

25 Noise at work

This chapter is split into two parts:

Part 1: Directive. This part provides the direction that you **must** follow and to help you comply with (keep to) health and safety law, Government policy and Defence policy.

Part 2: Guidance. This part provides the guidance and good practice that **should** be followed and will help you to keep to this policy.

Contents

Title	Page
Amendment record	2
Terms and definitions	2
Scope	3
Assurance	4
Alternative acceptable means of compliance	4
Part 1: Directive	
Introduction	5
Key legislation	6
Defence exemption	6
Exposure Limit Values and Exposure Action Values	7
Policy Statements	9
Part 2: Guidance	
Risk assessment	19
Competence	20
Controlling noise	23
General principles of prevention	24
Hearing protection	26
Hearing protection zones	28
Maintenance and use of noise-control equipment	29
Health surveillance	31
Information, instruction and training	32
Retention of records	34
Related documents	34
Annex A - Guidance on noise exposure levels	A-1
Annex B - Noise risk assessment process	B-1
Annex C - Noise Hazard Check Questionnaire	C-1
Annex D - Noise assessor competency	D-1
Annex E - Managing audiometric health surveillances	E-1
Annex F - Directors of music and Bandmasters	F-1
Annex G - Headset users and personal audio systems	G-1
Annex H - Acquisition noise safety	H-1

Amendment record

This chapter has been reviewed by the Directorate of Defence Safety (DDS) together with relevant subject matter experts and key safety stakeholders. Any suggestions for amendments **should** in the first instance be directed to the Defence organisation's [Safety Centre/Team Group Mailbox](#) and with their approval, sent to DDS at: People-DDS-GroupMailbox@mod.gov.uk.

Version No	Date published	Text Affected	Authority
1.2	Oct 20	Interim update post-handover of policy from DSA to D HS&EP.	D HS&EP
1.3	Sep 22	Release of two-part chapter structure.	D HS&EP
1.4	02 Apr 25	Revised to provide closer alignment with the legislation that Defence must comply with.	DDS

Terms and definitions

The following table sets out definitions of some of the key terms used in this chapter. The most current general safety terms and definitions are provided in the [Master Glossary of Safety Terms and Definitions](#) which can also be accessed on [GOV.UK](#).

Accountable person	The person whose terms of reference state that they are responsible for making sure there are suitable and sufficient systems in place to control health and safety risks in their unit, establishment, site or platform. The term is used in place of CO, HoE, OC, Station Commander and so on, which are sometimes used by Defence organisations.
As low as reasonably practicable (ALARP)	When risk has been reduced to a level where applying further control measures would be grossly disproportionate to the benefit that would be gained.
Audiometric health surveillance	Regular hearing checks in controlled conditions as part of a systematic, close overview of an individual's health.
Commander	This is generally a military person responsible for planning activities, supervising activities, and making sure that personnel under their area of responsibility are safe. This term refers to a role rather than the rank of Commander, and it can be a permanent or temporary role (for example, lasting for the duration of a training exercise). In parts of Defence this person could be referred to as a 'responsible person'.
Competent person	A person who has the training, skills, experience and knowledge necessary to perform a task safely, and is able to apply them. Other factors, such as attitude and physical ability, can also affect someone's competence. (See www.hse.gov.uk/competence/what-is-competence.htm for information on competence.)

Exposure Action Value (EAV)	This refers to a daily or weekly average noise level threshold, or peak sound pressure. The legislation defines two EAVs, an upper EAV and a lower EAV.
Exposure Limit Value (ELV)	This refers to the level of daily or weekly personal noise exposure, or of peak sound pressure, which must not be exceeded.
Manager	A person responsible for managing or supervising staff, planning activities and making sure that personnel under their area of responsibility are safe. This could be a permanent or temporary role, and in parts of Defence this person could be referred to as a 'line manager', a 'responsible person' or a 'delivery manager'.
Lower Exposure Action Value (LEAV)	This refers to the lower of the two levels of daily or weekly personal noise exposure, or peak sound pressure which, if reached or exceeded, require specific actions to be taken to reduce the risk.
Noise	Is defined as 'any audible sound' whether it is wanted or not. Noise is considered to have the same definition as 'sound' which refers to wanted noise, for example the music from a band.
Noise exposure	This refers to the combination of the time period and the average amplitude of the noise over that time period ('how loud' and 'how long exposed').
Noise risk assessment	This refers to a documented assessment of the risk that noise poses to personnel.
Peak sound pressure	This refers to the maximum sound pressure to which personnel are exposed.
So far as is reasonably practicable (SFAIRP)	Legal phrase used in Health and Safety at Work Act etc 1974, the degree of risk where the trouble, time and money needed to reduce that risk starts to become disproportional to the derived benefit.
Upper Exposure Action Value (UEAV)	This refers to the higher of the two levels of daily (or weekly) personal noise exposure, or of peak sound pressure which, if reached or exceeded, require specific actions to be taken to reduce the risk. These are in addition to the actions taken if the lower EAV is exceeded.

Must and should

Where this chapter says '**must**', this means that the action is a compulsory requirement.

Where this chapter says '**should**', this means that the action is not a compulsory requirement but is considered good practice.

Scope

The policy contained within this chapter:

- a. applies to all those employed by Defence (military and civilian) including those under the age of 18 (for example recruits and apprentices).
- b. applies to all those working on behalf of, or under the supervision of Defence (for example, contractors or visitors).

- c. applies to all Defence activities carried out in any location (UK or overseas) and at all times of the year.
- d. is not written for young persons in the cadet forces¹, Defence-run schools, nurseries and so on; those organisations **must** maintain their own safety policies and governance and **must** provide statutory compliant infrastructure and appropriate safe systems of work. They may use material from this chapter as a reference point, but where appropriate their respective policies **should** be adapted to meet the needs of young persons and to follow any applicable Department for Education guidelines or legislation.

Assurance

The application of the policy contained within this chapter **must** be assured (that is, its use **must** be guaranteed). As part of their overall assurance activity, the commander, manager, or accountable person (AP) **must** make sure that this policy is followed and put into practice effectively. Assurance **must** be carried out in accordance with JSP 815 (Defence Safety Management System Framework) Element 12 - Assurance.

Alternative acceptable means of compliance

This policy is mandatory across Defence and the only acceptable means of compliance (AMC) is attained by following the directive set out in this chapter. However, there may be circumstances where a small number of military units may be permanently unable to comply with (keep to) parts of the policy. In such circumstances an alternative AMC process is set out in [JSP 375 Directive and Guidance](#).

¹ Guidance for cadet forces is set out in JSP 814 (Policy and Regulations for Ministry of Defence Sponsored Cadet Forces).

Part 1 Directive

Introduction

1. This Defence policy **must** be followed to manage:
 - a. noise at work risks to Defence personnel and those affected by Defence activities; and
 - b. the measures to be taken to eliminate those risks or reduce them to as low as is reasonably practicable (ALARP) and tolerable, in order to minimise harm and comply with current UK Health & Safety legislation.
2. Hearing damage from noise, or Noise Induced Hearing Loss (NIHL), is a loss of hearing acuity of personnel exposed to noise. NIHL can occur suddenly or over many years of exposure and depends on a range of factors. It may be caused suddenly by exposure to short impulses of high amplitude noise, for example gunfire, or more slowly from prolonged exposure to continuous lower amplitude noise, for example from a military band or an engine room. Although the examples given are related to workplace activities it **should** also be noted that activities outside of work can also contribute to hearing damage, for example impulse noise exposure resulting from playing loud music in a vehicle or playing video games wearing a headphone with the volume up high.
3. The risk of damage to hearing is directly related to the magnitude of the noise, it can also be as a result of the exposure time to the noise or a combination of both. The combination of the magnitude of the noise and the exposure time to that noise together defines 'noise exposure'. Measures of noise exposure and threshold values are set out in more detail in Part 2 of this chapter.
4. A temporary reduction in hearing sensitivity, called a Temporary Threshold Shift (TTS), can often be experienced after exposure to a noisy environment. Although hearing ability may recover within a few hours after leaving that environment, damage may still have occurred and repetitive exposure will increase the severity and the chances of permanent hearing loss or may cause tinnitus to develop.
5. Noise at work can adversely affect situational awareness (SA). This is a fundamental capacity for detecting danger, particularly in a military context, for example during tactical decision making. Harmful exposure to noise may cause false perceptions, confusion and situational projections. Lower levels of noise can be a workplace stressor (an activity, event or other factors that has the potential to cause stress) which can cause anxiety or psychological harm to the individual.
6. This chapter focusses on noise in the workplace and the effects on personnel of noise in the workplace, however in some situations, noise can be considered a form of environmental pollution. The MOD has a legal requirement to protect its employees, members of the public as well as the natural environment from the effects of noise generated by its activities. The management of environmental noise is set out in [Leaflet 4.1](#) of JSP 418 (Management of Environmental Protection in Defence).

