

Lothian Operational Standard

LB-HS-120 Noise at Work

This Standard details the minimum requirements for ensuring compliance with health and safety legislation and implementation of the Lothian H&S Policy Statement.

1. INTRODUCTION

Noise induced hearing loss is usually gradual and due to prolonged exposure to excessive noise¹ which damages delicate nerve cells in the inner ear and result in permanent hearing damage and other conditions such as tinnitus which is a sensation of noises in the ears such as ringing or buzzing. It may only be when damage caused by noise over a prolonged length of time combines with normal hearing loss due to ageing that people realise how deaf they have become.

Hearing damage can also be caused immediately by sudden, extremely loud noises. Hearing damage caused by exposure to excessive noise is permanent and incurable.

2. POLICY STATEMENT

Lothian recognise that noise induced hearing loss is preventable and are committed to protecting employees from exposure to noise. We will ensure that the risks to the health and safety of employees specifically from exposure to noisy work equipment or processes are assessed and that measures to reduce exposure to as low a level as practicable are taken in order to protect employees from damage to their hearing.

This policy does not cover the environmental aspects of noise and noise pollution; or the adverse effects on wellbeing which can arise from 'nuisance' noise which is below the levels likely to cause deafness.

3. SUMMARY OF REQUIREMENTS

The Control of Noise at Work Regulations imposes the following Action Values and Limits:

The Lower Exposure Action Value for daily or weekly personal noise exposure is 80dB (A) and a peak sound pressure of 135dB(C)

1

Typical Noise Sources include Pneumatic impact tools e.g. wrench, air drill, Power drills and riveters, Air compressors, Abrasive wheels, grinding and cutting equipment, Noise from welding and hot cutting, Glass cutters, Guillotine, Metal Press, Radios

The Upper Exposure Action Value for daily or weekly personal noise exposure is 85dB (A) and a peak sound pressure of 137dB(C)

The Exposure Limit Value (ELV) for daily or weekly personal noise exposure is 87dB (A) and a peak sound pressure of 140dB(C)

Noise induced hearing loss can be prevented by:

- Identifying employees who may be a risk,
- Determining the level of exposure,
- Implementing noise control measures to reduce exposure to as low as level as practicable (other than through the use of hearing protection)
- Providing hearing protection and enforcing the wearing of hearing protection, as appropriate to the risk,
- Giving employees adequate information, instruction and training on the risks, precautions to be taken; use and maintenance of hearing protection where issued and the reporting of defects
- Ensuring the levels of noise that will be generated are considered when equipment and tools are purchased

4. WHAT NEEDS TO BE DONE

Assessment of Risks

4.1 A noise survey must be carried out to identify noisy work areas and any personnel who might be at significant risk.

4.2 The following information should be collated and retained as part of the noise assessment:

- a) A detailed plan of the potential noise sources i.e. the types of equipment used and work activities and processes that might present risk
- b) Noise levels and frequencies of each noise source and at points between the noise sources so that actions required to address high risk tools and processes can be prioritised
- c) Time and duration of noise emission
- d) Potential proximity of employees and contractors to sources of noise

The assessment must also identify:

- e) Any employees or contractors, who are likely to be exposed and their daily, or weekly, exposure as appropriate to their work pattern in order to identify whether the Action Values or Limits imposed by the Regulations have been exceeded.

- f) The control measures necessary to reduce exposure to the lowest practicable level.
 - g) Responsibilities and timescales for implementing the programme of controls
- 4.3 Where the work activity varies significantly day to day, is intermittent over the course of a week or noisy work activities are limited to 3 days or less per week then calculating a weekly personal exposure rather than a daily personal exposure may be more appropriate.
- 4.4 Noise surveys and assessments of exposure must be undertaken by a competent person who is able to advise on legislative requirements and the actions required to reduce noise at its source.
- 4.5 The noise assessment should be documented and should identify any immediate risks and what is needed to reduce noise levels to the lowest level practicable. (See Noise Reduction).
- 4.6 The noise assessment must be reviewed:
- Following significant change in the work or work processes which affects the validity of the assessment
 - If there is new awareness of improved ways of working or noise reduction techniques which could be applied to the workplace
 - Noise-control measures have been introduced previously and impact or effectiveness needs to be re-evaluated
 - Health surveillance indicates that employees' hearing is being damaged, suggesting that noise risks are not being properly controlled

