia (SIA).

The Topic Guide used for these interviews (Attachment 7) focused on:

- industry change and its impact
- view of education and training provided by VET and higher education sectors
- member competencies
- role and use of the NOHSC *Guidance Note*.

FINDINGS

Summary reports of the outcomes of interviews with representatives from industry, the education sector and professional associations are provided in Attachments 1, 2 and 3.

It should be noted that the results from this project are purely qualitative and represent the views of a relatively small sample of interviewees from the three groups. Unless specified, comments have been given no specific weighting as to the numbers of participants who made a comment of a particular type.

MAJOR CHANGES IN INDUSTRY – EMERGING THEMES

There was broad agreement from representatives of all three interviewed groups as to the major industry changes.

The major theme for industry change relates to increased local and global competitiveness and consequent pressure to achieve more with fewer resources. This pressure, combined with deregulation of industrial relations, has led to significant changes in the way work is organised and managed. Restructuring, downsizing and outsourcing are commonplace in most industries.

- Mergers – have created fewer, larger companies capable of buying more capital equipment and employing fewer people overall (e.g. forestry, manufacturing). On the positive side these companies are more attuned to safety (seafood) than the companies they replaced. Significant reductions in numbers of employees, particularly permanent employees, have been experienced in many industries (manufacturing, etc.). There is more casual, part-time employment.
- Outsourcing – is widespread, significantly affecting all industries represented, except farming (although activities such as contract harvesting are features of some farming sectors) and furnishing. There is more extensive use of casual labour and labour hire companies (construction). There is greater onus on contractors to address OHS in the tendering process (manufacturing), and economic pressures have increased for contractors who may cut corners in regard to safety (construction).
- Economic pressures – for example, the decrease in Asian exports (process manufacturing, forestry, seafood) and downturn in demand (shearing), and resulting in decreased production and contributing to having to 'do more with less' (furnishing).

- Decentralisation of industrial relations – enterprise bargaining has facilitated more flexible, local arrangements. Increased hours of work and more flexible hours of work have been introduced in many industries (business services, construction, shearing, manufacturing, transport and storage, mining, health care). Some industries highlighted that it is commonplace for lower level employees to now regularly take work home – something previously carried out by middle and senior management. There has been a reduction in piecework and a move to salaries, contributing to longer hours and difficulty in getting participation in training (process manufacturing, mining). Workers are reluctant to raise issues due to considerations about future contracts/jobs (shearing, construction), confusion about who is responsible (construction) or lack of interest in some industries as a career (shearing). There have been changes in IR legislation in relation to union participation in workplace consultation; OHS issues are not raised as often or not dealt with (manufacturing).
- Flattened structures – with the loss of middle management, responsibilities (e.g. for day-to-day OHS and other common functional activities) have been pushed down to next level and to line management. This, along with technological change, has increased responsibility and accountability of front line operators and has led to an increase in multi-skilling (construction, mining).
- Increased international competitiveness – has led to increased adoption of new technology and less production line jobs (glass manufacturing). There is constant pressure for increased efficiency, with benchmarks lowered and safety compromised in smaller operations (construction). The drop in prices or demand for commodities and increased competitiveness (mining, shearing, forestry, glass manufacturing, construction, farming) leads to shortcuts in OHS.
- Technological change – driven by economics. Greater automation is evident. There has produced a positive effect for some industries with regard to OHS, e.g. less heavy manual work (process manufacturing, fishing, glass manufacturing, forestry, shearing, farming), less use of chemicals (cotton industry), more safety warnings and engineering controls on new equipment. But there are negative effects in some industries, e.g. increasing pace of work, and increased complexity for others (clerical/business services, manufacturing, shearing, process metal manufacturing). The concern about the implications/impact of technologies evident in '70s and '80s is gone (process manufacturing); technological change is now accepted.

- Regulatory changes – regulation has increased for some industries (fishing, forestry, mining in Queensland, while there has been deregulation for others (construction, manufacturing). This has forced more of a business-like approach in a number of traditionally family run industries (fishing, forestry, agriculture) and leads to greater awareness of OHS issues (cotton farming, fishing) and integration of OHS into the management function.

Note: Timber Industry Strategy has introduced mandatory requirements for forest workers to have a competency-based licence for completion of an OHS/environmental care course; similarly in the fishing industry the introduction of food safety standards/regulations is proving to be a mechanism for introducing OHS systems as well. On the other hand, regulatory change from prescriptive to risk-based has meant that there is no longer a clear line in the sand for legislative compliance (business services). Some question the relevance of OHS regulations because they are not complied with (mining, construction). There is increased awareness of OHS responsibilities and legislation (process manufacturing, cotton farming) but some industries are finding it harder to implement OHS because of deregulation of the labour market and OHS (mining, construction, shearing).

- Workforce development – there is a desire for better educated, more skilled workers generally, but particularly for fishing, clerical/business services, glass manufacturing and mining. A competency-based training system is potentially improving the knowledge and competence of industry operators (mining, forestry). A younger workforce has more tertiary education, and more professional attitude to industry and environmental and safety issues (cotton farming, forestry). The introduction of traineeships has provided a career path for entry into some industries (fishing). While there is an ageing workforce for some industries (process manufacturing, seafood, mining), there is not so for others (business services, forestry, farming). Older workers may move into consultancy roles, retire early or possibly be a target for redundancies. There have been reductions in the acceptable length of employment from 10 years down to two to three years (business services).
- Environmental pressures – are contributing to a downturn in production (seafood, forestry) but are driving advances in new technology (forestry, utilities, glass manufacturing).

OHS MANAGEMENT WITHIN INDUSTRIES

Typical structural arrangements

A range of organisational structures for the management of OHS were reported by industry interviewees:

- Specialised functions at sites included first aiders and OHS committee members; some companies have retained a corporate function but that function is not dedicated to OHS alone; OHS on-site is carried by Director of Operations or sometimes HR; some acknowledge an increasing link with quality and environment (process manufacturing).
- Few companies have an on-site dedicated OHS manager – OHS responsibility lies with the department manager or HR; corporate offices all have an OHS manager reporting to the MD or HR, mostly with joint responsibility for training/environment (glass manufacturing).
- Big companies would have an OHS section and OHS officer/manager reporting to HR; in medium companies OHS is likely to be a joint responsibility of the personnel officer with OHS, IR and HR responsibilities. Smaller companies seek advice from industry or state WorkCover Authority. Union may have dedicated OHS officers full or part time (electrical/plumbing).
- Depends on the size of the company – in medium to small companies no-one is dedicated to OHS or it is covered part time by the production manager or supervisor. Large organisations usually have a dedicated manager or coordinator who commonly reports to HR. A corporate OHS person in large organisations normally has a pure OHS role, but increasingly the position will link to environmental and sometimes quality issues (manufacturing).
- At the farm level there is no OHS function; further up the chain there are no full-time OHS positions but management is responsible to ensure training is provided and legislation complied with (cotton farming).
- Large scale processing plants have a designated OHS function, often combined with HR; there are no designated OHS functions in wild catch and farming. On boats the skipper is responsible for OHS (fishing).
- Mine managers look after OHS; few have safety officers. Safety advisor positions are different across the industry, usually at the senior supervisor or junior line management level. OHS is a joint responsibility with HR, workers comp, training and environment. Mining unions have OHS officials and organisers have an OHS brief and training (mining).

- Unless it is a very big company there will not be dedicated OHS personnel; responsibilities are given to the manager or supervisor (business services).
- The AWU has an OHS training coordinator and organiser with OHS focus. Manufacturing and government departments usually have dedicated OHS people at management or junior management level (manufacturing, government).
- Larger companies have an OHS officer and health and safety representatives on-site where required under state legislation. Logging (NSW, VIC, TAS) has a syndicated OHS management structure with one manager handling 10 contractors. Large companies have dedicated OHS positions reporting to the owner/GM. OHS is shared with IR, HR and training etc. – OHS is viewed as a ‘side job’ (logging).
- Medium to large companies have an OHS professional at middle management level, generally solely on OHS. Depending on the company’s size, they report to the construction manager or divisional head. More people have tertiary qualifications (construction).
- Big companies have OHS officers, medium companies also have the plant manager involved, small companies are ad hoc. There are OHS officers at management level, some with joint responsibilities, e.g. nurse with OHS and rehabilitation. Corporate offices all have OHS officers with many differences in how they are used. Safety coordinators report to Employee Relations (ER) managers (manufacturing).
- Corporate-based OHS officers report to the corporate HR manager. Site-based OHS officers (supervisor level) have safety practitioner level training (eg with organisations such as IFAP/NSC) (utilities).
- A few companies have site level positions, most with one person responsible for every thing; usually they have an employee/company-elected worker with the OHS hat (furnishing trade).

A number of interviewees discussed the impact of integrated OHS systems and suggested:

- OHS practitioners involved are not seen as requiring great expertise and ability to come up with specific solutions; they require more of an ability to understand the systems approach to safety and know what needs to be done, so that they can then locate suitable external specialist expertise and bring it in. This is reflected also in use of consultants – for policy and system development and set up; auditing; training; risk management in situations which are difficult, not quite routine, or require more rigor or specialist knowledge (e.g. chemicals). Smaller companies may have a consultant on a retainer, rather than have an OHS specialist on staff.
- In larger companies, there is a move for safety accountabilities and functions to be spread amongst managers and supervisors supported by OHS committees and OHS reps where they exist. There is team participation in risk assessment and hazard management.
- In smaller companies, safety responsibilities are pushed down to production managers and pushed into the background of day-to-day priorities until an accident happens.

Desired attributes of OHS practitioners

Industry representatives reported that OHS practitioners (beyond OHS technical skills/knowledge) needed to be able to:

- analyse the issues (not just implement them)
- drive the situation to achieve results
- communicate and negotiate
- contribute to high level policy development
- adopt, and to be able to convince people of the benefits of, a safety systems approach.

Interviewees proposed a range of qualifications for OHS practitioners including:

- tertiary OHS training
- HR qualifications with some OHS knowledge
- On-the-job experience with minimal training, e.g. through the National Safety Council (NSC) course.