Key legislation

7. Employers have a general duty under the [Health and Safety at Work etc. Act \(HSWA\) 1974, Section 2](#) to ensure, so far as is reasonably practicable (SFAIRP), the health, safety and welfare of all of their employees and, under [Section 3](#), anyone else who may be affected by a work activity is not compromised. The legislation requires employers to fulfil their legal requirements by reducing risks as low as is reasonably practicable (ALARP). There is a further duty on employers under the [Management of Health and Safety at Work Regulations \(MHSWR\) 1999](#) to carry out suitable and sufficient risk assessments, which for Defence requires commanders, managers and accountable persons to assess and mitigate health and safety risks to the personnel under their area of responsibility.

8. In accordance with the [Secretary of State for Defence \(SofS\) policy statement on health, safety and environmental protection](#), when operating 'overseas, we will comply with the laws of Host States, where they apply to us, and in circumstances where such requirements fall short of UK requirements, we will apply UK standards so far as is reasonably practicable to do so'.

9. The key legislation (herein referred to as 'legislation') that applies to the management of noise at work are:

- a. [The Control of Noise at Work Regulations 2005 \(CNAWR\)](#);
- b. [The Control of Noise at Work \(Northern Ireland\) Regulations 2006 \(CNAW\(NI\)R\)](#);
- c. [The Merchant Shipping and Fishing Vessels \(Control of Noise at Work Regulations 2007 \(CNAWR\)\)](#).

Note: Legislation may change, therefore always make sure that the version of the legislation that you are looking for is the current one.

10. The CNAWR 2005 applies to all Defence activities carried out in any location within Great Britain (GB) and additionally **must** apply to and in relation to any Defence activity outside GB where sections 1 to 59 and 80 to 82 of the Health and Safety at Work etc. Act 1974 (Application Outside Great Britain) Order 2001 apply.

11. In addition to CNAWR, all MOD shipping, for example Government (MOD) ships and ships that form part of His Majesty's Navy, **should** also consider the requirements of the Merchant Shipping and Fishing Vessels (CNAWR 2007).

12. The HSE regulates only in GB, not the entire United Kingdom. In Northern Ireland workplace health and safety is regulated by HSE for Northern Ireland ([HSENI](#)) and CNAW(NI)R 2006 applies.

Defence exemption

13. Where the interests of National Security conflict with key aspects of the legislation, the SofS for Defence may grant an [exemption](#) for any person or class of persons, from those parts of the legislation (CNAWR) by a certificate in writing. Before seeking such an exemption certificate, the commander, manager or accountable person **must** exhaust alternative options that would reasonably control the risk and protect the interests of national security.

14. The SofS for Defence will not grant such an exemption unless satisfied that the risk to the health and safety of the personnel concerned has been reduced to ALARP and tolerable and is ensured as far as possible and where an exemption is granted it may be subject to conditions, to a limit of time and may be revoked by a certificate in writing at any time. The Defence exemption certificate process is set out in [JSP 815 Annex B Exemption Certificate Process](#).

Exposure Limit Values and Exposure Action Values

15. The legislation provides statutory limits to noise exposure in the workplace with a view to protecting personnel against risk to their Health and Safety (H&S), for example their hearing capability.

Note: Noise exposure terminology is defined in the 'terms and definitions' table above and further guidance on the 'Exposure Action Values (EAV) and the Exposure Limit Values (ELV) is provided in Annex A to this chapter.

16. The terminology and definitions used to describe noise exposure can be complex, however a basic outline of key terminology used for defining noise exposure is as follows:

- a. **Noise exposure** is calculated from a time-average sound pressure level and the time that a person is exposed to that average sound pressure level. The concept of the time-average noise exposure level is explained in more detail in Annex A to this chapter.
- b. **Sound pressure levels** are measured in decibels and are denoted by the letters 'dB' which follow the numbers that give the level of the sound pressure, for example "80 dB". Peak sound pressure refers to a measure of the 'maximum' sound pressure level that exists in a given period, even if only for a brief moment of time.
- c. **Sound of a defined level**, for example 80 dB, but at different frequencies will have different effects when heard by people. This includes both how loud that sound appears to be and also the damage it can cause to hearing. Different 'frequency weightings' are applied to correct for these effects. The 'A' weighting, denoted by 'dB(A)' or sometimes 'dBA', indicates sound levels which have been corrected for the different subjective 'loudness' at different frequencies. The 'C' weighting, denoted by 'dB(C)', is used when assessing peak noise levels for example from percussive tools, gunfire and so on.

17. Regulation 4 of the CNAWR sets out the legal thresholds of noise exposure, above which key obligations or actions become necessary. These thresholds at the lower EAV, upper EAV and ELV for daily or weekly personal noise exposure and peak sound pressure are as follows, further guidance on these is also set out in Annex A to this chapter.

18. CNAWR takes into account personnel being exposed to workplace noise for 8 hours a day or for 40 hours per week. This distinction may have implications for Defence personnel who may be in a 'workplace' for 24 hours per day for 7 days per week, requiring a significant reduction (for example 10db) in the average noise level to which they can be exposed before reaching the EAVs or ELVs. This **must** be considered by a competent noise assessor during a noise risk assessment by factoring in the levels of noise exposure accumulated during the time spent in different noise environments over the entirety of a 24-hour day and 7-day week.

19. The commander, manager or accountable person is responsible for making sure the obligations or actions are met, however, there may be multiple people with overlapping and interdependent roles and responsibilities who will need to cooperate to make sure the risks are appropriately reduced.

20. CNAWR Regulation 4 specifies the following EAVs and ELVs:

- a. The lower Exposure Action Values (EAV) are:
 - (1) a daily or weekly personal noise exposure of 80 dB (A-weighted); and
 - (2) a peak sound pressure of 135 dB (C-weighted).
- b. The upper Exposure Action Values (EAV) are:
 - (1) a daily or weekly personal noise exposure of 85 dB (A-weighted); and
 - (2) a peak sound pressure of 137 dB (C-weighted).
- c. The Exposure Limit Values are:
 - (1) a daily or weekly personal noise exposure of 87 dB (A-weighted); and
 - (2) a peak sound pressure of 140 dB (C-weighted).

21. The peak sound pressure values refer to any maximum sound pressure received which is typically from loud, impact type noises, for example explosions or percussive tools. The concept of the time weighted average noise exposure level is explained in Annex A to this chapter.

22. Where the exposure of personnel to noise varies markedly from day to day, a weekly personal noise exposure can be used in place of a daily personal noise exposure for the purpose of compliance with the Regulations (weekly averaging is covered in Annex A to this chapter).

23. In applying the ELVs, but not in applying the lower and upper EAVs, account **must** be taken of the protection given to personnel by any personal hearing protectors that have been provided to them.

	Lower Exposure Action Values (EAV)	Upper Exposure Action Values (EAV)	Exposure Limit Values (ELV)
Daily or weekly personal noise exposure	80 dB(A-weighted)	85 dB(A-weighted)	87 dB(A-weighted)
Peak sound pressure	135 dB(C-weighted)	137 dB(C-weighted)	140 dB(C-weighted)

Table 1 - Noise Exposure Action Values and Exposure Limit Values

Policy Statements

24. Defence has established the following policy statements, which **must** be followed. Each policy statement is based upon a specific Regulation from the CNAWR 2005 which is further defined along with associated guidance in the [HSE publication L108](#).

