

1. INTRODUCTION

Exposure to high noise levels from your own and others work activities can cause incurable damage to your hearing

This guidance note has been revised to take account of the changes in the Noise at Work Regulations. The erection and dismantling of scaffolding can create quite high levels of noise. The general moving and storage of scaffolding materials can be quite noisy and other related activities such as abrasive wheel cutters, bench mounted circular saws and drills all generate noise levels that may require the employer to provide hearing protection and the employees to use it correctly.

The noise levels generated on a construction site could affect the hearing of both scaffolders and other tradesmen. It is important that site management identify and control high noise activities and where appropriate post warning notices and ensure, the use of hearing protection amongst the various site contractors whilst at work.

The authorities have noted a significant increase in the number of industrial deafness claims submitted by employees from a wide range of industries. In addition to the common high noise activities like mining, steel making, woodworking etc there is now a growing trend from the construction industry. In order to try and mitigate the effects of noise at work and the subsequent costs to society (NHS, disability benefits) the Government has now further reduced the levels of noise exposure to employees at work.

2. NOISE AT WORK REGULATIONS

The aim of the Noise Regulations is to ensure that workers' 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).

The 2005 Noise Regulations replaces the 1989 Noise Regulations and introduces new requirements for action to be taken by employers. For example, the 2005 Regulations now requires employers to take action to protect workers at levels of noise 5 decibels lower than in the 1989 Regulations and it also requires health surveillance (hearing checks) for workers who are regularly exposed to noise levels above 85 decibels.

These relate to:

- the levels of exposure to noise of your employees averaged over a working day or week
- the maximum noise (peak sound pressure) to which employees are exposed in a working day

The new values are:

- lower exposure action values:
 - daily or weekly exposure of 80 dB
 - peak sound pressure of 135 dB

- upper exposure action values:
 - daily or weekly exposure of 85 dB
 - peak sound pressure of 137 dB

There are also levels of noise exposure, which must not be exceeded:

- exposure limit values:
 - daily or weekly exposure of 87 dB
 - peak sound pressure of 140 dB

These exposure limit values take account of any reduction in exposure provided by hearing protection.

How is noise measured?

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. You might just notice a 3 dB change in noise level, because of the way our ears work. Yet every 3 dB doubles the noise, so what might seem like small differences in terms of the numbers can be quite significant in terms of the noise level.

3. THE HEALTH EFFECTS OF NOISE AT WORK

Noise at work can cause hearing loss that can be temporary or permanent. People often experience temporary deafness after leaving a noisy place. Although hearing recovers within a few hours, this should not be ignored. It is a sign that if you continue to be exposed to the noise your hearing could be permanently damaged.

Permanent hearing damage can be caused immediately by sudden, extremely loud, explosive noises, e.g. from guns or cartridge-operated machines.

But hearing loss is usually gradual because of prolonged exposure to noise. It may only be when damage caused by noise over the years combines with hearing loss due to ageing that people realise how deaf they have become. This may mean their family complains about the television being too loud, they cannot keep up with conversations in a group, or they have trouble using the telephone. Eventually everything becomes muffled and people find it difficult to catch sounds like 't', 'd' and 's', so they confuse similar words.

Hearing loss is not the only problem. People may develop tinnitus (ringing, whistling, buzzing or humming in the ears), a distressing condition which can lead to disturbed sleep.

Remember: Young people can be damaged as easily as the old.

By law, as an employer, you must assess and identify measures to eliminate or reduce risks from exposure to noise so that you can protect the hearing of your employees.

Where the risks are low, the actions you take may be simple and inexpensive, but where the risks are high, you should manage them using a prioritised noise-control action plan.

Where required, ensure that:

- hearing protection is provided and used;
- any other controls are properly used; and
- you provide information, training and health surveillance.

Review what you are doing if anything changes that may affect the noise exposures where you work.

4. NOISE ASSESSMENTS

Competence:

You need to make sure that your noise risk assessment:

- has been drawn up by someone who is competent to carry out the task; and
- is based on advice and information from people who are competent to provide it.

You, or people within your company, may well be competent in some or all areas. You may, however, choose or need to go to external consultants.

The aim of the risk assessment is to help you decide what you need to do to ensure the health and safety of your employees who are exposed to noise. It is more than just taking measurements of noise – sometimes measurements may not even be necessary

Your risk assessment should:

- identify where there may be a risk from noise and who is likely to be affected;
- contain a reliable estimate of your employees' exposures, and compare the exposure with the exposure action values and limit values;
- identify what you need to do to comply with the law, e.g. whether noise-control measures or hearing protection are needed, and, if so, where and what type; and identify any employees who need to be provided with health surveillance and whether any are at particular risk. It is essential that you can show that your estimate of employees' exposure is representative of the work that they do.

The assessment also needs to take account of:

- the work they do or are likely to do;
- the ways in which they do the work; and
- how it might vary from one day to the next.

Your estimates must be based on reliable information, e.g. measurements in your own workplace, information from other workplaces similar to yours, or data from suppliers of machinery.

You must record the findings of your risk assessment. You need to record in an action plan anything you identify as being necessary to comply with the law, setting out what you have done and what you are going to do, with a timetable and saying who will be responsible for the work.

Review your risk assessment if circumstances in your workplace change and affect noise exposures. Also review it regularly to make sure that you continue to do all that is reasonably practicable to control the noise risks. Even if it appears that nothing has changed, you should not leave it for more than about two years without checking whether a review is needed.

5. PERSONAL PROTECTIVE EQUIPMENT

Hearing protection should be issued to employees:

- where extra protection is needed above what can be achieved using noise control;
- as a short-term measure while other methods of controlling noise are being developed.

You should not use hearing protection as an alternative to controlling noise at source or by technical and organisational means.