There was some recognition amongst the interviewees that corporate OHS positions require tertiary level OHS education.

Selection and use of OHS consultants

It appears that consultants are mainly used by medium sized organisations, as larger organisations tend to have a corporate specialist and smaller organisations use them on an ad hoc basis, in response to an accident or a WorkCover report. Many interviewees expressed dissatisfaction with consultants and stated what they looked for most when selecting a consultant included:

- good industry experience, track record and reputation were most important
- qualifications at tertiary level, and may need specific qualifications, e.g. chemicals
- whether the consultant was able to express an understanding of the job and sell a plan in writing
- competency
- price
- whether the consultant was willing to give the client tools to use.

IMPLICATIONS OF INDUSTRY CHANGE FOR OHS EDUCATION

Perceptions of education sector

Interviewees from the VET and higher education sectors highlighted that education of OHS practitioners should:

- address special issues emerging from industry change, e.g. OHS in contracted work, contracting out of OHS services, access to OHS training, dissociated management structures and barriers to communication, less access to OHS experience
- be immediately relevant to technological, structural and social change
- provide practitioners with an understanding of how organisations work structurally; how to get things done in organisations
- cover diverse approaches to OHS management systems which suit different types of organisations, rather than focus on those that suit medium/large business

- develop students who are lifelong learners
- provide broader depth of knowledge to be able to respond to change; have more people-oriented skills in addition to 'technical' skills – be better at strategic planning, marketing, negotiation
- be problem based rather than 'academic' – experiential learning is required; acknowledge the need to develop critical and lateral thinking about OHS issues and develop high level verbal (negotiation) and written communication skills
- provide an increasing knowledge of health and psychosocial issues in the workplace
- be multi-disciplinary to respond to the integration of OHS and environment and, to a lesser extent, HR
- provide skills to be able to justify the benefits of OHS in economic terms.

The following suggestions were made about how tertiary institutions can respond to current changes:

- OHS needs to be addressed in management and business education. At the moment HR and ER education are perceived to be more of a priority than OHS. Taking this into account there is a need to:
 - develop OHS streams or units for business courses and engineering courses
 - adapt courses to suit the needs for integration of OHS and environment
 - make programs more attractive to professionals in other spheres so that these professionals can learn how to manage OHS within their own sphere (not to make them OHS professionals/specialists)
 - get better at using distance learning; time and accessibility to training is a problem for all practitioners
 - make modules more discrete so students can undertake courses in stages as needed (i.e. more flexibility).
- Broaden the base of OHS education in view of the mainstreaming of OHS into the manager's and/or supervisor's role and the OHS needs of small business.
- Don't offer undergraduate OHS courses.

- The role of educational institutions is to develop critical thought amongst graduates so that they can contribute to change; in the past there was more opportunity/freedom to develop critical thinking in the university curriculum, now there is more of an emphasis on technological rather than social aspects.
- There is an increasing demand for postgraduate qualifications; a need for people doing occupational health to have qualifications to back up employment experience: this is increasing professionalism.
- Tertiary institutions should be working at three levels with a hands-on, practical approach (particularly for undergraduates):
 - facts, knowledge and skills
 - critical ability skills
 - management skills – negotiation and marketing.
- Institutions need to keep contact with industry, through for example, working committees, professional associations, graduates and people involved in teaching – this is difficult and time consuming.

Perceptions of professional associations

Professional association representatives identified the following implications for OHS of the major industry changes.

Implications for OHS practice include:

- People need to be prepared in OHS **before** they enter the workforce (e.g. include in secondary and primary education).
- Practitioners need to have a broader and broadening range of practical skills (part of doing more with less) such as PC skills, noise monitoring, managing a budget.
- The role of practitioner is to add value in terms of organisational needs and priorities within the financial management structure. The practitioner needs to be able to make OHS more financially attractive.
- There is a stronger need for generalist understanding because of the multi-factorial nature of the problem. There is a need to look at a systems approach. Technical specialists (such as ergonomists) have to be part of a team – to serve the big picture.

- Opportunities for corporate OHS positions are diminishing, with internal people becoming more multi-skilled to cover environment, insurance and property risk. Specialists are called in as required. There will be markedly fewer jobs for OHS managers in the next five years
- OHS is being de-emphasised – a cost that people can't afford. This is reinforced because changes aren't enforced by state authorities.
- Contracting and outsourcing implications need to be addressed, as well as management of organisational change (e.g. stress) and potential removal of OHS from federal awards.

To meet the training and education needs of OHS practitioners, institutions need to:

- Provide greater flexibility in allowing access to subjects, e.g. students should be able to pick up a subject as needed.
- Make postgraduate courses more attractive for people who now have to pay for them. The survival of specialist courses may be tenuous (due to cost and lack of flexibility).
- Adapt courses so that:
 - practitioners are skilled to provide services as external consultants
 - practitioners are skilled to maintain their learning over time in a changing framework (i.e. taught how to think, rather than prescribe knowledge)
 - they focus more on management issues – generalist practitioner courses need to be able to talk the same language as decision makers
 - they address organisational behaviour issues (not just the energy-impact model), although it is important though that core OHS technical content is not lost.

One interviewee noted differences between the style of education provided by the VET and university sector. His view was that the VET sector can provide a pathway to university-type courses, but of their own are not sufficient for a professional role. TAFE is oriented to practical knowledge, not towards being change agents. TAFE graduates can operationalise not research, develop OHS knowledge and therefore influence policy. TAFE turn out practitioners, universities turn out professionals.

RESPONSE BY TERTIARY EDUCATION SECTOR TO INDUSTRY CHANGE

Adjustments made by educational institutions

Respondents report continual and regular changes in courses in response to industry change and needs.

Some of the changes reported include:

- OHS students are now taught broad principles of environmental management, ecologically sustainable development and the integration process.
- A diploma in OHS for project managers has been introduced to give professional OHS skills to project management professionals. The format is being 'chunked' to make it more accessible, and a distance learning option also being developed.
- Changes have been introduced to increase the experiential learning component and direct workplace experience for undergraduates.
- Courses have been adjusted to include conflict resolution and negotiation techniques.
- Subjects are continually reviewed to check relevance. If a gap is identified, a new subject is introduced, e.g. auditing.
- Distance learning options have been introduced; institutions are looking at options to develop the Web to facilitate dialogue between students.

Institutions reported a range of issues relating to the process of changing courses including:

- Change is laborious and cumbersome due to the need to consult widely and submit changes for approval, e.g. through faculty boards, etc.
- There is a struggle with course design to provide the ideal depth of course content (e.g. law, management strategies etc.) in the time available.
- Small changes have been made, but the upcoming accreditation process will be used to introduce bigger ones.
- Economic pressures are forcing institutions to stay in line with the ACTRAC *Curriculum*. The cost of developing new courses is too large and transportability issues arise if they move outside of *Curriculum* (e.g. for students transferring between institutions).

Professional associations' perceptions' of relevance and quality of education being provided

Professional associations were critical of the education being provided, particularly of the VET sector in terms of the quality of the national TAFE OHS curriculum (OHS professionals have had little say) and the calibre of teachers of OHS courses. This has led to variability in the quality of courses. Concern was also expressed at insufficient 'hard science' being provided in the courses.

The predominant concern with tertiary education was about the availability, accessibility and cost. However, relevance of courses in the local industry context and difficulties in recruiting suitable teachers was also noted by some interviewees.

THE ROLE AND USE OF THE NOHSC *GUIDANCE NOTE*

Two of the 10 educational institutions interviewed were not aware of the NOHSC *Guidance Note*, and a further one, while aware had not used it.

All institutions that had used the *Guidance Note* believed that it was needed. It has been used extensively for development and review of new courses, to check consistency as a reference and as a good starting point/conceptual framework. It was also reported to have been useful to support the case for attracting higher education funds, and when under pressure to focus on technical aspects, to show a need to cover a range of non-technical areas.

Several institutions felt the *Guidance Note* should be expanded to:

- cover management with an OHS role, as well as OHS 'specialist' positions
- be accompanied by a training package with industry-endorsed competencies for OHS professionals
- include guidelines for delivery styles to enhance attitude development and skills and knowledge acquisition
- cover content at different levels: degree, diploma, advanced certificate etc.
- have more detail – e.g. how the *Guidance Note* links to competency testing and standards.

All those who supported the *Guidance Note* believed that the NOHSC had a key role in its maintenance and review, but with input from industry, professional bodies and educational institutions. Interviewees also noted the difficulties in getting the right balance in terms of guidance, level of detail, prescription and flexibility.

Four of the five professional institutions interviewed reported having competency standards for its members, but none reported having used the *Guidance Note* in this process mainly because their competencies were developed prior to, or at the same time as, the *Guidance Note*.

THE ROLE AND USE OF THE ACTRAC CURRICULUM

One of the educational institution respondents was unaware of the *Curriculum*, a further two had not used it. One respondent noted that its usefulness was as a broad competency standard for OHS practitioners rather than professionals.

A range of criticisms were leveled at the *Curriculum* from all other interviewees.

Key criticisms include:

- the original committee had insufficient OHS representation; it should be reviewed annually
- workbooks need to be rewritten – proof-reading was poor, some are incomplete and some have been abused for off-campus delivery and are dangerous in the hands of inexperienced providers; they are less than adequate
- some modules are too long
- ‘inadequate at birth and increasingly inadequate in middle age because it is unnecessarily repetitive; modules require a science module but there is none’
- it is not useful or relevant, it is out of date – it is restrictive and doesn’t move with student or industry needs
- it needs a lot of tightening up; there are lots of overlaps and inconsistencies.

CONCLUSION

There are clearly issues in terms of the quality, relevance and delivery of OHS education from both the VET and higher education sectors. The extent to which those engaged in OHS activities have the knowledge, skills and attitudes necessary to undertake the activities and roles expected of them is unclear, but questionable.

The criticisms leveled at the ACTRAC *Curriculum* and the recognition that the NOHSC *Guidance Note* were useful but need updating (from both VET and higher education sectors) signals an important opportunity to reconsider the education needs of those involved in workplace OHS.

