Cancer Council Australia: Submission to Safe Work Australia

2011 Draft Model Work Health and Safety (WHS) Regulations and model Codes of Practice

This submission highlights the importance of controlling exposure to occupational carcinogens in the workplace, which at present is undertaken in a limited, inconsistent and fragmented approach by various jurisdictions around Australia. Cancer Council Australia (CCA) views the current review of WHS regulations by Safe Work Australia as presenting an excellent opportunity to provide all Australian workers with the highest workplace exposure standards based upon the best international evidence.

Background
Cancer is a generic term for a class of diseases in which cell mutation results in uncontrolled growth and destruction of adjacent tissue and if left undetected and untreated, often spreads to other locations within the body eventually leading to death. Australia’s most recent statistics from 2007 suggest there were 108,368 new cases of cancer diagnosed in that year and 39,884 cancer deaths. The risk factors for cancer include: biomedical factors, such as genetic susceptibility; lifestyle factors, such as smoking, alcohol consumption, physical inactivity and diet; and environmental factors, such as exposure to sunlight, radiation, pollution and occupational carcinogens. It is estimated that around one-third of cancers in Australia could be prevented by modifying lifestyle and environmental risk factors, including occupational exposure.

Occupational carcinogens
The IARC list of carcinogens associated with occupational exposure includes the following:

- **Radiation** such as sunlight UV exposure linked to skin cancer, and ionising radiation leading to cancers of the bladder, bone, brain, breast, liver, lung, ovary, skin, and thyroid, as well as leukaemia, multiple myeloma, and sarcomas.
- **Natural substances** such as: asbestos linked to cancers of the larynx, lung and mesothelioma; silica linked to lung cancer; sawdust linked to nasal cancer; contamination on nuts linked to liver cancer.
- **Metals** such as arsenic, chromium and nickel linked to cancers of the bladder, lung, and skin.
- **Metalworking fluids** and mineral oils linked to cancers of the bladder, larynx, nasal passages, rectum, skin, and stomach.
- **Chlorination by-products** such as trihalomethanes linked to bladder cancer.
- **Petrochemicals and combustion products** including motor vehicle exhaust and polycyclic aromatic hydrocarbons (PAHs), linked to cancers of the bladder, lung, and skin.
- **Pesticide exposures** linked to cancers of the brain, Wilms’ tumour, leukaemia, and non-Hodgkin’s lymphoma.
- **Reactive chemicals** such as vinyl chloride linked to liver cancer and soft tissue sarcoma.
- **Solvents** such as benzene linked to leukaemia and non-Hodgkin’s lymphoma; tetrachloroethylene and bladder cancer; and trichloroethylene and Hodgkin’s disease, leukaemia, and kidney and liver cancers.
The International Agency for Research on Cancer (IARC) currently specifies three high risk occupations identified with exposure to known carcinogens (Group 1): iron and steel melding, painting and chimney sweeping. Depending on the composition of the metal, welding can produce fumes containing cadmium, nickel or chromium: all IARC Group 1 carcinogens. Painters are commonly exposed to: petroleum solvents; chlorinated hydrocarbons in paint strippers; titanium dioxide, chromium and iron compounds in paint pigments and lead that was used in the past; and surface preparation may expose painters to asbestos fibres and silica. A further three occupations are listed as exposing workers to carcinogens that probably cause cancer in humans (Group 2A): hair dressing, crop dusting and petroleum refining. Other than specific occupations, the IARC currently lists 29 Group 1 substances and a further 28 Group 2A substances that are likely to be encountered within the workplace. Approximately 1.5 million Australians, engaged in 51 different industries, have been identified as potentially exposed to these carcinogens in the course of their normal work.

The occupational risk of exposure to known carcinogens varies greatly by industry. An estimated breakdown by Australian industry is provided in Table 1.

### Table 1: Est. proportion and number of Australians exposed to occupational carcinogens

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage of workers exposed</th>
<th>Number of workers exposed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forestry and logging</td>
<td>85%</td>
<td>9,300</td>
</tr>
<tr>
<td>Construction</td>
<td>55%</td>
<td>309,700</td>
</tr>
<tr>
<td>Manufacture of plastic products</td>
<td>39%</td>
<td>11,400</td>
</tr>
<tr>
<td>Printing publishing and allied industries</td>
<td>26%</td>
<td>25,700</td>
</tr>
<tr>
<td>Manufacture of machinery except electrical</td>
<td>22%</td>
<td>42,000</td>
</tr>
<tr>
<td>Wholesale and retail trade and restaurants</td>
<td>14%</td>
<td>300,200</td>
</tr>
<tr>
<td>Food manufacturing</td>
<td>11%</td>
<td>14,800</td>
</tr>
</tbody>
</table>

Some occupational carcinogens, such as exposure to sunlight UV radiation, diesel fumes, paint and old asbestos fittings, are encountered in both a domestic and occupational setting. However, the levels of exposure are typically far greater in an occupational setting. For instance, outdoor workers generally receive 5–10 times more UV exposure per year than indoor workers and consequently have a higher than average risk of skin cancer. Similarly, workers employed in renovations, repairs and demolition, such as construction trades, electricians and carpenters, remain at risk of exposure to asbestos in old buildings, even though its use has been banned in Australia since the 1980s.

