



SMOKE DETECTORS IN RESIDENTIAL HOUSING POLICY

The Public Health Association of Australia notes that:

1. Each year in Australia an average of 110 people are killed in residential fires (1).
2. Most deaths in residential fires occur at night, when the occupants are asleep and almost half of the deaths are as a result of smoke inhalation, not burns. Those who die from burns are often first incapacitated by smoke. Fire Brigades figures show that in the decade to 1999-2000, 88 per cent of fire deaths occurred in dwellings with no smoke alarms.
3. Smoke alarms are able to give early warning in the event of a residential fire, allowing the occupants to exit the building. Published reports indicate that the risk of death in a house fire is reduced by 60 per cent if a smoke alarm is installed (2) and that programs to increase the installation of smoke alarms can reduce death and property loss (the latter because emergency services are called earlier).
4. Smoke alarms are mandatory in ALL dwellings in New South Wales, Victoria, Queensland and South Australia. Since September 1994, new homes in the ACT have been required to have mains-powered smoke alarms installed. It is also a requirement to have smoke alarms installed in ACT home extensions that impact on sleeping and living areas.
5. The Building Code of Australia requires that smoke alarms be fitted in all new residential properties and several states require smoke alarms be fitted in all residential properties. Additionally, some insurance policies now make it compulsory to have smoke detectors fitted.
6. In NSW under the Building Legislation Amendment (Smoke Alarms) Bill, a "building" includes a manufactured home, a moveable dwelling or associated structure, and a building erected before the commencement of the section (4).
7. The NSW Building Legislation Amendment (Smoke Alarms) Bill also amends the Residential Tenancies Act to provide for a landlord's access to residential premises to install an alarm in accordance with a requirement under proposed section 146A of the Environmental Planning and Assessment Act. All rental properties will be covered by these amendments, and further regulations to be developed under the Conveyancing Act 1919 will require people selling their homes to state whether smoke alarms are installed (4).
8. It is estimated that the percentage of homes with smoke alarms installed has risen from 28 per cent in the early 1990s to approximately 73 per cent in 2004, as

a result of community education campaigns encouraging home owners and occupants to install smoke alarms (4).

9. The peak representative body for fire and emergency services and land management agencies in the Australasian region is Australasian Fire Authorities Council (AFAC).
10. There are two types of smoke alarms: ionisation and photoelectric. Ionisation alarms use the radiation from a small amount of radioactive material to detect smoke or heat sources. Photoelectric alarms use sensors to detect the change in light level caused by smoke. (5,6)
11. The risks associated with the small amounts of radioactive material in ionisation smoke alarms are insignificant. (5,6)
12. The safest and most cost effective method of disposal for individual or small numbers of smoke alarms is to include them in the domestic rubbish, and subsequently being placed in an approved landfill site. (5,6)

The Public Health Association of Australia believes that:

13. All homes should be fitted with smoke alarms to offer the early warning necessary to escape a fire alive according to the following recommendations:
 - photoelectric smoke alarms should be installed in paths of travel between sleeping areas and exits to the open air or to common corridors;
 - either photoelectric smoke alarms or ionisation smoke alarms be installed in all sleeping areas;
 - where a smoke alarm is to be located in close proximity to a kitchen or bathroom because the location is in a sleeping area or in the path of travel to an exit, then the smoke alarm should be a photo-electric smoke alarm;
 - every house should have enough alarms installed on every level– at least one outside sleeping areas and one on each additional level; and
 - new homes should include fire alarms hard-wired to 240 volt electrical circuits and fitted with battery back-up, and existing homes should be installed with battery-operated smoke alarms.
14. All smoke alarms installed in residential accommodation must meet Australian Standard 3786 or Australian Standard 12239.
15. Governments have an obligation to protect the occupants of public housing through installation of smoke alarms in publicly owned residential housing.
16. Landlords also have an obligation and in some states are required by law to insure that smoke alarms are installed in their properties.

17. The insurance industry, which has a substantial stake in property protection, should examine its responsibilities and obligations in relation to the provision of smoke alarms, particularly in areas where there are low numbers of smoke alarms. In particular, the industry can look at ways of assisting residents in low-income areas who may have reservations about purchasing smoke alarms.

The Public Health Association of Australia resolves that:

18. The Board and Branches, advised by the Injury Prevention Special Interest Group, should request all State and Territory governments to work with the Australasian Fire Authorities Council (AFAC) to initiate public education campaigns to:
- Work toward compulsory use of smoke alarms in all dwellings across ALL states and territories;
 - Encourage families to practise fire drills and to test escape routes;
 - Test smoke alarms monthly to ensure the battery and the alarm sounder are operating;
 - Clean smoke alarms with vacuum cleaners annually to remove particles that may affect smoke alarm performance;
 - Replace removable batteries, including those powered primarily by 240 volts, annually;
 - Replace smoke alarms as recommended in the manufacturer's warranty acknowledging that smoke alarm units have a limited life span.
19. The Board and Branches, with advice from the Injury Prevention Special Interest Group, will alert Commonwealth, State and Territory governments to the need to:
- Enact legislation or regulations (where not currently in place) to mandate the installation of smoke alarms in all residential facilities;
 - Install, or continue to install, smoke alarms in publicly-owned housing.
20. The Injury Prevention Special Interest Group will involve its members in supporting:
- Public education campaigns advocating installation of smoke alarms, maintenance of smoke alarm units, and the use of fire reduction measures, particularly in low-cost rental housing;
 - Monitoring of issues regarding safe disposal of old ionising (radioactive based) alarms.

Adopted at the 1992 Annual General Meeting of the Public Health Association of Australia, amended at the 1996, 2002, 2005 and 2008 AGMs of the PHAA.

References:

1. Accidental Fire Fatalities in Residential Structures *Who's at Risk?* March 2005. Commissioned and published by the Queensland Fire and Rescue Service.
2. Cited in Ozanne-Smith J. Watson W. A review of product related fires. Monash University Accident Research Centre. Melbourne 1991.
3. Australian Radiation Laboratory Information Sheet, June 1994, Radioactivity in Domestic Smoke Detectors
4. <http://www.parliament.nsw.gov.au/prod/parlment/hansart.nsf/V3Key/LA20050621024>
5. Radioactivity in Domestic Smoke Alarms. Fact Sheet #6. Australian Radiation Protection and Nuclear Safety Agency
6. Policy on Disposal of Ionisation Chamber Smoke Detectors. Radiation Safety Policy. Queensland Health. December 2002