Noise Action Plan

- 4.7 If required, a prioritised action plan should be developed, which will ensure investigation and introduction of noise control and noise reduction measures in a timely manner.
- 4.8 The plan should also include arrangements you already have in place or will put in place for the provision of PPE, training and information and health surveillance.
- 4.9 Responsibilities and timescales for addressing actions must be appropriately allocated and documented within the plan.

Noise Reduction

Eliminate or reduce the risks by considering alternative processes, equipment or working methods.

- 4.10 Employees must not be exposed to noise which exceeds 87dB (A) or the peak value of 140dB (C). Where the noise assessment indicates that the daily or weekly exposure is being exceeded action must be taken IMMEDIATELY to reduce the exposure to below the limit.

- 4.11** Where the noise assessment indicates that daily or weekly personal noise exposure is above 85dB (A) for continuous noise and 135dB (C) for impact type noise which is loud noise of short duration, a programme of control measures to reduce noise and control exposure must be implemented.
- 4.12** Where the noise assessment indicates that daily or weekly personal noise exposure is above 80dB (A) for continuous noise and 135dB (C) for impact type noise which is loud noise of short duration you are required to provide information and training to employees and employee representatives and make hearing protection available on request.
- 4.13** Where noise cannot be eliminated at source, managers should consider the following ways of reducing noise exposure. The following is not intended to be a comprehensive list:
- a) Checking whether high risk tools and processes can be eliminated by using different tools or methods
 - b) Ensuring design and layout of the workplace is considered to reduce exposure by:
 - segregating noisy machinery from the workforce or work areas or placing an obstacle between the source of the noise and the worker or workforce
 - Providing noise refuges for operators of noisy equipment
 - Increasing the distance between the source of a noise and the worker
 - Use of sound proof covers and acoustic barriers
 - c) Reducing the exposure by modifying the process or minimising the need for a particular tool or process
 - d) Changing work practices or tools and equipment for less noisy alternatives through an effective purchasing and replacement process
 - e) Ensuring planned inspection and maintenance of tools and equipment which emit noise
 - f) Providing employees with training, information and instruction on safe use and ensuring adequate supervision
 - g) Reducing exposure time by planning and organizing the employees' work to reduce exposure to noise e.g. job rotation and adjustment to work patterns
 - h) Provision of hearing protection
 - i) Changing the total or partial design of a noisy machine, tool, component or process e.g. attaching silencers to inlets or exhausts of machinery
- 4.14** Areas where employee's exposure is likely to reach 85dB (A) must be designated as "hearing protection zones", demarcated and identified by means of appropriate signage. Access to these areas must be restricted and arrangements in place to ensure those entering the area wear hearing protection.

- 4.15 Hearing protection must be provided where risks from noise exposure cannot be managed by other means.
- Between 80dB (A) and 85dB (A) hearing protection must be made available if the employee requests it
 - Over 85dB (A) hearing protection must be made available and managers must ensure that employees who are likely to be exposed wear it
- 4.16 Managers must ensure all noise control equipment is maintained and fully and properly used.
- 4.17 Employees must cooperate with employers by fully and properly using hearing protection and any other measure provided by the employer under the Regulations. If the employee discovers a defect in anything provided, he/she must report it immediately to the employer.

