



PERTH WORK SAFE 2010 FORUM • PROGRAM AND PAPERS

A Safe Work Australia Week event

WORKING TOGETHER
FOR SAFETY AND HEALTH

HYATT REGENCY PERTH
99 Adelaide Terrace, Perth

8.00am registration for 8.30am start

TUESDAY 26 OCTOBER 2010

www.worksafe.wa.gov.au 1300 307 877



Government of Western Australia
Department of Commerce



commission
for occupational
safety and health



safe work australia

PROGRAM

8.00am	REGISTRATION Tea & coffee
8.30am	WELCOME Nina Lyhne, WorkSafe WA Commissioner WELCOME TO COUNTRY
8.50am	OPENING ADDRESS Hon Helen Morton, MLC, Parliamentary Secretary to the Premier and Member for East Metropolitan Region
9.10am	A CHANGING SAFETY CULTURE Dr Travis Kemp, Managing Director and Chief Psychologist, The Teleran Group
9.50am	QUESTIONS
10.00am	HARMONISATION - WHAT DOES IT MEAN FOR YOUR WORKPLACE? Nina Lyhne, WorkSafe WA Commissioner
10.30am	QUESTIONS
10.40am	MORNING TEA
11.10am	CONCURRENT SESSIONS - ROUND 1 (FIRST CHOICE)
12.00pm	MOVE TO NEXT CONCURRENT SESSION
12.10pm	CONCURRENT SESSIONS - ROUND 1 (SECOND CHOICE)
1.00pm	LUNCH
2.00pm	CONCURRENT SESSIONS - ROUND 2
2.50pm	MOVE TO GRAND BALLROOM
2.55pm	HOW TO SURVIVE AS A TEAM IN UNCERTAIN TIMES Anh Do, 2008 Comedian of the Year
3.55pm	FORUM OVERVIEW Nina Lyhne, WorkSafe WA Commissioner
4.05pm	FORUM CONCLUDES



MENU

10.40am

MORNING TEA

WHERE

GRAND BALLROOM - NORTH AND SOUTH FOYERS

Danish pastries

Fruit platters

Coffee, selection of teas, orange juice and iced water

1.00pm

STAND UP WORKING DELEGATE BUFFET LUNCH

WHERE

GRAND BALLROOM - NORTH AND SOUTH FOYERS

Mixed bean salad with fresh herbs and linseed oil

Roma tomatoes in basil oil

Potato and roasted pumpkin salad with toasted walnut pieces

Mesclun with French dressing

Spinach and ricotta rotolo with tomato basil cream

Chicken katsu with tonkatsu sauce on green soba tea noodles
with shiitake and snap peas

Slow roasted rump of beef carvery

Platter of seasonal fruit

Bread and butter pudding with butterscotch sauce

Coffee, selection of teas, orange juice and iced water







**SPECIAL DIETARY
REQUIREMENTS**

Please collect any pre-ordered special dietary requirements
from the specified food station

CONCURRENT SESSIONS







CONCURRENT SESSIONS ROUND ONE

The coloured dots on your name badge indicate which **two morning** concurrent sessions you have been allocated. The concurrent sessions start at 11.10am and are repeated at 12.05pm.

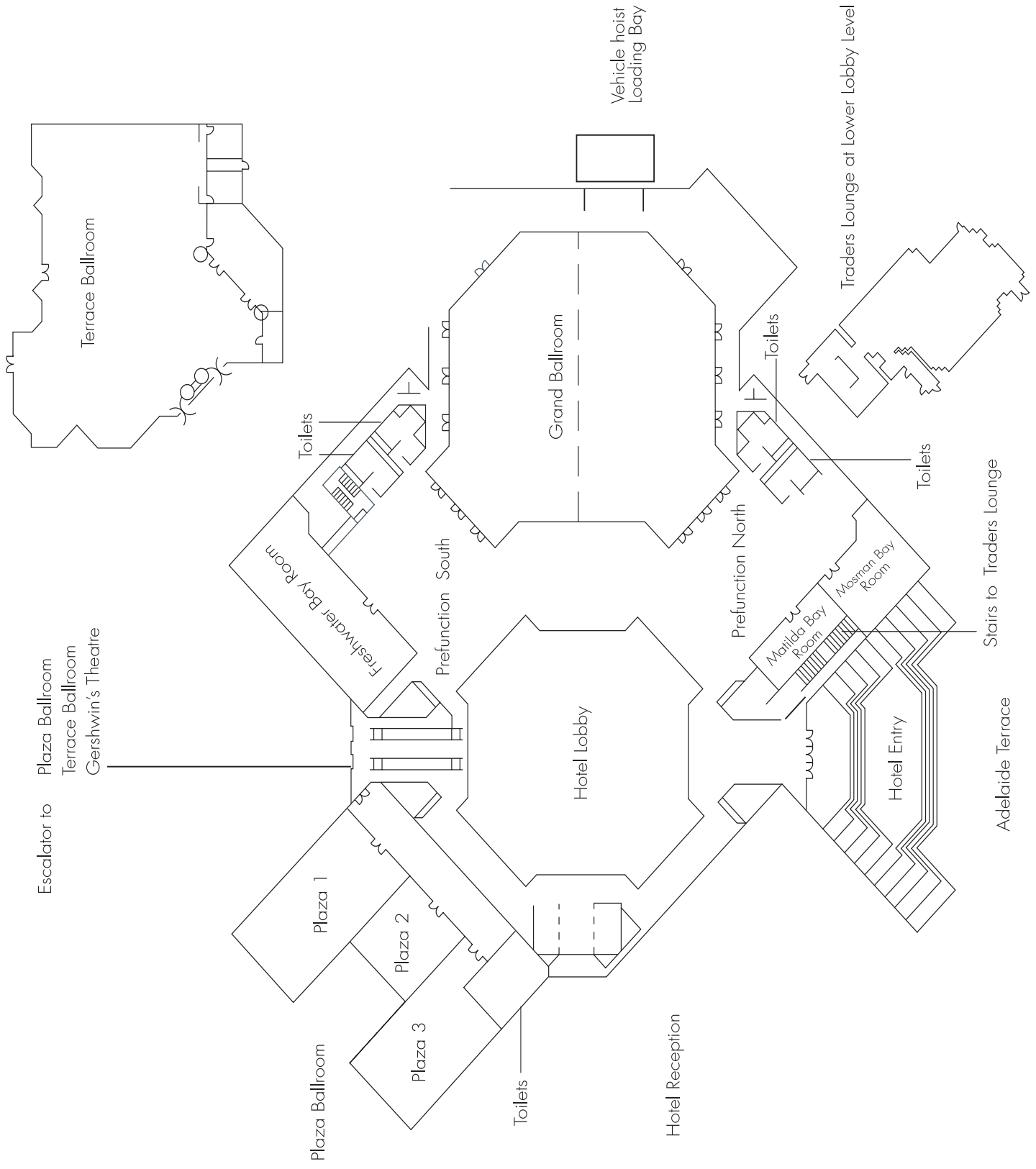
CONCURRENT SESSION	COLOUR	ROOM
SEEING THE LIGHT: ELECTRICAL SAFETY IN WORKPLACES Peter White, Senior Inspector, Construction, Regional and Primary Industries Team, WorkSafe	 Orange	Plaza 3
THEY ARE NOT MY EMPLOYEES: MANAGING CONTRACT WORKERS Jane Ardern, Manager, Education and Information Services, WorkSafe	 Pink	Freshwater Bay Room
MINDFUL OR MINDLESS: THE PSYCHOLOGY OF SAFETY Dr Renu Burr, Associate Professor, Postgraduate Program Director, University of Western Australia	 Black	Gershwin's Theatre
MANAGING MANUAL TASKS: SLIPS, TRIPS AND FALLS AT WORK Jean Mangharam, Principal Scientific Officer/Inspector, Health Hazards and Plant Safety Team, WorkSafe	 Yellow	Traders Lounge
WORKPLACE BLOWUPS: NEGOTIATING THE MINEFIELD OF OCCUPATIONAL STRESS AND WORKPLACE CONFLICT Kathryn Jones, Scientific Officer/Inspector, Health Hazards and Plant Safety Team, WorkSafe	 Blue	Grand Ballroom
HOT AND BOTHERED: WORKING SAFELY IN HOT CONDITIONS Dr Barry Chesson, Director, Occupational Hygiene Solutions Pty Ltd Helen Muccilli, SunSmart Workplace Coordinator, Cancer Council Western Australia	 Red	Plaza 1

CONCURRENT SESSIONS ROUND TWO

The coloured dots on your name badge indicate which **afternoon** concurrent session you have been allocated. The concurrent sessions start at 2.00pm.

CONCURRENT SESSION	COLOUR	ROOM
AN UNGUARDED MOMENT CAN RUIN YOUR DAY Eve Speyers, Inspector, Manufacturing Team, WorkSafe	 Orange	Plaza 3
ASBESTOS AT WORK: WHAT YOU SHOULD KNOW Tony Poulton, Manager, Construction, Regional and Primary Industries Team, WorkSafe Sally North, Principal Scientific Officer/Inspector, Health Hazards and Plant Safety Team, WorkSafe	 Pink	Freshwater Bay Room
ON THE ROAD AGAIN: VEHICLES AS WORKPLACES Alan Green, Inspector, Transport, Wholesale and Retail Team, WorkSafe	 Black	Gershwin's Theatre
NANOTECHNOLOGY: THE IMPLICATIONS FOR WESTERN AUSTRALIA Dr Gerrard Eddy Jai Poinern, Director, Murdoch Applied Nanotechnology Research Group, Murdoch University	 Yellow	Traders Lounge
TURNING THEORY INTO PRACTICE : DEVELOPING A SAFETY CULTURE Stan Sexton MA CMIOSH FSI(W)A CSPA, Corporate Manager Safety, Public Transport Authority	 Blue	Grand Ballroom
FEELING TIRED? MANAGING FATIGUE IN THE WORKPLACE Isobel Boylan, Director, BSS Corporate Psychology Services	 Red	Plaza 1

H Y A T T F L O O R P L A N



CONTENTS

PLENARY SPEAKERS

- A Changing Safety Culture** 7
Dr Travis Kemp
Managing Director and Chief Psychologist, The Teleran Group
- Harmonisation – What Does it Mean for Your Workplace?** 9
Nina Lyhne
WorkSafe Western Australia Commissioner, Department of Commerce, WorkSafe Division
- How to Survive As a Team in Uncertain Times**..... 11
Anh Do
Comedian of the Year, 2008