- a. **Policy Statement 1** (CNAWR - Regulation 5). The commander, manager or accountable person **must** make sure that a suitable and sufficient noise risk assessment is carried out where the activities under their area of responsibility are liable to expose personnel to noise levels that are at or above a lower Exposure Action Value (EAV).
- b. **Policy Statement 2** (CNAWR - Regulation 6). The commander, manager or accountable person **must** make sure that the risks to personnel under their area of responsibility from exposure to harmful noise levels is either eliminated at source or, where this is not reasonably practicable, reduced to a level that is as low as reasonably practicable (ALARP).
- c. **Policy Statement 3** (CNAWR - Regulation 7). Where personnel are exposed to noise which is likely to be at or above a lower Exposure Action Value (EAV), the commander, manager or accountable person **must** make personal hearing protection available.

Where personnel are exposed to noise which is likely to be at or above an upper Exposure Action Value (EAV), the commander, manager or accountable person **must** provide personal hearing protectors and personnel **must** wear them.

- d. **Policy Statement 4** (CNAWR - Regulation 8). The commander, manager or accountable person **must** make sure that all noise-control equipment provided to personnel under their area of responsibility is safe to operate, is maintained and so far as is reasonably practicable operated safely.
- e. **Policy Statement 5**. (CNAWR - Regulation 9). If the risk assessment indicates that there is a risk to the health of personnel that have been or are liable to be, exposed to harmful noise levels, the commander, manager or accountable person **must** make sure that those personnel are placed under suitable health surveillance, which **must** include testing of their hearing.
- f. **Policy Statement 6** (CNAWR - Regulation 10). Where personnel are exposed to noise which is likely to be at or above a lower Exposure Action Value (EAV), the commander, manager or accountable person **must** make sure that those personnel are provided with suitable and sufficient information, instruction and training.

Policy Statement 1 (CNAWR - Regulation 5)

The commander, manager or accountable person **must** make sure that a suitable and sufficient noise risk assessment is carried out where the activities under their area of responsibility are liable to expose personnel to noise levels that are at or above a lower Exposure Action Value (EAV).

25. The commander, manager or accountable person **must** identify the activities under their area of responsibility that are liable to expose personnel to noise levels that are at or above a lower EAV. They **must** make sure that a suitable and sufficient noise risk assessment is carried out for those activities which **must** include the identification of the control measures required to protect personnel from any health and safety risks that may result from harmful noise levels.
26. The noise risk assessment **must** support the overarching risk assessment for the activity which **must** be carried in accordance with [Chapter 8](#) (Safety risk assessment and safe systems of work) of JSP 375, Volume 1. The overarching risk assessment for the activity **should** be recorded on the MOD Form 5010 (please see [guidance notes](#)) and the noise risk assessment **should** be recorded on the recommend template MOD Form 5017, each relevant MOD Form **should** reference the other in the appropriate text field.
27. The risk assessment **must** take into account all noise exposure at work, including, for example, machinery, band music, vehicles and weapons. Further information on weapons attenuation can be found in [Pamphlet 21](#) or the Army Commanders Guide to Hearing Protection.
28. As part of the risk assessment the commander, manager or accountable person **must** identify who might be at risk from exposure to harmful noise levels associated with the activity and decide whether it is just those taking part in the activity that are at risk or if this risk extends to other personnel, for example contractors, visitors or members of the public.
29. As part of the risk assessment process any significant noise risks **must** also be recorded on an appropriate Risk Register for the workplace or the organisation. The noise injury risks that are recorded on the Risk Register **must** list the key causes, the control measures that have been put in place and any other essential supporting information.
30. When assessing the activities which expose personnel to harmful noise levels, the commander, manager or accountable person **must** consider what needs to be done to eliminate or reduce the risks and draft a plan of action.
31. The commander, manager or accountable person may delegate the responsibility for carrying out the noise risk assessment to a competent person, who can also assist with the development of the plan of action. Further information on Noise assessment competency is set out in Annex D to this chapter.
32. The noise risk assessment **must** contain an assessment of the noise levels to which personnel are exposed. The commander, manager or accountable person **must** assess the levels of noise to which personnel are exposed by means of:
- a. observation of specific working practices;
 - b. reference to relevant information on the probable levels of noise corresponding to any equipment used in the particular working conditions; and

c. if it is necessary to measure the level of noise, then a calibrated sound level meter **must** be used by a competent person to assess whether any personnel are likely to be exposed to noise at or above a lower or an upper EAV, or an ELV. Sound level meters are covered in more detail in Annex B to this chapter.

33. The noise risk assessment **must** include consideration of:

- a. the level, type and duration of exposure, including any exposure to peak sound pressure;
- b. the effects of exposure to noise on employees or groups of employees whose health is at particular risk from such exposure;
- c. so far as is practicable, any effects on the health and safety of employees resulting from the interaction between noise and the use of ototoxic² substances at work, or between noise and vibration;
- d. 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;
- e. any information provided by the manufacturers of work equipment;
- f. the availability of alternative equipment designed to reduce the emission of noise;
- g. any extension of exposure to noise at the workplace beyond normal working hours, including exposure in rest facilities supervised by the employer;
- h. appropriate information obtained following health surveillance, including, where possible, published information; and
- i. the availability of personal hearing protectors with adequate attenuation characteristics.

34. The commander, manager or accountable person **must** assess the levels of noise to which personnel are exposed, in line with the noise exposure levels set out in CNAWR, these are explained further in Annex A (Guidance on noise exposure levels) to this chapter.

35. The commander, manager or accountable person **must** make sure that all noise risk assessments are regularly reviewed if the following examples apply (more detail on reviewing the noise risk assessment is covered in Annex B to this chapter):

- a. there is any reason to suspect that the current noise risk assessment is no longer valid; or
- b. there has been any significant changes to the activity where the risk of exposure to harmful noise levels increases.

36. As a result of the review, if changes to the risk assessment are required, these **must** be made (for example further control measures put in place).

37. The noise risk assessment **must** be developed in consultation with the personnel concerned and where appropriate with their safety representatives and / or trade unions (TUs).

² Ototoxic drugs or chemicals (prescribed or over the counter) are those that are toxic to the ear and can cause damage to the inner ear and / or interact with noise to exacerbate hearing damage. The effects of interaction between noise and the use of ototoxic substances is set out in Annex B to this chapter.

38. Defence has a legal obligation to consult with all personnel (military and civilian), or their representatives, on health and safety matters. Consultation can be through the chain of command, relevant staff associations, relevant Safety Centres or the recognised TUs for civilian staff as set out in Element 11 (Communications and Stakeholder Engagement) of JSP 815 (SMS Framework).

39. The commander, manager or accountable person **must** record the significant findings of the noise risk assessment and the control measures as soon as is practicable after the risk assessment has been carried out or if the noise risk assessment has been changed as a result of a review.

40. The findings of the noise risk assessment **must** be communicated, along with details of the associated control measures, to those who may be exposed to the harmful noise levels.

Policy Statement 2 (CNAWR - Regulation 6)

The commander, manager or accountable person **must** make sure that the risks to personnel under their area of responsibility from exposure to harmful noise levels is either eliminated at source or, where this is not reasonably practicable, reduced to a level that is as low as reasonably practicable (ALARP).

41. Where personnel are likely to be exposed to noise levels at or above an upper EAV, commanders, managers and accountable persons **must** consider what needs to be done to eliminate or reduce exposure to ALARP by establishing and implementing a programme of control measures, excluding the provision of hearing protectors, which are appropriate for the activity.

42. The control measures identified in the noise risk assessments **must** be considered in line with the 'hierarchy of controls' (the measures to control risk), the order **must** be followed. The hierarchy of risk control measures **must** always start with elimination and if this is not reasonably practicable then consideration **must** be given to substitution, engineering controls, administrative controls and finally personal protective equipment (PPE) such as personal hearing protection that are appropriate to the activity. However, PPE **must** not be used before consideration of the other control measures in the hierarchy.

