

Noise

Pocket guide



Noise

Quality of life can be badly affected by noise induced hearing loss. For example, people may find that:

- Conversation becomes difficult or impossible
- They have trouble using the telephone
- They find it difficult to catch sounds like 't', 'd' and 's', and so confuse similar words
- They may suffer from permanent tinnitus (ringing, whistling, buzzing or humming in the ears) which can be a distressing condition and can lead to other problems, including depression and loss of sleep
- Their families complain about the television being too loud.

Over 17,000 people in the UK suffer deafness, ringing in the ears or other ear conditions caused by excessive noise at work.



Industry Perspective

The construction industry is a high risk industry for noise related ill health. Many construction processes are noisy.

If you have to raise your voice to have a normal conversation when standing about 2 metres apart, for at least part of the day, then noise levels on the site may be at a level which could damage health.

In the UK the main source of information on hearing loss in the construction industry comes from the IIDB (Industrial Injury Disablement Benefit) scheme. This was set up following changes to the laws Surrounding Noise in 2005.

An estimated **15,000** people working during the last year suffered from Noise Induced Hearing Loss (new as well as longstanding cases) caused or made worse by work, based on data from the Labour Force Survey (averaged over 2011/12, 2013/14 and 2014/15), equating to a rate of **48 cases per 100,000** people employed in the last 12 months.

This rate is statistically significantly lower than the corresponding rate ten years earlier of **68 cases per 100,000** people, with an associated estimate of **20,000** people (averaged over 2001/02, 2003/04 and 2004/05).

What is Noise?

Generally, noise can be defined as any unwanted sound. Noise could occur unexpectedly, or be too loud or repetitive. At certain decibels, it can be hazardous to health, with low frequency noise as damaging as loud noise. Noise accounts for most of the complaints that local councils and the Environment Agency receive about environmental pollution and is a major source of stress.

Who is at Risk?

Workers are at higher risk if they regularly use or work near to power tools like concrete breakers, pokers and compactors, sanders, grinders, disc cutters, hammer drills, chipping hammers, cartridge-operated tools, scabblers and needle guns.

Anyone who operates or works close to heavy plant / machines is also at risk.

What Does The Law Say?

There are 2 main pieces of legislation related to noise.

The Noise at Work Regulations Act 1989 was the first act to specifically cover noise in the workplace. Since then however this has been replaced by The Control of Noise at Work Regulations Act 2005.

The Control of Noise at Work Regulations 2005 (the Noise Regulations) came into force for all industry sectors in Great Britain on the 6th of April, 2006.

The aim of the Noise Regulations 2005 is to ensure that each worker's hearing is protected from excessive noise at their place of work, which could cause them to lose their hearing and/or to suffer from tinnitus (permanent ringing in the ears).

Depending on the level of risk the law states that you should take action to reduce the noise exposure and also provide your employees with personal hearing protection.

Other duties under the Regulations include the need to:

1. Make sure the legal limits on noise exposure are not exceeded
2. To ensure that the equipment you provide to control noise risks is maintained properly
3. Provide your employees with information, instruction and training
4. Carry out health surveillance (monitor the hearing ability of the workforce).

Assessing, Reducing and Controlling Construction Noise

Assessing

Noise is measured in decibels (dB). An 'A-weighting' sometimes written as 'dB(A)', is used to measure average noise levels, and a 'C-weighting' or 'dB(C)', to measure peak, impact or explosive noises.

In the UK Construction Industry exposure to noise is not supposed to go beyond 85 decibels and exceed 8 hours a day, with peak noise levels having a limit of 137 decibels.

Conducting Risk Assessments will not only ensure you are complying with the law, but will also provide a noise profile, so problem / loud activities or site areas can be identified. This will make reducing and controlling the noise easier.

The problem in construction is that most of the equipment used can be louder than the safe limit.

Noise level examples



Raindrops

40dB



Conversation

60dB



Chainsaw

110dB



Gun shot/
fireworks

140dB

Reducing and Controlling Noise

There are many ways of reducing noise and noise exposure. It is within the capabilities of nearly all businesses to decide on practical, cost-effective actions to control noise risks.

Enclosed spaces can reflect noise back, increasing exposure levels.

Think about how to remove the source of noise altogether – for example, housing a noisy machine where it cannot be heard by workers, if this is not possible then consider:

- Using quieter equipment or a different, quieter process

- Engineering / technical controls to reduce, at source, the noise produced by a machine or process
- Using screens, barriers, enclosures and absorbent materials to reduce the noise on its path to the people exposed
- Designing and laying out the workplace to create quiet workstations
- Improved working techniques to reduce noise levels
- Limiting the time people spend in noisy areas.

Ensure that controls, such as work methods or hearing protection, are effective and properly used.

Speedy supply a number of products to hire or buy, linked to training programmes, to help reduce and control construction noise levels.

Products

A selection of products on offer to help manage the risk of noise.



Cygnus 24 kVA Hybrid Power Generator

41/2030



VT Hybrid Lighting Tower

48/0005



Speedy Noise Defence System

08/0858

For more products and information visit
speedyservices.com/intelligentsafety

Training

Workplace Safety

Code: 99719075

Description: Noise Awareness & Hearing Protection

Assessment: Theory

Certification Type: Certified

Duration: 0.5 days

Length of certification: 3 years

Max number of delegates: 12

Teaching Environment: Class

Who Should Attend: This programme is designed for any person that works in high noise areas (85db(A) and above). Employees, team leaders, supervisors and Managers.

Aim: To provide delegates with a thorough understanding of how the ear works and how noise can have an effect on a person's ability to hear. By the end of the course delegates will be able to identify dangerously noisy environments and be able to take suitable steps to reduce the effects of noise damage.

Course Content

- Legal requirements and responsibilities
- Controlling exposure to noise
- How the ear works
- Selecting and using suitable hearing protection
- How noise affects the ear
- Who is at risk?

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