CONCURRENT SPEAKERS

- Seeing the Light: Electrical Safety in Workplaces** 15
Peter White
Senior Inspector, Construction, Regional and Primary Industries Team, WorkSafe
- They Are Not My Employees: Managing Contract Workers** 23
Jane Ardern
Manager of Education and Information Services, WorkSafe
- Mindful or Mindless: The Psychology of Safety** 31
Dr Renu Burr
Associate Professor, Postgraduate Program Director, University of Western Australia
- Managing Manual Tasks: Slips, Trips and Falls at Work** 35
Jean Mangharam
Principal Scientific Officer/Inspector, Health Hazards and Plant Safety Team, WorkSafe
- Workplace Blowups: Negotiating the Minefield of Occupational Stress and Workplace Conflict**..... 39
Kath Jones
Scientific Officer/Inspector, Health Hazards and Plant Safety Team, WorkSafe
- Hot and Bothered: Working Safely In Hot Conditions**..... 45
Dr Barry Chesson
Director, Occupational Hygiene Solutions Pty Ltd
- Hot and Bothered: Working Safely Outdoors** 51
Helen Muccilli
SunSmart Workplace Coordinator, Cancer Council Western Australia

An Unguarded Moment Can Ruin Your Day	55
Eve Speyers Inspector, Manufacturing Team, WorkSafe	
Asbestos at Work: What You Should Know	59
Tony Poulton Manager, Construction, Regional and Primary Industries Team, WorkSafe	
Sally North Principal Scientific Officer/Inspector, Health Hazards and Plant Safety Team, WorkSafe	
On the Road Again: Vehicles as Workplaces	67
Alan Green Inspector, Transport, Wholesale and Retail Team, WorkSafe	
Nanotechnology: The Implications for Western Australia	69
Dr Gerrard Eddy Jai Poinern Director, Murdoch Applied Nanotechnology Research Group, Murdoch University	
Turning Theory Into Practice: Developing a Safety Culture	71
Stan Sexton MA CMIOSH FSI(W)A CSPA Corporate Manager Safety, Public Transport Authority	
Feeling Tired? Managing Fatigue in the Workplace	75
Isobel Boylan Director, BSS Corporate Psychology Services	



PLENARY SPEAKERS

A Changing Safety Culture

Dr Travis Kemp

Managing Director and Chief Psychologist, The Teleran Group

Travis is recognised within the coaching profession as being amongst Australia's leading practitioners and thought leaders in the field of coaching psychology.

During his career, Travis has held a range of senior leadership roles including Global Program Manager for Leadership Assessment with Electronic Data Systems Corporation (EDS), Manager of Human Resources, Asia Pacific with Faulding Pharmaceuticals (now Hospira) and MBA Director and Senior Lecturer in Management with the University of South Australia's International Graduate School of Management. He is currently the Executive Chairman of Corporate Performance Psychology firm The Teleran Group Pty Ltd.

Travis holds academic appointments as Affiliate Senior Lecturer in the Discipline of Psychiatry at the University of Adelaide, Adjunct Lecturer in the University of Sydney's Coaching Psychology Unit and Adjunct Senior Research Fellow in the School of Management at the University of South Australia. He has published and presented widely in the fields of Coaching Psychology and Education and is Co-Editor of the International Coaching Psychology Review.

Travis is an Honourary Vice President of the international Society for Coaching Psychology and was a founding national committee member of the Australian Psychological Society's Interest Group in Coaching Psychology. He is a member of the College of Organisational Psychologists and holds Fellowship of the Australian Institute of Management and the Australian Human Resources Institute. He is a Graduate Member of the Australian Institute of Company Directors, Foundation Member of the International Positive Psychology Association and Member of the Australian College of Educators.

Harmonisation – What Does it Mean for Your Workplace?

Nina Lyhne

*WorkSafe Western Australia Commissioner,
Department of Commerce, WorkSafe Division*

Nina Lyhne is the WorkSafe Western Australia Commissioner and is a member of Western Australia's Commission for Occupational Safety and Health. She also chairs a number of the Commission's advisory groups.

Nina is also a member of SafeWork Australia and is involved in a number of national committees and forums.

Since 2000, Nina has played a key role in setting the strategic direction in policy and operations for occupational safety and health in Western Australia and Australia. She was first appointed Commissioner in 2004.

Prior to working in occupational safety and health Nina held different roles in sectors including telecommunications, international trade and industry development, family and children's services, transport and road safety.

She has a Bachelor of Arts Degree – Psychology and prior to working in safety and health she had considerable experience in market research, marketing and social marketing.

How to Survive As a Team in Uncertain Times

Anh Do

Comedian of the Year, 2008

The story begins in the Indian Ocean - 1980. An 8 metre fishing boat with 47 Vietnamese Refugees cramped in like sardines. A 2 year old boy is sick from dehydration, his desperate mother can do nothing to help him – water ran out days ago, and so far one person has died.

Fast forward to Australia - 2008. The little boy is 30 years old and has been voted Comedian of the Year. He is recognized by kids and adults alike who call out jokes they've heard on Rove Live, Thank God You're Here and Dancing With the Stars. He's entertained, motivated and inspired thousands and thousands at corporate events in Australia and throughout the world.

The ups and downs, trials and tribulations, difficulties and successes of a refugee during those 2 decades makes for an incredible and amazing inspirational tale that has the audience gripped with emotion one minute and then howling with laughter the next. The result is always a room that has been transformed.

From language difficulties to divorcing parents, from being broke to being bullied, from becoming a lawyer to becoming Comedian of the Year... Anh uses all his life's experiences to lift an audience to great heights of inspired motivation.



CONCURRENT SPEAKERS

Seeing the Light: Electrical Safety in Workplaces

Peter White

*Senior Inspector, Construction, Regional and
Primary Industries Team, WorkSafe*

Peter began his working career in the Electrical field and has an “A” Grade Electrical Worker Licence. He transitioned into the workplace safety field 20 years ago and became a Senior Inspector with what is now called the Department of Commerce. While working in the workplace safety field he obtained an Associate Diploma in Occupational Health and Safety from Curtin University.

Over the past 20 years Peter has combined his electrical experience with his passion for workplace safety as a workplace Electrical Safety Adviser for the Department of Commerce.

Seeing the light: Electrical safety in workplaces



Peter White, Senior Inspector, Construction,
Regional and Primary Industries Team, WorkSafe

Introduction

Electric shocks, electrical fires and electrocutions are more likely to happen at workplaces where residual current devices and electrical equipment are not properly installed and maintained.

Maintenance and correct use of RCDs are key indicators as to whether electrical hazards exist at a workplace, regardless of the type of industry or process.

Electrical equipment on construction sites must be more closely maintained and monitored, due to the nature of the work and exposure to weather, rough use, wear and tear.

Regulation 3.61 requires all electrical installations on construction and demolition sites to be in accordance with *Australian Standard AS/NZS 3012– Electrical Installations – Construction and Demolition Sites*.

All electrical equipment must be approved by the relevant supply authority.

Electrical equipment must be installed in accordance with manufacturers' instructions and by a competent person.

It must be emphasised even minor electric shocks can lead to other serious risks, such as falling heavily to the ground or falling from a height. Minor shocks, if not identified, assessed and eliminated, can be forerunners to a major and possibly fatal shock.

1. Maintenance, non construction

Maintenance is a general term that can include visual inspection, testing, repair and replacement.

Routine inspection and appropriate testing where necessary should be part of a workplace's overall strategy for ensuring electrical equipment is maintained in a safe condition.

Maintenance of electrical equipment on non-construction sites can be achieved by a combination of:

- Checks by the user.
- Visual inspection by an appointed person.
- Combined inspection and test by a competent person or licensed electrical worker.

Workplace management should follow this up by monitoring the effectiveness of electrical systems, RCDs and equipment, and action taken where faults are found.

There should be a written, dated and signed record of each item checked, with observations on signs of wear and tear, and whatever action was taken to repair or replace electrical parts or items.

Australian Standard AS/NZS 3760, provides guidelines for **a maintenance program in** workplaces.

2. Maintenance on construction sites

Electrical equipment on construction sites must be more stringently inspected and maintained because of extra wear and tear and exposure to weather at these workplaces.

Australian Standard AS/NZS 3012 requires construction wiring to be visually inspected at intervals not exceeding six months.

Non-portable RCDs must be tested monthly and subjected to an imbalance test at least once every calendar year.

Portable equipment must be inspected and tested in accordance with AS/NZS 3012 every three months.

Fixed equipment must be inspected and tested in accordance with AS/NZS 3012 every six months.

Results from inspections and tests on construction wiring and non-portable RCDs must be recorded and kept on site.

Portable equipment and fixed equipment when inspected and tested must be fitted with a durable non-metallic tag.

The person conducting the inspections and test must record their name or licence number on the tag.

The main contractor must be provided with a record of the relevant testing data for all portable electrical equipment prior to being used at the workplace.

3. Residual current devices

Employers should know if there is any doubt that a power socket is not protected by a built-in RCD, then a properly maintained and tested portable RCD should be provided and used.

Portable RCDs must be connected to the output side of a fixed socket when an item of portable equipment is being used.

Shops and offices are among the many workplaces that use portable electrical items – for example when cleaners attach vacuum cleaners and polishers to wall sockets, the power sockets need to be protected by fixed RCDs.

If there is any doubt, the person in charge of the workplace should either provide portable RCDs, or ensure RCDs brought in by contractors are tested and have documents to prove it.

Workplaces in general

At non-construction workplaces, all hand-held or portable electrical equipment must be protected by residual current devices or RCDs.

It must be apparent to users of portable electrical equipment if and where non-portable RCDs have been installed.

RCDs at workplaces must be kept in a safe working condition and tested regularly to ensure their continued effective operation.

After tripping, an RCD must be reactivated by a re-establishing of supply procedure.

Construction and demolition sites

At construction and demolition sites, every electrical circuit supplying power to equipment or lighting must be protected by an RCD.

Portable generators must be of a type complying with AS2790, be fully serviceable, properly maintained and fitted with RCDs.

If any person, e.g. a contractor, brings an RCD or a portable electrical item onto the workplace, Regulation 3.63 says before it can be used the person must provide the main contractor with a record of testing data under the relevant Standard,

4. Flexible cords

Workplaces in general

The employer, main contractor, self-employed person or person in control of must ensure:

- Flexible cords are connected to either moulded or transparent plugs.
- Cords are positioned so they do not create slip or trip hazards.
- Extension cords are not exposed to deterioration from environmental conditions or physical damage.
- Plugs, sockets and extension leads are in good condition.
- Cords, plugs and sockets are in good condition.