43. The control measures identified against the hierarchy of controls can be applied singularly or collectively, further guidance on applying the hierarchy of controls is set out in [Chapter 8](#) of JSP 375, Volume 1.

44. The commander, manager or accountable person **must** make sure that the control measures that have been identified in the noise risk assessment are implemented and followed. The commander, manager or accountable person **must** make sure that suitable and sufficient training is provided where necessary to all personnel to make sure that the control measures are implemented effectively.

45. Personnel **must** correctly use or follow all implemented control measures.

46. The actions taken by the commander, manager or accountable person **must** be based on the general principles of prevention set out in CNAWR - Regulation 6; which **must** include consideration of:

- a. other working methods which reduce exposure to noise;

- b. choice of appropriate work equipment emitting the least possible noise, taking account of the work to be done;
- c. the design and layout of workplaces, workstations and rest facilities;
- d. suitable and sufficient information and training for employees, such that work equipment may be used correctly, in order to minimise their exposure to noise;
- e. reduction of noise by technical means;
- f. appropriate maintenance programmes for work equipment, the workplace and workplace systems;
- g. limitation of the duration and intensity of exposure to noise; and
- h. appropriate work schedules with adequate rest periods.

47. Commanders, managers or accountable persons **must** make sure that personnel under their area of responsibility are not exposed to noise above an ELV or where an ELV has been exceeded the commander, manager or accountable person **must**;

- a. reduce the exposure levels to below the ELV;
- b. identify the reasons for that ELV being exceeded; and
- c. decide what actions are required and make such changes to prevent the ELV being exceeded again.

48. Where rest facilities are made available to personnel, the commander, manager or accountable person **must** make sure that exposure to noise in these facilities is reduced to a level suitable for their purpose and conditions of use.

49. For service personnel, care **must** be taken to prevent noise exposure risks in rest facilities when they are constrained to a military establishment or platform for extended periods of time, which can include off-duty periods.

50. Commanders, managers, or accountable persons **must** consider any personnel or groups of personnel whose health is likely to be particularly at risk from exposure to noise and consult with those personnel or their representatives on the control measures that have been, or will be, implemented to reduce their exposure levels.

Policy Statement 3 (CNAWR - Regulation 7)

Where personnel are exposed to noise which is likely to be at or above a lower Exposure Action Value (EAV), the commander, manager or accountable person **must** make personal hearing protection available.

Where personnel are exposed to noise which is likely to be at or above an upper Exposure Action Value (EAV), the commander, manager or accountable person **must** provide personal hearing protectors and personnel **must** wear them.

51. Where personnel are exposed to noise which is likely to be at or above a lower EAV, the commander, manager or accountable person **must** make personal hearing protection available to those personnel.

52. Where control measures have been implemented but are unable to reduce noise levels to below an upper EAV the commander, manager or accountable person **must** provide personal hearing protection to the personnel who are likely to be exposed to those noise levels. Personnel exposed to noise at or above the upper EAV **must** wear the appropriate PPE.

53. Where areas of the workplace are likely to expose personnel to noise levels that are at or above an upper EAV then the commander, manager or accountable person **must**:

- a. designate that area as a Hearing Protection Zone;
- b. make sure that area is demarcated and is suitably signposted which clearly indicates that personal hearing protection **must** be worn; and
- c. restrict access to the area where this is practicable and make sure so far as is reasonably practicable that no personnel enter the area unless they are wearing personal hearing protection.

54. All personal hearing protection that are made available or provided to personnel **must** be selected:

- a. so as to eliminate the risk to hearing or to reduce that risk to ALARP; and
- b. after consultation with personnel or their representatives who will be expected to wear them and with relevant subject matter experts (SMEs).

55. Personal hearing protection used as a control measure **must** not be used as an alternative to controlling noise by technical and organisational means. Hearing protection is the last line of defence and all other methods **must** be exhausted before their use. PPE is reliant on the user wearing it and wearing it correctly.

56. Any PPE used as a control measure to reduce noise exposure **must** be suitable, sufficient and does not cause further risk or hinder the use of other PPE or equipment that is required for the activity to be carried out, while maintaining its effectiveness. Conflicting items may lead to new hazards. For example, the use of hearing protection **must** not hinder an individual's ability to correctly use the sights of firearms, use of ballistic helmets, use of personal or vehicle communications systems, and so on.

Policy Statement 4 (CNAWR - Regulation 8)

The commander, manager or accountable person **must** make sure that all noise-control equipment provided to personnel under their area of responsibility is safe to operate, is maintained and so far as is reasonably practicable operated safely.

57. The commander, manager or accountable person **must** make sure that all equipment provided to personnel under their area of responsibility is:

- a. so far as is reasonably practicable fully and properly used; and
- b. is maintained in an efficient state, in efficient working order and in good repair.

58. Where equipment is the source of the noise hazard, appropriate maintenance, repairs or modifications may be required to make sure that acceptable noise levels are achieved for the operation of that equipment.

59. Personnel **must**:

- a. make full and proper use of the personal hearing protection that have been provided to them and of any other control measures that have been put in place to reduce harmful noise levels; and
- b. report to their commander, manager, or accountable person, as soon as reasonably practicable, any defects to personal hearing protection or any other control measures that have been put in place to reduce harmful noise levels.

60. Personnel **must** operate any equipment, that they are required to use for the purposes of their work, in a safe way and follow any information and instruction provided for the safe use of that equipment.

61. Defence acquisitions teams **must** make sure that noise levels are considered as part of the acquisition safety process for equipment, machinery, vehicles, weapons and platforms that are procured or provided for Defence use. Further information on acquisition safety is set out in JSP 376 (Defence Acquisition Safety Policy).

Policy Statement 5 (CNAWR - Regulation 9)

If the risk assessment indicates that there is a risk to the health of personnel that have been or are liable to be, exposed to harmful noise levels, the commander, manager or accountable person **must** make sure that those personnel are placed under suitable health surveillance, which **must** include testing of their hearing.

62. Where personnel have been or are liable to be exposed to noise levels which are likely to be at or above an Exposure Action Value (EAV), the commander, manager or accountable person **must** make sure that those personnel are placed under suitable health surveillance. An audiometric health surveillance programme is put in place to monitor the hearing sensitivity of personnel by using periodic hearing tests (audiometric testing).

63. For service personnel, audiometric testing is carried out as part of the recruitment process in order to provide a baseline record and then annually for the first two years of service. Subsequently audiometric testing is carried out every two years unless the noise risk assessment identifies the requirement for more frequent testing based on the level of noise exposure, the work environment, where symptoms of hearing loss have been reported and so on.

64. Guidance on noise at work health surveillance is set out in Annex E (Managing audiometric health surveillance) to this chapter and information on general health surveillance is set out in [Chapter 14](#) (Health surveillance and health monitoring) of JSP 375 Volume 1.

65. Personnel **must** inform the commander, manager or accountable person of any physical or medical condition where their health is likely to be particularly at risk from exposure to noise. Where this is the case, the commander, manager or accountable person **must** get medical advice and where necessary advice from occupational health services relating to those considered at particular risk, they **must** put in place the necessary control measures and they **must** make sure that those personnel are placed under suitable audiometric health surveillance.

66. Where commanders, managers or accountable persons suspect personnel as having hearing loss, ear injury (for example; earache, discharge or bleeding from the ear) or balance related symptoms having been in close proximity to excessive noise or blast, they **must** assume that the affected personnel have sustained Acute Acoustic Trauma (AAT). These personnel **must** be urgently directed to medical support to undergo rapid identification and referral as there are treatment options available for AAT that are best undertaken early (see [JSP 950 Leaflet 2-17-2](#)).

67. If it is reported (either by the individual or by Occupational Health) that any Defence personnel have experienced a loss in hearing acuity, the commander, manager or accountable person **must** take action to remove them from the noise source, and act upon any advice provided by Occupational Health. Where it is not possible to remove the individual from the noise source, additional control measures **must** be put in place to reduce their noise exposure, for example by limiting time exposure and / or improving the performance of their PPE to reduce further damage to their hearing.