A process to consider these issues involving all stakeholders could usefully be conducted through the NOHSC.

The NOHSC was seen as the logical body to instigate such a process because it is seen as the peak OHS body, and as a national, government agency should be able to represent the interests of all parties fairly.

ISSUES AND IMPLICATIONS

This section flags the key issues flowing from the changes occurring in industry (drawn from **all interviewees'** comments) and considers implications for the professional development needs of OHS generalist practitioners.

While the issues themselves are strongly based in the comments of interviewees, the discussion of the implications of those issues are drawn partially from comments from interviewees, but also from an analysis by the researchers.

The term 'OHS specialists' in this discussion refers to the OHS professional disciplines (e.g. ergonomists) while the term 'OHS practitioners' covers all other OHS roles.

1. ECONOMIC FACTORS – OHS PERIPHERAL

OHS is perceived as peripheral to economic factors driving business change (include technology, working arrangements, downsizing, etc.) and development.

Many businesses are under significant economic pressure in a more global economy. There are increasing takeovers by multi-nationals and privatisation in some industries. There is pressure to achieve more with less and flow on pressure to suppliers to be more competitive. 'Rip, tear and bust to meet deadlines and make a profit.' Some see OHS as a cost (particularly in the short-term) rather than a benefit. There is less long term planning. People look for a 'quick fix' rather than long-term solutions, which leads to gaps in the strategic view. OHS is being outsourced as a function.

Discussion of implications

- Managers and others who facilitate business change need to appreciate potential OHS impacts or they may fail to seek specialist or strategic OHS advice.
- OHS specialist services are likely to be used in larger businesses and sparingly (if at all) in medium to small sized businesses; there will be a tendency to want specialists to focus on the immediate issue rather than underlying causes and long-term solutions.
- OHS strategy development requires engagement in the process of business change and development (either directly or in an advisory capacity) in such a way as to ensure OHS is integrated in these business decisions.

- The OHS practitioners' role is changing with outsourcing – they are involved more in a consultancy role as 'outsiders' rather than 'insiders'.
- Where OHS practitioners are involved, they need:
 - knowledge of business development issues
 - access in terms of status/professionalism to engage in high level decision making
 - the capacity to contribute to business competitiveness through OHS and to defend OHS standards in the context of business cutbacks.
- Where OHS specialists are involved they need to understand business issues and demonstrate the economic benefits of interventions and have an ethical base to ensure the issues are appropriately addressed.
- OHS practitioners in multi-national companies will need to be able to address overseas regulations and differing operating philosophies and environments.

2. RESTRUCTURING – FLATTENING OF MANAGEMENT STRUCTURES

Restructuring has led to a decrease in middle management positions (including OHS specialist positions) and greater levels of accountability and responsibility being forced down the line. The potential exists for managers and operators to be given accountability for roles they are not equipped (or trained) to perform and for 'strategic direction' on OHS to be lost. A local team approach to dealing with OHS issues may limit the identification/raising of broad OHS issues, increasing the reliance on external OHS practitioners. The role of safety representatives and committees can be more critical because there is no subject matter expert to drive change. There is a tendency for production managers (with OHS line responsibility) to focus on machines not people. There is an increasing push for 'safety is everyone's responsibility.'

Discussion of implications

- OHS specialists and practitioners need to understand components of an integrated system so that they are able to advise on interventions to address specific OHS issues.
- The role of OHS practitioners in an integrated system (e.g. as a consultant or corporate adviser) needs to be clarified in the context of the OHS roles and expertise of other players in an integrated system. (There is a perception in industry that an internally-employed OHS practitioner is not economically viable and not necessary in an integrated system.)

- Managers, line managers, other functional specialists must have an appropriate attitude towards and understanding of OHS strategy in an integrated system.
- The OHS knowledge and skills of managers and operators in an integrated system need to be defined.
- The OHS practitioner needs the capacity to operate as an external advisor (apart from the day-to-day activities at a site) to people working within an integrated management system – to have facilitation/consulting skills.

3. CONTRACT WORK

Outsourcing and contracting is increasing. There are significant OHS issues in contractor management, ranging from the nature of the relationship between contractor and principal to the detail of management systems and accountability. There is tendency for principals to abrogate responsibility for OHS to contractors, and for contractors to be difficult to manage and their performance difficult to monitor. Arrangements with contractors have moved from long-standing, less formal arrangements to more tightly managed, formal contracts including OHS requirements. Principals put economic pressure on contractors who (in a competitive tender situation) are forced to cut corners to be profitable. Outsourcing can create very narrow, specialised organisations with detrimental work organisation (e.g. telephone inquiry centres).

Discussion of implications

- OHS practitioners need skills to:
 - interface with contractors as the principal, or working within contracting companies, to ensure OHS is appropriately addressed/managed (including contractor selection, establishing the contract, monitoring of OHS performance of contractors, and managing the interface between contractors and the permanent workforce and systems)
 - take account of the legal issues in OHS contractor management and aspects of contract law.

4. TECHNOLOGICAL CHANGE

New technology is being embraced, particularly to maintain local and international competitiveness. There is no longer the extent of questioning technology that there was a decade ago. Technology can change the nature of hazards – often to longer-term effects. There is some tendency to trend back to a narrow specialisation of tasks. The concern is that inadequate training in the new technology may put people at risk.

Discussion of implications

- OHS practitioners need the capacity to recognise, assess and evaluate new technology and implementation strategies and know when to draw upon specialist OHS .
- Designers of technology and work systems need requisite OHS knowledge, skills and attitudes.

5. OHS LEGISLATION

There has been a change from prescriptive legislative arrangements to performance-based arrangements.

- 5.1** The transition in approach (from prescriptive to performance-based arrangements) has not yet been achieved on the ground. There is a failure of regulatory authorities to enforce compliance effectively and reduced levels of external government inspections. Some operators will deal with things they are compelled to by law – some will meet the letter of law, others a minimum. There is a tendency to focus on ‘due diligence’ paper trail while implementation is questionable. Despite increased awareness of the issues and possible penalties, action is limited.

Discussion of implications

- Managers may perceive that OHS practitioners are no longer required. If OHS practitioners are no longer employed then a different strategic response is required by organisations.
- Managers/line managers need to recognise that OHS professionals require different skills and operate in a different way under a non-prescribed approach.
- OHS practitioners, to be effective, need to:
 - be able to justify OHS on grounds other than regulatory compliance, i.e. more carrot, less stick
 - be able to explain and apply the law
 - use the concept of due diligence and fiduciary responsibility and be able to explain it.

- 5.2** There is a difficulty with the perception of the complexity of the non-prescribed approach. Small business and some industries (e.g. farming, fishing) find it difficult to manage (daunting) OHS under the new arrangements. There is a reliance on OHS experts at critical times rather than ongoing participation in hazard management. Consultants called in to address issues may assume levels of knowledge employers don't have. It is felt that WorkCover inspectors' instructions are clearer.

Discussion of implications

- OHS practitioners need to:
 - be able to adopt a facilitative approach rather than an expert 'problem solving' approach, but deliver a practical way forward
 - have communication skills
 - know how to successfully implement change processes within organisations.

6. DECENTRALISED INDUSTRIAL RELATIONS

Centralised IR has given way to decentralised enterprise bargaining processes in most industries. There is an opportunity to address OHS in that process and the bargain may impact positively or negatively on OHS (parties may or may not be aware of these impacts). The removal of OHS from awards is seen as the removal of a safety net, and another mechanism is needed to ensure OHS is addressed. In some industries, deregulation of employment structures has made consultative structures more complex and created structural barriers to communication.

There is a change in the traditional power balance in organisations, and the removal of traditional safeguards. There is a reluctance to raise safety issues with 'the boss' due to economic uncertainties and reduced union power in some organisations. In the case of intransigent employers, there is no union safety net.

Discussion of implications

- OHS practitioners need to:
 - understand EB/IR processes and be able to be involved in enterprise bargaining processes (or be able to advise those who are participating in the process)
 - understand, advise on, and manage effective in-house consultative arrangements

- ensure consultative/feedback arrangements are effective, particularly where union power is limited or absent. This reflects on 'integrity' and professional responsibility.
- IR personnel/managers need to understand the implications of/be sensitive to the decisions taken in EB processes for OHS.

7. WORKERS' COMPENSATION

The cost of workers compensation has increased the OHS focus in organisations. This focus tends to be on return to work and rehabilitation function rather than prevention. There has been a marked improvement in claims management due to return to work strategies rather than improved prevention.

Discussion of implications

- OHS practitioners need the capability to manage the return to work function to achieve cost reductions and to translate this to (or maintain) a preventive approach.
- People employed to 'manage injuries' must be able to progress to broader OHS prevention functions or to recognise the need for prevention to be addressed.

8. COMPETENCY BASED TRAINING

Competency based training (CBT) systems are being introduced into some industries with OHS integrated into the competencies expected. The extent to which companies use the competencies to structure training appears limited. Portability in many industries is not a significant issue for employers who prefer to rely upon their own internal (non-competency based) training. CBT presents an opportunity to improve OHS that may or may not be embraced by companies and OHS practitioners. Some industries see this as a vital opportunity to ensure everyone working in the industry has some level of OHS knowledge/skills. Increased multi-skilling extends the range of activities operators need to be able to competently perform. Bigger companies are more likely to respond than smaller companies. In a multi-skilled environment effective training/competency assessment systems are more critical.

Discussion of implications

- OHS practitioners need to:
 - understand CBT systems and how to interface with CBT systems at industry and company level

- be able to contribute to company level skills training and ensure the training system generally supports production and OHS needs
- be able to communicate i.e. 'talk the same language as' training/HR professionals.
- Training/HR professionals/managers need an appreciation of OHS implications.

9. INDUSTRY/COMPANY MATURITY

There are varying degrees of knowledge of OHS risks, and the skills to manage them, across companies and industries. Some companies and industries are still coming to terms with the basics while others are attempting to develop fully integrated systems. High risk industries (mining, petrochemicals) and large to medium employers respond better than medium to small companies. Small and medium organisations rely on industry associations or state departments for OHS advice; larger companies have people with reasonable knowledge of OHS Acts and requirements.