Construction and demolition sites

- Flexible cords must be heavy duty sheathed.
- Three-pin plugs and sockets used on extension cords and portable equipment must be either of the moulded or transparent type.
- Extension cords are to be positioned so they do not create a slip or trip hazard and are not exposed to deterioration from environmental conditions or physical damage.
- No aerial cable can be fixed onto or attached to a scaffold.
- Cords and cables must be of sufficient length for the work.
- Double adapters and three-pin plug adapters are not to be used.

5. Specific installations – non construction

Electrical equipment such as switchboards, light fittings and power points are protected from damage that could increase the risk of electrical shock or fire.

Workplaces in general:

Switchboards

All components on an electrical switchboard must be:

- legibly and indelibly marked to indicate their relationship with various sections of the installation;
- protected from mechanical, thermal and liquid damage; and
- enclosed to protect them from physical damage.

Light fittings

Where sufficient natural lighting is not available, electrical lighting must be provided in accordance with AS/NZS 1680. Light fixtures, lamp holders and equipment must be:

- suitably located for safe and effective lighting and be protected from damage; and
- fitted without exposing live parts that could contact a person.

Power Points

- Must be suitable for the location;
- Protected from mechanical, thermal or liquid damage; and
- In good condition.

Other requirements

- Before any work is done near overhead power lines, an employer, the main contractor, a self-employed person or a person having control of the workplace must consult with the relevant supply authority to determine appropriate safe work procedures. Further information can be obtained in the Guidelines for Working in the Vicinity of Overhead Power Lines

Plant

- Plant must not be used at a workplace if its condition exposes a person to a hazard because of the presence of electricity.
- There must be a lockout/tagout procedure for work on electrical circuits and equipment.
- Permit-to-work systems must be in place to avoid inadvertent energising of plant.
- All electrical boxes, fittings, enclosures and equipment must have appropriate covers.
- Conductors entering enclosures must be protected from abrasion, and any unused openings in the enclosures must be closed.
- Enclosures must protect electrical components from physical damage.

Special locations

- Electrical installations in hazardous locations shall be approved for their applications.
- Portable electrical equipment and fixtures used around water shall be manufactured and approved to be used in wet or damp conditions.

6. Specific installations - construction and demolition

Switchboards

- Switchboards must be of robust construction, located in a readily accessible position and protected from damage.
- Distribution boards must be within easy reach, and for multi-level construction a board must be provided for each level and located so that the maximum length of cord is not exceeded.

Light fittings

- Where sufficient natural lighting is not available, electrical lighting must be provided.
- Lighting must comply with AS/NZS 3012.
- Every lamp in a lighting circuit must be protected by a guard.

Power points

- Each socket outlet provided on a switchboard must be individually controlled by a double pole switch or other device that provides the same level of safety as a double pole switch.
- Socket outlets installed in transportable huts shall be used only to supply power to equipment and lighting within the hut.
- Socket outlets installed on the outside of transportable huts shall be used only to supply power to equipment and lighting immediately adjacent to the hut and construction wiring.

Other requirements

- As construction drawings indicating the location of electrical cables are provided before any construction work commences, the main contractor must ensure the drawings are amended as changes occur.
- All aerial wiring must be insulated. Where practicable it should avoid crossing access ways. Where not practicable, flagged catenary wires must be rigged 0.6 metres below and 6 metres on either side of the aerial conductors.
- Where practicable, by the time work on the construction site has reached plate height or the equivalent, electricity must be supplied to the site from a supply authority's service line or service cable by way of a temporary or permanent connection.

Overhead power lines

- Before any work commences near overhead power lines, an employer, the main contractor, a self-employed person or a person having control of the workplace must consult with the relevant supply authority to determine safe work procedures.
- Further information can be obtained in the Guidelines for Working in the Vicinity of Overhead Power Lines.

Plant

- Plant must not be used at a construction or demolition workplace if its condition exposes a person to a hazard because of the presence of electricity.
- Permit-to-work systems must be in place to avoid the inadvertent energising of plant.
- Lock-out tags and out-of-service tag procedures must be in place.

7. Lock out and tag

Regulation 4.47(2), dealing with plant and electricity, says if plant is damaged and exposes people to electricity:

- The plant must be disconnected and not used until the damaged part is repaired or replaced and
- An authorised person fixes an out of service tag to the plant and all isolation points to that plant, and only removes the tags when the electrical hazard no longer presents a risk.

8. Duty of care

Electrical hazards also need to be looked at through Section 19(1) of the Act, stating the employer shall, so far as is practicable, provide and maintain a working environment in which the employees are not exposed to hazards.

The employer has a duty to provide information, instruction, training and supervision to enable employees to work without exposure to hazards.

Duty of care under Regulation 3.1 requires the person in charge at a workplace to:

- Identify each hazard to which people at the workplace are likely to be exposed.
- Assess the risk of injury or harm to a person resulting from each hazard.
- Consider the means by which the risk may be reduced.

9. Information, instruction, training

Employees should be informed, instructed, trained and supervised in the use of electrical equipment such as cords, sockets, plugs and RCDs. This is especially important for new and young employees.

Training should include:

- Identifying whether a socket is protected by a fixed RCD or whether a portable RCD is required before using a portable power tool.
- Identifying and reporting damage to plugs, sockets, cables, light fittings and RCDs.
- Identifying hazardous situations with power cords, e.g. on wet floors or as slip and trip hazards.
- Understanding the importance of regular checks for electrical equipment.
- Use of insulating footwear and mats.
- Understanding lock out and tag procedures when electrical plant is being repaired or maintained.
- Restrictions for working near overhead wires.

Summary

Electrical hazards are a WorkSafe priority because, while minor shocks and electricity related injuries are not commonly reported, there is a high rate of death by electrocution.

Fixed RCDs are the ideal safeguard for all workplaces. However some older workplaces with mixed power sources may have power sockets that are not connected through switchboard RCDs.

Because unprotected sockets are often difficult to detect, these workplaces must have portable RCDs readily available and ensure they are always used with portable electrical equipment, and that they are used properly and regularly tested.

Remember, not only factories and construction sites require RCD protection. Portable electrical items such as vacuum cleaners, polishers, electric mowers, and some hot water and kitchen devices are used in a wide variety of workplaces, and all are required by law to have fixed or back-up RCD protection.

Because contract cleaners and gardeners who travel to different workplaces may not be sure if the power sockets they use will be RCD protected, they should always carry their own portable RCDs, properly tested by a competent person and appropriately documented.

They Are Not My Employees: Managing Contract Workers

Jane Ardern

Manager of Education and Information Services, WorkSafe

Jane's role at WorkSafe includes managing a range of community and industry education and information services and projects, and ensuring that high quality occupational safety and health library and information services are provided.

Jane has worked in a variety of roles before starting with WorkSafe, including Education Officer at the Equal Opportunity Commission and Manager of Training Services at UnionsWA. Her working life has exposed her to a wide range of industries and workplaces in the community, public and private sectors. She has a firm commitment to social justice and safe workplaces.

Jane has qualifications in public sector management, education, industrial relations and psychology.

MANAGING CONTRACT WORKERS

Creating a safety culture



Jane Arden, Manager Education and Information Services, WorkSafe

Background

The face of Australian workplaces is constantly changing, influenced by the economic climate, cultural changes and young people entering the workforce with different expectations than those of the baby boomers and generation x. Increased reliance on subcontractors and transient workers in all industry sectors is a serious occupational health and safety challenge for organisations.

All parties have duties under safety and health law

The Occupational Safety and Health Act 1984 places general duties upon people to ensure their own safety at work and that of others who are at the workplace or who might be injured by the work.

Section 19 of the Act states that employers must, as far as practicable, provide and maintain a working environment where employees are not exposed to hazards. Under Section 20 employees are required to take reasonable care for their own safety and health at work and to avoid harming the safety and health of other people. Section 21 ensures that a self-employed person must take reasonable care to ensure his or her own safety and health at work and the safety and health of others.

However, the nature of the workforce has changed and working arrangements are more complex. There has been an increase in non traditional working arrangements including sub contracting, short term and temporary or fixed term contracts, which has led to a more transient workforce who have no expectation of continuing or ongoing employment with the same employer.

In 2005, the Act was amended to include Sections 23D, 23E and 23F which capture alternative working relationships such as subcontracting, labour hire and situations where work is undertaken but a contract of employment does not exist. These amendments ensure that the general duties of care of the employer, under section 19, and of the employee, under section 20, apply to the relevant people in any working relationship.

Many workplaces also work closely with volunteers who are not employees as such but are protected as people who may be affected by activities associated with work. Employers, self employed people and employees all have responsibilities to ensure their work activities do not harm others, including volunteers.

Issues with contract and transient workers

Workplaces with a mixed workforce face different challenges in managing safety and creating a good safety culture than those where a traditional employer-employee relationship exists and/or where the workforce is stable. Transient and contract workers are more susceptible to injury for a number of reasons including;

- inexperience,
- being unfamiliar with the workplace,

- being unfamiliar with policy, practice and procedures; and
- personal attitudes.

Unlike those directly employed by the site owner or operator, contract workers may be new to the site and unfamiliar with hazards or safety procedures. Contract and transient workers are often given different tasks than other team members because of the short term nature of their employment and may have reduced levels of supervision and assistance. Additionally, contractors are often employed for their expertise to perform jobs with a higher level of risk. For example, in a study of workers in the offshore petroleum industry they indicated that they felt less safe in terms of occupational hazards, but had a greater appreciation of safety than permanent workers due to the nature of the work they were performing.¹

Organisations may face difficulties in ensuring that all tiers of subcontractors have the required training, despite their contractual commitment to compliance. Cost considerations often come first and many small subcontractors may not have the expertise to provide complex worker health and safety programs and often don't have enough training themselves to enforce safety. Workers, employed sequentially by several subcontractors but "owned" by no one, may also have deficiencies in training. Training provided as part of induction in a workplace often focuses too narrowly on current jobs rather than building broader capabilities in risk management and may also be used to compensate for equipment and machinery that may not be safe, deficiencies in management practice, or poor job design.

Job security can have an indirect effect on safety motivation which affects levels of compliance and subsequently workplace injuries². Transient workers may not be as interested in safety initiatives and tend to be less involved in workplaces as they do not perceive any long term benefit. There is more likely to be limited opportunity to build relationships and establish high levels of trust between managers and workers and within teams, which may lead to a lack of communication and reduced levels of cooperation on safety initiatives.

