Workplace Noise Fact Sheet

MOBILE SCREENING

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Prepared by Mobile Screening using information sourced from Safe Work Australia

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28-32%

Of the Australian workforce is likely to experience loud noise at work.*

Source: Safe Work Australia

Health and safety obligations of employers

By law, under the *Work Health and Safety Act 2011*, employers must provide and maintain a working environment that is safe and free of risks to health, so far as is reasonably practicable.

Under the model Work Health and Safety Regulations (model WHS Regulations) published by the Parliamentary Counsel's Committee and released by Safe Work Australia WHS Regulations an employer must:

- Make sure the noise a worker is exposed to at the workplace doesn't exceed the exposure standard for noise.
- Provide audiometric testing to a worker who is frequently required to use personal hearing protectors to protect them from hearing loss associated with noise that exceeds the exposure standard.

What is too much noise?

There are two measures that define too much noise according to the model WHS Regulations. They are:

- LAeq,8h of 85 dB(A)
- LC,peak of 140 dB(C)

LAeq,8h of 85 dB(A) means that over an eight-hour shift a worker can't be exposed to more than 85 decibels averaged over an eight-hour period. Whether this is exceeded depends on the level of noise involved and how long a worker is exposed to it.

LCpeak of 140 dB(C) means a worker can't be exposed to a noise level above 140 decibels. Any exposure above this peak can create almost instant damage to hearing. Peak noise levels greater than this usually occur with impact or explosive noise.

A small increase in decibels can mean a lot

The decibel scale is logarithmic so that an increase of 3 dB represents a doubling or twice as much sound energy. This means that the length of time a worker could be exposed to the noise is reduced by half for every 3 dB increase in noise level if the same noise energy is to be received.

The table below demonstrates the length of time a person without hearing protectors can be exposed before the standard of LAeq,8h of 85 dB(A) is exceeded.

Equivalent noise exposures LAeq,8h = 85 dB(A)	
Noise level dB(A)	**Exposure time**
80	16 hours
82	12 hours
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7.5 minutes
106	3.8 minutes
109	1.9 minutes
112	57 seconds
115	28.8 seconds
118	14.4 seconds
121	7.2 seconds
124	3.6 seconds
127	1.8 seconds
130	0.9 seconds

Did you know?

Mobile Screening only uses Class 1 sound level and dosimeters for noise assessments. Class 1 is precision grade and internationally recognised as the most accurate.

Our dosimeters offer the most advanced technology in a compact and ergonomic design. There are no cables to interfere with your employees' work and with a secure and contoured shoulder mount, your staff will barely notice the device as they work.

How do I know if the workplace is too noisy?

As a general guide, noise is a problem in the workplace when employees have to raise their voice to communicate at a distance of one metre and/or employees have a temporary reduction in hearing or ringing in the ears after leaving work for the day.

However, the only accurate way to determine if a workplace is too noisy is to conduct a formal noise assessment. A workplace noise assessment will help employers:

- identify which workers are at risk of hearing loss
- determine what noise sources and processes are causing that risk
- identify if and what kind of noise control measures could be implemented
- check the effectiveness of existing control measures

What happens during a workplace noise assessment?

A workplace noise assessment involves using two pieces of specialised equipment: a sound level meter and a dosimeter.

A sound level meter is a device that measures the intensity of sound at a given moment at a given location. The assessor will take measurements at several locations within the workplace.

A dosimeter is like a sound level meter except that it stores sound level measurements and integrates these measurements over time, providing an average noise exposure reading for a given period, such as an eight-hour workday. Since the dosimeter is worn by the employee, it measures noise levels in those locations in which the employee travels.

Steps to control noise in a workplace

The model WHS Regulations require employers to work through a hierarchy of control to choose the measure that eliminates or most effectively minimises the risk of noise in the workplace.

The most effective control measure is to eliminate the source of noise completely. This is not always possible or practical though, so options to reduce it should be explored.

These can include engineering controls (e.g. modify equipment to reduce noise at the source or place barriers to reduce sound transmission) or administrative controls (e.g. operating noisy machines during shifts where fewer people are exposed or limiting the amount of time a person spends near a noise source).

Personal hearing protectors, such as ear-muffs or ear-plugs, should be used:

- when the risks arising from exposure to noise can't be eliminated or minimised by other more effective control measures.
- as an interim measure until other control measures are implemented.
- where extra protection is needed above what has been achieved using other noise control measures.

More information

A helpful and detailed resource for employers is the Code of Practice for Managing Noise and Preventing Hearing Loss.
https://www.safeworkaustralia.gov.au/system/files/documents/1702/managing_noise_preventing_hearing_loss_work.pdf