

SHOUT ABOUT NOISE!

Your unique guide to understanding the NEW noise at work legislation

More than two million people are exposed to noise levels at work that may be harmful.*
The effects of damage to hearing as a result of exposure to noise is permanent.*

What is noise?

Noise is unwanted sound which can cause physical damage and interfere with communication, a combination of which can pose a serious risk to health.

With the new Control of Noise at Work Regulations 2005 coming into force in April 2006, employers must comply with the act and can benefit from following a simple, practical framework to manage noise risks in the workplace.



Jet plane at take-off - 160dB



Large chipping hammer - 120dB



Car on motorway - 100dB



Voice (shouting) - 80dB



Gunshot - 140dB



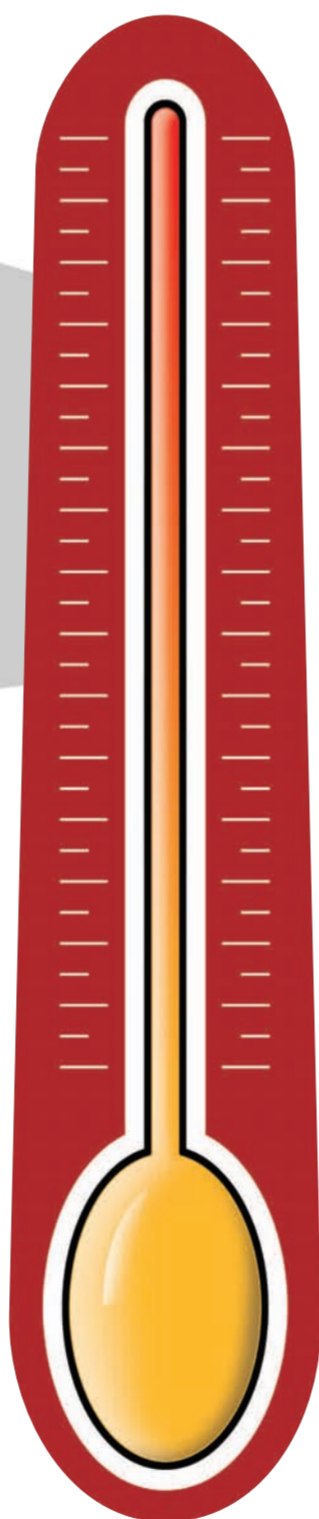
Blaring music - 110dB



Lawn mower - 90dB



Busy office - 70dB



Control of Noise at Work Regulations 2005 - Main Duties:

- Lower exposure action value of 80dB (A), or peak of 135dB (C)
- Upper exposure action value of 85dB (A), or peak of 137dB (C)
- Daily/weekly personal exposure limit values of 87dB (A) with a peak of 140dB (C)

If the lower action value is exceeded, a Noise Risk Assessment must be conducted and an action plan developed. Hearing protection must also be made available.

If the upper action value is exceeded, a Noise Risk Assessment must be conducted and an action plan developed. At this level, wearing hearing protection is compulsory for all employees and a health surveillance programme must be implemented.

The exposure limit value provides an absolute limit of exposure and is measured at the ear. Therefore hearing protection can be considered as part of your control measures.

Managing Noise in the Workplace - an Employer's Guide

Step 1 Assess the Risk

Step 2 Eliminate or Control Risks

Step 3 Provide Hearing Protection and Health Surveillance

Step 4 Inform, Instruct and Train the staff

Step 5 Use and maintain equipment in accordance with manufacturers' instructions

At all stages, review and update regularly!