Discussion of implications

- OHS practitioners need to have:
 - a range of strategies necessary to deal with the variations in approach necessary to meet diverse needs
 - a capacity to tailor interventions to the level of OHS maturity of the company
 - the capability to implement change programs in organisations
 - an understanding of the company and its needs in the context of the specific industry and its risks and operating environment.
- people who are the 'first point of contact' must have the capacity to act as effective advisors – to be able to look past the immediate OHS issue or 'problem' to the underlying issues and direct to appropriate expertise.
- expertise of OHS generalists/specialists need to be understood by others.

10. WORK ORGANISATION

There is a need for more flexible working hours arrangements, with increased pressure on individuals to work longer hours, take home work, vary shift and roster arrangements etc. The increased pace of work has been made possible by communication technologies, with an associated increase in pressure and stress. In some industries, work is becoming more concentrated, less varied and more specialised. This is impacting on the balance of work and family responsibilities/demands.

Discussion of implications

- OHS practitioners are required:
 - to contribute to the management of psychological pressures in the workplace and other emerging occupational health issues
 - to understand the psychosocial work environment, work, job and task design and appropriate intervention methodologies for issues that cross the line between workplace and non-workplace occupational health
 - to know when specialist OHS knowledge is required.

11. EMPLOYMENT ARRANGEMENTS

There is now a less permanent workforce, fewer employees generally, greater turnover, less time in the one job and more casual/part-time/seasonal employees. Employees in these categories are more vulnerable to the impact of, and may create new, OHS hazards due to lack of familiarity with work practices, specifics of the work environment, safety responsibilities and access to OHS training. More people are working from home.

Discussion of implications

- OHS practitioners are required to:
 - ensure systems are in place to manage the OHS of this more mobile and transient workforce
 - ensure issues of ethics and responsibility for long-term health impacts are addressed
 - be capable of advising on the responsibilities for principal employers with home-based contractors

- develop OHS performance measures for low exposure, low incident environments
- know when specialist OHS knowledge is required.

12. NATURE OF THE WORKFORCE

Key changes include:

- Some industries are facing an ageing workforce.
- In some industries there are increasing demands for skills and qualifications. There is a better educated workforce as a result of increased educational standards.
- There are increasing numbers of women in the workforce, particularly in traditional male-dominated industries. In jobs where females are traditionally employed, there is difficulty in attracting young females.

Discussion of implications

- OHS practitioners are required to:
 - advise on/implement strategies to manage an ageing workforce where there are no longer prescribed retirement ages
 - design appropriate work systems and monitor fitness for work
 - address specific occupational health issues and psychosocial issues involved in these significant changes
 - respond to the further blurring of the work and non-work interface
 - know when specialist OHS knowledge is required.

13. HAZARDS WITH LONG LATENCY

Exposures to hazards with effects in the long term are generally not well managed in industries (with the apparent increase in those types of risks with new technology etc.). Control of these hazards and monitoring of their effects is made more difficult because of the less permanent workforce, greater turnover etc., and the short-term economic focus by companies.

Discussion of implications

- OHS practitioners need to:
 - know about hazards with long latency periods and be adequately equipped with strategies for managing them
 - understand the limits of their expertise
 - know when specialist OHS knowledge is required.

14. OPPORTUNITIES TO BUILD ON OTHER REFORM INITIATIVES

In some industries there is an opportunity for OHS to be addressed on the back of other significant industry regulatory changes and changes to community attitudes, e.g. Timber Industry Strategy (environment and safety competency-based licensing); food industry (food safety).

Discussion of implications

- OHS practitioners are required to be opportunistic in ensuring OHS is taken up in the context of these other changes, i.e. see how OHS can be further developed in these circumstances.

15. RESTRUCTURED OHS FUNCTION

At a corporate level, large companies continue to have a dedicated OHS Manager (particularly in high risk industries); often this function is integrated with Employee Relations and/or environment functions with a strategic role in policy and safety system development. OHS reporting to HR is a strong trend. Corporate positions only (in large organisations) are seen as 'professional', requiring tertiary qualifications; then usually there are dual roles for the managers of OHS (e.g. with HR, environment or quality). They also need management skills in how to motivate people to be committed to safety and drive an issue to achieve a result. There is less demand for OHS specialists.

At site level, OHS in large companies is dealt with through an attempted integrated approach with either no OHS practitioner support, or low level, minimally trained, OHS support. Small to medium companies rely on either low level, minimally trained OHS officers, or line and HR managers with little formal training supported by industry associations as an external consultancy. Few dedicated OHS positions exist. A few interviewees commented that strategic direction is often missing and safety systems are haphazard in such approaches. Specialist and strategic OHS knowledge and skills are perceived as not needed.

Discussion of implications

- There is a need to determine the core OHS requirements (and expertise) of all personnel playing a role in the integrated OHS system.
- OHS practitioners need models of the integrated systems approach to OHS.
- In terms of career path (and operating environment), demand for dedicated OHS practitioners in organisations may be declining.
- Managers/professionals with OHS management responsibility (particularly HR professionals) need appropriate OHS capability.

16. EXPECTATIONS OF OHS EXPERTISE

Industry representatives had low expectations of the qualifications desirable and required to perform the task of OHS practitioners. 'On-the-job' training and in-house training was seen as satisfactory for some companies and union-based advisors. Dissatisfaction was expressed concerning the performance of external consultants although this was vague, as most interviewees had no direct experience in this area.

Discussion of implications:

- Better understanding is required on the part of industry of what qualifications (at whatever level) equip people to perform particular OHS functions.
- Skills are required to analyse OHS problems to select the appropriate consultant.
- External consultants need to be able to describe their skills and capabilities more appropriately.
- There needs to be a better understanding on the part of the principal of what particular qualifications equip people to perform in OHS.

A WAY FORWARD

A FRAMEWORK TO CONSIDER OHS EDUCATIONAL NEEDS

In considering educational needs it may be useful to conceptualise four levels or types of OHS functions:

1. OHS specialist

OHS practitioners with particular skills for particular hazards or industries – not usually in-house (usually discipline specific, e.g. occupational hygienists).

2. OHS strategy development

OHS practitioners with diagnostic and analytical abilities (problem solving) capable of advising on and directing OHS strategy in the context of business management.

3. OHS management

Local, on-site management of the implementation of OHS policy and strategy.

4. OHS implementation

Local, on-site implementation of rehabilitation/return to work, first aid, inspection/audit systems, skills training, OHS training etc.

Traditionally, the ‘professional’ OHS generalist practitioners would be perceived to be capable of performing at least the services 2, 3 and 4. This is inherent in the core learning objectives contained in the NOHSC *Guidance Note*. Traditionally also it was presumed that 2, 3 and 4 would comprise a stand-alone function.

However, the evidence is that 1 and 2 are being outsourced to a growing extent. Where 2 is conducted in-house it is most likely to be done by an OHS professional with multiple responsibilities (e.g. including environment) or, more likely, a non-OHS professional with multiple responsibilities (e.g. HR manager). (There is some evidence that 2 is not being carried out at all in organisations or has been depleted with removal of OHS full-time positions.)

In an integrated system 3 and 4 are likely to be carried out through line management structures or a less well-trained OHS practitioner.

If these functions are considered as being necessary in all organisations to ensure OHS is effectively addressed, the key issue is what knowledge, skills and attitudes are required by whomever is responsible for those functions to organisations (whether in-house or external).

THE IMPLICATIONS

This report raises a range of implications for the educational needs of OHS practitioners (albeit drawn from a relatively narrow base) including the:

- impact of integration of OHS into broader management systems
- reduction in the number of dedicated OHS positions
- increase in the range of managers and other professionals involved in OHS
- increase in awareness of OHS, but not necessarily an increase in resources applied to it
- need for additional skills related to the changed and increasingly complex industrial environment (e.g. related to new technology, contracted work etc.).

Taking the model canvassed in the previous section and applying the implications and needs identified on the basis of industry change, broad conclusions can be canvassed as to professional development/education needs:

1. **Everyone** (OHS practitioners at all levels, managers, technical specialists) involved at whatever level of OHS function, needs a **consistent** core of OHS knowledge, skills, abilities and attitudes/values (to be defined).
2. **OHS specialists** and **OHS strategy function** deliverers need:
 - a broad base of **business knowledge and skills** including broad knowledge about external factors that impact on business and the wider environment in which businesses operate
 - knowledge of the way organisations operate and how work is organised (the psychosocial)
 - to be effective change managers operating internally or externally (as consultants) to the organisations
 - the capacity to be critical thinkers and problem solvers so that they can develop and implement and measure/show the benefits of cost-effective OHS suitable for each particular organisation

- expertise in occupational health in addition to safety – public health knowledge would also be an advantage in recognising/addressing some of the emerging health-related issues.
3. **Managers and other professional functional managers involved in OHS management** need (in addition to the common core):
- to be able to adopt an integrated systems based approach to OHS
 - to apply methodologies which will deliver measurable cost-effective outcomes
 - to have a capacity to recognise the need for additional expertise specific to the task (and either acquire it for themselves or seek it from others).
4. **OHS implementers** need targeted knowledge and skills on specific issues on an 'as needs' basis to add to the common core. An understanding of the scope of OHS together with project management skills would appear fundamental to this role.

OHS AS A PROFESSIONAL DISCIPLINE

A fundamental issue arising from this project is the question of whether (or the extent to which) OHS is and can sustain itself as a separate generalist discipline or 'profession'. Clearly industry appears to not sufficiently understand, recognise or value OHS expertise and we need to understand why this is so.

Professional 'status' certainly impacts on the capacity of OHS practitioners to gain access to and influence critical decision-making. To the extent status is earned, the relatively low status of OHS practitioners reflects perhaps on the actual performance, competence and professionalism of OHS practitioners. Is the discipline able to demonstrate that it is able to deliver cost-effective responses to OHS issues in the business environment? After all, OHS is often referred to as 'common sense.'