68. Service personnel will receive their occupational health services and advice from Defence Primary Healthcare (DPHC) and Military Command occupational health services. The arrangements for military personnel to access occupational health services are contained in Single and Joint Service instructions and publications such as [JSP 950 Leaflet 6-7-7](#).

69. Civilian personnel **should** discuss any occupational health issues with their commander or manager and seek advice where required from their local safety adviser, and if further advice is needed, the Chief Environment and Safety Officer (CESO) or equivalent.

70. The procedures set out in the Occupational Health policy, which can be found on the [Civilian HR People Portal](#), will provide the commander or manager with information on how best to proceed, (upon the permission of the individual) for referrals for occupational health advice from Defence's commercial health provider [Optima Health](#).

71. Where hearing damage has been identified, a suitably qualified occupational health professional **should** explain the significance of the results to the individual concerned and give them advice on the risks of future noise exposure at work.

72. If consent has been granted by the individual then the occupational health provider for civilian and service personnel, **must** inform the commander or manager and recommend whether the person who has been referred to them is fit to continue work after exposure to noise. The occupational health service provider will not disclose any medically confidential information to the commander or manager without prior written consent from the individual concerned.

73. Commanders, managers and accountable persons **must** prevent further harm to personnel by acting on advice from the occupational health professional and, where necessary, remove those personnel from exposure to noise.

74. The commander, manager or accountable person **must** make sure that a personal health record in respect of personnel who undergo audiometric health surveillance is generated using [MOD Form 5051](#) [please note that MOD Form 5051 is under review as part of a wider review into health surveillance policy and process], the record **must** be maintained, a copy kept and made available in a suitable form.

75. Health records **must** be retained in accordance with the relevant Defence organisation arrangements, and JSP 375 Vol 1 Chap 39 (Retention of records).

76. When reasonable notice has been given, the commander, manager or accountable person **must** allow personnel access to their personal health record; and provide the enforcing authority with copies of such health records as it may require.

77. Where, as a result of health surveillance, personnel are found to have identifiable hearing damage the commander, manager or accountable person **must** make sure that those personnel are examined by a doctor.

78. If the doctor (or any specialist to whom the doctor considers it necessary to refer those personnel to) considers that the damage is likely to be the result of exposure to noise, the commander, manager or accountable person **must**:

- a. make sure that a suitably qualified person informs the personnel;
- b. review the noise risk assessment;
- c. review any noise exposure control measures, taking into account any advice given by a doctor or occupational health professional, or the enforcing authority;
- d. consider assigning personnel to alternative work where there is a reduced risk of further exposure to noise, taking into account any advice given by a doctor or occupational health professional; and
- e. make sure the health surveillance of those personnel is continued and provide for a review of the health of any other personnel who have been similarly exposed (personnel who are subject to audiometric health surveillance **should** be assessed at least annually).

79. The health surveillance programme usually includes regular hearing checks (audiometric testing), therefore personnel **must** co-operate with the health surveillance programme by attending their health surveillance assessment when requested to do so by their commander, manager or accountable person. Arrangements **must** be made during work time and any examinations **must** be provided free of charge to the individual.

80. Analysis of anonymised health results of groups of personnel can provide an insight into how well the noise-control and hearing-conservation programme is working. Such information **must** be suitably adapted to protect individuals' identities and be made available to safety or personnel representatives.

Policy Statement 6 (CNAWR Regulation 10)

Where personnel are exposed to noise which is likely to be at or above a lower Exposure Action Value (EAV), the commander, manager or accountable person **must** make sure that those personnel are provided with suitable and sufficient information, instruction and training.

81. Appropriate information, instruction and training is essential to enable personnel to fulfil their own obligations under the legislation to protect both their own health and safety as well as the health and safety of others. Appropriate information, instruction and training can include:

- a. the nature of risks from exposure to noise;

- b. the organisational and technical control measures that have been (or will be) implemented;
- c. the exposure limit values and upper and lower EAVs;
- d. the significant findings of the risk assessment, including any measurements taken, with an explanation of those findings;
- e. the availability and provision of personal hearing protection and their correct use;
- f. why and how to detect and report signs of hearing damage;
- g. the entitlement to health surveillance and its purposes;
- h. safe working practices to minimise exposure to noise; and
- i. the collective results of any health surveillance undertaken in a form calculated to prevent those results from being identified as relating to a particular person.

82. The information, instruction and training **must** be updated to take account of significant changes in the type of work carried out or the working methods being used.

83. The commander, manager or accountable person **must** make sure that the personnel under their area of responsibility (including contractors) have suitable and sufficient information, instruction and training to safely carry out their activities. Where instructional training has been provided to personnel then records **must** be retained, all record retention **must** be in accordance with JSP 375, Volume 1, [Chapter 39](#) (Retention of Records).

84. All personnel have a statutory duty to report any work situation which presents a risk to the safety of themselves or others (which includes safety occurrences where they or others are exposed to harmful noise levels). Safety occurrences **must** be reported and investigated in accordance with [Chapter 16](#) (Safety occurrence reporting and investigation) of JSP 375 Volume 1.

Part 2 Guidance

This part provides the guidance and good practice that **should** be followed to help you comply with this policy, further guidance can be found in the [HSE Guidance](#) on controlling the risks from noise at work.

Risk assessment

Policy Statement 1 (CNAWR - Regulation 5)

The commander, manager or accountable person **must** make sure that a suitable and sufficient noise risk assessment is carried out where the activities under their area of responsibility are liable to expose personnel to noise levels that are at or above a lower Exposure Action Value (EAV).

1. The commander, manager or accountable person **must** ascertain whether the risk of noise could reasonably be expected in the workplace or for the activities that fall under their area of responsibility. This is determined by completing the Noise Hazard Check Questionnaire (NHCQ) which is in Annex C of this chapter. The results of the NHCQ will determine whether a noise risk assessment is required.
2. The commander, manager or accountable person **should** refer to the site hazard assessment, which **should** have identified areas where work activities could produce excessive noise.
3. If the NHCQ indicates that there is a potentially hazardous exposure to noise, a noise risk assessment **must** be carried out, further details of this process are set out in Annex B of this Chapter. The noise risk assessment **must** support the overarching risk assessment for the activity which **must** be carried in accordance with [Chapter 8](#) of JSP 375, Volume 1. The overarching risk assessment **should** be recorded on the MOD Form 5010 (and guidance notes) and if the noise risk assessment is required it **should** be recorded on the recommended template MOD Form 5017, each form **should** reference the other in the appropriate text field.
4. There are some noise risk assessments that may be outside the capability of the assessor, for example where the assessor has no knowledge of such a noise source, or outside the capability of the equipment required for measuring the noise. A particular example of where the noise assessor may not be trained to carry out the noise risk assessment could be for weapon or gunfire. For assessment of these type of noise sources, a different type of equipment and training are required and this is where a specialist **should** be called in to carry out a specialist noise risk assessment. Further information on noise assessment competency is set out in Annex D to this chapter.
5. As part of the noise risk assessment process any significant noise risks **must** also be recorded on an appropriate Hazard or Risk Register for the workplace or the organisation. The noise injury risks that are recorded on the Risk Register **must** list the key causes, the control measures that have been put in place and other essential supporting information.
6. The purpose of the noise risk assessment is to enable commanders, managers and accountable persons to make valid decisions about whether their personnel are at risk from exposure to noise and what action can be taken to prevent or adequately control that exposure.

7. When preparing a noise risk assessment the following **should** be considered:
- a. all the factors related to the risks from noise exposure;
 - b. how to measure the level of noise personnel are likely to be exposed to, this can be done by using a sound level meter which is covered more in Annex B to this chapter.
 - c. the steps which need to be taken to achieve and maintain adequate control of the risks;
 - d. the need for health surveillance;
 - e. how to put the steps you have decided on into action.
8. The noise risk assessment **must** take into account all noise exposure at work, including, for example, machinery, band music, vehicles and weapons. Further information on weapons attenuation can be found in [Pamphlet 21](#) or the Army Commanders Guide to Hearing Protection.

