

Sun Safety At Work

Policy on Protection from Ultraviolet Radiation for Outdoor Workers

The Cancer Council NSW and Union Safe



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 **The
Cancer
Council**
New South Wales

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1. Introduction

1.1 Purpose

The **Sun Safety At Work** policy has been developed by The Cancer Council NSW and Union Safe. The policy has been developed as a model policy and can be adapted to suit the needs of different workplaces.

The aims of the Sun Safety At Work policy are:

- to reduce employees' exposure to ultraviolet radiation (UVR), and thereby
- to reduce the incidence of, and mortality from, skin cancer

This can be achieved by:

- raising employer awareness of their legal obligations in relation to sun protection under the Occupational Health and Safety Act 2000 and the OHS Regulation 2001
- raising employee awareness of their level of exposure to UVR in the workplace
- supporting workplaces to develop and implement sun protection policies
- increasing outdoor worker's knowledge of sun protection
- improving outdoor worker's sun-protection behaviour during work and leisure time

It is recommended that workplaces do not integrate sun protection into other policies such as general occupational health and safety. Instead, a separate sun protection policy recognising OH&S responsibilities acknowledges the importance of sun protection and is better able to address the range of issues required for a comprehensive policy.

1.2 Definitions

'Act'	means the NSW Occupational Health and Safety Act (2000)
'Regulation'	means the NSW OHS Regulation 2001
'SPF'	means Sun Protection Factor
'UV'	means ultraviolet
'UVR'	means ultraviolet radiation
'UPF'	means Ultraviolet Protection Factor
'PPE'	means personal protective equipment
'OHS'	means occupational health and safety
'AS'	means Australian Standard
'Plant'	means machinery, equipment or vehicles

2. Why a policy on skin protection?

Australia has the highest rate of skin cancer in the world. It is estimated that 1 in 2 people who spend their life in this country will develop skin cancer. Every year in Australia, 8240 new cases of melanoma are diagnosed and 1000 people die from the

disease. Approximately 374 000 new cases of non-melanoma skin cancer (NMSC) – basal cell carcinoma and squamous cell carcinoma are diagnosed, resulting in 360 deaths.

The link between skin cancer and ultraviolet radiation (UVR) has been clearly established and by reducing exposure to UVR almost all skin cancers are preventable.

The workplace is an important source of exposure to ultraviolet radiation for outdoor workers who are at high risk of getting skin cancer because of their high exposure to UVR over extended periods of time.

Nearly all skin cancers (including melanoma) can be cured if detected and treated early. However prevention is better than cure. Treatment for both melanoma and NMSC can require surgery, follow up treatment such as radiation therapy and result in permanent scarring. Practising sun safe behaviours can prevent skin cancer from occurring in the first place.

Risk factors for skin cancer include:

- Being born, or spending your childhood in Australia.
- Working or spending a lot of time in the sun without covering up.
- Age (risk of skin cancer increases with age).
- Having fair or red hair and green or blue eyes and skin that is fair, burns easily, freckles and does not tan.
- Having numerous moles on the skin.
- Family history of skin cancer.
- Having solar keratoses or 'sun spots'.

Cumulative or long-term exposure to UVR as experienced by outdoor workers has been shown to play a key role in developing skin cancer. However, risk for skin cancer is also strongly associated with intense intermittent exposure as often experienced by indoor workers on weekends and holiday. Adults who model good sun protection practices at work need to be encouraged to practice effective sun protection in leisure time.

The overall cost of skin cancer to the community is estimated at over 300 million dollars including absenteeism costs of over 50 million dollars. Individuals may have considerable personal costs for treatment over a course of time.

Ultraviolet radiation (UVR)

Australia has high levels of UVR because of its location in the middle and low latitudes of the Southern Hemisphere. Other factors affecting UVR levels include time of day (UVR levels are highest at solar noon), the season, the cloud cover and the ozone level.

UVR cannot be seen or felt. It comes from the sun and there are three types.