### Occupational cancer

Due to the latency period between exposure to carcinogens and development of cancer, which can be several decades, it is difficult to estimate with any great certainty the extent to which occupational exposure contributes to the total burden of cancer. Our best Australian estimate suggests occupational exposure to carcinogens contributes to 6.5% of all cancers within Australia (10.8% in men and 2.2% in women). Extrapolated to current cancer rates, this translates to around 7,000 new cases of cancer arising from occupational exposure to carcinogens per year, and 2,500 cancer deaths. To put this figure into perspective, between 2003–2008 Australia saw an average of 273 work-related traumatic injury fatalities per year; occupational exposure to carcinogens resulted in nine-times this number of occupational deaths. This highlights the importance of addressing the issue of occupational exposure to carcinogens as a central component of the draft model WHS regulations.
Recommendations

Adopting Highest Standards throughout Australia

There currently exists a limited and fragmented approach to the process of minimising cancer risk in the Australian workplace, meaning some Australian workers are better protected than others. Australian workers in all jurisdictions deserve the highest standards for workplace exposure, based upon the best international evidence. The omission of any regulations specific to known carcinogens is strongly opposed; rather the highest possible level of regulatory protection should be adopted nationally. Many Australian workers are exposed to hazardous tasks which are addressed in some jurisdictions but not others, and have been ignored by the draft WHS regulations: such as iron and steel founding, welding, electroplating, spray painting and diesel fumes. A non-exhaustive list of examples of current regulations which should be considered for national adoption include:

- SA: Electroplating, Foundries, Spray Painting, Welding
- WA: Moulding and Casting (Foundries), Welding, Spray Painting, Stryene, Isocyanates
- NSW: Spray painting, Welding, electroplating, pest control licence.

Maintaining Up-to-date Hazardous Substances Lists

CCA is concerned that many of the documents and approaches of the Hazardous Chemicals chapter refer to documents that have not been revised for a considerable period, while new materials have entered the workplace and the IARC list of recognised carcinogens has continued to grow. The European Union is in the process of adopting REACH (Registration, Evaluation, Authorisation and Restriction of Chemical Substances), a system based on the principle of ‘no data no use’. Australia’s National Industrial Chemicals Notification and Assessment Scheme (NICNAS) replicates some, but not all of the principles in REACH. However, there is no systematic adoption of NICNAS report findings or assessments into Australia’s workplace Hazardous Substances Regulations.

CCA supports the establishment of a permanent Safe Work Australia hazardous substances committee, with appropriate resourcing so as to ensure up-to-date hazardous substances regulations. CCA also supports the adoption of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) for hazardous substances.

Managing Exposure to Occupational Carcinogens

It is important to make clear that while there appears to be some relationship between level of exposure to carcinogens and risk of developing cancers, very little data exists to suggest minimum safe levels of exposure. For this reason, CCA suggests that Regulation 7.1.32 be redrafted using a format that identifies an order of priority in preferably removing, or if not possible, maximally reducing exposure to hazardous materials from the workplace. An example is set out below:

Reduction of exposure to hazardous materials should be enacted wherever reasonably practicable in the following order:

1. eliminating the hazard or risk
2. if eliminating the hazard or the risk is not reasonably practicable, minimising the risk by measures that must be considered in the following order:
   a. firstly substituting the hazard giving rise to the risk with a hazard that gives rise to a lesser risk
   b. secondly, isolating the hazard giving rise to the risk from the person who may be put at risk
   c. thirdly, minimising the risk by engineering means
   d. fourthly, minimising the risk by administrative measures (for example, by adopting safe working practices)
   e. fifthly, by using personal protective equipment.
A combination of the above measures is required to be taken to minimise the risk to the lowest level reasonably practicable if no single measure is sufficient for that purpose.