A suitable and sufficient noise risk assessment

9. A noise risk assessment can be considered to be suitable and sufficient if it:
- a. has been drawn up by someone who is competent to carry out the task;
 - b. is based on advice and information from competent sources;
 - c. identifies where there may be a risk from noise and who is likely to be affected;
 - d. contains a reliable estimate of personnel's noise exposures and a comparison of exposure with the EAVs and ELVs;
 - e. identifies the measures necessary to eliminate risks and exposures or reduce them to a level as low as is reasonably practicable;
 - f. identifies those personnel who need to be provided with health surveillance and whether any employees are at particular risk.

Competence

10. To carry out a noise risk assessment to a level considered to be suitable and sufficient requires competence in particular areas, for example drawing up the risk assessment, estimating noise exposures and assessing the likely effectiveness of control measures. Regulation 7 of the Management of Health and Safety at Work Regulations 1999 requires the employer to have access to competent help in applying health and safety law. The required competency for a noise assessor is set out in Annex D to this chapter.

The risk assessment process

11. The noise risk assessment process is set out in more detail in Annex B of this chapter which follows the requirements of CNAWR. The noise risk assessment process is illustrated in Fig 1 below which shows the steps to be followed, the final step is to review the assessment at an appropriate frequency and then repeat the process.

12. An initial review **must** take place shortly after the detailed noise risk assessment to assess the immediate effectiveness of the implemented controls and then a periodic review **should** be at a frequency that is appropriate to the level of risk of the particular activity (e.g., high risk - potentially each time the activity is to be conducted or at least 6 monthly; medium risk review control measures and improve if reasonably practicable to do so; 6 monthly or at least annually; low risk – annually) and additionally the control measures **must** also be reviewed where there is a change or event in the work activity.

The personnel concerned or their representatives must be consulted

13. It is important for commanders, managers, and accountable persons to talk to the personnel concerned and their safety representatives, not only to tell them what is being done to manage the risk of noise, but also to seek their advice, help and co-operation on what is achievable and practical to make sure they are fully involved in the noise risk assessment process. This can result in the provision of valuable advice on how effective that any proposed control measures may be, how this may affect the workplace or the activities being undertaken and identify any actions that may not had been considered.

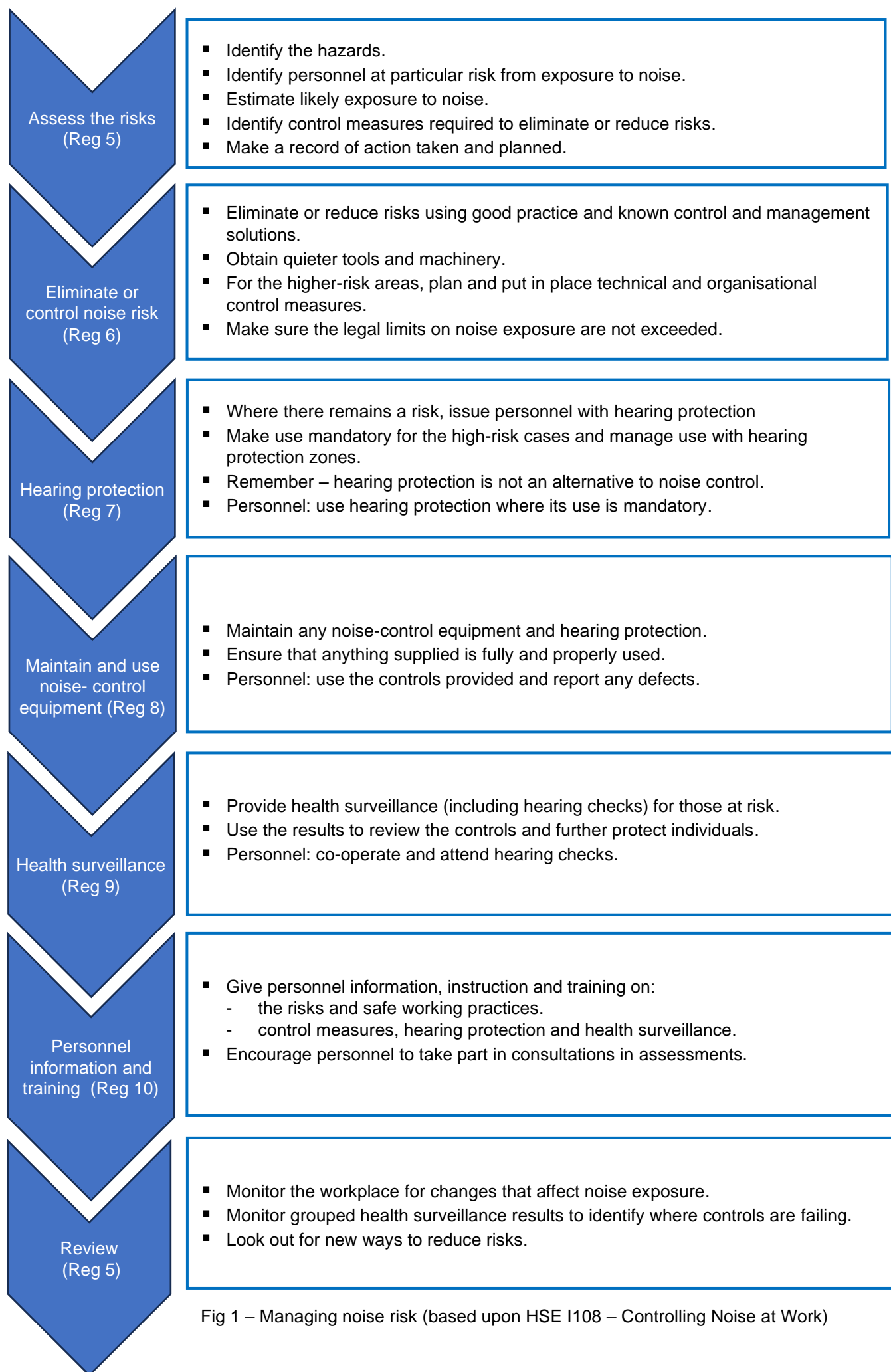


Fig 1 – Managing noise risk (based upon HSE I108 – Controlling Noise at Work)

Policy Statement 2 (CNAWR - Regulation 6)

The commander, manager or accountable person **must** make sure that the risks to personnel under their area of responsibility from exposure to harmful noise levels is either eliminated at source or, where this is not reasonably practicable, reduced to a level that is as low as reasonably practicable (ALARP).

Controlling noise

14. Where the noise risk assessment has identified that control measures are required then the hierarchy of risk control measures **must** be followed. The hierarchy of risk control measures **must** always start with elimination and if this is not reasonably practicable then consideration **must** be given to substitution, engineering controls, administrative controls and finally personal protective equipment (PPE) such as personal hearing protection that are appropriate to the activity. However, PPE **must** not be used before consideration of the other control measures in the hierarchy and the aim **should** be always to try and eliminate the hazard first and do not simply jump to the easiest control. It may require a combination of measures to control a risk.

15. Wherever there is a risk that personnel may be exposed to harmful noise levels it is the responsibility of commanders, managers or accountable persons to take the following actions:

- a. to eliminate the hazards that create the risks of noise exposure wherever it is reasonably practicable to do so;
- b. if it is not reasonably practicable to eliminate the risks completely, to reduce risks to a level that is as low as reasonably practicable;
- c. to introduce a formal programme of control measures to reduce noise exposure so far as is reasonably practicable whenever personnel are exposed to noise levels that are likely to exceed an upper EAV (these measures cannot include hearing protection, which is covered separately under Policy Statement 3);

Eliminate or reduce risk

16. These actions **should** be taken whenever there is a risk from noise and irrespective of whether any EAVs are exceeded and as such commanders, managers or accountable persons **should** always:

- a. consider whether there are alternative processes, equipment and/or working methods which would eliminate risks from noise exposure;
- b. follow good practice and industry standard control measures;
- c. take noise into account when selecting tools and machinery;
- d. maintain machinery in accordance with manufacturers' recommendations; and
- e. explore any opportunity to provide personnel with periods of relief from noise exposure.