Selection, Use and Maintenance of Hearing Protection

- 4.18 Selection and use of PPE must be in accordance with the requirements of LB-HS-119 Personal Protective Equipment.
- 4.19 Particular consideration must be given to the level and frequency of noise and the attenuation capabilities of the selected hearing protection. Select hearing protection that will reduce the noise to between 70 and 85dB (A) at the ear.
- 4.20 Where the use of PPE has been specified it must be maintained in an efficient working order

Health Surveillance

- 4.21 Potential new employees or existing employees being transferred to jobs which are likely to expose them to noise above 85dB (A) should receive audiometric testing as part of the pre-employment medical prior to their recruitment.
- 4.22 Audiometric testing must be completed BEFORE recruitment and only where the occupational health specialist has confirmed that the person is fit to work and not vulnerable to further exposure should the offer of employment be confirmed.
- 4.23 Where the noise assessment has indicated that an employee exceeds or is likely to exceed the Exposure Action Value of 80dB (A) or the employees' hearing is at particular risk because of pre-existing medical condition or vulnerability, annual health surveillance shall be initiated.
- 4.24 Employees are legally obliged to co-operate with the manager by attending annual confidential audiometric testing or referral appointments for health assessment as recommended by the Occupational Health Provider.
- 4.25 Where a diagnosis has been made, the manager must prevent further harm to the employee by acting on the advice of the occupational health specialist.

- 4.26** Lothian must ensure arrangements are in place to ensure records of health surveillance and fitness to work advice for each employee are retained. Confidential personal medical information should be retained by the doctor.
- 4.27** Health Records should be made available to the employee if requested and be retained for as long as the employee is under health surveillance.

Purchase and Supply of Tools

Garages must ensure that employees are provided with tools that are suitable for the job, properly maintained and used correctly and safely.

- 4.28** The Safety Accountable Senior Manager must ensure that a suitable process is in place for the purchase and replacement of tools. Any tools provided, must be suitable for the work and the conditions they are used in and designed and constructed to reduce risks from noise. This also applies to equipment provided by employees (where applicable).
- 4.29** When selecting equipment, the manufacturers/supplier's information should be compared to ensure the lowest possible noise however managers should also consider the effect on performance if this is likely to increase exposure times.

Manufacturers/Suppliers Information

- 4.30** Managers should request data on noise emitted by equipment and tools from the manufacturer or supplier before their purchase and select tools and equipment that afford the employee the best protection from exposure to noise.
- 4.31** All tools purchased must be manufactured for professional and not domestic use, meets relevant safety standards, and carry the CE mark.

Employee-Owned Equipment

- 4.32** If employees are allowed to use their own tools, these must be selected, purchased and maintained to the same standard as Lothian owned equipment
- 4.33** Managers must provide a sufficient level of supervision to ensure that equipment used is suitable and fit for purpose.

Contractors

- 4.34** Contractors are not permitted to use Lothian owned tools and equipment except in exceptional circumstances.
- 4.35** Managers must provide a sufficient level of supervision to ensure that equipment contractors' use are suitable and fit for purpose.

Information, Instruction and Training

4.36 Managers must provide employees with the following information where noise levels exceed 80dB (A):

- The sources of noise and tools and equipment for which there is a potential risk
- Adverse health effects and whether the employee is at personal risk
- How to recognise and report symptoms and how to reduce risks
- The importance of health surveillance
- How the employee can raise health and safety issues relating to exposure to noise

4.37 The manager must regularly assess the competence of employees and provide training in how to select the most appropriate tool for the job and, the safe use, inspection and maintenance of the tools and equipment provided.

4.38 Records of the training, briefings, toolbox talks or the issue of information must be retained.

Records

4.39 A record of following must be retained:

- a) Noise measurements, assessments or surveys you have carried out
- b) All information or training given to employees. Record the date of issue or training, the content of the briefing or information note and ask attendees or recipients to sign to indicate they have received and understood it.

5. WHO SHOULD DO IT

5.1 **Managing Director**, having overall accountability for safety must:

- Ensure that the requirements of this standard are fulfilled
- Ensure responsibility is appropriately allocated for the management of noise and necessary resources are made available to enable duties under the Control of Noise at Work Regulations to be fully discharged and any remedial actions addressed.