Risk Management
CCA has some concerns that there appears no requirement to undertake a risk assessment or to document such a process. This was included in the National Draft policy on Workplace Hazardous Chemicals and is essential to the process for determining the risk control measures necessary to minimise exposures. Substantial parts of this requirement seem to have been included in Regulation 7.1.31. However, an essential component of risk assessment is reflected in Regulation 7.1.32. (c): “the nature of work required to be performed with the hazardous chemical”. CCA suggests the following clarification would be advantageous “including any handling processes within the workplace, and the potential for exposure”. Our concern is that the bypass of the risk assessment process may be interpreted to mean that no duty holder is required to decide if there is potential for exposure.

Labelling
With reference to Regulation 7.1.17, CCA believes a supplier must not supply a hazardous substance if they are aware that it is not properly labelled. CCA also has concerns about the exemption in Regulation 7.1.6 on labelling. Hazardous substances in household quantities should also be labelled appropriately, especially when used in an occupational context. Similarly, in Regulation 7.1.7 containers should be clearly and correctly labelled. If this is not reasonably practicable then another means of recognising the product should be used such as colour and container shape.

In reference to the information supplied to medical practitioners (see Regulation 7.1.13 (2)) CCA believes medical practitioners should be supplied with the hazard information, not just the identity of the ingredients. Additionally, the manufacturer or supplier must supply similar information to the emergency services.

With reference to Regulation 7.1.17, CCA believes a supplier must not supply the chemical if they are aware that it is not properly labelled. Similarly, in Regulation 7.1.7 containers should be clearly and correctly labelled. If this is not reasonably practicable then another means of recognising the product should be used – colour, container shape.

Regulation 7.1.10 duty holders must determine whether substance is hazardous and if it is ensure it is correctly classified. Regulation 7.1.3.1(a) says that the substance is correctly classified if a determination is made about whether it can be classified. In this sub-regulation there is no obligation to classify—just an obligation to determine if it can be classified. The sub-regulation must be amended to provide a positive duty to classify. This error means that the reminder of the regulation, for substances that would met the requirements of the GHS, cannot apply to any duty holder.

Record Keeping
At the moment we have very little idea of how many people are actually exposed to carcinogens, what industries they are in, and what level of exposure they have. This information is required in order to prioritise preventive education and regulation. Requiring organisations to notify exposure to a priority list of carcinogens will raise the awareness of employers and employees regarding exposure at work. The Massachusetts Toxic Reduction Program using the Toxic Use Reduction Act (TURA) is a particularly successful demonstration of this kind where it was noted that the impetus to avoid notification also drives organisations to implement less toxic substitutes and better controls.

CCA suggests that Regulation 7.1.20 should be tightened. The duration for which records on carcinogenic substances are kept should be extended beyond 5 years. Carcinogens, by nature of the pathological processes, have a lag period between exposure and disease presentation generally longer than 5 years. For this reason this must be extended to 40 years of record keeping. This would greatly
assist in improving our data relating to the carcinogenic risks to which Australian workers are exposed, whilst simultaneously provide impetus for workplaces to find safer substitutes.

**Sunlight UV Exposure**

In 2008 SunSmart assisted Safe Work Australia in the development of the *Guidance note for the protection of workers from ultraviolet radiation in sunlight*. Whilst this Guidance note provides industry with recommendations of how to reduce UV exposure in the workplace, inclusion of this information into WHS regulations and codes of practice will ensure skin cancer prevention is uniformly addressed and implemented in the workplace setting. This is not currently happening.

It is essential skin cancer prevention and early detection are reflected adequately in Work Health and Safety Regulations and Codes of Practice.

CCA recommends:
- Establishing an additional code of practice specifically for solar UV radiation which outlines how a person with health and safety duties should create a work environment that is without risks to health and safety, including developing a comprehensive UV protection program.
- Incorporating the suggested additions to draft model WHS regulations and draft codes of practice as stipulated in attachment 1 (using the submission template).

**Conclusion**

The Cancer Council Australia is committed to maximising every possible opportunity to prevent cancer among Australians. We believe identifying and removing known cancer causing agents to the maximum possible degree is an important means of achieving that objective. Every possible action should be taken to ensure Australian workers can earn their living in the absence of increasing their cancer risk. Adopting the highest possible standards of workplace protections in this sphere nationally is an essential step towards this goal.
References


**Model Work Health and Safety Regulations and Codes of Practice Public Comment Response Form**

<table>
<thead>
<tr>
<th>Individual/Organisational name: Cancer Council Australia</th>
</tr>
</thead>
</table>

### Section A: Model Work Health and Safety Regulations Exposure Draft

General Comments (e.g. regulatory impact, level of prescription, notification, record-keeping requirements)

At the moment we have very little idea of how many people are actually exposed to carcinogens, what industries they are in, and what level of exposure they have. This information is required in order to prioritise preventive education and regulation. Requiring organisations to notify exposure to a priority list of carcinogens will raise the awareness of employers and employees regarding exposure at work. The Massachusetts Toxic Reduction Program using the *Toxic Use Reduction Act* (TURA) is a particularly successful demonstration of this kind where it was noted that the impetus to avoid notification also drives organisations to implement less toxic substitutes and better controls.