Establishing and implementing a programme of control measures

17. When assessing the activities that expose personnel to noise, commanders, managers and accountable persons **should** think about what needs to be done to eliminate or at least reduce the risks and draft a plan of action. If exposure is likely to be at or above an upper EAV, a formal programme of organisational and technical control measures **must** be established.

18. The actions taken will depend on the particular work activities and processes and the possibilities for implementing control measures, but in general commanders, managers or accountable persons **should**:

- a. identify what is possible to control noise exposures, how much reduction could be achieved and what is reasonably practicable;
- b. establish priorities for action and a timetable;
- c. assign responsibilities to individuals to deliver the various parts of the programme;
- d. ensure that the work involved in implementing the noise-control measures is carried out; and
- e. check that what has been done has been effective in reducing noise exposures.

19. Some control measures may take time to put in place, particularly where equipment needs to be replaced or new processes developed. Other control measures may be considered to be not reasonably practicable but may become so over time as circumstances change. The feasibility of further noise reductions **should** be reviewed during the periodic review of the noise risk assessment.

General principles of prevention

20. In identifying and putting in place appropriate noise-control and risk-reduction measures commanders, managers and accountable persons **should** follow the general principles of prevention set out in Schedule 1 to the Management of Health and Safety at Work Regulations 1999, which is:

- a. avoiding risks;
- b. evaluating the risks which cannot be avoided;
- c. combating the risks at source;
- d. adapting the work to the individual, especially as regards the design of workplaces, the choice of work equipment and the choice of working and production methods, with a view, in particular, to alleviating monotonous work and work at a predetermined work-rate and to reducing their effect on health;
- e. adapting to technical progress;
- f. replacing the dangerous by the non-dangerous or the less dangerous;
- g. developing a coherent overall prevention policy which covers technology, organisation of work, working conditions, social relationships and the influence of factors relating to the working environment;
- h. giving collective protective measures priority over individual protective measures; and

- i. giving personnel appropriate instructions.

21. However, there are other ways of reducing noise and no single technique will be appropriate for every situation. A programme of noise control **should** adopt a systematic approach to identifying what can be done, without restriction, upon which informed decisions can be made.

Choice of appropriate work equipment emitting the least possible noise

22. Considering noise when re-equipping can be the most cost-effective way of reducing noise exposure. For many types of equipment there are models designed to be less noisy. Where the workplace contains just one noisy machine, the noise exposure reductions from substituting a quieter machine can be immediate. A positive purchasing / hiring policy which takes noise into account **should** be considered as part of the safety case for the equipment (safety cases are set out in more detail in JSP 376) when selecting machinery in order provide noise exposure reductions in the medium to long term.

23. Quieter machines **should** be selected from noise information supplied with equipment. Potential suppliers **must** be requested to provide information on the noise emission of machines under the conditions of intended use, that information can be used to compare machines. Where it is not possible to purchase machinery which achieves noise exposures below the EAVs, a record of the reasons for the purchasing decision **should** be kept to help guide future action, for example by providing those responsible for future machine specifications with information on improvements that are needed.

Appropriate maintenance programmes for work equipment

24. Maintenance of machinery, carried out in accordance with the manufacturer's recommendations, can prevent noise emissions increasing over time. Commanders, managers and accountable persons **should** make sure that appropriate maintenance is performed on equipment so that its performance does not deteriorate to the extent that it puts personnel at risk due to the noise emitted. Operators **should** be instructed to report any unusually high noise levels and check that machines are operating properly.

Limitation of the duration and intensity of exposure

25. When all reasonably practicable steps have been taken to reduce noise levels the next step to reduce exposure is to limit its duration. The exposure points system described in Appendix 3 of the [HSE Guidance \(L108\)](#) can be a useful management tool.

26. Non-work activities can also contribute to daily / weekly noise exposure limits for example where rest facilities are made available in the workplace that are exposed to elevated noise levels resulting from activities taking place within a close proximity. This may impact service and / or civilian personnel, when they are constrained to a military establishment or platform for extended periods of time, which can include rest and off-duty periods, taken in rest facilities. The noise levels in these rest facilities **must** be considered to make sure that they do not contribute significantly to the daily / weekly noise exposure limits.

27. In general, it is unlikely that noise in a rest facility would significantly add towards a noise exposure that exceeds the lower EAV. However, it is commonplace to find rest facilities where noise may significantly impact on the rest or recreational utility of the space. More significantly, elevated noise levels for example in sleeping quarters can impact sleep and lead to fatigue, with associated consequences for task performance and concentration when on-duty.

Appropriate work schedules with adequate rest periods

28. Personnel exposed to loud noise **should** have the opportunity to spend time away from the noisy environment and, wherever possible, breaks **should** be taken in quiet zones. Even if this does not significantly reduce daily exposure it will help by allowing recuperation and, in some circumstances, allow removal of hearing protection for a while.

Reduction of exposure below the ELV

29. Personnel **must** not be exposed to levels of noise that are above the ELVs. This means that account **should** be taken of likely noise reduction from wearing hearing protection. The actions to control noise **should** already have reduced (or be part of a programme that will reduce) risks and exposures to as low a level as is reasonably practicable.

30. At an upper EAV hearing protection **must** be worn. This hearing protection **must** be sufficient to reduce noise to below the ELVs.

31. If an ELV is exceeded, the commander, manager or accountable person **must** immediately take action to reduce exposure to below the ELVs. Immediate actions include limiting the daily duration associated with personal noise exposure and providing more effective hearing protection to protect against personal noise exposure and, where necessary, peak sound pressure.

32. The commander, manager or accountable person **must** review and revise technical and organisational control measures, the adequacy of any hearing protection supplied and the systems that have been put in place to make sure that noise control measures and hearing protection are fully and properly used and maintained.

Any personnel or group of personnel whose health is likely to be at particular risk from exposure to noise

33. Extra consideration **must** be given to personnel whose health is likely to be at particular risk from exposure to noise, for example people with a pre-existing hearing condition, those with a family history of deafness (if known), pregnant women and young people. As well as special efforts to restrict exposure for such individuals an increased level of health surveillance may also be appropriate.

Hearing protection

Policy Statement 3 (CNAWR - Regulation 7)

Where personnel are exposed to noise which is likely to be at or above a lower Exposure Action Value (EAV), the commander, manager or accountable person **must** make personal hearing protection available.

Where personnel are exposed to noise which is likely to be at or above an upper Exposure Action Value (EAV), the commander, manager or accountable person **must** provide personal hearing protection and personnel **must** wear them.

The need for hearing protection

34. Personal hearing protection is only to be used:

- a. once all reasonable control measures to reduce noise exposure have been exhausted;

- b. where additional protection is required beyond what has been achieved through noise-control measures that have been implemented; and
 - c. as an interim measure while control measures are being developed.
35. The requirement to provide hearing protection depends on the exposure levels:
- a. Where personnel are exposed to noise levels between the lower and upper EAVs the commander, manager or accountable person **must** make hearing protection available to those personnel.
 - b. Where personnel are likely to be exposed to noise levels at or above an upper EAV, the commander, manager or accountable person **must**, provide hearing protection to those personnel, make sure the hearing protection are used and provide information on when, where and how to use them.
36. Where personnel are exposed to noise levels above an upper EAV and are therefore required to wear hearing protection, commanders, managers and accountable persons **should** not necessarily make it compulsory at all times throughout the working day, for example in areas or at times when noise levels are low. Hearing protection use **should** be targeted at particular noisy jobs and activities.
37. Commanders, managers, and accountable persons **should** consider and make available suitable hearing protection for reducing noise, with adequate attenuation characteristics, for the activities under their area of responsibility.
38. Hearing protection **should** at least reduce exposure to below the ELVs. The commander, manager or accountable person **should** select hearing protection to eliminate risk to hearing where this is possible and, if not, to reduce the risk to as low a level as is reasonably practicable. The aim **should** be for a noise level between 70 and 80 dB(A) at the ear. The hearing protection provided **should** reduce the noise adequately without over-protecting or causing a sense of isolation and be comfortable and easy to fit properly.
39. When selecting hearing protection in the face of uncertain performance, the HSE's precautionary principals ([Reducing risks, protecting people - HSE decision-making process](#)) are to be adopted. This is a philosophy defined as follows: 'where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent degradation'. In the context of high noise levels, the risk of damage is NIHL.
40. For impulsive noise, the aim **should** be to reduce the C-weighted peak sound pressure level at the ear to below the upper EAV of 137 dB(C).
41. Protection resulting in noise below 70 dB(A) at the ear **should** be avoided because this is 'over-protection' and can cause safety risks through inability to hear, for example, nearby traffic or warning sound signals. Over-protection can also cause communication difficulties and can make wearers feel isolated.
42. When consulting with personnel, their representatives, or a relevant competent person on the selection of hearing protection, commanders, managers and accountable persons **should** consider the 4dB de-rating of hearing protection in line with the HSE guidance for [real world factors](#) along with consideration of the many different types and makes available, protection that:
- a. provide the required protection;
 - b. can be worn with comfort throughout the period of exposure to high noise;

- c. are compatible with any required use of other personal protective equipment (PPE); and
- d. can be satisfactorily stored, cleaned and maintained, in accordance with [Chapter 15](#) (Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE)) of JSP 375, Volume 1.

