





Health and Safety

Noise

Minimum Standard

Version	V1.0
Author/s	Lee McGurty
Approver	ELT Operating Committee
Effective Date	20/06/2022
Review Date	20/06/2025

1 Aims and Principles

The aim of this Government of Jersey (GoJ) Minimum Standard is to provide guidance on the steps which should be taken to ensure employees are not exposed to harmful levels of noise at work.

Departments responsible for carrying out works which give rise to high levels of noise should develop their own procedures which detail the specific arrangements to be implemented. The procedures must include the standards set out in this document or be of an equivalent or higher standard.

2 Legislation and Guidance

a) Applicable Legislation

Health and Safety at Work (Jersey) Law, 1989

b) Guidance

Noise at Work Index (UK HSE)

Controlling Noise at Work L108 (UK HSE)

Noise calculator and ready-reckoners (UK HSE)

Noise – Information for employees (UK HSE)

Noise - Don't lose your hearing (UK HSE)

3 Definitions

Daily Exposure (LEP,d)

The level of daily personal noise exposure of an employee taking account of the level of noise and the duration of exposure and covering all noise.

Weekly Exposure (LEP,w)

The level of weekly personal noise exposure taking account of the level of noise and the duration of exposure and covering all noise.

Peak Pressure Level (LCpeak)

The maximum sound pressure to which an employee is exposed.

Exposure Action Values

The levels of daily or weekly personal noise exposure or of peak sound pressure set out which, if reached or exceeded, require specified action to be taken to reduce risk.

Exposure Limit Values

The maximum level of noise at the ear, taking into account any hearing protection, above which employees must not be exposed.

4 Who this Minimum Standard Applies to

Applies to the following persons who manage or carry out work in which give rise to high levels of noise or who engage contractors to carry out such work.

- All Government of Jersey (GoJ) and States' employees
- Voluntary staff or those on honorary contracts where there is no implied contract of employment

5 Links to other GoJ Policies, Minimum Standards and Guidance

a) Policies

Government of Jersey - Health and Safety Policy

b) GoJ Minimum Standards

Risk Assessment

Occupational Health - Assessment and Monitoring

6 Roles and Responsibilities

The department's arrangements must clearly set out the roles and responsibilities of those required to manage the risks to employees and others from exposure to excessive levels of noise.

Reference should be made to the Government of Jersey Health and Safety Policy for general responsibilities.

7 Overview

Exposure to excessive levels of noise can lead to hearing loss and therefore must be properly controlled.

The process for managing risks from noise is shown in Appendix A with each of the elements explained further in this Minimum Standard.

The UK HSE document, <u>Controlling Noise at Work (L108)</u> should be referred to for further information on managing the risks.

8 Identifying Noisy Activities

The first step to controlling noise exposure is to identify working activities which give rise to levels of noise which may pose a risk to hearing.

It is likely that action will need to be taken where any of the following applies:

- The noise is intrusive e.g. as noisy as a busy road, a vacuum cleaner or a crowded restaurant – or worse than intrusive, for most of the working day
- Employees have to raise their voices to carry out a normal conversation when approximately 2m apart for at least part of the day
- Employees use noisy powered tools or machinery for more than half an hour in total each day
- Works being carried out fall into one of the following categories
 - Construction
 - Road repair
 - Woodworking
 - Engineering
 - Waste and recycling
 - Activities involving noises due to impacts e.g. pneumatic impact
 - Activities involving explosive sources such as cartridge-operated tools.

9 Exposure Action Values and Exposure Limit Values

Noise can cause harm to hearing at certain levels which are defined in UK legislation. Aligning with these is considered to be best practice for the purposes of this Minimum Standard.

Exposure Action Values (EAV)

	Lower exposure action value (decibels)	Upper exposure action value (decibels)
*Daily or weekly personal noise exposure (LEP,d or LEP,w)	80	85
**Peak sound pressure (LCpeak)	135	137

Table showing current UK EAVs

*Daily (or weekly) personal noise exposure represents a daily (or weekly) noise 'dose'. A 'dose' is a combination of 'how loud' and 'how long exposed' for the various noises that a person is exposed to in a working day (or week).

**Peak sound pressure is the maximum value reached by the sound pressure with no time weighting.

These levels can be estimated or measured and where the values are reached, certain actions are required to be taken to protect persons exposed. The process of estimation and measurement of noise are detailed in sections 10 and 11 respectively.

Exposure Limit Values (ELV)

ELV is a measurement of the noise level at the ear which takes into account any hearing protection provided. Employees must not be exposed to levels above the ELV.