Active caring about safety is affected by the amount of personal control a worker has over the work, group cohesion, and a sense of belonging within an organisation. High levels of safety compliance also rely on a safety culture that includes:

- a visible management commitment at all levels,
- safety and health being treated as an investment not a cost,
- safety and health being integrated into continuous improvement,
- effective training and information provided for everyone,
- a system in place for workplace analysis and hazard prevention and control,
- an environment which is blame free; and
- an organisation that celebrates successes.

Where the perception is that a safety culture in the workplace is weak, factors such as job insecurity have a greater effect on levels of compliance and safety knowledge amongst transient workers than where there is an obvious safety culture that is well established³.

¹ Human safety and risk management (2nd ed), A.I Glendon, S. Clarke, E. F. McKenna 2006, CRC press, Florida

² ibid

³ ibid

Managing for a positive safety culture

Managing a positive safety culture that includes all workers may be assisted by the following:

- **Check competency.** Integrating safety and health compliance into recruitment and selection processes for contracts and temporary employment. Industries such as construction and mining have national standards and general safety and health training to achieve some consistency in safety and health practices. Where there are skills shortages, this is difficult as safety standards can be compromised in order to attract labour and there is limited control over the hiring practices of agencies and contractors. Being aware of what experience contractors and agencies have in the type of work is therefore important. For example;
 - what their health and safety policies and practices are,
 - about their recent health and safety performance,
 - what qualifications and skills they have,
 - their selection procedure for sub-contractors,
 - what training and supervision they provide,
 - their arrangements for consulting their workforce (if any),
 - if they are members of a relevant trade or professional body; and
 - whether they or their workers have undertaken safety and health training.

Encouraging labour hire companies and contractors to reinforce industry values, so workers see commonalities across organisations in regard to safety and health management, may also assist in improving personal commitment to safety for individual workers. This may be achieved by providing industry specific information on safety and health or ensuring that inductions conducted outside of the workplace cover common industry hazards and solutions.

- **Clearly define roles and responsibilities.** The more impact the work could have on the safety and health of anyone, the greater the management and supervisory responsibilities of the organisation. It is essential to verify that the prospective worker has the necessary knowledge and skill. Contractors need to know and understand what is expected in regards to managing safety and health in the workplace. Safety and health arrangements should be explained to them. Show them policies and procedures, permit systems etc. and make sure they understand and will act in accordance with them.
- **Provide information, instruction and training.** Co-operate with labour hire agencies to assist the agency to meet its legal obligations under the Act, including allowing the agency access to the workplace and relevant documentation. Ensure that information on safety and health is provided in the appropriate language to workers.

Making temporary workers feel part of teams and providing them with consistent communications and information is important. Team based approaches to training may improve implicit coordination between team members. Rather than training in an attempt to control behaviours, it may be more appropriate to build individual capabilities and empower teams to self manage safety and health issues. Frequent, short training sessions at the beginning of shifts increases recognition of hazards and improves compliance.

In any working relationship, there must be *co-operation, consultation and co-ordination*. Regular meetings or briefings may be established. Liaison is particularly important where variations of the work are proposed or where more than one contractor or sub-

contractor is engaged. Providing consistent points of contact on safety and health issues assists in ensuring that effective communication occurs.

- **Assess the risks of the work.** A risk assessment should be done and both the organisation and the contractor should be party to it. Workplaces should already have a risk assessment for the work activities of their own business. The contractor/labour hire agency should assess the risks for the contracted work and then both parties get together to consider those risks from each other's work that could affect the health and safety of the workforce or anyone else. The risk assessment should be agreed for the work and the preventative and protective steps that will apply when the work is in progress. If subcontractors are involved, they should also be part of the discussion and agreement.
- **Constant monitoring of safety and health performance and continuous improvement is required.** This means checking whether the risk assessment is up to date and that control measures are working. The level of monitoring depends on the risks - the greater the risks, the greater the monitoring. Organisations should make periodic checks on the contractor's performance to see if the work is being done as agreed. Provide adequate supervision to monitor whether the work is being performed safely. Recognise that tasks performed by transient workers can sometimes require closer supervision than with permanent workers. Make sure that appropriate arrangements are in place for identifying hazards associated with the work in an ongoing way, involving OSH representatives and other team members.

It is good practice to *investigate all injuries* and cases of work-related ill health and even more importantly 'near misses' to find out what went wrong and why they were not prevented. Both the organisation and the contractor/agency should review the work after completion to see if performance could be improved in future. The lessons learnt from monitoring and investigations needs to be shared with the entire workforce.

WorkSafe resources to assist

OSH and volunteers:

http://www.commerce.wa.gov.au/WorkSafe/Content/About_Us/Legislation/OSH_Act/OSH_and_volunteers.html

General Duty of Care.

http://www.commerce.wa.gov.au/WorkSafe/Content/About_Us/Legislation/OSH_Act/General_Duty_of_Care.html#Contractors%20and%20people%20who%20engage%20contractors

Commission Guidance Note: General duty of care in WA workplaces

Bulletin 6/2005: Labour hire industry and duty of care

Labour Hire

Bulletin 6/2006: Host employers/clients Labour Hire

Migrant workers

A guide for migrant workers. 8 languages

<http://www.commerce.wa.gov.au/WorkSafe/PDF/Guides/index.htm>

Migrant workers: A guide for employers (includes a checklist)

<http://www.commerce.wa.gov.au/WorkSafe/PDF/Guides/index.htm>

Inspecting the workplace

Guide to inspecting the workplace (word version available from homepage)

http://www.commerce.wa.gov.au/WorkSafe/PDF/Hazard_identification/priority_area_checklist.pdf

Specific industry checklists under Inspector campaigns on the website, referred to as newsletters or checklists. Accessible from the homepage www.worksafe.wa.gov.au.

General

The OSH Subbypack contains templates for safe work method statements and OSH management plans that may be useful. Accessible on website under “Industries” – construction.

References

Human safety and risk management (2nd ed), A.I Glendon, S. Clarke, E. F. McKenna 2006, CRC press, Florida

Guidance on obligations under OHS law in relation to casual workers, WorkSafe Victoria www.worksafe.vic.gov.au

Use of Contractors a joint responsibility, HSE online www.hse.gov.uk

Managing contractors and transient workers – Checklist

	N/A	YES	NO
Does your OSH policy include contractor responsibilities?			
Is health and safety a key criterion in the selection of contractors?			
Do you take steps to ensure contractors are competent in health and safety?			
Do you discuss and agree the job with contractors? Are your requirements and the contractors' responsibilities for health and safety in writing?			
Are contractors made aware of your safe work procedures in advance?			
Do you ask for safe work method statements?			
Do you conduct a risk assessment for the work with the contractor?			
Do contractors sign in and out? Do you always know where they are?			
Are contractors given site information before starting the job?			
Do you go through the job before allowing work to start?			
Do you check on progress with the job and that the contractors are working safely?			
Do you keep the entire workforce informed on safety and health issues?			
Do you take appropriate action if contractors are not working safely?			
Do you check on contractor's arrangements for supervision of their workers?			
Do you tell contractors to report all incidents/accidents?			
If the contractor sends different staff will you know?			
When a job is finished, do you review how it went, including the health and safety performance of the contractor?			

Mindful or Mindless: The Psychology of Safety

Dr Renu Burr

*Associate Professor, Postgraduate Program Director,
University of Western Australia*

With over 26 years of academic and business experience in leadership development and strategic human resource management, Dr Renu Burr is one of Perth's most accomplished HR specialists.

Renu is currently the Director of Postgraduate Programs at the University of Western Australia's Business School – a position she is well qualified for having previously worked in senior HR management, consultant and advisory roles to support management and executive teams to improve business and leadership effectiveness in the private and public sectors internationally.

She has consulted with organisations across a broad range of industries as diverse as multinational mining companies, an international airline, the armed forces, the Australian Commonwealth Government and many, many more.

Renu has published and presented her research internationally in academic journals and conferences.

MINDFUL OR MINDLESS: THE PSYCHOLOGY OF SAFETY



**Dr Renu Burr, Director Postgraduate Programs,
Business School, University of Western Australia**

There is emerging interest in ways to improve safety performance beyond behavioural and attitudinal approaches. Mindfulness is about enhancing perception, awareness and decision making by slowing down and creating a space between stimulus and response to become conscious of our behaviours and decision making processes. It is about deliberately paying attention and observing thoughts, language, emotions and the body before making decisions and taking action. Mindfulness is therefore about enhanced self-management and self-regulation of our behaviour. It can enable greater engagement and presence in what is happening around you to promote openness, curiosity and acceptance of situations by making you aware of how your own assumptions, thoughts, feelings, judgments and actions can either help or hinder safety performance. Mindfulness can be individual or collective at the organisational and team levels.

There are a range of mindfulness tools and techniques that can help raise levels of attention and awareness and improve decision making and safety behaviours such as:

- Pressing the pause button, slowing down or stopping, and checking in on your thoughts, feelings and your body
- Observing the breath as a way of creating focus, connecting to the present and slowing down
- Body scanning to identify areas of tension and relaxing
- Stepping on the balcony to observe self and the situation as an observer
- Regulating emotions
- Meditation
- Cultivating a beginner's mind

Some practical benefits of mindfulness in improving safety performance include:

- Greater flexibility in decision making
- Enhanced ability to detect and manage unexpected events
- Broadened attention bandwidth
- Heightened empathy and listening
- Tolerance of tension and stress
- Surfacing and managing conflict and contradictions
- Holding courageous conversations

The objectives of this interactive workshop are to:

- raise awareness of the role of mindfulness in safety performance
- introduce tools and techniques to practice mindfulness in the workplace

Managing Manual Tasks: Slips, Trips and Falls at Work

Jean Mangharam

*Principal Scientific Officer/Inspector, Health Hazards and
Plant Safety Team, WorkSafe*

Jean Mangharam is Principal Scientific Officer/Inspector of the Human Factors & Ergonomics Team at WorkSafe.

WorkSafe's Human Factors and Ergonomics team addresses hazards that lie within the realms of physical, cognitive and organisational ergonomics. Such hazards include work-related musculoskeletal disorders, slips, trips and falls, and psychological harm (usually associated with occupational stress, conflict, aggression and violence).

Jean joined WorkSafe in 2005 and has a background in Physiotherapy BSc Hons, Curtin University, WA and Ergonomics and Industrial Hygiene MSc Ergo/IH, University of Cincinnati, Ohio.

Jean is currently completing her PhD in the field of epidemiology on the subject of occupational slips trips and falls at the School of Population Health, University of Western Australia. She has practised as a clinical physiotherapist and consultant ergonomist in Australia, UK and USA.