### Chapter 1: Preliminary (e.g. definitions)

### Chapter 2: Representation and participation (e.g. power to request review of risk control measures in certain circumstances)

### Chapter 3: General workplace management

#### Part 3.1 General working environment
Include the provision of artificial shade as protection against sunlight UV exposure.

#### Part 3.2 Personal protective equipment
Include sun protection clothing as personal protective equipment against sunlight UV exposure.

#### Part 3.3 First aid

#### Part 3.4 Emergency plans

#### Part 3.5 Review of general workplace management measures

### Chapter 4: Hazardous work

Given that outdoor workers are one of the highest risk groups in the Australian population of developing skin cancer, suggest including additional subsection entitled ‘outdoor work’ for sunlight UV exposure

#### Part 4.1 Noise

#### Part 4.2 Hazardous manual tasks

#### Part 4.3 Confined spaces

#### Part 4.4 Falls

#### Part 4.5 High risk work (e.g. Accreditation of Assessors)

#### Part 4.6 Abrasive blasting

#### Part 4.7 Electrical work

#### Part 4.8 Diving work

### Chapter 5: Plant and Structures

### Chapter 6 Construction (e.g. construction induction requirement)
**Chapter 7: Hazardous chemicals** Suggest changing the title of this chapter to ‘hazardous substances’ as neither lead nor asbestos are ‘chemicals’ *per se*. There is also no provision for other significant occupational non-chemical carcinogens such as mineral oils, wood dust, diesel exhaust fumes and crystalline silica.

<table>
<thead>
<tr>
<th>Part 7.1 Hazardous chemicals</th>
</tr>
</thead>
</table>
| With reference to **Regulation 7.1.17**, CCA believes a supplier must not supply a hazardous substance if they are aware that it is not properly labelled. CCA also has concerns about the exemption in **Regulation 7.1.6** on labelling. Hazardous substances in household quantities should also be labelled appropriately, especially when used in an occupational context. Similarly, in **Regulation 7.1.7** containers should be clearly and correctly labelled. If this is not reasonably practicable then another means of recognising the product should be used such as colour and container shape. In reference to the information supplied to medical practitioners (see **Regulation 7.1.13 (2)**) CCA believes medical practitioners should be supplied with the hazard information, not just the identity of the ingredients. Additionally, the manufacturer or supplier must supply similar information to the emergency services.

With reference to **Regulation 7.1.17**, CCA believes a supplier must not supply the chemical if they are aware that it is not properly labelled. Similarly, in **Regulation 7.1.7** containers should be clearly and correctly labelled. If this is not reasonably practicable then another means of recognising the product should be used – colour, container shape.

**Regulation 7.1.10** duty holders must determine whether substance is hazardous and if it is ensure it is correctly classified. **Regulation 7.1.3.1(a)** says that the *substance is correctly classified if a determination is made about whether it can be classified*. In this sub-regulation there is no obligation to classify—just an obligation to determine if it can be classified. The sub-regulation must be amended to provide a positive duty to classify. This error means that the reminder of the regulation, for substances that would meet the requirements of the GHS, cannot apply to any duty holder.

7.1.20 – Given the development of cancer can be several decades after exposure to a carcinogen, limiting record keeping to only five years is unlikely to assist in the identification of unsafe work practices in this regard. We recommend record keeping be extended to at least 40 years.

| Part 7.2 Inorganic lead |
| Part 7.3 Asbestos |

**Chapter 8: Major hazard facilities**

**Chapter 9: Mines**

**Chapter 10: General**

Part 10.1 Review of decisions

Part 10.3 Exemptions
### Section B: Model Codes of Practice

**General Comments**

- How to manage work health and safety risks
- How to consult on work health and safety
- Managing the work environment and facilities
- Managing noise and preventing hearing loss at work
- Hazardous manual tasks
- Confined spaces
- How to prevent falls at the workplace
- Labelling of workplace hazardous chemicals
- Preparation of safety data sheets for hazardous chemicals
- How to manage and control asbestos in the workplace
- How to safely remove asbestos
- Facilities for construction sites

### Appendix

- Penalty levels
- Infringement notices

### Other Comments