If boards of management, CEOs, managers, HR professionals, IR professionals etc., don't have basic OHS knowledge, skills and **values**, OHS is unlikely to be considered in businesses and business decisions and OHS practitioners are unlikely to have input.

There may also be room to question whether or not the subject area of OHS is too narrow to sustain itself as a professional discipline within organisations in the long term. The concept of a multi-skilled practitioner with some combination of OHS/environment/HR/public health expertise may need be explored. Certainly the underlying capacities to problem solve, negotiate, consult and implement change in organisations are central to all these professions – so there is a common point of departure. One interviewee raised the question of whether there was a place for undergraduate OHS education at all.

CONCLUSION

It is increasingly challenging to work in the OHS field. Many reasons for this related to significant industry changes are outlined in this report. A rethink of the education and continuing education needs of OHS practitioners is needed and supported by interviewees from the educational sector and the professional associations.

It is interesting to compare the changes identified through this project as impacting on OHS education needs with the 'complex forces which have driven changes in occupational health and safety education' identified in the 1994 NOHSC *Guidance Note*:

- i. Changes in occupational health and safety laws*
 - ii. Increased concern with health and environmental issues*
 - iii. Increased national and State and Territory tripartite involvement*
 - iv. A move toward national uniformity in occupational health and safety; and*
 - v. Greater interest in the area by relevant professional groups, management and unions*
- 1.5 These changes have resulted in an increase in the number of people who are engaged in at least some occupational health and safety activities and have had a significant impact on the numbers and role of those who are totally or predominantly employed in occupational health and safety. This document focuses on the second category.*

The evidence from this project suggested that there is a need to consider the needs of 'those engaged in at least some OHS activities' as well as 'those totally or predominantly employed in OHS,' and that there is an opportunity for that to be done holistically.

ATTACHMENT 1

INTERVIEWS WITH INDUSTRY REPRESENTATIVES SUMMARY

Nineteen telephone interviews (with twenty-one interviewees) have occurred with the following industry representatives.

Process Manufacturing

- Training Consultant, process manufacturing industry (bricks, tiles, chemicals, oil and non-metallic).
- Director, Manufacturing Learning Australia, glass manufacturing.

Seafood

- NT Labour Council, traineeship liaison officer active on ITABs (seafood industry).
- owner of a fishing launch.

Mining

- AWU industrial coordinator, metalliferous mining, active on ITAB.
- HR Manager, Peabody Resources, Chairman National Coal Sector, VET Committee Member, NSW Minerals Council OHS Committee Member, Employee Relations Group.

Business Services

- Industrial Officer, ASU, Director Business Services ITAB.
- Industry Manager, VECCI, business services industry, assisting with Business Services Scoping Project.

Manufacturing

- OHS Manager, Australian Industry Group, manufacturing, transport and storage, construction, business services, health care, mining.
- Health and Safety Officer of Victorian Branch, Australian Manufacturing Workers Union.

Rural

- cotton farmer, Director of Qld Cotton (cotton ginning and marketing), Director Cotton Seed Distributors, represents industry on Farmsafe, member of Rural Training Council Board and RTC Farmcare committee, representative on National Farmers Federation.
- Organiser, Australian Workers, Union, primarily shearing industry.

Forestry (joint interview)

- Project Officer, National Forest Industry Training Board, The Forest and Forest Products Employment Skills Company responsible for the development of competency standards, training and education packages.
- OHS Advisor, Victorian Association of Forest Industries.

Construction

- Assistant National Secretary of Construction and General Division, Construction, Forestry, Mining and Energy Union, oversees OHS for the union, Chairperson for Insulation and Wool and Fibres Committee.
- Employee Relations Manager, Multiplex.

Utilities

- Manager HR Strategic Services, Western Power Corporation, on National Utilities and Electro-Technology ITAB.
- National Secretary, Communications, Electrical and Plumbing Union (CEPU), Divisional Secretary of Electrical Division, member of National Occupational Health and Safety Commission as ACTU rep., Chair of industry ITAB.

Furnishing (joint interview David Hoare and Glen Reinhard)

- Construction, Forestry, Mining and Energy Union (CFMEU) – Furnishing Trade Division, Divisional State Branch Secretary of Victorian State Branch, Divisional Assistant Secretary of the Furnishing Trade Division, nationally.
- General Manager, Sealy (bedding furnishing), Chair of Australian Light Manufacturing Training Board, Chair of manufacturing section of the Light Manufacturing Training Board (textiles and furnishings), present Vice President of the Furnishing Industry Association, previous President of the NSW Furnishing Industry Association.
- Sealy Operations Manager, member of a NSW Furnishing Industry Association sub-committee on Workers Compensation.

These interviews have been transcribed and a content analysis prepared. Major themes have been extrapolated from the content analysis, and this draft summary prepared.

MAJOR CHANGES

The major themes relate to workforce deregulation, downsizing and restructuring, deregulation of IR and OHS, and increased competitiveness.

- Outsourcing – widespread, significantly affecting all industries represented, except farming not as widespread. Particular OHS impacts in relation to ensuring responsibility taken by contractors for their workers and work practices.
- Decentralisation of industrial relations – enterprise bargaining, leading to increased hours of work, and more flexible hours of work which is of concern in many industries (business services, construction, shearing, manufacturing, transport and storage, mining, health care).
- Mergers – larger and fewer companies buying more capital equipment and employing fewer people (forestry, manufacturing) but on positive side are more aware of safety (seafood, cotton farming).
- Flattened structures – loss of middle management, responsibilities, e.g. for day-to-day OHS pushed down to next level.
- Increased international competitiveness, increased and new technology, fewer production line jobs (glass manufacturing).
- Technological change – greater automation; positive effect with regard to OHS for some industries (process manufacturing, fishing, glass manufacturing, forestry, shearing, farming); in balance in negative for others (clerical/business services, manufacturing, shearing).
- Regulatory changes – increased for some (fishing, forestry, mining [Qld]) deregulation for others (construction, manufacturing). Some question relevance of OHS regulations as not followed (mining, construction).
- Drop in prices or demand for commodities and increased competitiveness (mining, shearing, forestry, glass manufacturing, construction, farming) leads to shortcuts in OHS.
- Constant pressure for increased efficiency, benchmarks lowered, safety compromised in smaller operations (construction).
- Reduction in piecework, move to salaries, contributing to longer hours, difficulty to get participation in training (process manufacturing, mining).

- Workforce development – desire for better educated, more skilled workers, generally. For some industries this was particularly so (fishing, clerical/business services, glass manufacturing, mining). Traineeships seen as contributing to development of a career path.
- Younger workforce – tertiary educated, professional attitude to industry and environmental and safety issues (cotton farming, forestry).
- Increased awareness of OHS responsibilities and legislation (process manufacturing, cotton farming) but some industries finding it harder to implement OHS because of deregulation of labour market and OHS (mining, construction, shearing).
- Ageing workforce for some industries (process manufacturing, seafood, mining), not so for others (business services, forestry, farming) where either move into consultancy roles, retire early or possibly target for redundancies.
- Attitude to safety – due to deregulation of labour market, IR changes, workers reluctant to raise issues due to considerations about future contracts, confusion about whose responsible (construction) or lack of interest in some industries as a career (shearing).
- Legislative requirements for competency based training (forestry).
- Changes in IR legislation in relation to union participation in workplace consultation, OHS issues not raised as often, not dealt with (manufacturing).

Other issues

- Technology allowing work from home (business services).
- Fluidity of women in workforce (business services).
- Introduction of women in workforce (shearing) positive in that it allows for double income, negative in that it removes training ground for young males.
- Lifestyle – whereas used to live on the job, now people drive 150 km a day to and from jobs (shearing).

NATIONAL INITIATIVES

- Some industries have competency-based standards which are starting to have an impact. This is occurring in industries as part of their National Training Agendas with uptake initially by larger companies (process manufacturing) and where certification has become part of a regulatory requirement for the industry (forestry, mining Qld).
- Some industries are getting national initiatives off the ground (business services, some rural).
- In others, nothing is happening on a national level (construction, process manufacturing, farming at grower level).

IMPLICATIONS FOR HEALTH & SAFETY

The most noticeable effects in discussion of risk are:

- OHS impact of contracting in terms of ensuring that contractors accept and manage their responsibilities, uncertainty re: accuracy of OHS reporting, whether OHS training is provided, whether people know who to report safety issues to, concern that OHS issues won't be raised for fear of not being offered future work.
- Workforce restructuring – people having to do more with less, OHS responsibilities being pushed down to workers with production responsibilities as well, who may be lacking in OHS training. Drawback of teams approach is that broader issues are not raised. Complex, difficult issues being delegated to staff not trained to deal with them. Potential for strategic direction to be lost as this depends on senior management attitudes.
- Uncertainty about whether decrease in OHS stats is due to safety improvements or downsizing of workforce.
- Ensuring that the current emphasis on safety systems also monitors follow through on implementation, rather than the creation of a paper trail as evidence of 'due diligence'.
- Technology has significantly reduced many risks, particularly in heavier industry. Biggest concern is the creation of new risks due to inadequate training, some risks may not be apparent initially. In lighter manufacturing concerning trends are appearing re: task specialisation.

- Increased competitiveness, forcing resources into areas other than safety and compromising safety to cut costs.
- The addition of the emerging issues of stress, longer, more flexible working arrangements and balance of work/leisure, speed of living, information technology.
- Safety not a priority for smaller companies and farmers in comparison to economic survival.
- Risk management approach of legislation too daunting for smaller operators, preferred direct approach, rely on OHS experts for information.
- Changes to industrial awards, in some industries, unless OHS is regulated, nothing gets done.
- Conflict between philosophy of collective risk management approach and social values of competitiveness.