Managing Manual Task Injuries and Slips Trips and Falls in the Workplace



Jean Mangharam, Principal Scientific Officer/Inspector
(Human Factors and Ergonomics), WorkSafe

Background

Musculoskeletal disorders from performing manual tasks and slip, trip and fall injuries, collectively, make up 60% of lost time injuries in WA workplaces. Studies have shown that strong management commitment, a risk management approach and implementing high level controls are key elements for effective management of such hazards.

Workshop Objectives

By the end of this session, delegates will have an understanding of key elements of manual task and slip, trip and fall hazards, including;

- Terminology
- Prevention Principles
- Risk Factors
- Risk Management
- Legislation

References

- WorkSafe WA (2010) WA Manual Tasks Code of Practice 2010, Government of Western Australia: Perth.
- WorkSafe WA Website (2010) Safety Topics- Slips, trips and falls, Government of Western Australia: Perth- cited May 2010, http://www.commerce.wa.gov.au/WorkSafe/Content/Safety_Topics/Slips_and_trips/index.htm.
- SafeWork Australia (2007) National Code of Practice for the Prevention of Musculoskeletal Disorders from Performing Manual Tasks at Work, Commonwealth of Australia: Canberra.
- Workplace Health and Safety, Queensland (2010) Guide to preventing slips, trips and falls, Government of Queensland: Brisbane.
- WorkSafe Victoria (2006), Slips trips and falls checklist, Victorian Government, Melbourne- cited May 2010- <http://www.worksafe.vic.gov.au/wps/wcm/connect/wsinternet/worksafe/home/forms+and+publications/tools/slips%2C+trips%2C+and+falls+checklist>,

Workplace Blowups: Negotiating the Minefield of Occupational Stress and Workplace Conflict

Kath Jones

*Scientific Officer/Inspector, Health Hazards and
Plant Safety Team, WorkSafe*

Kath Jones is a scientific officer/inspector who has been working in the Human Factors and Ergonomics team at WorkSafe WA since 2007. As a registered Occupational Therapist with an undergraduate degree in psychology, Kath specializes in the investigation of psychosocial hazards in the workplace.

As well as conducting reactive and proactive investigations into workplace bullying and occupational stress, Kath presents educational workshops on meeting legislative requirements and best practice in managing the risk of psychosocial injury from these workplace hazards.

WORKPLACE BLOW-UPS

Negotiating the minefield of occupational stress and workplace conflict



Kath Jones, Inspector/Scientific Officer (Human Factors and Ergonomics), WorkSafe

Background

Feeling stressed or clashing with others can be common in everyday life, however there is increasing evidence that workplace stresses or conflicts with colleagues have a greater impact on our health than the blow-ups which can occur outside of work. Work-related stress that risks the physical or psychological health of employees must be addressed to not only minimise the cost to the workplace, but in order to comply with Occupational Safety and Health legislation. Research shows that addressing organisational factors such as workload, management support and relationship with colleagues is a much more effective means of reducing the risk of injury from these hazards than controls targeting individuals such as training in emotional resilience, relaxation or communication skills. This workshop will outline best practice in managing the risk of injury from occupational stress and workplace conflict and strategies for meeting legislative requirements in providing a safe working environment.

Workshop Objectives

By the end of this workshop, participants will;

- Understand how stress and bullying represent a hazard under the OSH legislation
- Recognise the difference between bullying, conflict, harassment and management issues
- Understand the causes of workplace conflict & stress
- Recognise risk factors and identify tools for measuring bullying & stress risk factors
- Understand the risk management process reducing bullying and stress in the workplace

Definitions

Conflict: disagreement between two or more parties which, if unmanaged, can escalate to unacceptable levels; the result can be a significant source of stress for employees.

Bullying: repeated, unreasonable or inappropriate behaviour directed towards a worker or a group of workers that created a risk to health and safety.

Stress: the psychological and emotional responses that occur when there is an imbalance between job demands and the employee's capabilities and coping resources to meet the job demands. Note: job demands include emotional, physical and mental demands, the physical and cultural work environment, work relationships and management.

How does Stress and Bullying occur in the Workplace?

Occupational Stress and Workplace Bullying are inter-related and research now shows that bullying primarily occurs in an environment which is stressful- that is, workplaces which are characterised by;

- Excessive workload or unreasonable demands
- Lack of control over how work is done
- Minimal recognition or low rewards (not only financial)
- Lack of social support or poor relationships with colleagues

- Poorly managed change
- Conflicting demands of your job role
- Organisational injustice
- Other hazards within the workplace (e.g. noise, fumes)

Managing Occupational Stress and Workplace Bullying

Like any other hazard, a risk management process should be applied for managing conflict and stress: Spot the hazard, assess the risk, make the changes.

1. Hazard Identification

Too often, workplaces wait until a bullying complaint has been made or sick leave has been taken before considering means of controlling the workplace hazards. Proactive hazard identification is the most effective means of spotting the hazard before an injury or bullying incident occurs. Look for trends in;

- Sick leave
- Formal and informal grievances
- Worker's compensation applications
- Injury reports (including those of occupational overuse syndrome)
- Ergonomic assessment reports
- Usage of Employee Assistance Programs

→ Remember that confidentiality does not need to be breached to gather **trends**

Once this HR information has been gathered, focus groups or employee surveys are very useful in identifying exactly what hazards are present in the workplace

2. Risk Assessment

There are a number of measurement tools available to identify key risk factors for stress and conflict and measure the level of exposure to these risk factors. For example, the HSE Indicator Tool for Work-related stress is a free risk assessment tool which measures the six key aspects of work which if not properly managed, can lead to work-related stress - These are: demands, control, support, relationships, role and change. The tool can be accessed for free through the following link:

<http://www.hse.gov.uk/stress/standards/pdfs/indicatortool.pdf>

Interviews with staff can assist in assessing the risk of injury. For assistance in this, use your Employee Assistance Provider or an OSH consultant who specialises in work-related stress.

3. Risk Control

Strategies should be tailored according to which risk factors were identified in the hazard ID and risk assessment processes. For example:

Identified Source of Risk

Relationships with colleagues

Work load

Role conflict

Suggested Control

Establish a code of conduct, conduct team building meetings or provide communication skills training to staff / conflict management skills to management
 Consider job restructuring, job reviews (through PDRs), time management skills training for staff
 review customer charter (ensure employees have right to review complaints), conduct performance development meetings, review JDF

Minimal Compliance Standards for Occupational Stress and Workplace Bullying

WorkSafe expects that all WA workplaces should have the following in place;

- A clear grievance policy and procedure that is understood by all staff
- Codes of conduct or discussions on acceptable workplace behaviour
- Management investigation of complaints which is thorough, objective and fair. Feedback must be given to complainants on the outcome of the investigation.

Publications & further guidance:

WorkSafe Victoria, (2007), Stresswise – Preventing Work-related Stress, Available: <http://www.worksafe.vic.gov.au/wps/wcm/connect/WorkSafe/Home/Forms+and+Publications/Publications/Stresswise>

WorkSafe WA, (2006), Code of Practice – Violence, Aggression & Bullying at Work, [for guidance on resolving workplace conflict], Available: http://www.commerce.wa.gov.au/WorkSafe/PDF/Codes_of_Practice/Code_violence.pdf

WorkSafe WA, (2006), Dealing with Bullying at Work – A guide for workers, Available: http://www.commerce.wa.gov.au/WorkSafe/PDF/Guidance_notes/Dealing_with%20bullying_english.pdf

Health & Safety Executive, UK, HSE Management Standards Indicator Tool, Available: <http://www.hse.gov.uk/stress/standards/pdfs/indicatortool.pdf> or for more general information on stress: <http://www.hse.gov.uk/stress>

References:

Carder, M., Turner, S., McNamee, R., & Agius, R. (2009) Work-related mental health and 'stress' in the UK (2002-05). *Occupational Medicine*, 59 539-544.

Escartin, J., Rodriguez-Carballeira, D.Z., Porrua, C., & Martin-Pena, J. (2009) Perceived severity of various bullying behaviours at work and the relevance of exposure to bullying. *Work & Stress*, 23 (3) 191-205.

Hauge, L.J., Skosgad, A., & Einarsen, S. (2009) Individual and situational predictors of workplace bullying: Why do perpetrators engage in the bullying of others? *Work & Stress*, 23(4) 349-358.

Kendall, E., Murphy, P., O'Neill, V. & Bursnall, S. (2000) Occupational Stress: Factors that contribute to its occurrence and effective management Centre for Human Services, Griffith University. August 2000 Workers' Compensation and Rehabilitation Commission Western Australia.

Kerr, R., McHugh, M., & McCrory, M. (2009) HSE Management standards and stress-related outcomes. *Occupational Medicine*, 59 574-579.

Lamontagne, A.D., Keegal, T., Louie, A.M., Ostry, A., & Landsbergis, P.A. (2007) A systematic Review of the job-stress intervention evaluation literature, 1990-2005. *International Journal of Occupational and Environmental Health*, 13(3) 268-280.

Riley, D., Duncan, D.J., & Edwards, J. (2009) Investigation of staff bullying in Australian schools – Executive summary. National Library of Australia Cataloguing-in-Publication entry <http://www.schoolbullies.org.au/>

Hot and Bothered: Working Safely In Hot Conditions

Dr Barry Chesson

Director, Occupational Hygiene Solutions Pty Ltd

Barry Chesson has 35 years of experience in Occupational Health & Safety, with particular expertise in Occupational Hygiene. For much of his career he was Manager - Occupational Hygiene for Alcoa's Western Australian Operations. In this role, he was responsible for the delivery of occupational hygiene services to Alcoa's three alumina refineries and two bauxite mines in Western Australia. Programs covered recognition, evaluation and control of dust, asbestos and synthetic mineral fibres, noise, vibration, gases, vapours, fumes, mists, thermal stress, ionising and non-ionising radiation, ergonomic hazards, biohazards, potable water quality, illumination issues, ventilation hazards and hazardous chemicals.

He holds a PhD in Chemical Safety, an Honours Degree in Physical Chemistry, a Graduate Diploma in Natural Resources and a Masters Degree in Applied Science (Health Science). He is certified in the comprehensive practice of industrial hygiene by the American Board of Industrial Hygiene and is a member of the American Industrial Hygiene Association. He is a Fellow of the Australian Institute of Occupational Hygienists and is a Certified Occupational Hygienist with that body. Additionally, he is a Chartered Chemist and a Fellow of the Royal Australian Chemical Institute. He holds an appointment as Adjunct Associate Professor at Curtin University's School of Public Health, providing input to course design and making a lecturing contribution at both undergraduate and post-graduate levels. He has had a long involvement with government, industry and unions in the development of OHS policy, standards and regulations for Western Australia and is currently serving a further term as an Expert Member of the WorkSafe Commission of WA.



