

## FACT SHEET

# NOISE IN CONSTRUCTION

Many construction tasks, tools and equipment produce high noise levels, which can lead to hearing problems.

This fact sheet outlines ways you can manage noise at your workplace.

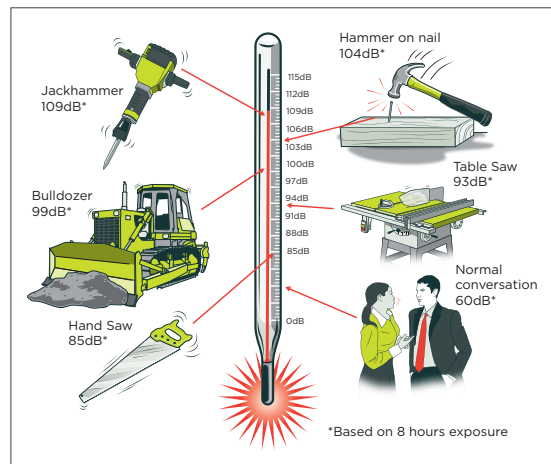
### HOW DO YOU KNOW WHEN NOISE IS A PROBLEM AT YOUR WORKPLACE?

If you have to raise your voice to have a normal conversation when standing about a metre apart, for at least part of the day, then noise levels on the site could damage hearing. There could also be a problem if there are sudden extremely loud noises on the site, such as from cartridge operated tools, or if at the end of the day you notice that your hearing is muffled or your ears are ringing.

### WHAT IS THE BEST WAY TO MANAGE NOISE AT A CONSTRUCTION SITE?

Some practical examples of how you can reduce noise are:

- > Eliminate noise during design. For example, design ducts into a structure rather than chasing channels in walls.
- > Substitute a less noisy process. For example, use a hydraulic block splitter rather than a cut-off saw to cut blocks.
- > Remove people from the vicinity of noisy work. For example, use a machine mounted breaker on an excavator with a good quality cab and exclude other people from the area while the breaker is in use.



- > Select quiet equipment. For example, compare noise levels from power tools when buying or hiring equipment. Use information from the manufacturer or supplier, and choose the quietest tools that are effective for the job. You can also reduce noise when selecting other types of tools. For example, choose plastic or rubber hammers rather than metal to free collars on falsework legs.
- > Where noise levels still exceed 85 decibels (dB) provide hearing protection for your workers. For example, earmuffs and earplugs. Ensure that all workers wear hearing protection equipment (HPE) and that it is correctly fitted.

### CAN YOU RELY ON HEARING PROTECTION ALONE WHEN CARRYING OUT NOISY WORK?

It is not acceptable to rely on hearing protection alone to control noise exposure.

Hearing protection should only be used when extra protection is needed after using noise control techniques (such as elimination of noisy tasks, substituting quieter processes, removing people from noisy areas and selection of quiet equipment).

If, after taking these measures, hearing protection is still required:

- > make sure the protectors provided give enough protection – aim at least to get below 85 decibels (dB) at the ear, but don't provide excessive protection as protectors which cut out too much noise can cause isolation or lead to an unwillingness to wear them
- > target the use of protectors to the noisy tasks and jobs in a working day
- > select protectors which are suitable for the working environment – consider how comfortable and hygienic they are
- > think about how they will be worn with other protective equipment (eg hard hats, dust masks and eye protection)
- > provide a range of protectors so that employees can choose ones which suit them
- > make sure your workers are educated about noise and trained in how and when to use the hearing protectors
- > make sure your workers have their hearing tested regularly (ie baseline and annual audiometry exam and questionnaire).

#### **IS IT NECESSARY TO MEASURE NOISE LEVELS AT A CONSTRUCTION SITE?**

In many cases a hazard assessment for noise at a construction site can be prepared without using equipment to measure the noise levels. The assessment must be based on reliable information and should include a realistic estimate of worker exposure.