SIGNIFICANCE OF OHS

- All agree that the importance of the OHS issues facing their industry is increasing considering the changes mentioned earlier, but many felt that whilst senior management may have good intentions, the drive for competitiveness continued to present a conflict for resources. Larger companies are more likely to be proactive, smaller companies will do what's necessary, OHS tended to be pushed into the background behind the pressing day-to-day issues.
- Most considered that the priority for OHS was lower than it should be and in some industries this is changing. However, some cannot see this happening if OHS standards are not enforceable and penalties are inconsistently applied.
- Concern exists that management 'preach but don't practice'. Procedures, manuals etc. are produced but they fall down on action.
- Two representatives consider that OHS is going backwards in their industry due to deregulation and IR changes.
- In manufacturing, OHS issues are addressed in the context of productivity or quality improvements.

HOW OHS IS SERVICED

This varies across and between industries. This section will be expanded to include how OHS functions are distributed and the qualities, skills and attributes required where specialist OHS positions continue to exist.

- At a corporate level, some companies continue to have a national OHS manager, often this function integrated with Employee Relations and Environment functions with a strategic role in policy and safety system development.
- Dedicated OHS positions exist in high risk industries and large companies; however, these people are more likely to report to an HR Director and have a role in implementing safety systems, monitoring them, training re: legislation, provision of advice in how to manage issues.
- Where dedicated OHS positions exist, tertiary qualifications are viewed as desirable, they also need management skills in how to motivate people to be committed to safety and drive an issue to achieve a result.
- Depends on the size and structure of the company. For example logging and contracting have a syndicated structure, one OHS officer for a number of contractors.
- In other industries, few dedicated OHS positions exist. OHS positions are more likely to be integrated – mainly into either operations management, Occupational Health Nurse, HR. A few commented that whilst this has positive effects, it can also mean that strategic direction is missing and safety systems are haphazard.
- Also some discussion of role of this integrated OHS function – not seen as having to have great expertise and ability to come up with solutions, more an ability to understand the systems approach to safety and know what needs to be done, so that they can then locate suitable external specialist expertise and bring in.
- This is reflected in use of consultants - for policy and system development and set-up, auditing, training, risk management in situations which are difficult, not quite routine, require more rigor or specialist knowledge (e.g. chemicals). Smaller companies may have a consultant on a retainer, rather than have an OHS specialist on staff.

- In larger companies, there is a move for safety accountabilities and functions to be spread amongst managers, supervisors' issues supported by Occupational Health and Safety Committees and OHS reps where they exist. Team participation in risk assessment and hazard management.
- Concern that in smaller companies, safety responsibilities are pushed down to production managers and pushed into the background of day-to-day priorities until an accident happens.
- Farms, particularly at grower level, do not commonly participate in OHS risk management. OHS is not a high priority for smaller operators. Larger companies will use consultants for specific issues.

EXTERNAL COURSES FOR OHS

- OHS committee training – OHS authority prescribes courses and providers
- external experts for specific risks, e.g. manual handling or chemicals
- two to three day courses in hazard assessment – TAFE or private providers
- industry association and union courses on specific hazards
- AWU – training for OHS delegates and shop stewards
- certification courses with OHS modules – TAFE, safety councils
- plant and construction safety – UNSW Department of Safety Science
- Graduate Diploma in Hazard Management – University of Ballarat
- formal courses by Holmesglen TAFE , University of Ballarat, Footscray TAFE, La Trobe University
- NSCA type organisations.

SELECTION OF OHS CONSULTANTS

It appears that consultants are mainly used by medium sized organisations as larger organisations tend to have a corporate specialist and smaller organisations use them on an ad hoc basis, in response to an accident or a WorkCover report. Many interviewees expressed dissatisfaction with consultants and stated what they looked for most when selecting a consultant included:

- good industry experience, track record and reputation most important
- qualifications at tertiary level, may need specific, e.g. chemicals
- whether able to express understanding of the job and sell a plan in writing
- competency
- price
- whether willing to give you tools to use.

ATTACHMENT 2

INTERVIEWS WITH VET AND HIGHER EDUCATION SECTOR SUMMARY

INTERVIEW SAMPLE

Twelve representatives (course coordinators/lecturers) from 10 educational institutions were interviewed (interview tool, see Attachment 5).

- University of Newcastle
- University of Western Sydney
- Northern Territory University
- Queensland University of Technology
- University of SA
- University of Ballarat
- Holmesglen Institute of TAFE
- IFAP
- Hobart Insitute of TAFE
- Canberra Institute of Technology.

The level of OHS courses offered by the institutions were as follows:

Course level	Number of respondents offering courses at this level
Certificate level 3	3
Certificate level 4	5
Graduate certificate	5
Diploma	5
Undergraduate degree	5
Graduate diploma	5
Masters	5
PhD programs	1
Modules available	3

INTERVIEWEES

1) Institution: University of South Australia.

Courses offered/qualifications/throughput

- Integrated graduate Certificate/grad Diploma/Masters in OHS Management – offered jointly by International Graduate School of Management, University of SA, and Department of Public Health University of Adelaide.
- Commenced last year, intake seven in Grad Cert, up to 20 in Grad Dip/Masters. Prior to this they ran a graduate Diploma each, used to have about 15 per year, have now joined forces and expanded the range.
- Also have OHS at undergraduate level, not a full course, cover Health and Safety Management, undergraduate ER, HR/IR areas – about 100 students per year.

2) Institution: Northern Territory University.

Courses offered/qualifications/throughput

- Certificate 3 (1st year), 4 (2nd year), Diploma of OHS (three years P/T internal and external), about 115 students per year, about 45 internal, rest external all around the world.
- Bachelor of OHS – degree course, enrolments still being taken, about 20 P/T, internal and external, franchised from the University of Central Queensland.
- OHS modules – entry level trades, office skills, all national modules, everything to do with OHS comes through the school and they also do delivery.

3) Institution: Queensland University of Technology.**Courses offered/qualifications/throughput**

- Bachelor of Health Sciences (OHS) – quota 35 per year. Since '93, there have been 79 graduates
- Grad Dip OHS – quota 45 per year.
- Master of Health Sciences – range of strands, not just in OHS.
- Honors year attached to B. Health Sciences, three currently enrolled.

4) Institution: Holmesglen TAFE.**Courses offered/qualifications/throughput**

- National Diploma in OHS – Certificate 3, 4 and full diploma – about 165 students enrolled, about 25 grads per year. Fewer Cert 4 as didn't exist before '97 – grads this year, Cert 3 25. 30 grads per year
- Graduate Certificate in Integrating Management Systems – getting accredited by State training Board – Victorian Office of Training and Further Education. Postgraduate Course, integration of OHS, environmental management systems, Quality Management systems (as per ISO standards).
- Entrepreneurial arm:
 - OHS consultancy (another department); does OHS reps training, specific OHS subjects, WorkCover courses, entrepreneurial industry focus.

5) Institution: University of Ballarat.**Courses offered/qualifications/throughput**

- Graduate Diploma in Occupational Hazard Management – about 40 per year, increasing over the last 20 years.
- Graduate Certificate in Occupational Hazard Management – first time offered this year, a couple of students.

- Master of Applied Science (OHS) – approx. four to 10 per year over the last six years.
- PhD programs.
- Certificate 4 in OHS – run by TAFE Division.

6) Institution: IFAP – Like NSCA, not for profit, private foundation, train about 8000 per year ranging from basic mine safety, forklift driving to diploma in safety for project managers.

Courses offered/qualifications/throughput

- Safety Practitioners – Certificate 4 four courses per year, about 60 students per year.
- Diploma in OHS for project managers – 2nd course now, bring to about 16 graduates, expect 30–50 per year.

7) Institution: University of Newcastle, School of Health Sciences.

Courses offered/qualifications/throughput

- Bachelor OHS – about 48 in first year. End of last year is first group of graduates, started as a P/T course, grew out of Associate Diploma, now full time.
- Graduate Certificate in OHS – 58 students, offered by distance learning, in current form been going for three years, about 40–50 per year. Makes up the first year of Graduate Diploma.
- Graduate Diploma in OHS – 53 students. Second year in current form as distance learning, previously was an on-campus course, about 12 students per year.
- Masters – 12 enrolled in two-year part time, need grad Dip or equivalent.

8) Institution: Hobart Institute of TAFE.

Courses offered/qualifications/throughput

- OHS Certificate 4 – two courses per year, approx. 14–15 per class.
- OHS Diploma – once a year, 14 per class.

9) Institution: Canberra Institute of Technology.

Courses offered/qualifications/throughput

- Certificate 3 OHS – approx. 30 per year.
- Certificate 4 OHS – approx. 15–17 per year.
- Diploma in OHS – b/w 8–12 per year.
- Short course in OHS – approx. 100 students per year.
- Each trade course at CIT has a 20 hour module of OHS.

10) Institution: University of Western Sydney, Hawksbury.

Courses offered/qualifications/throughput

- B.App.Sc (Occupational Health and Environment) – approx. 50 students across the 3 years, 15 grads. this year, fairly stable
- Graduate Certificate in Occupational Health Nursing – 10 students, four graduates.
- Graduate Diploma of Applied Science (OHS) – approx. 20 students, 10–15 graduates.
- Graduate Diplomas of Applied Science (Occupational Hygiene) – approx. five students, new major.
- Master Applied Science (OHS) – 10 students, approx. 10–15 per year graduate.
- Master Applied Science (Occ. Hygiene) – three students, one grad so far.
- Master Applied Science (Safety Management) – four to five students, five grads so far.

SUMMARY OUTCOMES

CONTEXT

Respondents highlighted the following changes occurring in industry:

- companies under economic pressure due to global economy and competition
- increases in contracting out and outsourcing (including OHS)
- increasing casualisation and part-time work – more transient workforce
- downsizing – so ‘more with less’ philosophy
- longer work hours
- shift from heavy industry to tertiary sector
- increased multi-skilling and adoption of new technology
- weakening of trade union power
- increased awareness in the community of OHS and environmental concerns; coupled with low profile for OHS
- moves to greater deregulation, performance based-regulation, less prescriptive
- greater awareness of potential for criminal charges
- frequent regulatory change in OHS
- information technology changing the nature of work, can create or reduce risk, can contribute to delivery of OHS information
- cost cutting seen as contributing directly to safety hazards at sites (less training, longer shifts etc.)
- state governments focusing on reducing compensation system costs rather than prevention
- more stress put on older workers who are less capable of adapting to change

- bigger percentage of problems in office/sedentary occupations – rise in occupational health issues such as stress
- OHS devalued in the workplace – tendency to view it as non-essential
- OHS only has a place if linked to profitability.