Working safely in hot conditions

This bulletin provides practical advice for employers and workers on heat illness, related health and safety problems and actions and measures to take to prevent or minimise the likelihood of heat illness.

WorkSafe Bulletin 3 / 2010

Introduction

In Western Australia, hot workplaces are common. Heat may come from:

- hot climatic conditions;
- heavy work in moderately hot conditions;
- hot work processes (such as welding);
- radiant heat from the surroundings;
- work where heavy protective clothing must be worn; or
- any combination of these factors.

The Occupational Safety and Health Act 1984 requires employers to provide and maintain, so far as is reasonably practicable, a working environment in which workers are not exposed to hazards. This applies to any risk to safety and health, including illness from working in heat.

Heat stress

Heat stress is the total heat burden to which the body is subjected by both external and internal factors.

The body must balance the heat transferred into the body, heat generated in the body and heat coming out of the body.

Heat illness occurs when the body cannot dispense the heat burden sufficiently for normal functioning to be maintained.

Heat illness

Heat illness covers a range of medical conditions which include:

- heat stroke – a life threatening condition that requires immediate first aid and medical attention;
- fainting;
- heat exhaustion;
- heat cramps;
- rashes (also called 'prickly heat'); and
- heat fatigue.

Signs of heat illness include feeling sick, nauseous, dizzy or weak. Clumsiness, collapse and convulsions can also be the result of heat illness and workers with these signs need to seek immediate medical attention.

Working in hot conditions may aggravate pre-existing illnesses and conditions.

Managing the risk of heat illness

In identifying, assessing and controlling risks associated with heat illness, employers should consult with workers likely to be exposed to heat as well as with any elected health and safety representatives.

Identifying risk factors

The key risk factors to take into account are:

- air temperature;
- humidity (high humidity limits the evaporation of sweat – a key cooling mechanism for the body);
- radiant heat (from the sun or other sources such as furnaces, ovens and hot vessels);
- air movement or wind speed;
- workload (intensity and duration of the work);
- physical fitness of the worker, including acclimatisation and any pre-existing conditions such as obesity, heart/circulatory diseases, skin diseases or use of certain medicines that can effect the body's ability to manage heat (eg diuretics, antidepressants and anticholinergics); and
- clothing (including protective clothing that may restrict air flow across the skin and hinder evaporation of sweat).

Assessing the risk of heat illness

Should be carried out by a person competent in heat assessment.

The risk assessment may include use of an appropriate heat stress index. A commonly used and recognised index is the Wet Bulb Globe Temperature (WBGT). This takes into account air temperature, radiant heat, humidity and

air movement. Adjustments can take into account such things as physical workload, clothing and work organisation.

The Thermal Work Limit (TWL) is an alternative approach being used increasingly in Australian workplaces, particularly in the resource industry. It accounts for all of the major factors mentioned above and provides guidance on managing workloads and fluid intake.

If the assessment indicates a risk of heat illness occurring, employers need to put control measures in place. Workers considered at risk due to factors such as pre-existing medical conditions should be medically assessed.

Reducing the risk of heat stress

There is a recommended order of control measures that eliminate or reduce the risks of injury or harm. Often a combination of controls will be necessary. Examples of these follow.

Engineering

Engineering controls are an effective way of reducing heat stress and preventing or minimising occurrence of heat illness. Examples include:

- increasing air movement using fans;
- installing shade cloth to reduce radiant heat from the sun;
- installing shields or barriers to reduce radiant heat from sources such as furnaces or hot vessels;
- removing heated air or steam from hot processes using local exhaust ventilation;
- installing air conditioners or coolers to reduce air temperature;
- locating hot processes away from people; and
- insulating /enclosing hot processes or plant.

Organisation of work

Heat stress can be reduced by attention to the way work is organised. Examples include:

- rescheduling work so the hot tasks are performed during the cooler part of the day or in cooler times of the year;
- reducing the time an individual spends doing the hot tasks eg by job or task rotation;
- arranging for more workers to do the job;
- providing additional rest breaks in cool, shaded areas; and
- using mechanical aids to reduce physical exertion.

Providing training and information

Training and information will enable workers to:

- identify hazards associated with heat stress;
- recognise symptoms of heat stress and heat illness;
- identify appropriate first aid procedures;
- understand how to avoid heat illness;
- recognise the potential dangers associated with the use of alcohol and/or drugs; and
- use appropriate protective clothing and equipment.

Toolbox meetings and pre-start meetings present opportunities to reinforce the actions needed to avoid heat illness.

Providing personal protective clothing

Providing personal protective equipment (PPE) such as reflective aprons and face shields can reduce exposure to radiant heat. Ice vests and liquid and air circulating systems can be worn under PPE where appropriate. Outdoor workers should be provided with protection against ultraviolet exposure, such as a wide brim hat, loose fitting, long sleeved collared shirt and long pants, sunglasses and sunscreen.

Preventing heat illness

Keeping well hydrated

The Western Australian Occupational Safety and Health Regulations 1996 require that a supply of clean, cool drinking water is provided and is readily accessible to workers.

Keeping well hydrated is a critical factor in avoiding heat illness. Information on keeping well hydrated should be provided as part of workplace inductions.

Workers should be encouraged to start their shift fully hydrated. An easy way to establish hydration status is by checking the colour and volume of urine. If urine is plentiful and a light straw colour, this is an indicator of good hydration.

During hot work conditions, workers should be encouraged to drink a cup of water (about 250ml) every 15 to 20 minutes.

Although water is generally adequate for fluid replacement, low joule cordials and electrolyte replacement solutions may be provided to encourage fluid intake. High sugar cordials and sports drinks are not recommended.

Caffeinated drinks and alcohol should be avoided since these are diuretics that cause increased rate of urination.

Allowing for acclimatisation

Workers, in particular those with fly-in fly-out contracts, may experience significant differences in climatic conditions between the workplace and their off-work location, especially after an extended absence.

Suitable acclimatisation procedures should be considered for workers who are subject to hot work conditions. Such procedures should be developed in consultation with workers and consider the particular shift roster schedules used.

Other preventative measures

Providing:

- adequate supervision of workers; and
- first aid facilities, instruction and training and access to medical help.

If symptoms occur, workers need to rest in a cool, shaded, well-ventilated area and drink cool fluids. If symptoms do not reduce quickly, seek medical help.

Employers should plan ahead and ensure all the necessary measures for preventing heat illness can be implemented when hot weather is predicted.

Other sources of information

The *Occupational Safety and Health Act 1984* and the *Occupational Safety and Health Regulations 1996* can be accessed free of charge from the State Law Publisher's website at www.slp.wa.gov.au or purchased on (08) 9426 0000.

Further information on SunSmart at the workplace, including the publication *Skin cancer and outdoor work - A guide for working safely in the sun* is available from www.worksafe.wa.gov.au - safety topics – diseases and health.

For further information on sun protection and skin cancer including the publication *Skin cancer and outdoor work: A guide for employers*, visit the Cancer Council website, www.cancer.org.au/sunsmart or call the Cancer Council Helpline on 13 11 20.

WorkSafe Division Department of Commerce

Level 5, 1260 Hay Street, West Perth
Western Australia 6005

1300 307 877

safety@commerce.wa.gov.au

www.worksafe.wa.gov.au

National Relay Service: 13 36 77
Quality of service feedback line: 1800 30 40 59
Translating and Interpreting Service (TIS) 131 450

This publication is available in other formats on request to assist people with special needs.

Regional Offices

Goldfields/Esperance	(08) 9026 3250
Great Southern	(08) 9842 8366
Kimberley	(08) 9191 8400
Mid-West	(08) 9954 5644
North-West	(08) 9185 0900
South-West	(08) 9722 2888

Hot and Bothered: Working Safely Outdoors

Helen Muccilli

SunSmart Workplace Coordinator, Cancer Council Western Australia

Helen is the SunSmart Workplace and Local Government Project Coordinator at Cancer Council Western Australia. Previously, Helen coordinated WA Healthy Business which was a workplace healthy lifestyle program based at Cancer Council WA. Helen has had four years' experience in workplace health promotion with the industrial sector.

Her current role has enabled her to travel around the state speaking about skin cancer and sun prevention to outdoor workers. Helen is married to a wonderful Italian. Her interests include painting with pastels, travel, yoga, art and theatre.

Hot and bothered: Working safely outdoors

Helen Muccilli, Sunsmart Workplace Coordinator,
Cancer Council Western Australia



Incidence of skin cancer

Australia continues to lead the world in the number of skin cancers diagnosed each year. The introductory section of this presentation will discuss the rates of melanoma and non-melanoma skin cancer and discuss the groups of people who are most at risk.

Dangers of UV exposure

Over exposure to Ultraviolet Radiation (UVR) is the main cause of skin cancer, sunburn and damage to the skin and eyes. Solar radiation and the light from solarium tanning units UVR has been classified by the International Agency for Research on Cancer (IARC) as a Group 1 carcinogen (Carcinogenic to humans). The UV Index, developed by the World Health Organisation (WHO), is an indicator of the strength of UVR reaching the earth's surface. It is our primary tool for deciding when sun protection is required to reduce exposure to carcinogenic UVR. The location and use of the UV Index will be discussed along with the high to extreme UV levels frequently experienced in Australia. Misconceptions about UVR will also be touched upon.

Skin cancers and eye damage

This section will examine non-melanoma skin cancers and the most deadly skin cancer - melanoma. It will highlight the differences between non-melanoma and melanoma skin cancers and look at the most common sites for skin cancers in outdoor workers. Prevention of eye damage due to UV exposure will also be covered.

Sun protection - what workers need

Detailed information will be provided about what occupational health and safety managers and employers can do to ensure their employees are adequately protected when working outdoors. Topics will include: outdoor risk assessment of all work sites, availability of shade and access to water, as well as use of engineering and administrative controls to reduce solar exposure while working.

Finally, this discussion on sun protection will examine the personal protective equipment (PPE) required when working outdoors. Important considerations for these items will be addressed such as the ultraviolet protection factor (UPF) of fabrics, safe storage of sunscreen, types of hats, sunglasses or safety glasses. The need for renewal of sun protective clothing will also be discussed.