You may find it useful to observe work activities, measure the exposure time over part of the day and use this to estimate exposure during a full shift. If an employee is exposed to excessive noise from more than one tool or work process during a typical day, you will need to collect information about the likely noise level(s) and exposure time for each source.

Information from manufacturers or suppliers about noise levels produced by the equipment can be used to estimate the daily exposure unless there is reason to believe it is not valid, for example if the tool is being used in a way not specified by the manufacturer or supplier, or in other circumstances where the noise exposure emission may be increased or altered.

There are also noise measurement phone apps available. They are limited in accuracy but may give an indication of the noise levels.

You can use the following checklist to identify if noise is a hazard on your construction site.

#### **Further information**

This fact sheet has been developed using the following resources:

- > UK Health and Safety Executive's FAQ page on **Noise in Construction**<sup>1</sup>.
- > Safe Work Australia's **Managing Noise and Preventing Hearing Loss at Work Code of Practice**<sup>2</sup>.

Further information can also be found in the following resources:

- > WorkSafe New Zealand's ACOP for the **Management of Noise in the Workplace**.
- > ACC's Guide to **Noise Control**.

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<sup>1</sup> UK Health and Safety Executive. Construction: FAQ- Noise. Retrieved from [www.hse.gov.uk](http://www.hse.gov.uk)

<sup>2</sup> Safe Work Australia. (2011). *Managing Noise and Preventing Hearing Loss at Work*. Retrieved from [www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)

# NOISE HAZARD IDENTIFICATION CHECKLIST

Description of work location:

Activities at workstation:

Assessed by:

Date: DD / MM / YEAR

'Yes' to any of the following indicates the need to carry out a noise assessment if exposure to the noise cannot be immediately controlled.

## HAZARD IDENTIFICATION QUESTIONS

1. Do you need to raise your voice to communicate with someone about one metre away?	<input type="checkbox"/> yes	<input type="checkbox"/> no
2. Do your workers notice a reduction in hearing over the course of the day? (This may only become noticeable after work, for example, needing to turn up the radio on the way home)	<input type="checkbox"/> yes	<input type="checkbox"/> no
3. Are your workers using noisy powered tools or machinery?	<input type="checkbox"/> yes	<input type="checkbox"/> no
4. Are there noises due to impacts (such as hammering, pneumatic impact tools) or explosive sources (such as explosive powered tools, detonators)?	<input type="checkbox"/> yes	<input type="checkbox"/> no
5. Are personal hearing protectors used for some work?	<input type="checkbox"/> yes	<input type="checkbox"/> no
6. Do your workers complain that there is too much noise or that they can't clearly hear instructions or warning signals?	<input type="checkbox"/> yes	<input type="checkbox"/> no
7. Do your workers experience ringing in the ears or a noise sounding different in each ear?	<input type="checkbox"/> yes	<input type="checkbox"/> no
8. Do any long-term workers appear to be hard of hearing?	<input type="checkbox"/> yes	<input type="checkbox"/> no
9. Have there been any workers' compensation claims for noise-induced hearing loss?	<input type="checkbox"/> yes	<input type="checkbox"/> no
10. Does any equipment have manufacturer's information (including labels) indicating noise levels equal or greater than any of the following:		
a. 85 dB(A) LAeq,T (T= time period over which noise is measured)?	<input type="checkbox"/> yes	<input type="checkbox"/> no
b. 130 dB(C) peak noise level?	<input type="checkbox"/> yes	<input type="checkbox"/> no
11. Do the results of audiometry tests indicate that past or present workers have hearing loss?	<input type="checkbox"/> yes	<input type="checkbox"/> no
12. Are any workers exposed to noise and ototoxins in the workplace?	<input type="checkbox"/> yes	<input type="checkbox"/> no
13. Are any workers exposed to noise and hand-arm vibration?	<input type="checkbox"/> yes	<input type="checkbox"/> no