The current UK ELVs are:

- Daily or weekly noise exposure 87dB(A)
- Peak sound pressure of 140db(A)

10 Noise Risk Assessment

If any employee is likely to be exposed to noise at or above a **lower** Exposure Action Value (EAV) then a noise risk assessment must be carried out.

The following table contains simple tests which can be used to determine whether a noise risk assessment is required.

Test	Probable noise level	A risk assessment will be needed if the noise is like this for more than:
The noise is intrusive but normal conversation is possible	80 dB(A)	6 hours
It is necessary to shout to talk to someone 2m away	85 dB(A)	2 hours
It is necessary to shout to talk to someone 1m away	90 dB(A)	45 minutes

The following should be considered when preparing the noise risk assessment:

- The level, type and duration of exposure, including any exposure to peak sound pressure
- The effects of exposure to noise on employees or groups of employees whose health is at particular risk from such exposure
- Any effects on the health and safety of employees resulting from the interaction between noise and the use of ototoxic substances at work, or between noise and vibration (so far as is practicable)
- Any indirect effects on the health and safety of employees resulting from the interaction between noise and audible warning signals or other sounds that need to be audible in order to reduce risk at work;
- Any information provided by the manufacturers of the work equipment
- The availability of alternative equipment designed to reduce the emission of noise
- Any extension of exposure to noise at the workplace beyond normal working hours, including exposure in rest facilities supervised by the employer
- Appropriate information obtained following health surveillance, including, where possible, published information
- The availability of personal hearing protectors with adequate attenuation characteristics.

The noise risk assessment should:

- Identify where there may be a risk from noise and who is likely to be affected, including risks to both health and safety
- Contain an estimate of your employees' exposures to noise (Ref section 10)
- Identify action required to ensure the amount of exposure does not exceed the lower action value e.g. whether noise-control measures and/or personal hearing protection are needed, or whether working practices are safe (Ref: Section 13)
- Identify any employees who need to be provided with health surveillance and whether any are at particular risk.

The risk assessment should be reviewed if:

- There is any reason to think that it does not reflect the current noise risk in the workplace e.g. if processes change, new machinery is installed, older machinery is no longer used, shift patterns alter etc.
- Improved noise-control techniques or ways of working become available and could be applied
- Health surveillance shows that employees' hearing is being damaged, suggesting that noise risks are not being properly controlled
- Control measures that could not be justified at the time of the original risk assessment, usually due to cost, become reasonably practicable, e.g. due to changes in technology and therefore cost.

Further information on noise risk assessment is available <u>Controlling Noise at Work L108 (UK HSE)</u>.

11 Estimating Noise Exposure Levels

As part of the risk assessment process, the noise exposure levels should be estimated.

A highly precise or definitive assessment of an individual employee's noise exposure i.e. actual measurement, is not required but the assessment of exposure must be a reliable estimate with sufficient precision to be able to show whether EAVs are likely to be exceeded.

The assessment of exposure will only be reliable if it uses data which are reasonably representative of an individual's exposures.

Uncertainties in an assessment of exposure to noise can arise from variability in the level of noise and in the duration of exposure. If the exposure is assessed as being close to an EAV then it should be addressed as if the EAV has been exceeded, or ensured that the assessment is sufficiently precise to demonstrate that exposure is below the EAV.

When estimating the noise level exposure, the following issues need to be taken into consideration:

- The tasks being carried out
- How the tasks are being carried out
- How this might vary from one day to the next i.e. personal noise exposure may
 be calculated over a week rather than a day, if the noise exposure of workers
 varies markedly from day to day. This is written as LEP,w and a weekly exposure
 rather than daily exposure and may provide better information

It may be possible to estimate the LEP,d, LEP,w or the LCpeak for some or all employees using published information, such as UK HSE industry-specific guidance, manufacturers' information or previous measurements carried out.

When estimating the employees' noise exposure levels, no allowance should be made for the wearing of personal hearing protection i.e. the estimated level should be that which the unprotected ear would receive.

Personal noise exposure can be estimated on a daily (LEP, d) or weekly (LEP, w) basis and which one is used depends on the likely variances in noise exposure per day.

<u>Noise exposure calculators</u> are available on the HSE website and further information on their use is available in Appendix 4 of <u>Controlling Noise at Work L108</u> (UK HSE).

12 Measuring Noise Exposure Levels

If insufficient information is available to enable a reliable estimate of noise exposure to be calculated, then the noise levels should be measured and exposure calculated.

This must be carried out by a competent person who will be able to determine whether any of the action levels, detailed in section 8 are being exceeded.