The impact of policy

Most workplaces with outdoor workers will have a sun protection policy. However it is imperative that this is reviewed regularly and that managers/supervisors working outdoors role model good sun protective behaviour. Senior management and OHS or HSE personnel should be involved in discussions to review or revise a sun protection policy. For maximum effectiveness this document should be accessible to all employees and in particular new employees and contractors working onsite.

Having a sun protection policy provides a rationale for requiring outdoor workers to use sun protection. Cancer Council WA will illustrate how their Workplace SunSmart Checklist can help workplaces review their current sun protection behaviour and assist workplaces with revising their policy. In addition, Cancer Council WA is currently undertaking research with workplaces to investigate the extent to which sun protection policies provide adequate cover for outdoor workers. This research will involve staff in participating organisations undertaking a brief phone survey about the problems and safety issues they encounter when wearing sun protection. Workplaces will be able to collect a copy of the SunSmart Workplace Checklist and Helen Muccilli's contact details if they wish to participate in the policy research.

Early Detection

In addition to reducing the risk of sun exposure by covering up, it is essential that workers exposed to solar UVR check their skin regularly. Over 95% of skin cancers can be treated successfully if they are detected early.

Information will be presented about what to look for on the skin and how often outdoor workers should check their skin. The value of workplace screening services will be discussed.

An Unguarded Moment Can Ruin Your Day

Eve Speyers

Inspector, Manufacturing Team, WorkSafe

Eve graduated with a BSc Hons in Occupational Hygiene from Southbank University, London in 1993. During the course of her degree, she successfully won a 12 month industrial placement and worked as a hygienist for Boots Pharmaceutical at their major manufacturing site in Nottingham. During this time she was responsible for monitoring and evaluating the exposure of employees to a range of issues such as noise, asbestos and pharmaceutical based airborne contaminants. At the end of her degree, Eve was funded by the European Commission to conduct a noise survey at Ford in Bordeaux, France.

After completing her honours Eve worked as a consultant for the MTR rail network in Hong Kong managing asbestos abatement projects in the rail network system. The job was challenging as the removal work had to be conducted whilst the rail network was closed and dealing with numerous contractors whose primary language was not English.

Eve was then employed by Rust PPK in England and was transferred to Perth to work as a health and safety consultant. During this time Eve was mainly involved with health and safety consulting work for larger companies and assisted with environmental remediation and hydrogeology contracts.

Eve joined the Manufacturing Team at WorkSafe WA in June 2008.

An Unguarded Moment Can Ruin Your Day



Eve Speyers, Manufacturing Team Inspector,
WorkSafe

Where To From Here?

- Occupational Safety & Health Act 1984
- Occupational Safety & Health Regulations 1996
- Code of Practice – Safeguarding of Machinery & Plant, Isolation of Plant – Guidance Note
WorkSafe Website -www.worksafe.wa.gov.au
- Australian Standard 4024 – *Safety of Machinery*

ThinkSafe

Small business assistance program

A confidential occupational safety and health assistance program.

If you are a small business owner (employ less than 20 people) and want to make your workplace safe, the **ThinkSafe Small Business Assistance Program** can help you.

The good news is that the help you can get:

- is free;
- is easy to obtain;
- takes just three hours of your time; and
- is a simple process with clear and immediate outcomes.

www.worksafe.wa.gov.au

Asbestos at Work: What You Should Know

Tony Poulton

*Manager, Construction, Regional and Primary
Industries Team, WorkSafe*

Tony was appointed as a WorkSafe inspector in the Construction Team in January 1997. He is currently Team Manager for Construction (Red) Team, WorkSafe

Tony has represented WorkSafe at:

- Magistrate courts
- Coroners Court
- OSH tribunal
- Australian Standards Committees
- State Government Committees (including State Government Asbestos Taskforce)

Tony coordinated the implementation of a Demolition Licence regime for WorkSafe in 2001 and a national Heads of Workplace Safety Authorities (HWSA) campaign for Demolition/Asbestos work during 2005/2006.

Tony's qualifications include an OSH Diploma.

Sally North

*Principal Scientific Officer/Inspector, Health Hazards and
Plant Safety Team, WorkSafe*

Sally has been a WorkSafe inspector since 2001 and manager of the Occupational Hygiene and Noise Control Team since 2007. Before commencing at WorkSafe she worked as a chemical safety consultant and an occupational safety and health officer.

Sally's qualifications include a Bachelor of Science (Chemistry), a Graduate Diploma in Occupational Health and Safety and a Masters of Business Administration.

Asbestos at work: What you should know



Tony Poulton, Manager, Construction, Regional and Primary Industries Team, WorkSafe

Sally North, Principal Scientific Officer/Inspector (Occupational Hygiene, Health Hazards and Plant Safety Team, WorkSafe)

Part one: Trends in asbestos exposure

Background

Asbestos has been banned in Australia since 2003, with the exception of asbestos already in-situ. Asbestos is still common in older buildings and is found in such materials as:

- Asbestos cement sheeting used in roofs, walls and fences
- Pipes
- Electrical switchboards
- Vinyl floor tiles
- Decramastic roof tiles (metal/brick chip)

Asbestos can cause:

- Mesothelioma
- Asbestosis
- Lung cancer

The risk of contracting an asbestos related disease is related to the amount of exposure, type of asbestos and fibre size.

Historically there were high worker exposures in asbestos mining operations (e.g. Wittenoom), and exposure sources have changed over time. Recent studies have focussed on construction workers' exposure.

Construction and maintenance workers: asbestos exposure and compliance 2010

Safe Work Australia conducted a recent study⁽¹⁾ on asbestos exposure and compliance among construction workers (electricians, plumbers, carpenters and painters). The study involved telephone and in person surveys, focus groups and a literature review.

Most workers were aware of the health risks of asbestos and of how asbestos may be released from building materials. Most believed they could readily identify asbestos containing material. Most thought they knew the methods to use to work safely with asbestos, in particular, the use of respirators and avoiding breaking the material. However in practice, their compliance with safe working methods was incomplete, for example:

- Waste materials and contaminated personal protective equipment (PPE) were not correctly disposed of;
- Workers did not identify all asbestos containing materials;
- Areas near the work area were not kept clean;
- Safe work practices such as wetting down materials and avoiding power tools were not always followed; and
- PPE was sometimes the wrong sort or not adequate.

Workers were more motivated to comply with safe work practices when they knew asbestos was definitely present, if they were interested in protecting their health, if the right equipment was readily available and if their co-workers were also following safe work practices.

Those less inclined to follow safe work practices were those who did not believe their health was at risk or who were prepared to take a risk, those who did not have the right equipment and those who did not know asbestos was present.

Painters were the least likely of the trades surveyed to think they could identify asbestos containing material (30%).

Tradesmen preferred guidance material with task related specific guidance, from a trade association or from OHS authorities.

Air monitoring was conducted as part of the study. Some tasks indicated an exposure risk, including working on fire doors containing asbestos and working in ceiling spaces with friable asbestos containing materials.

The study recommended:

- Awareness campaigns;
- Enforcement of requirements for asbestos registers and labelling of in-situ asbestos;
- Specific illustrated guidance material be developed for construction workers;
- Disposal options for small quantities of asbestos material be developed;
- Trade training to include asbestos hazards and safe work practices.

A follow up study⁽²⁾ to the one above found that workers who had received asbestos specific OHS training had an improved awareness of the hazard and safe work practices. Training provided through trade training or trade associations was beneficial.

Industrial plumbers (UK)

In a study of industrial plumbers in the UK⁽³⁾, 20% of plumbers thought they had worked with asbestos that week. Monitoring indicated 60% had worked with it. Plumbers often did not realise when they worked with asbestos materials. The plumbers did not have a good understanding of safe work practices.

Mesothelioma in Australia⁽⁴⁾ and Asbestos related disease indicators⁽⁶⁾

Mesothelioma takes 20-40 years to develop, so statistics on current disease rates are based on exposures 20-40 years ago. The incidence of mesothelioma in Australia increased from 1.2 per 100,000 in 1982 to 2.7 per 100,000 in 2006⁽⁴⁾. There were 628 mesothelioma deaths in 2008⁽⁶⁾. Mesothelioma incidence is expected to peak between 2014 and 2021⁽⁴⁾. About three quarters of mesothelioma is work related, 10% is not work related and for the rest it is not known what (if any) asbestos exposure the person had⁽⁵⁾.

Highest risk occupations for mesothelioma historically have been:

- Wittenoom worker (17%) (*decreasing*)
- Building industry (15%) (*increasing*)
- Rail worker (7%)
- Wharf worker (5%)

The highest risks going forward are likely to be the building industry (21% and rising) and possibly DIY renovation work⁽⁵⁾.

There were 1,146 hospitalisations for asbestosis between 1998 and 2008. Deaths from asbestosis include those from other causes but which were partly caused by underlying asbestosis. There were 109 fatalities from asbestosis in 2009. The paper⁽⁶⁾ did not quantify deaths from asbestos related lung cancer. Lung cancer risks are much higher for smokers exposed to asbestos than for people with just one of these risk factors.

Asbestos related disease is still occurring. How much of it occurs in the future depends on how we manage exposure today.

Part two: Current regulatory requirements for asbestos work

Identification and assessment of asbestos at workplaces

Duty holders must ensure the presence and location of asbestos at workplaces is identified. The process of identification and assessment of risks is to be conducted in accordance with the *Code of Practice for the Management and Control of Asbestos at Workplaces [NOHSC: 2018 (2005)]*⁽⁷⁾.

Application process – restricted and unrestricted licences

Applications for licences are to be completed using an approved application form and accompanied by the application fee of \$508 for a restricted licence or \$3,990 for an unrestricted licence.

The licence may be issued to individuals or other legal entities (such as Pty Ltd companies).

If an individual applies for a licence, the licence will be issued if the Commissioner is satisfied that the individual is able to do asbestos work in a safe and proper manner and the applicant has the training and experience to properly supervise and manage asbestos work.

If a legal entity other than an individual applies for a licence, the licence will be issued if the Commissioner is satisfied that the applicant has systems in place to ensure asbestos work will be done in a safe and proper manner, and the applicant has nominated at least one person employed or otherwise engaged by the applicant who has the training and experience to properly supervise and manage asbestos work.

Renewal process – restricted and unrestricted licences

A licence is valid for three years. Renewals are by completion of the approved form, with the application fee, no later than 30 days after the licence expires.

The licence holder must continue to satisfy the Commissioner of their ability to carry out asbestos work in a safe and proper manner and that they or (in the case of a business) at least one supervisor has the training and experience to properly supervise and manage asbestos work.