IMPLICATIONS FOR OHS PRACTICE

- OHS professionals expected to be environmental managers as well; less demand for OHS specialists.
- OHS practitioners:
 - have less and less time to move from experience to learning – less time to develop ideas, approaches
 - are subject to increasing demands to have the breadth of experience and ability to respond to a continually changing environment – need for problem solving skills
 - require increasing knowledge of health and psycho-social issues.
- Decreased role of unions – leading to need for stronger consultative structures and local (site) dispute resolution; changes have made the integration of management systems, consultative structures and controls more complex.
- Management need training – need short courses in how to effectively deal with changes.
- Outsourcing has a range of impacts:
 - grey areas in terms of OHS management responsibility
 - less access to training for contractor employees
 - OHS itself is being outsourced.

Response needed by tertiary education to change

- Postgraduate education of OHS specialists should:
 - address special issues such as OHS risk in contracted work

- look at diverse approaches to OHS management systems to suit different types of organisations, not just focus on those that suit medium/large business
 - increase focus on political, economic, IR, employment and psycho-social factors
 - develop students into life-long learners – inculcate these attitudes
 - make practitioners aware of how organisations work structurally – understand how to get things done in organisations
 - have a broader depth of knowledge, more people-oriented skills than ‘technical’ skills – better at strategic planning and marketing.
- OHS learning has to be problem based rather than academic – experiential learning is required; need to develop critical and lateral thinking about OHS issues and develop high level verbal (negotiation) and written communication skills.
 - Broaden the base of OHS education – include OHS in management and business education at the moment HR and ER education are more of a priority:
 - develop OHS streams/units for business courses and engineering courses
 - adapt courses to suit needs for integration of OHS and environment
 - make programs more attractive to professionals in other spheres (undergraduate courses won’t change – their content is full), – e.g. get better at using distance learning
 - make modules more discrete so students can undertake courses in stages as needed (i.e. more flexibility).
 - Role of educational institutions is to develop critical thought amongst graduates so that they can contribute to change; in the past there was more opportunity/freedom to develop critical thinking in the university curriculum, now there is more of an emphasis on technological rather than social aspects.
 - Increasing need for people doing occupational health to have qualifications to back up employment experience – this is increasing professionalism.
 - Institutions need to keep contact with industry, through for example, working committees, professional associations, graduates and people involved in teaching – this is difficult and time consuming.

Adjustments made by tertiary institutions

Respondents report continual and regular changes in courses.

Some comments about the change process:

- Change is laborious and cumbersome due to the need to consult widely and submit changes for approval, e.g. through faculty boards, OTFI etc.
- Struggle in course design to provide the ideal depth of course content (e.g. law, management strategies, etc.) in the time available.
- Have made small changes, but will use upcoming accreditation process to introduce bigger ones.
- Economic pressures forcing us to stay in line with ACTRAC *Curriculum*. The cost of developing new courses is too large and transportability issues arise if move outside of *Curriculum* for students transferring between institutions.

Some of the changes made include:

- OHS students now taught broad principles of environmental management, ecologically sustainable development and the integration process.
- Introduction of diploma in OHS for project managers to give professional OHS skills to project management professionals. Format is being 'chunked' to make it more accessible and distance learning option also being developed.
- Have introduced changes to increase experiential learning component and direct workplace experience for undergraduates.
- Adjusted courses to include conflict resolution and negotiation techniques.
- Continual review of subjects to check relevance. If gap identified – introduce a new subject, e.g. auditing.

ATTACHMENT 3

INTERVIEWS WITH OHS PROFESSIONAL ASSOCIATIONS SUMMARY

DEFINITIONS AND ABBREVIATIONS USED

Generalist OHS practitioners are defined as: 'the person(s) employed within or by organisations (e.g. on a consultancy basis) to advise/direct OHS strategy and activity'.

ACOHN	Australian College of Occupational Health Nurses Inc
AFOM	Australasian Faculty of Occupational Medicine
ANZAOHSE	Australian and New Zealand Association of Occupational Health and Safety Educators
ESA	The Ergonomics Society of Australia Inc.
GN	<i>Guidance Note for the Development of Tertiary Level Courses for Professional Education in Occupational Health and Safety</i> [NOHSC 1994]
OHS	Occupational Health and Safety
SIA	Safety Institute of Australia.

METHOD

Representatives of five professional OHS organisations were interviewed.

1. ACOHN
2. AFOM
3. ANZAOHSE
4. ESA
5. SIA

A standard interview format was used which NE&A developed (see transcripts). All interviewees had been requested by mail to participate approximately one month before interview. This was to enable them to consult with their membership prior to the interview. When interviews were being set up, the ACOHN and SIA representatives requested that the interview questions be faxed to them in advance of the interview so that they could consider their answers. This was done. All interviews were conducted by telephone.

FINDINGS

Proportions of members employed in generalist OHS positions

ACOHN	up to 90%
AFOM	nil
ANZAOHSE	minority of members
ESA	majority
SIA	approx 75%

Industrial changes identified in recent years (in alphabetical order)

- 'ageism', i.e. not wishing to employ anyone over 50 (ACOHN, SIA)
- constant change (ESA)
- economic change including pressures towards profitability (ACOHN, SIA)
- hours of work (ESA)
- industrial relations change (ACOHN)
- insecurity re work situation (ESA)
- internationalisation (ANZAOHNE)
- multi-skilling (SIA)
- organisational change (ACOHN, AFOM)
- political change (ACOHN)
- social change (ACOHN)
- structural change, e.g. contracting, contingent workers, downsizing, self-managed teams, outsourcing, part-time work (ACOHN, AFOM, ANZAOHSE, ESA, SIA)
- technological change (ACOHN, ANZAOHNE).

Impact of industrial changes in general, and on OHS in recent years

- 'Ageism'

Sacking people over 50 (ACOHN) for both social and skill based reasons.
Skills need to be up-to-date.

- Constant change

Need more than ever to address so-called 'soft' issues such as 'stress' (SIA).

- Economic change including pressures towards profitability

Need to be able to 'do more with less', e.g. nurses doing own noise level measurements, and manage a budget such that a cost centre is changed to a profit centre; need shorter payback periods for interventions (ACOHN, ANZAOHSE, SIA); shift to smaller OHS units which means it gets less priority and exposure (ANZAOHSE); small business will remain under-served by OHS services (ANZAOHSE).

- Hours of work

People, including OHS professionals, typically have a bigger portfolio of work with less time to do it in (ANZAOHSE).

- Organisational change

Need for OHS professionals to see the 'big picture' and be part of a multi-disciplinary team which is capable of representing the view of the worker in the context of the organisational objective and the needs of other stakeholders (ESA).

- Political change

OHS is being 'de-emphasised' (SIA).

- Structural change

Outsourcing OHS professionals (AFOM); fewer people know the industry well (AFOM); greater specialisation among consultants (AFOM); it is more difficult to do OHS research because the study population is more diffuse and less accessible (ANZAOHSE). Opportunities for corporate employed OHS professionals decreasing (ESA). OHS is 'slipping' in various areas (SIA).

Apparent impact of Guidance Note

- Usage of *GN* in the development of competencies:

ACOHN	No – competencies developed in 1993 (before <i>GN</i>)
AFOM	No – competencies developed in 1989/90 (before <i>GN</i>)
ANZAOHNE	No – does not have competencies
ESA	No – use of consultant who did not refer to <i>GN</i>
SIA	No – competencies developed before <i>GN</i>

- How the *Guidance Note* could be more useful. It was considered that the *GN* could be more useful if it:
 - were applicable to the (government) accreditation of OHS courses (rather than simply relying on institutional self-accreditation) (ANZAOHNE)
 - provided more relevant, detailed competencies (ANZAOHNE)
 - listed available courses (ACOHN)
 - articulated courses (e.g. TAFE with tertiary) or provided ideas about the process (ANZAOHSE)
 - gave an industrial perspective (ANZAOHNE, ESA)
 - embraced a ‘life-long learning model’ (ANZAOHNE)
 - reflected international trends (ESA).

VET education

Relevance:

- needs to be industry and outcome focused (ESA, SIA)
- a lot of science has been eliminated which has made the courses ‘a bit soft’ (SIA)
- a need to approach hazard management in such a way as to ‘tie it all together’ (SIA) – currently there is a lack of pre-conceptual themes, e.g. risk assessment, accident causation and investigation (SIA).

Quality:

- the national TAFE curriculum has in some cases downgraded courses (SIA)
- variable (ACOHN, SIA)
- a ‘bit ad hoc’ (SIA).

Concerns:

- TAFE qualifications not necessarily portable from state to state (ACOHN)
- heterogeneous quality of TAFE courses (ACOHN, SIA)

- OHS professionals have very little say in curriculum (ANZAOHNE, SIA)
- lack of articulation with tertiary sector (ANZAOHNE)
- poor quality of teachers (ACOHN, ESA, SIA)
- insufficient 'hard' science in the courses (SIA)
- insufficient relationship between courses and industry (SIA).

Tertiary Education

Relevance:

- need to provide short, relevant courses for areas not covered, such as audiometry (ACOHN).

Quality:

- varies (ACOHN).

Concerns:

- whether or not courses can meet the needs of industry (SIA)
- relevance of courses in local industrial context (SIA)
- cost of courses (ACOHN, AFOM, ESA)
- downturn in number of courses offered (AFOM)
- difficulties with recruiting suitable teachers (AFOM, ESA)
- requirements of faculty to bring 'business' to universities (SIA)
- lack of infrastructure for courses (AFOM)
- poor quality of course marketing material (ACOHN, SIA).

