

Workplace Noise Control A Necessity

A solution to industrial noise-induced hearing loss



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Introduction

Noise is a natural by-product of economic growth, but as the world is getting noisier, our health and productivity are suffering as a result.¹

From manufacturing workplaces, engineering workshops and mine sites, to a printing press or food manufacturing plant; all workplaces have at least some level of noise concern.

People exposed to even fairly modest levels of sound have been found to show increased stress levels, irritability and

loss of sleep, while long term exposure to excessive noise has been explicitly linked to the appearance or worsening of high blood pressure and heart disease.² Not surprisingly, noise has also been found to undermine productivity.

Recognising that sound has the potential to significantly impact the well-being of workers is a start, but taking the necessary actions to control noise to easily transform productivity, enhance talent retention, improve worker safety and well-being, and promote reduced-stress business practices is a necessity.

How can noise affect your life?

Noise-induced hearing loss is one of the most common occupational injuries, resulting in health problems for many workers and presenting a significant social and economic cost to Australia.

The economic burden of Occupational Noise-Induced Hearing Loss (ONIHL) is borne by workers and their families, business owners and managers and the wider society. The 2010 Safe Work Australia Occupational Noise-Induced Hearing Loss in Australia report notes 16,500 successful workers' compensation claims for industrial deafness involving permanent impairment due to noise between 2002 and 2007.³

The human cost of noise-induced hearing loss is extremely high. Lost jobs, increased absenteeism, social isolation, decreased production output and performance, lost opportunities for promotion or other employment, impaired family and social relationships, reduced quality of life and increased risk of workplace injuries and accidents are all direct results of noise-induced hearing loss.

While noise-induced hearing loss occurs gradually over a long period of time, hearing loss is permanent. Rather than being passive and waiting for disaster to strike, workers as well as operations, factory and OHS managers need to be proactive in their approach to setting solutions in place to limit the risk of workplace noise-induced hearing loss.



The hierarchy of control

Noise in the workplace is a common hazard and the most common control measure is wearing PPE for hearing protection. However PPE is not considered a particularly effective control method and should only be used;⁴

1. When all other control measures are impractical; or
2. In conjunction with other more effective control measures

Hazard controls should be determined according to the “Hierarchy of Control” system, using the elements of elimination, substitution, isolation, engineering, administration and personal protective equipment (PPE) in their specific order, and where appropriate, used in conjunction with each other.

In order to find the most effective way to reduce hazards associated with noise in the workplace, they can be applied to the hierarchy of control.⁵

Stage 1: Eliminate the noise

Can the process or plant that generates the noise be replaced completely? For example, can the process be changed so that it doesn't create a noise hazard at all? If the noise cannot be eliminated...

Stage 2: Substitute the noise

Can the production process be undertaken in a different, quieter way, or with different plant that does not make as much noise when operated? If the noise cannot be made quieter through substitution...

Stage 3: Isolate the noise

Can the source of the noise be relocated to an area where it will not expose workers in the vicinity to a hazard (although in this case, neighbours would then

need to be taken into consideration as well)? If an engineering modification cannot reduce the noise level...

Stage 4: Engineer out the noise

Can you apply something that can muffle the noise or create an enclosure or barrier around the source of the noise that will contain the noise but still allow access for operation and maintenance? If the noise cannot be eliminated or minimised by isolating it...

Stage 5: Implement administrative controls

Use inductions and signage to inform everyone in the area that it is a noise hazard zone and precautions are needed to prevent potential hearing loss. If administrative controls are not enough...

Stage 6: Provide personal protective equipment (PPE)

Provide hearing protection to all employees and visitors in the noisy area, and make sure they wear it. This involves information, instruction, training and record-keeping of the PPE.

Remember that the provision of PPE to your workers as a control measure should complement other control measures you have in place to reduce the risk caused by the hazard – PPE and administrative controls should not be the only measures taken to control risk.

By implementing proper workplace and equipment design and adequate management practices, workplaces can control occupational noise levels and workers' exposure, thereby reducing the risk of hearing loss and other adverse outcomes.

Flexshield – an industrial noise control solution

With over 10 years of experience, Flexshield is Australia's leading manufacturer, supplier and installer for industrial noise control and environmental noise control products; supplying to numerous companies within the manufacturing, construction, mining and water and power generation industries.

Flexshield offers a range of customised industrial noise control and soundproofing products and services, as well as a comprehensive range of safety and operational solutions including; acoustic enclosures, acoustic doors, acoustic curtains, acoustic blankets, attenuators, flexible acoustic barriers, baffle silencers, modular acoustic panels and many more customisable solutions.

To ensure that your workplace and equipment complies with Industrial Noise Control, Flexshield products are also backed by comprehensive National Association of Testing Authorities (NATA)⁶ accredited test results.

Flexshield will come to your facility throughout any stage of development and provide a turnkey customised solution to your Noise Control problems, allowing you to exceed Australian Standards for Noise Management and Protection of Hearing at Work⁷; ultimately reducing the risk of industrial deafness, noise complaints and liabilities.

REFERENCES

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