Noise in Construction

Guidance on Noise at Work

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This leaflet contains advice on the manner in which construction workers can be protected from exposure to noise on construction sites. It also provides help on what employers and employees need to do under the Construction (Personal Protective Equipment) (Jersey) Regulations, 2002.

Although aimed primarily at construction workers, this guidance is equally relevant to all types of industry.

EMPLOYERS SHOULD:

● decide if a noise assessment is needed

If people have difficulty speaking to each other over approximately 2m then you will need to make a noise assessment. This should take account of others who may be affected as well as your own employees.

● assess the noise

The assessment should be made by a competent person - someone who understands the legal requirements and its application to noise at work.

An initial, estimated assessment can be made either by using manufacturers' data, or other reliable information which is available. This would be a 'first step' and would enable you to identify workers who need personal protection straight away. Also, on multi-contractor sites, the various employers will need to agree who should co-ordinate and agree on the approach to be adopted. Usually the contractor in overall charge of the site does this.

The assessment should determine the action that is required to be taken at certain action values. These relate to:

- The levels of exposure to noise, to workers, averaged over a working day or week; and
- The maximum noise (peak sound pressure) to which workers are exposed in a working day.

The values are:

- Lower exposure action values:
  - daily or weekly exposure of 80 dB(A);
  - peak sound pressure of 135 dB(C).

- Upper exposure action values:
  - daily or weekly exposure of 85 dB(A);
  - peak sound pressure of 137 dB(C).

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

- Exposure limit values:
  - daily or weekly exposure of 87 dB(A);
  - peak sound pressure of 140 dB(C).

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

The assessment will need to take into account the variation of exposure. Where the exposure to noise varies considerably from day to day, the weekly exposure limit values may be used in place of the daily exposure limit values. An illustration of the risk assessment process is shown over the page.

● reduce noise as far as reasonably practicable

The most effective and reliable way of controlling exposure is by engineering measures at source. This can be achieved by making sure that noise reduction is built into machinery when you are buying it. Ask for information on machine noise before you decide to buy.

FURTHER READING

Health & Safety in the Workplace - A General Guide.

Available from the Health and Safety Inspectorate.

HS(g) 1 revised

HSE Noise at Work:

Guidance for employers on the Control of Noise at Work Regulations 2005.

INDG362 REV 1 ISBN 0 7176 6165 2

HSE Protect your hearing or lose it!

Pocket cards aimed at employees who are exposed to noise.

INDG363 REV 1 ISBN 0 7176 6166 0

HSE Controlling Noise at Work

Provides guidance for employers on protecting people from the risks caused by noise at work.

LI08 ISBN 0 7176 6164 4

HSE publications are available from:
HSE Books,
PO Box 1999,
Sudbury,
Suffolk,
CO10 2WA

Tel: 01787 881165
Fax: 01787 313995
Website: www.hsebooks.co.uk

This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.

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ACTIVITY		LIKELY DAILY AVERAGE NOISE EXPOSURE (LEP,d)
Agent (up to 50% day on site)		<80
Asphalt paving		<85
Blasting		100+
Bricklayer		83
Carpenter		92
Concrete	chipping/drilling	85+
	floor finishing	85
	grinding	85+
Concrete worker		89
Crushing		85+
Driver	crawler tractor	85+
	dumper	85+
	excavator	<85
	grader	85+
	loader	<85
	roller	85+
	wheeled loader	89
	wheeled tractor	<85
Engineer	supervising pour	96
	surveying	<80
Foreman	supervising workers	80
Formwork setter		92
Ganger	concrete pour	93
	general work	94
Labourer	concrete pour	97
	digging/scabbling	100
	general work	84
	shovelling hardcore	94
	shuttering	91
M&E installer	general	89
	small work	84
Piling operator		85+
Piling worker		100+
Reinforcement worker	building site	86
	bending yard	84
Sandblasting		85+

- **provide ear protection (ear muffs or ear plugs)**

At or above the lower exposure action values, 80 dB(A) daily or weekly exposure, or the peak sound pressure of 135 dB(C), ear protection should be available on request to workers.

Where it is not possible to reduce or control the noise levels to below the upper action values, 85 dB(A) daily or weekly exposure, or the peak sound pressure of 137 dB(C), ear protection must be provided and steps taken to ensure that they are worn by all workers who are exposed.

The assessment will need to identify the type of ear protection that will provide appropriate protection.

- **inform workers about the level of their personal noise exposure**

If your noise assessment shows personal exposure at or above the lower exposure action values, 80 dB(A) daily or weekly exposure, or the peak sound pressure of 135 dB(C), workers should be informed that there is a noise hazard and advised what they should do to minimise the risk of hearing damage.

- **mark ear protection zones**

Where noise levels are likely to reach an upper exposure action value, 85 dB(A) daily or weekly exposure, or the peak sound pressure of 137 dB(C), the area should be identified as a hearing protection zone and marked with signs.

EMPLOYEES SHOULD:

- Wear ear protection provided when instructed and in the absence of, or pending, noise control.
- Use any other equipment your employer provides, e.g. machines fitted with silencers - don't take them off.
- Take care of equipment with which you are provided. If you discover any defects reducing their performance, you should report them!
- See your doctor if you think that your hearing has become damaged.

Noise assessment

1) Measure sample noise exposure from tasks being carried out.

2) Identify on a daily or weekly basis, the length of time that an employee is exposed to noise from the various tasks.

3) Calculate the overall personal noise exposure.

4) If the noise exposure is at or above the lower exposure action values, 80dB(A) daily or weekly exposure, or the peak sound pressure of 135 dB(C), inform the employee and provide them with ear protection.

5) If the noise exposure is at or above the upper exposure action values, 85dB(A) daily or weekly exposure, or the peak sound pressure of 137dB(C):

a. Carry out action to eliminate or reduce the noise at source, so far as is reasonably practicable. Provide ear protection to employees pending implementation of noise controls.

b. If the noise exposure is unable to be reduced below the upper exposure action value:
   i. provide sufficient information, instruction and training to employees who may be affected;
   ii. provide and ensure that suitable ear protection is worn;
   iii. erect signs to identify hearing protection zones.

6) Carry out a review of the assessment as required.