

# Noise at work

Guidance Note 25  
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## Noise at Work

According to the 2008/09 Labour Force Survey (LFS), some 17,000 people in the UK suffer deafness, ringing in the ears or other ear conditions caused by excessive noise at work.

The Control of Noise at Work Regulations 2005 are designed to protect against the risks to both workers' health and safety from exposure to noise and 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).

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.

Conducting a noise risk assessment ensures that valid decisions about the risks operatives are exposed to have been considered. It also determines what actions must be taken to ensure the risk is eliminated or adequately controlled. If it is likely a noise hazard exists in the workplace, then the employer will more than likely need to have a noise assessment carried out by a competent person. The noise assessment will involve measuring noise levels with specialist equipment, assessing the exposure and developing an action plan.

In order to carry out a suitable and sufficient risk assessment, it is necessary to know the maximum exposure limit values and action values.

	Lower Action Levels	Upper Action Levels	Exposure Limit Values
Daily/weekly average exposure level	80 dBA	85 dBA	87 dBA
Peak sound level	135 dBC	137 dBC	140 dBC

In order to assess the risk from noise there are 5 stages that the employer should consider:

- Is there a risk due to noise?
- Who might be harmed and how?
- Evaluate the risk and develop control measures
- Record the findings
- Review the assessment.

### Is there a risk due to noise?

*If you answer yes to any of the questions below you have a potential risk from noise and should undertake further investigation:*

- Do you work in a noisy industry?
- Do operatives use noisy powered tools or machinery?

- Are there noises due to impacts, e.g. pneumatic impact tools, explosives, hammering?
- Could noise levels within the workplace interfere with warning or danger signals?
- Do operatives need to shout to talk at a distance of 1m for more than ½ hour per day in total?
- Do operatives need to shout to talk at a distance of 2m for more than 2hrs per day in total?
- Is conversation possible but noise intrusive?

### Who might be harmed and how?

The persons who may be affected by the noise may include, but are not limited to:

- The operator of noisy machinery or employee carrying out a noisy activity
- Other employees working in the vicinity of the noisy activity
- Employees who carry out different jobs throughout the day
- Contractors or visitors that enter the vicinity of the noisy activity
- Personnel working in noisy areas on Clients sites.

Simple test to see if a noise assessment is required.

Test	Probable Noise Level	Risk Assessment required if exposed longer than
Noise intrusive but normal conversation possible	80dB	6 Hours
Having to shout to have a conversation at 2 metres	85dB	2 Hours
Having to shout to have a conversation at 1 metre	90dB	45 Minutes

If in doubt carry out a risk assessment.

### Evaluate the risk and develop control measures

Noise levels that employees are exposed to need to be determined in either daily or weekly personal noise exposure levels. In order to make this estimation it is necessary to make reference to probable levels of noise relating to both equipment and conditions. When employees are working on other employer’s sites, the host employer should have risk assessments in place for any areas or activities where exposure to noise poses a risk. These should be readily available to anyone who may be exposed to the noise while working or visiting that site.

It is not necessary to make a precise assessment of noise exposure. However, you must be able to demonstrate that the data used to make your assessment is both reliable and

representative of your employee's exposure. In the event that the information used is not from measurements within the workplace, it is necessary to demonstrate that the data is representative and you must apply a greater uncertainty factor. In determining the length of time that operatives are exposed to noise, it is best to use direct observation of the work as well as discussions with the operative.

A Noise Exposure Calculator can be found at <http://www.hse.gov.uk/noise/calculator.htm>

Assessing weekly personal noise levels may not be appropriate unless daily noise exposure on 1 or 2 working days in a week is at least 5dB higher than the other days, or the working week comprises 3 or fewer days of exposure. External assistance from a competent person may be required.

Once the relevant levels of exposure have been assessed it is necessary to check against the exposure action values to determine the level of control required, and to address the immediate risk by issuing suitable hearing protection.

Once the immediate risk has been dealt with, it is necessary to determine what can be done to control the noise, how much it can be reduced and what is reasonably practicable and relevant to your industry. Establish a plan of action to prioritise the methods of noise reduction and a realistic timescale to bring about the changes. Cost will ultimately dictate the implementation timetable for any relevant controls. However, as long as adequate protective measures are in place, then more expensive control measures could be planned into a medium to long-term priority.

When assessing the risks from noise exposure the following hierarchy of control measures must be considered:

- Determine whether it is reasonably practicable to carry out the process without the noisy
- tools or machinery
- Reduce noise output by engineering methods, e.g. damping
- Modify the work or process to reduce noise levels
- Procure quieter tools or machinery, which are suitable for the task
- Control the path of the noise reaching people
- Arrange the workflow to separate people from the source of the noise.

### **Hearing Protection**

The general requirements of hearing protection are as follows:

- It must be made available for employees to use when the lower action level of 80 dB(A) is exceeded
- It must be used by employees when the upper action level of 85 dB(A) is exceeded
- Employers must provide training on the use of ear protection
- Employers must ensure that any hearing protection which is provided is properly used and maintained.

### **Maintenance and Use of Equipment**

- All equipment to be fully and properly used
- All equipment to be maintained.

### **Ear Protection Zones**

- Identify zones where an employee's noise exposure exceeds the second action level  
Mark with signs

### **Information, Instruction and Training**

Employees need to know:

- The risks
- The control measures
- Where to get hearing protection
- How to use and look after the hearing protection
- The purpose of health surveillance.

Employees are also responsible for using hearing protection and reporting defects

### **Further Guidance**

- Control of Noise at Work Regulations 2005  
<http://www.opsi.gov.uk/si/si2005/20051643.htm>
- Controlling noise at work: The Control of Noise at Work Regulations 2005 Guidance on the regulations  
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Available at: <http://www.hse.gov.uk/pubns/priced/l108.pdf>
- Noise: Don't lose your hearing INDG363. Available at;  
<http://www.hse.gov.uk/pubns/indg363.pdf>
- Noise at Work - Advice for employers INDG362. Available at:  
<http://www.hse.gov.uk/pubns/indg362.pdf>
- The HSE also have a section of their website dedicated to noise at work. This can be accessed here: <http://www.hse.gov.uk/noise/index.htm>

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