- **UVA:** transmits freely through the earth's atmosphere.
- **UVB:** 15% of UVB transmits through the earth's atmosphere. The other 85% is absorbed by ozone.

- **UVC:** is completely absorbed by ozone and does not reach the earth's surface.

UVA and UVB both contribute to sunburn, skin aging, eye damage and skin cancer.

The Occupational Health and Safety Act

The Occupational Health and Safety Act 2000 states that employers have a duty of care towards their employees. This means that employers are responsible for ensuring the health and safety of all employees. Exposure to UVR has been recognised as an occupational health and safety hazard and employees who work outside must be protected from its harmful effects. Workplaces that employ outdoor workers have a responsibility under the Act to develop and implement a sun protection policy and provide ongoing training to support it.

The key components of a sun protection policy include, but are not limited to, the following:

- Provide and maintain appropriate clothing and equipment to protect outdoor workers from the sun.
- Set up systems of work to reduce the amount of time workers spend in the sun.
- Provide information, training and supervision in consultation with employees regarding prevention and early detection of skin cancer.

Both employers and employees have a duty of care to maintain a safe working environment. Employers are responsible for implementing measures to protect employees from recognised hazards at work and employees are responsible for co-operating with sun protection measures put in place by the employer.

2.3 Case Law

Fox – Union Shipping Australia Ltd, 2003	Gow – Patrick Stevedores No 2 Pty Ltd, 2002
<p>A waterside worker made a claim for permanent loss compensation and medical expenses in relation to skin cancers he developed on his face and body. Mr Fox commenced employment as a waterside worker in 1952. In 1970 he began employment with Union Shipping Australia Ltd until his retirement in 1994. In 1983 he underwent the first in a series of treatments for basal cell carcinoma. In 2001 he was diagnosed with melanoma. Further surgery and treatment to remove skin cancers from Mr Fox's face and body resulted in severe scarring. Soon after secondary melanoma was diagnosed in his lungs and liver. Mr Fox was awarded \$200, 000 lump sum compensation, as well as costs for medical expenses incurred as a result of treatment</p>	<p>A waterside worker sought weekly benefits for a closed period from 20 October 1991 to November 1992, payment of medical expenses and lump sum compensation for severe bodily and facial disfigurement as a result of skin cancer. Mr Gow was employed as a waterside worker from 1964 until he retired in 1991. He began to develop multiple skin cancers in the 1970's requiring removal and treatment. He alleged that his employment either caused or aggravated his skin cancer during his employment as a waterside worker. It was found that Mr Gow's disfigurement is not severe. However, exposure to the sun as a result of his duties as a waterside worker was found to be a contributing factor in the development of skin lesions some of which</p>

for skin cancer and legal costs.	were malignant. Mr Fox was awarded \$2250 compensation, costs for medical expenses and legal costs
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3. Developing the policy

All workplaces which employ outdoor workers should develop a skin protection policy to control worker exposure to UVR. The following steps can help make the policy and its implementation a success:

- Compile information on the number of workers in the organisation, current workplace practices and procedures in similar industries. Prepare information on the current Act and the workplaces duty of care to employees.
- Conduct a risk assessment of the working environment. Consider climatic conditions, availability of shade and clothing requirements of all employees.
- Form a special committee or working party comprising of staff representing a wide cross section of the organisation including employees, management and union representation to plan, develop and implement the policy.
- Establish channels for consultation and communication with staff. By providing staff with the means to discuss concerns and give suggestions the likelihood of compliance increases.
- Incorporate changes to support the policy - such as individuals wearing protective clothing and organisations rescheduling work times or adjusting work environments to ensure there is adequate provision of shade.
- Establish means to monitor and evaluate the policy to ensure it meets workplace and employee needs. Keep a written record of what has been undertaken and the results of all actions and activities.