5.2 **Directors and Senior Managers** must:

- Ensure arrangements for assessing and controlling risks associated with exposure to noise are in place at each location and that responsibilities for implementing control measures have been allocated for each location within their responsibility

- Ensure that arrangements for the control of noise are regularly monitored and reviewed in the light of changes to legislation, working practice or if indicated by results of health surveillance
- Ensure persons undertaking the noise assessments are competent and have received an appropriate level of training, instruction and information

5.3 Line Managers e.g. Engineering Managers, Operations Managers or equivalent must:

- Identify work activities and equipment used in the workplace that might expose employees to excessive noise
- With the assistance of H&S personnel assess and document the risks from exposure to noise
- Define, implement and maintain measures to prevent or control the risks from noise in accordance with the noise assessment and hierarchy of control
- Provide hearing protection and information to employees where noise is above 80dB (A)
- Provide hearing protection and ensure it is worn when the levels exceed 85dB (A)
- Communicate the outcome of the noise assessment i.e. risks and precautions as specific to the individual
- Ensure employees at risk participate in screening and health surveillance at the required frequency
- Monitor work activities and take disciplinary action where employees fail to adhere to control measures or wear hearing protection where the noise assessment identifies the need
- Review the noise assessment following changes to the work equipment or activity or in the event that an employee is diagnosed with hand arm vibration syndrome, or their health capabilities change

5.4 HR Manager must ensure:

- New potential employees and those being transferred are screened for hearing damage prior to their appointment
- A robust health surveillance programme and referral procedures for those exposed to risks from noise are developed and maintained
- Health records from health surveillance and fitness to work advice are retained for at least as long as the employee is under health surveillance

5.5 Occupational Health Providers must:

- Coordinate the health surveillance programme
- Advise engineering managers on the outcome of health surveillance and advise on measures to reduce risks
- Ensure health records remain confidential

5.6 H&S Manager must:

- Assist/liaise with specialists involved in the measurement and assessment of noise through noise surveys
- Advise managers on measures to reduce emission, exposure and risks from noise
- Provide advice regarding the provision of information to employees

5.7 Employees must:

- Familiarise themselves with the risks and precautions associated with noisy areas, equipment and tools in the workplace
- Adhere to control measures, safe systems of work, training and instructions observing all verbal or written instructions and make proper and full use of any systems and equipment provided for their safety
- Cooperate with management, and others who have responsibility for ensuring control measures are maintained at all times
- Stop, Think and 'Check' for potential hazards immediately before starting a task and to take into account changing circumstances throughout the task by carrying out a dynamic risk assessment²
- Not misuse or damage equipment which has been provided to reduce exposure and report any defects in control measures to their line manager.
- Participate in the health surveillance programme and attend referral appointments as appropriate
- Report defects in control measures immediately to the line manager
- Raise any concerns about their health and safety with their manager in the first instance

2

Dynamic Risk Assessment – An ongoing mental assessment by the employee which takes into account changing hazards, circumstances and capabilities immediately before and throughout the task/activity/shift.

6. MEASURE

- 6.1 The requirements of this standard will be monitored by Lothian H&S to ensure effective implementation. Evidence of effective management will include:
- Documented assessments of noise
 - A prioritised Action Plan and close out of actions within agreed timescales (where required)
 - A programme of audiometric testing (health surveillance) for personnel at risk

7. AUDIT

- 7.1 Compliance with the requirements of this H&S Standard will be audited periodically in accordance with the Lothian H&S Audit Programme.

8. REVIEW

- 8.1 This H&S Standard will be reviewed every 2 years or in accordance with Lothian Management of Change following significant changes in the matter to which it relates.

9. REFERENCES AND RESOURCES

- Control of Noise at Work Regulations 2005
- L108 Controlling Noise at Work: Legal Guidance on the Noise at Work Regulations (third edition 2021)
- Noise at work: A brief guide to controlling the risks INDG362 (rev 2)
- LB-HS-117 Health Surveillance
- LB-HS-119 Personal Protective Equipment