Any person undertaking noise measurement and identifying control measures and noise management measures in response to the data collected, must have achieved a recognised qualification such as:

- Institute of Acoustics Certificate of Competence Workplace Noise assessment
- BOHS Assessment and Control of Noise
- IOSH Noise at Work Risk Assessment & Management

Further information on measuring noise is available in Appendix 2 of Controlling Noise at Work L108 (UK HSE).

13 Reduction of Exposure to Noise

Where employees are exposed to noise in the workplace, steps should be taken to reduce the noise exposure levels, to as low as is reasonably practicable. Even if the exposure is below the lower action values, if there are inexpensive practical steps available that would reduce the risks further, consideration should be given to implementing them.

This must be achieved by means other than the use of personal protective equipment i.e. hearing protection, for example making changes in working practices or engineered noise reduction solutions. The use of hearing protection is the last resort when determining appropriate control measures.

Examples of reduction of exposure to noise include:

- Siting noisy machinery where it cannot be heard by workers
- Purchasing quieter equipment or switching to a different, quieter process
- Engineering/technical controls to reduce, at source, the noise produced by a machine or process
- Using screens, barriers, enclosures and absorbent materials to reduce the noise
- Proper and regular maintenance of machinery and equipment
- Designing and laying out the workplace to create guiet workstations
- Improve working techniques to reduce noise levels
- Limiting the time people spend in noisy areas.

Further information on methods of reducing noise exposure is available <u>Controlling Noise at Work L108 (UK HSE)</u>.

14 Provision of Hearing Protection

The provision of hearing protection is a last resort and cannot be used instead of exploring all other engineering or organisational options.

It may also be used as a short-term measure whilst more robust control measures identified through the noise risk assessment are being developed.

The requirement to provide hearing protection depends on the exposure levels:

Between lower and upper EAVs

Where employees are exposed to noise levels between the lower and upper EAVs and the noise level cannot be reduced by other means, those exposed should be informed and hearing protection should be made available. However, the use of hearing protection between these levels is voluntary, not mandatory.

At or above the upper EAV

Where employees are likely to be exposed at or above an upper EAV, hearing protection must be provided and must be worn. Arrangements should also be in place to ensure that the employees are provided with information about the hearing protection including how to obtain and use it.

The hearing protection provided must at least reduce exposure to below the ELVs. Hearing protection should be selected to eliminate the risk to hearing where possible and, if not, to reduce the risk to as low a level as is reasonably practicable, aiming to achieve a noise level between 70 and 80 dB(A) at the ear.

Hearing protectors which result in a noise level below 70 dB(A) at the ear should be avoided as this is considered to be 'over-protection' as it can cause safety risks through inability to hear e.g. nearby traffic or warning sound signals. Over-protection can also cause communication difficulties and can make wearers feel isolated.

Employees should be consulted on the selection of hearing protection as there are many different types available. Any hearing protection should be chosen that:

- Provides the required protection
- Can be worn with comfort throughout the period of exposure to high noise
- Are compatible with any required use of other personal protective equipment (PPE)
- Can be satisfactorily stored, cleaned and maintained

15 Hearing Protection Zones at levels above the upper exposure action level

Hearing protection zones provide a way for the use of hearing protection to be managed. They give a reminder to those employees for whom hearing protection is compulsory during particular jobs or activities. They also provide a way of ensuring that employees or other people affected by the noise from those jobs or activities are protected.

Where noise levels in an area exceed the upper action exposure level, mandatory hearing protection zones will be designated. All personnel entering these zones will be required to wear hearing protectors.

16 Provision of Training and Information

Appropriate training will be provided to employees who are subject to levels of noise above the lower exposure action value. This will include:

- Information about the harmful effects of noise
- Information on the action taken by the department to reduce noise levels
- Information and instruction on what they must do in order to protect themselves
- Information and instruction on the use, cleaning and maintenance of hearing protection if used
- Information relating to the health surveillance arrangements in place

Information for employees is available at the <u>UK HSE website</u> including the leaflet <u>Noise</u> - <u>Don't lose your hearing</u>

17 Monitor and Review

Noise levels and control measures must be reviewed at appropriate intervals, or when work processes and equipment changes. Noise risk assessments should be reviewed periodically and should be updated where any changes are identified.

Where noise-control measures require employees to take actions for them to be effective (e.g. making proper use of noise enclosures or following approved low-noise working methods), arrangements should be in place to ensure employees do what is required.

Where mandatory, compliance with the wearing of hearing protection should also be monitored.

18 Audiometric Testing

Where the risk assessment indicates there is a risk to the health of employees from noise exposure, which requires employees to wear hearing protection, employees will undergo audiometric testing through the occupational health support provider.

This testing provides information on the effectiveness of the hearing protection program.

Appendix A