Asbestos removal work – legal requirements

From 1 June 2010 –

Friable asbestos work – must be done by the holder of an Unrestricted Licence or a person employed or otherwise engaged by the holder of an Unrestricted Licence. The asbestos work must be done in accordance with the *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]*⁽⁸⁾.

Non-friable asbestos work involving removal of more than 10m² asbestos containing material must be done by the holder of either a Restricted Licence or an Unrestricted Licence or a person employed or otherwise engaged by the holder of either licence. The asbestos work must be done in accordance with part 9 of the *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]*.

Note: Transitional arrangements apply.

Register of employees - holder of unrestricted licence

The holder of an Unrestricted Licence must notify the Commissioner within 7 days after commencement or termination of either employees or engagement by the licensee of a person to do asbestos work involving friable asbestos containing material. The Commissioner establishes a register of these details and keeps this information for 40 years.

Commissioner may give directions

The Commissioner may issue a written notice directing that tests be conducted to identify the presence of asbestos at a workplace; or to cause any asbestos containing material at the workplace to be removed within a specified time.

Licence and codes to be available

A holder of either an Unrestricted or Restricted Licence must ensure a copy of the following documents are available for inspection at the workplace involving asbestos work:

- Their licence;
- The *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]*; and
- The *Code of Practice for the Management and Control of Asbestos at Workplaces [NOHSC: 2018 (2005)]*.

Asbestos dust and waste material

As far as practicable, no person in the asbestos work area should be exposed to asbestos dust. If it is likely that a person in the asbestos work area may be exposed to asbestos dust then they must be provided with appropriate PPE. On completion of asbestos work the workplace must be left in a clean and safe condition, by either washing or vacuuming, and all asbestos containing material must be left in a safe condition, such that it will not release asbestos dust.

Asbestos waste material must be disposed of in accordance with Part 11 of the *Code of Practice for the Management and Control of Asbestos at Workplaces [NOHSC: 2018 (2015)]*.

Transitional arrangements

Holders of an asbestos removal licence before 1 March 2010 are taken to have been granted an Unrestricted Licence until that licence expires.

Holders of a demolition licence Class 1, 2 or 3 before 1 March 2010 are taken to have been granted a Restricted Licence until that licence expires.

Conclusion

The new licensing regime for asbestos removal has created separate licences for the removal of friable and non-friable (> 10 m²) asbestos containing material. People involved in asbestos work, whether maintenance work, renovation or demolition, and those managing buildings containing asbestos, should familiarise themselves with the requirements.

References

- (1) Safe Work Australia, February 2010, *Asbestos Exposure and Compliance Study of Construction and Maintenance Workers*, available online:
<http://www.safeworkaustralia.gov.au/swa/AboutUs/Publications/ResearchReports2009to2010.htm>
- (2) Safe Work Australia, August 2010, *Asbestos Exposure and Compliance Study of Construction and Maintenance Workers: Follow-Up Report*, available online:
<http://www.safeworkaustralia.gov.au/swa/AboutUs/Publications/ResearchReports2009to2010.htm>
- (3) Bard, D. and Burdett, G. 2007 *Exposure of UK Industrial Plumbers to Asbestos, Part II: Awareness and Responses of Plumbers to Working with Asbestos During a Survey in Parallel with Personal Sampling*. Ann. Occ. Hyg., Vol. 51, No. 2, pp. 113-119, 2007
- (4) Safe Work Australia, April 2010, *Mesothelioma in Australia; Incidence 1982 to 2006; Mortality 1997-2007*, available online:
<http://www.safeworkaustralia.gov.au/swa/AboutUs/Publications/Mesothelioma.htm>
- (5) Safe Work Australia, July 2008, *Preparing an estimate of the national pattern of exposure to asbestos in cases of malignant mesothelioma*, available online:
<http://www.safeworkaustralia.gov.au/swa/AboutUs/Publications/Mesothelioma.htm>
- (6) Safe Work Australia, August 2010, *Asbestos-related Disease Indicators*, available online:
<http://www.safeworkaustralia.gov.au/swa/AboutUs/Publications/DataandStatistics.htm>
- (7) Safe Work Australia, 2005 *Code of Practice for the Management and Control of Asbestos at Workplaces [NOHSC: 2018 (2005)]*, available online:
<http://www.safeworkaustralia.gov.au/swa/HealthSafety/OHSstandards/>
- (8) Safe Work Australia, 2005 *Code of Practice for the Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]*, available online:
<http://www.safeworkaustralia.gov.au/swa/HealthSafety/OHSstandards/>

Further information

WorkSafe

Web: <http://www.commerce.wa.gov.au/WorkSafe/>

Email: safety@commerce.wa.gov.au

Phone: 1300 307 877

Safe Work Australia

Web: www.safeworkaustralia.gov.au

On the Road Again: Vehicles as Workplaces

Alan Green

Inspector, Transport, Wholesale and Retail Team, WorkSafe

Inspector Alan Green joined the Transport, Wholesale and Retail Team at WorkSafe in 2007. Before joining WorkSafe, Inspector Green spent thirty years working in various industries in the private sector.

Inspector Green has worked in the Aviation, Marine, Automotive and Construction Industries. During that period Inspector Green also held the role of employer and Company Director.

Nanotechnology: The Implications for Western Australia

Dr Gerrard Eddy Jai Poinern

*Director, Murdoch Applied Nanotechnology Research Group,
Murdoch University*

Gerrard specialises in the areas of Applied Nanotechnology and built one of the first Australian AFM, nanotool for his Honours in Physics. He has a background in Physics and Chemistry and is keen on Applied Nanosciences. Prior to coming back to Australia, he was a Monbusho Research fellow at the National Accelerator Facility, KEK in Tsukuba Japan where he worked as a beamline manager, (Beamline 8A) for the Soft-X-ray Australia-Japan Scientific Collaboration.

Currently he is the foundation director of the Murdoch Applied Nanotechnology Research Group, MANRG. In the past few years, under this direction his group has pioneered and develop several projects in nanotechnology and bionanotechnology.

He currently holds a US patent for a nanomembrane in the area of skin burns repair and was nominated for the Inventor of the Year 2008. He has also pioneered the manufacture of nanobone by a wet synthesis method, while at Murdoch University.

In addition, Dr Poinern is part of the Strategic India-Australian Scientific Collaboration for Arsenic & Fluoride removal in contaminated water. His group is collaborating strongly with Professor Pritam Singh and Associate Professor Eric Paling in the areas of nanostructure materials for Arsenic removal in aqueous environments. He has designed the WA State NanoCarbon Manufacturing facility as part of his engagement for the West Australian Nanochemistry Research Institute, WANRI.

Turning Theory Into Practice: Developing a Safety Culture

Stan Sexton MA CMIOSH FSI(W)A CSPA

Corporate Manager Safety, Public Transport Authority

Stan is an internationally recognised Health Safety and Risk Management Strategist with a proven record of achievement in quality, service, delivery and performance.

Stan has over 32 years of extensive experience in the health and safety profession in both public and private sectors, including all the emergency services (Police, Fire and Ambulance), transport including road, rail and aviation, government organisations, manufacturing, retail, commercial, construction and public entertainment events such as the Commonwealth Games, Royal International Air Tattoo and the Queen's Jubilee.

He is a corporate member of the Chartered Institute of Occupational Safety and Health and a Fellow of the Safety Institute of Australia

Stan has specialist skills in developing organisational safety, health and risk management culture using the ethos of enabling not disabling outcomes.

Turning Theory into Practice – Developing a Safety Culture



Government of **Western Australia**
Public Transport Authority

Stan Sexton, Corporate Manager Safety, Public Transport Authority

There is substantial information available about safety culture and there are numerous conferences covering the subject.

The most important aspect of safety culture is how employers embrace, implement and deliver the many components of the subject within their organization.

- I will report on a national safety culture project I am currently working on with Professor Verna Blenett from the University of South Australia which includes the 10 platinum rules.

This presentation will provide tangible information to delegates for their future reference such as:

- Successful health and safety management by engaging all stakeholders e.g. employees, safety representatives, managers/supervisors and union officials.
- Hawthorn Theory which in principle identified that everyone benefited by achieving a safety culture i.e. employer and employee.
- Robens philosophy of self regulation and voluntary action and the importance of embracing the spirit of the legislation.
- Three-tiered approach by engaging managers, employees and safety representatives.
- Start of any safety culture project by benchmarking current lead and lag indicators e.g. Lost Time Incidents within the organization or across a service or industry spectrum.

Delegates will also be able to identify tangible safety culture elements, as follows:

- Reinforce the consultation/communication process especially the operation of the safety committee.
- Identify current national industry safety performance data.
- Is your employer/organisation managing safety by indifference, or inspiring through leadership, as the latter is the key to success.
- Engage the hearts and minds of employees.
- Communicate commitment i.e. safety programmes and actions via intranet newsletters and even distribute important information e.g. corporate safety policy via payslips.
- Promote safety and providing the appropriate resources to deliver organizational objectives.
- Training plays a vital role in the development of safety culture e.g. Induction, topic specific workshops i.e. working with contractors etc.
- Assist with the benchmarking process by operating an employee opinion poll every two to three years.
- As part of valuing employees operate a proactive occupational health and rehabilitation programmes.

- Safety policies should be written in plain English with clear aims and objectives, but also identify accountability through the management organisation structure.
- Work in partnership with the regulators e.g. Worksafe, safety representatives and trade union officials.
- As a useful benchmarking exercise employers should work through the health and safety leadership checklist of 10 questions as outlined in the presentation.
- Utilise the ten Platinum rules of safety culture.

Conclusion

There is no magic potion or panacea to achieve a safety culture formula, and employers will require commitment/resilience by having safety as a thread in its everyday business/service provision to achieve successful outcomes. Employers will need a champion or leader to achieve its safety culture objectives, and today I have outlined the many elements that have the potential to bring about success.

Finally, achieving a safety culture will provide many benefits to employers and individual employees such as reduction of accidents' sickness absence, workers compensation claims and employer liability claims. This can also lead to improvements in workforce moral, increased productivity, quality of service and assist in achieving the commitment and retention of employees

Feeling Tired? Managing Fatigue in the Workplace

Isobel Boylan

Director, BSS Corporate Psychology Services

Isobel Boylan is a psychologist based in Perth, Western Australia who consults widely in the mining and heavy industry sector across Australia.

She is a director of BSS Corporate Psychology Services, a company that provides training and consultancy services in the areas of fatigue, drug and alcohol policies and health promotion in the workplace.