4. Protective measures in the sun

Employers shall ensure that worker exposure to UVR in the workplace is minimised all year round by implementing a control strategy that includes the following protective measures:

4.1 Change work hours

One of the most effective strategies to reduce exposure to UVR is to review work areas and practices to minimise UV exposure during the peak time, that is 10am – 2 pm (11am – 3pm daylight saving time). Workers should be encouraged to start early in the day – 7am or earlier where possible, use peak UVR times to complete indoor tasks and to rotate indoor and outdoor work so that outdoor work is shared during peak UVR times.

Issues regarding rotation of workers and work hours need to be resolved by the employee and their union.

4.2 Use personal protective clothing and equipment

Clause 15 of the OHS Regulation requires an employer to provide personal protective equipment and the equipment, which is provided must be appropriate for the person and control the risk for that person. The equipment is to be properly maintained, clean and hygienic and stored in a place provided by the employer.

Employees should be provided with an adequate supply and replacement of suitable protective clothing and equipment. Both the design and the type of fabric used in the garment are important in maximising the sun protection it offers.

- Clothing should be loose fitting and cover as much skin as possible.
- Fabric should be from a tight, close weave. Purpose made protective work clothing is available made from fabric with a UPF rating of 40, 45, 50 or 50+. The higher the UPF the better.

UPF Classification System as it is presented in AS/NZS 4399:1996. The table relates UPF to the percentage of UVR transmitted and absorbed by materials. Use it as a reference when selecting protective clothing.

UPF Range	% of UVR absorbed	% UVR Transmitted	UVR protection category
15 to 24	93.3 to 95.8	6.7 to 4.2	Good protection
25 to 39	95.9 to 97.4	4.1 to 2.6	Very good protection
40 to 50, 50+	97.5 >	< 2.5	Excellent protection

As a guide, employees should be provided with a minimum of:

1. Three sets of clothing.
2. One pair of protective sunglasses in accordance with the relevant Australian Standard.
3. One broad brimmed hat or equivalent.

Clothing should be replaced on a wear and tear basis. Frequent laundering will eventually reduce UPF level of fabric and should be taken into account when considering replacing clothing.

When selecting clothing, other hazards must be taken into account. For example, low visibility and the wearing of loose clothing while operating plant and equipment.

Employers who work outdoors are required to wear the following clothing and personal protective equipment at all times such as:

Long sleeved protective shirts

- Shirts with long or three quarter length sleeves and collars to protect the arms and neck.
- Shirts made from a close weave, lightweight, breathable fabric that are loose fitting to allow for air circulation and comfort.
- Shirts with high visibility are recommended to replace standard shirts and safety vests.

Long trousers, skirts or overalls

- Loose fitting trousers or long skirts. If shorts are worn they should come to the knee.
- Workers should choose what type of trousers they prefer, for example - light weight or heavy weight trousers - belt type or tracksuit style.

Broad brimmed hats or hardhat brim attachments

- A broad brimmed hat should be worn at all times. The brim should measure no less than 8-10cm in width.
- If hard hats are to be worn, brim attachments with neck flaps should be attached.
- Hats should be comfortable and made of a close weave material. Hats that have a gauze or mesh section are not suitable, as UV rays will penetrate.

Sunglasses

- Sunglasses which screen out at least 95% of ultra violet light and comply with Australian Standards AS 1067 are to be provided to all outdoor workers.
- If safety sunglasses are required then they need to comply with AS 1337 & 1338.
- Sunglasses and safety glasses should be glare resistant, lightweight, comfortable and fit closely to the face. Wrap around sunglasses offer the best protection.
- Clip-ons are available for people with prescription glasses. Clear lens glasses, which offer UV protection, are also available.
- In selecting eye protection other hazards must be taken into account such as infection control procedures, chemicals, grinders, gases.
- Each employee should have an individual set of glasses.