You are required to:

- provide your employees with hearing protectors if they ask for them and their noise exposure is between the lower and upper exposure action values;
- provide your employees with hearing protectors and make sure they use them properly when their noise exposure exceeds the upper exposure action values;
- identify hearing protection zones, i.e. areas where the use of hearing protection is compulsory, and mark them with signs if possible;
- provide your employees with training and information on how to use and care for the hearing protectors;
- ensure that the hearing protectors are properly used and maintained.

The following points also need to be considered:

- make sure the protectors give enough protection – aim at least to get below 85 dB at the ear;
- 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 (e.g. hard hats, dust masks and eye protection);
- provide a range of protectors so that employees can choose ones which suit them.

When selecting and using hearing protection don't:

- provide protectors which cut out too much noise – this can cause isolation, or lead to an unwillingness to wear them;
- make the use of hearing protectors compulsory where the law doesn't require it;
- have a 'blanket' approach to hearing protection – better to target its use and only encourage people to wear it when they need to.

6. MAINTENANCE OF PPE

You will need to make sure that hearing protection works effectively and check that:

- it remains in good, clean condition;
- earmuff seals are undamaged;
- the tension of the headbands is not reduced;
- there are no unofficial modifications;
- compressible earplugs are soft, pliable and clean.

7. WHAT DO I NEED TO TELL MY EMPLOYEES

It is important that employees understand the risks they may be exposed to.

Where they are exposed above the lower exposure action values you should at least tell them:

- the likely noise exposure and the risk to hearing this noise creates;
- what you are doing to control risks and exposures;
- where and how people can obtain hearing protection;
- how to report defects in hearing protection and noise-control equipment;

- what their duties are under the Noise Regulations;
- what they should do to minimise the risk, such as the proper way to use hearing protection and other noise-control equipment, how to look after it and store it, and where to use it;
- your health surveillance systems.

Make sure you give information in a way the employee can be expected to understand (for example you might need to make special arrangements if the employee does not understand English or cannot read).

You need to make sure that employees use hearing protection when required to and you may want to:

- include the need to wear hearing protection in your safety policy. Put someone in authority in overall charge of issuing it and making sure replacements are readily available;
- carry out spot checks to see that the rules are being followed and that hearing protection is being used properly. If employees carry on not using it properly you should follow your normal company disciplinary procedures;
- ensure all managers and supervisors set a good example and wear hearing protection at all times when in hearing protection zones;

8. PROVIDING HEALTH SURVEILLANCE

You must provide health surveillance (hearing checks) for all your employees who are likely to be regularly exposed above the upper exposure action values, or are at risk for any reason, e.g. they already suffer from hearing loss or are particularly sensitive to damage.

The purpose of health surveillance is to:

- warn you when employees might be suffering from early signs of hearing damage;
- give you an opportunity to do something to prevent the damage getting worse;
- check that control measures are working.

Health surveillance for hearing damage usually means:

- regular hearing checks in controlled conditions;
- telling employees about the results of their hearing checks;
- keeping health records;
- ensuring employees are examined by a doctor where hearing damage is identified.

Ideally you would start the health surveillance before people are exposed to noise (i.e. for new starters or those changing jobs), to give a baseline. It can, however, be introduced at any time for employees already exposed to noise. This would be followed by a regular series of checks, usually annually for the first two years of employment and then at three-yearly intervals (although this may need to be more frequent if any problem with hearing is detected or where the risk of hearing damage is high).

The hearing checks need to be carried out by someone who has the appropriate training. The whole health surveillance programme needs to be under the control of an occupational health professional. You, as the employer, have the responsibility for making sure the health surveillance is carried out properly.

Larger companies may have access to in-house occupational health services that may be able to carry out the programme. Where there are no facilities in-house you will need to use an external contractor. You can find out about occupational health services through the NASC, or through local business support organisations.

A suitable occupational health service provider will be able to show you that they have the training and experience needed.

They should be able to:

- advise you on a suitable programme for your employees;
- set up the programme;
- provide suitably qualified and experienced staff to carry out the work;
- provide you with reports on your employees' fitness to continue work with noise exposure.

Use the results to make sure your employees' hearing is being protected

You will need to:

- keep records of the health surveillance and fitness-for-work advice provided for each employee (but not the confidential medical records which are kept by the doctor). A health and safety inspector can ask to see the health records as part of their checks that you are complying with the Regulations;
- make employees' records available to them;
- act upon any recommendations made by the occupational health service provider about employees' continued exposure to noise;
- use the results to review and, if necessary, revise your risk assessment and your plans to control risks.

Analysing the results of your health surveillance for groups of workers can give you an insight into how well your programme to control noise risks is working. Use the results to target your noise reduction, education and compliance practices more accurately. Make this information available to employee or safety representatives.

9. ENVIRONMENTAL NOISE ISSUES

Due to the diverse nature of the construction industry there may be occasions when activities such as scaffolding have to be carried out at different times of the day and night. Where this may cause a nuisance to neighbours due to either the noise levels generated or the time of day it is important that the local authority is informed prior to work commencing in order that controls are agreed as to where and when work can be carried out, this may be the responsibility of the main client or the scaffold contractor. There are strict laws and bye laws relating to noise pollution that need to be observed.

Experience has shown that ensuring good communications between both the local authorities and the local population particularly if the work has to be carried out during the night can substantially reduce complaints of environmental noise from work activities.

10. FURTHER INFORMATION

Employers can find further information on this subject at the HSE website. There are several guidance documents for both employers and employees some of which are free.

Whilst every effort has been made to provide reliable and accurate information, we would welcome any corrections to information provided by the Writer which may not be entirely accurate, therefore and for this reason, the NASC or indeed the Writer, cannot accept responsibility for any misinformation posted.