ATTACHMENT 4

LIST OF INDUSTRIES CONSULTED

Industry Consultations

Process Manufacturing

- Training Consultant
- Manufacturing Learning Australia

Seafood

- NT Labour Council
- Owner of a fishing launch

Mining

- AWU industrial coordinator
- Peabody Resources

Business Services

- Industrial Officer, ASU
- Victorian Employers Chamber of Commerce and Industry

Manufacturing

- Australian Industry Group
- Victorian Branch, AMWU

Rural

- Cotton farmer, Qld Cotton,
- AWU

Forestry

- National Forest Industry Training Board
- Victorian Association of Forest Industries

Construction

- Construction and General Division Construction, CFMEU
- Multiplex

Utilities

- HR Strategic Services
- Electrical and Plumbing Union

Furnishing

- Construction, Forestry, Mining and Energy Union
- Sealy

VET AND HIGHER EDUCATION SECTOR INTERVIEWEES

- University of South Australia
- Northern Territory University
- Queensland University of Technology
- Holmesglen TAFE
- University of Ballarat
- IFAP
- University of Newcastle, School of Health Sciences.
- Hobart Institute of TAFE
- Canberra Institute of Technology
- University of Western Sydney, Hawksbury

PROFESSIONAL ASSOCIATION INTERVIEWEES

- (ACOHN)
- (AFOM)
- (ANZAOHSE)
- (ESA)
- (SIA)

ATTACHMENT 5

INTERVIEW TOPIC GUIDE

INDUSTRY REPRESENTATIVES

INDUSTRY REPRESENTATIVES

Worksafe Australia (the National Occupational Health and Safety Commission) has initiated this project to scope the long-term professional development needs of generalist OHS practitioners. We are talking with a number of industry representatives to identify the major changes happening in industry and how they might impact on occupational health and safety and the knowledge and skill needs of OHS practitioners.

Interviewee

Industry:

Your name:

Your company and position:

Role in industry/key positions held:

Time in industry:

If the representative is unable to give an industry perspective, seek a view from his or her own company's perspective. Participants will be advised of the topic areas by letter prior to the telephone interview. Use prompts only after interviewee has made initial response.

The impact of change

We are going to begin with a quite broad question about change in your industry.

1. Describe the **major changes** taking place to your industry or in the environment in which your industry operates that will have an impact on companies?

Prompt where necessary; aim to identify issues at the level of those specified in italics.

- Economic change (*e.g. Asian crisis, trade, profitability*)
- Structural change (*e.g. mergers/moves off shore*)
- Political change (*e.g. legislation*)
- Social change (*e.g. employment, nature of workforce, demographics, age, skill, education*)
- Technological change (*e.g. major changes in work process*)

- Industrial relations change (*e.g. awards, bargaining, contracts, role of unions*)
 - Organisational change – changes in the way work is organised or organisations are structured (*downsizing/outsourcing, management trends/approaches*).
2. Are there any initiatives at an industry, state or national level, which aim to address these issues and what impact are they having (e.g. industry training agendas)?
 3. What is the significance of OHS in the context of other major issues confronting the industry? Is this changing? If so, how?
 4. Do any of the changes you identified have implications, in your view, for the health and safety risks you are currently, or may be, confronted with? If so, describe how.

Employment of generalist OHS practitioners

I want to ask you some questions about how health and safety risks are dealt with in your industry, and if you do have specially designated OHS positions, what it is those people do.

5. What positions do organisations in your industry have which are focused on managing the health and safety risks? Consider **site** and **corporate** levels.

Prompt:

- *Do they have specially designated OHS positions?*

If not:

- *How is it done? (Obtain detail on who does what if this is the case).*

6. If there are specially designated OHS positions:

- What are their position title(s)?
- Who would they most commonly report to? (GM, site manager, HR manager, quality manager, production manager, etc.)
- What is their relative level in the organisation?
- Do they have **joint** responsibilities?

- What are those joint responsibilities? *Prompt – environment, quality, training, human resources, workers compensation, rehabilitation, loss control.*
 - What do they do?
 - What are the **three** most important things they do?
 - Has this job changed in the past three to five years? How?
7. Do companies in your industry use OHS consultants? (*Rarely, occasionally, often.*)
8. For what types of activities would consultants be used?

Education and training of specially designated OHS people

I now want to talk about the skills, knowledge and competencies of people working in specially designated OHS positions and the types of qualifications they have and the courses they attend. But first a general question about OHS training.

9. What external OHS specific training/education courses do companies in your industry use most commonly?
10. Who runs them?
11. Who attends them?

Permanent Employees

Now some questions relating to employees in specially designated OHS positions.

12. What is the level of satisfaction with knowledge and skills of people in organisations in your industry with a role of managing OHS risks?

Explain why you say that.

Consultants

I want to talk about your industry's use of OHS consultants.

13. On what basis would you select an OHS consultant? Their:
- Qualifications?
 - Certification? With whom?
 - Membership of professional bodies?

- Experience?
 - Reputation?
 - Other? (*Specify*)
- 14.** What is the level of satisfaction with the competencies of OHS consultants?
Specify – very satisfied, satisfied, unsatisfied, very unsatisfied.
- 15.** Please explain why you say this.

THANK YOU VERY MUCH FOR YOUR TIME AND INFORMATION.

ATTACHMENT 6

INTERVIEW TOPIC GUIDE

VET AND HIGHER EDUCATION SECTOR

VET AND HIGHER EDUCATION SECTOR

* Confirmation of courses/qualifications delivered to be done prior to interview.

Interviewee

Name:

Institution/position:

Qualifications:

Role with respect to OHS course development/delivery:

Length of time in role:

The first set of questions relates to changes in industrial working environments, changes in employment arrangements and other changes in the broader community which may have implications for OHS.

1. What do you think are the most significant changes in industrial (includes rural) working environments in recent years?
(List)

2. Do you think these changes have any implications for OHS practice in the workplace?

If so what are they?
(List)

If yes:

In (1) what areas should, and in (2) what ways can, tertiary education for OHS practitioners address these changes?

Have you needed to adjust/are you adjusting your current courses to accommodate these changes?

If not why not? What are the obstacles/difficulties?

3. If **no** implications seen:

Do you think current educational courses address these changes satisfactorily?

Could you please give examples.

4. Are you aware of any change in demand for your OHS courses, or the types of professional OHS education wanted? If so, how?
5. What have been/are the reference points, standards, benchmarks for design and updating of your OHS courses?
6. Are you aware of NOHSC's *Guidance Note for the Development of Tertiary Level Courses for Professional Education in OHS* [NOHSC:3020](1994)

Have you used it?

If yes:

How have you used it?

How useful or relevant was it?

Any part particularly useful/a problem?

Is there a need for a publication/guidance such as this?

If yes:

Who and how should it be developed/maintained?

What should it contain?

If aware but not used:

Why?

What used as benchmarks/reference points for course content?

7. Are you aware of the national occupational health and safety curriculum funded by ANTA and distributed by ACTRAC?

Have you used it?

If yes:

How have you used it?

How useful or relevant was it?

Any part particularly useful/a problem?

Is there a need for a publication/guidance such as this?

If yes:

Who and how should it be developed/maintained?

What should it contain?

If aware but not used:

Why?

What used as benchmarks/reference points for course content?

8. Given the changes we have discussed:

- What do you think industry needs from its OHS practitioners that is new?
- Do you think this requires changes to the content of, or way professional OHS education and training is currently done?
(list)

If **yes**, what are these and how can it be done?
(List)

9. Are you able to undertake any follow-up or evaluation of the performance of your graduates? If so, what is this telling you?

THANK YOU VERY MUCH FOR YOUR TIME AND INFORMATION.

ATTACHMENT 7

INTERVIEW TOPIC GUIDE

OHS PROFESSIONAL ASSOCIATIONS

OHS PROFESSIONAL ASSOCIATIONS

Interviewee

Name:

Association/position:

Specialist role in education if any:

Length of time in role:

Membership requirements

(May be sent prior to or post interview)

1. How many members does your organisation have?
2. What categories of membership does your organisation have?
3. What are requirements of membership of your association?
4. What are the acceptable courses for membership?
5. What requirements does your organisation have for continuing education?
6. What proportion of your organisation's members are employed in **generalist** OHS practitioner positions?

Industry change and its impact

7. What do you (your Associations membership) think are the most significant changes in industrial (includes rural) working environments in recent years?

Prompt where necessary aim to identify issues at the level of those specified in italics:

- Economic change (*e.g. Asian crisis, trade, profitability*)
- Structural change (*e.g. mergers/moves off shore*)
- Political change (*e.g. legislation*)
- Social change (*e.g. employment, nature of workforce, demographics, age, skill, education*)

- Technological change (*e.g. major changes in work process*)
 - Industrial relations change (*e.g. awards, bargaining, contracts, role of unions*)
 - Organisational change – changes in the way work is organised or organisations are structured (*downsizing/outsourcing, management trends/approaches*).
- 8.** Do you think these changes have any implications for OHS practice in the workplace?
- If so what are they? (*List*)
- Prompt (if necessary):
- What impacts do you see these changes having on (1) the role and (2) skill and knowledge base of generalist OHS practitioners in future?
- 9.** In (1) what areas should, and in (2) what ways can, tertiary education for OHS practitioners address these changes?
- 10.** In the context of the changing environment, what is your organisation's view of the (1) usefulness, (2) role and (3) impact of the *Guidance Note* for the development of tertiary level courses for professional education.

View of training/education

- 11.** Given the needs of industry, what is your perception of the relevance/quality of generalist OHS training from the VET sector (TAFE/certificate/diploma level)? Please explain why.
- 12.** Given the needs of industry, what is your perception of the relevance/quality of generalist OHS training from the higher education sectors (university diploma/degree/postgraduate)? Please explain why.

Member competencies

- 13.** Has your organisations defined the competencies (skills/knowledge) expected of its membership? (If so, could you please send us a copy)

If no go to Q 14.

If yes:

- 14.** How were they developed?

15. Was the *Guidance Note for the Development of Tertiary level Courses for Professional Education in OHS* used? If it was used, how helpful was it?
16. To what extent do these competencies cover the requirements of **generalist** OHS practitioners?
17. How well equipped are your members to perform **generalist** OHS functions? What additional competencies do they require?

THANK YOU VERY MUCH FOR YOUR TIME AND INFORMATION.