For further guidance please see the Hewden Noise at Work Guide available soon from your local hewden depot or at www.hewden.co.uk Information on noise at work is also available at www.hse.gov.uk

Top Tips For Noise

- 1) Sound intensity is the degree of strength measured in decibels (dB). Since decibels are on a logarithmic scale, then for every 3dB increase, the actual noise intensity doubles.
Example: 88dB has twice the sound pressure as 85dB.
- 2) Generally speaking, if you have to shout to be heard by someone who is only two or three feet away, the noise level at your workplace is probably greater than 85dB.
- 3) Doubling the distance between the noise source and the receiver can produce a reduction of up to 6dB.
Example: 90dB at 2 metres reduces to 84dB at 4 metres.
- 4) How do I add together 2 noise sources? By using this table...

| Difference between dB levels | Qty to add to the higher level |
|------------------------------|--------------------------------|
| 0 | 3 |
| 1 | 2.5 |
| 2 | 2 |
| 3 | 2 |
| 4 | 1.5 |
| 5 | 1 |
| 6 | 1 |
| 7 | 1 |
| 8 | 0.5 |
| 9 | 0.5 |
| 10 or more | 0 |

Example: Two generators are running side by side at 80dB and 83dB respectively. The difference is 3dB, therefore add 2 to the highest value. Noise value is therefore 85dB!

- 5) Estimating exposure using the ready reckoner below...

Simply take the exposure points from your daily exposure(s) - there could be more than one - and add them together. Compare the total points on the exposure chart below right, to determine your daily exposure value. If the total lies in the green zone, the exposure value has not been exceeded, if in the yellow zone, the lower exposure value has been exceeded, and if in the red zone, the upper exposure action value has been breached.

| Sound pressure level, LAeq (dB) | Duration of Exposure (hours per day) | | | | | | | | Total exposure points | Noise exposure LEPd (dB) |
|---------------------------------|--------------------------------------|-----|------|-----|-----|------|-----|-----|-----------------------|--------------------------|
| | 1/4 | 1/2 | 1 | 2 | 4 | 8 | 10 | 12 | | |
| 105 | 320 | 625 | 1250 | | | | | | 3200 | 100 |
| 100 | 100 | 200 | 400 | 800 | | | | | 1600 | 97 |
| 97 | 50 | 100 | 200 | 400 | 800 | | | | 1000 | 95 |
| 95 | 32 | 65 | 125 | 250 | 500 | 1000 | | | 800 | 94 |
| 94 | 25 | 50 | 100 | 200 | 400 | 800 | | | 630 | 93 |
| 93 | 20 | 40 | 80 | 160 | 320 | 630 | | | 500 | 92 |
| 92 | 16 | 32 | 65 | 125 | 250 | 500 | 625 | | 400 | 91 |
| 91 | 12 | 25 | 50 | 100 | 200 | 400 | 500 | 600 | 320 | 90 |
| 90 | 10 | 20 | 40 | 80 | 160 | 320 | 400 | 470 | 250 | 89 |
| 89 | 8 | 16 | 32 | 65 | 130 | 250 | 310 | 380 | 200 | 88 |
| 88 | 6 | 12 | 25 | 50 | 100 | 200 | 250 | 300 | 160 | 87 |
| 87 | 5 | 10 | 20 | 40 | 80 | 160 | 200 | 240 | 130 | 86 |
| 86 | 4 | 8 | 16 | 32 | 65 | 130 | 160 | 190 | 100 | 85 |
| 85 | | 6 | 12 | 25 | 50 | 100 | 125 | 150 | 80 | 84 |
| 84 | | 5 | 10 | 20 | 40 | 80 | 100 | 120 | 65 | 83 |
| 83 | | 4 | 8 | 16 | 32 | 65 | 80 | 95 | 50 | 82 |
| 82 | | | 6 | 12 | 25 | 50 | 65 | 75 | 40 | 81 |
| 81 | | | 5 | 10 | 20 | 40 | 50 | 60 | 32 | 80 |
| 80 | | | 4 | 8 | 16 | 32 | 40 | 48 | 25 | 79 |
| 79 | | | | 6 | 13 | 25 | 32 | 38 | 25 | 78 |
| 78 | | | | 5 | 10 | 20 | 25 | 30 | 16 | 77 |
| 75 | | | | | 5 | 10 | 13 | 15 | | |

- 6) Do not get caught up in the science behind estimating exposure values. Use simple noise meters, information from manufacturers and suppliers or from similar assessments. Remember, the Regulations are concerned with controlling noise and not measuring it.

* Source: Health and Safety Executive