Sunscreen

- Sunscreen does not offer 100% protection and should always be used in conjunction with other protective measures such as clothing, hats and sunglasses.
- Sunscreen must be easily accessible for all employees. It should be stored in a cool place and should not be used past its expiry date.
- Sunscreen should be labelled broad-spectrum to filter out UVA and UVB. UVA and UVB are known to damage the skin and present a risk for skin cancer.
- Sunscreen should have a sun protection factor (SPF 30+). Sunscreen with an SPF 30+ filters out at least 96.7% of UVR.
- Sunscreen should be applied generously to all areas of exposed skin at least 20 minutes before going outside. It is recommended that an average size adult use one teaspoon of product on each limb. Half a teaspoon should be applied to the face and neck – including ears and back of neck.
- Sunscreen should be labelled water resistant and reapplied every 2 hours.
- Allergies to sunscreen are rare. An employee who develops a skin irritation after using sunscreen should have access to another brand and consult their General Practitioner.
- Lips should be protected with a lip balm containing SPF30+.

4.3 Make use of shade

Ensure that workers have access to shade at any time of the day, and especially during peak UVR times. Shade can be permanent or portable and can be erected and adapted to suit different types of equipment and worksites.

Natural or existing shade

- Use the shade of existing buildings and other structures at the worksite.
- Natural shade such as trees and shrubs may also provide cover.

Synthetic shade cloths and textile or coated textile fabrics

- Put up fabrics such as canvas, sailcloth, awning, PVC coated polyester or umbrella fabric, or use ready-made canopies. These fabrics are generally tightly woven and have an all weather coating.
- Heavy textiles covers block out most light, giving up to 99% ultraviolet protection from direct sunlight.
- Different colours and fabric densities provide different levels of protection.

Tents and umbrellas

- Provide quick and easy portable shade for small numbers of people.
- Check the UPF of tents and umbrella fabrics before buying them.
- Be aware that the more open the shelter is, the more ultraviolet radiation gets in.

The provision of shade will not provide total protection from UVR. It is recommended that outdoor workers adopt personal protective measures such as the wearing of hats, protective clothing and sunscreen in addition to using shade.

5. Training

Training and education for all employees, supervisors and managers is essential before the policy is introduced. Training should include an explanation of the policy and provide workers with an understanding of what control measures are planned and what will be expected of them in the workplace. Training should also include information on the prevention and early detection of skin cancer.

All new employees are to be made aware of the policy as part of their introduction or orientation and sun protection updates should be provided every year.

6. Plant

All new and replacement vehicles shall be air-conditioned and all large areas of glass shall be tinted to provide UV protection.

7. Photosensitive substances

Exposure to photosensitive substances can worsen the effects of solar UVR. Some chemicals, common medications, cosmetics, fruits and plants are known to cause photosensitization. All chemicals used on site must be checked against a material

safety data Sheet (MSDS) to see if they fall into this category. If any are found, appropriate PPE should be worn.

8. Grievance procedures

Any employee who fails to wear any of the personal protective clothing and equipment as supplied, shall be counselled and be requested to wear it. The incident will be reported and the disciplinary procedure as stated in any relevant award, will then be applied.

9. Skin cancer screening

There is currently no evidence to support the benefits of skin cancer screening in the workplace. However many workplaces choose to include skin cancer checks in their regular workplace medical examinations. If skin cancer screening is conducted, the medical practitioner performing the check up should:

- Provide information about early detection and how to check for skin cancer
- Encourage workers to be familiar with their own skin and be aware of any changes to freckles, spots or moles
- Perform a full body examination with adequate time, privacy and lighting for each employee
- Refer the employee to their own General Practitioner or skin specialist if skin cancer is suspected
- Remind workers about the importance of prevention.

10. Contractors

Contractors and sub contractors are required to meet the minimum personal protective clothing and equipment requirements at their own cost. There will be no exemptions to this requirement.

11. Casual employees

This policy will cover all employees, casual, temporary and permanent including such schemes as 'working for the dole' and work experience.

12. Review of policy

This policy should be reviewed and monitored on a regular basis.