Hearing protection zones

43. Hearing protection zones provide a way to manage the use of hearing protection. They give a reminder to those personnel for whom hearing protection is compulsory during particular jobs or activities. They also provide a way of making sure that personnel or other people affected by the noise from those jobs or activities are protected.
44. The commander, manager and accountable person **must** designate as hearing protection zones any areas of the workplace where an upper EAV is likely to be exceeded if personnel spent a significant portion of the working day within them, even if access is generally infrequent for example plant rooms or compressor houses. Where an area has been designated as a hearing protection zone, personnel **must** be provided with, and use, hearing protection.
45. Hearing protection zones can be either fixed locations or mobile, and permanent or temporary, depending on the nature of the activities and the source of noise.
46. Any HPZ **must** be clearly marked with suitable warning signage, as required by the Health and Safety (Safety Signs and Signals) Regulations 1996. An example of a suitable sign is presented in Figure 2 below, further information on safety signs and where they are used is set out in [Chapter 6](#) (Safety signs) of JSP 375, Volume 1.
47. The commander, manager or accountable person **should** make sure that no personnel enter a hearing protection zone unless it is necessary to carry out their work. Before entering a hearing protection zone suitable hearing protection **must** be put on and worn at all times whilst within that zone. The commander, manager or accountable person **should** instruct personnel and other people of these requirements and put a system of supervision in place to ensure these instructions are followed.
48. The commander, manager or accountable person **must** mark hearing protection zones with signs showing that they are areas where hearing protection **must** be worn. The signs **should** be located at all entrances to the zones and at appropriate places within the zones. The sign need not include any words, but where wording is included it **should** convey the same meaning as the sign, as illustrated in Figure 2.



Figure 2 - Example of a sign to indicate a hearing protection zone

49. The boundaries of hearing protection zones **should** be considered carefully. Commanders, managers and accountable persons **should** avoid hearing protection zones overlapping with designated or commonly used walkways. Zones **should** not extend any further than is necessary to protect people carrying out their normal work or any foreseeable non-typical tasks.

50. In situations where the boundaries of the zone cannot be marked, for example where the work requires people to move the noise sources about a great deal, adequate alternative arrangements **should** be made to help make sure that people know where or when protection **should** be worn. These could include:

- a. attaching signs to machines warning that people who are using them (and others receiving a high noise exposure from the machine) **must** wear hearing protection;
- b. written and verbal instructions on how to recognise where and when protection **should** be worn, for example by designating particular tasks or operations as ones where protection **must** be used.

Maintenance and use of noise-control equipment

Policy Statement 4 (CNAWR - Regulation 8)

The commander, manager or accountable person **must** make sure that all noise-control equipment provided to personnel under their area of responsibility is safe to operate, is maintained and so far as is reasonably practicable operated safely.

51. The commander, manager or accountable person **must** make sure, so far as is practicable, that any noise-control equipment that has been put in place is fully and properly used. For example, if a noise enclosure is provided with an access door, they **should** make sure that the equipment is not operated while the door is open and that adequate instructions and supervision is in place to achieve this.

52. The commander, manager or accountable person **must** make sure that noise-control equipment is maintained, that regular checks are carried out and that a system for reporting any defects and rectifying problems is introduced.

53. The programme of maintenance **should** include:

- a. inspecting the noise-control equipment (such as silencers or enclosures) periodically to make sure it is kept in good condition;
- b. monitoring the equipment's effectiveness. Spot checks of the noise level at pre-selected locations will usually be adequate; and
- c. effective reporting systems to make sure remedial action is initiated.

Use and maintenance of hearing protection

54. Hearing protection will not achieve manufacturers' reported attenuation characteristics unless the protection is easy to fit properly, is comfortable and is used all the times it is required. The protection achieved reduces significantly when hearing protection is removed in noisy areas, this reduction increases most rapidly in the first moments of non-wearing. Commanders, managers and accountable persons are to encourage full and proper use of hearing protection in noisy areas by, for example, providing quiet areas where work can be discussed with hearing protection removed. Further information regarding PPE is set out in [Chapter 15](#) (PPE and RPE) of JSP 375 Volume 1.

55. To make sure that the hearing protection provided is achieving the planned protection, a systematic programme **should** be put in place to make sure it is used, taking into account the following:

- a. Defence **safety policy** (this policy) which includes a clear commitment to using personal protection;
- b. **signs and warning notices** to make sure awareness of where and when protection **should** be used;
- c. **clear responsibilities**, the commander, manager or accountable person **should** identify who is responsible for the hearing protection programme and the distribution and maintenance of protection;
- d. **information, instruction and training** for all personnel on the risks and the action they **must** take;
- e. **records** which **must** include details of the issue of hearing protection, arrangements for making sure users know where and how to use them, and any problems people encounter when using them;
- f. **monitoring**, including spot checks to find out whether the hearing protection are being used. The commander, manager or accountable person **should** keep a record and introduce a system to enable personnel to report deficiencies to those with the authority to take remedial action. Where personnel are not using hearing protection properly the commander, manager or accountable person **should** ask them why, and either resolve the difficulty or give and record a verbal warning. Where personnel persistently fail to use protection properly then normal disciplinary procedures **should** be followed.

56. The commander, manager or accountable person **should** arrange for someone to inspect reusable hearing protection periodically and to repair or replace them if necessary. If disposable protection are used, checks **should** be made to make sure that supplies are continuously available and dispensers filled up regularly. Checks **should** be made to make sure that dirt does not get into the dispensers themselves and that personnel are not inserting the protection with dirty hands. A system **should** be introduced for personnel to report any damaged, defective or lost protection.

57. The commander, manager or accountable person **should** make proper provision for storage of reusable protection, such as:

- a. storage bags for earmuffs; and
- b. clean lockers where employees can keep them with other clothing.

58. The commander, manager or accountable person **should** also ensure that any special cleaning materials needed to clean their hearing protection are available to users.

Personnel responsibilities

59. All personnel have a duty to comply with Defence noise safety policy and to use the noise control measures that have been provided, including:

- a. using noise-control measures, such as exhaust silencers and machine enclosures, in accordance with the instructions that are provided for their use;

- b. wearing hearing protection in accordance with instructions provided when exposed to noise levels at or above an upper EAV and at all times in areas marked as hearing protection zones;
- c. taking care of hearing protection and noise-control equipment that they are required to use;
- d. reporting (in accordance with the reporting procedures that have been put in place) any defect found in the hearing protection or other protective measures, or any difficulties in using them.

60. In addition, under the HSWA 74 personnel are required to co-operate with their commander, manager or accountable person to enable them to carry out their legal duties.

Health surveillance

Policy Statement 5 (CNAWR - Regulation 9)

If the risk assessment indicates that there is a risk to the health of personnel that have been or are liable to be, exposed to harmful noise levels, the commander, manager or accountable person **must** make sure that those personnel are placed under suitable health surveillance, which **must** include testing of their hearing.

61. Health surveillance is a programme of periodic and suitable health checks, performed and interpreted by a competent person, to identify early signs and symptoms of work-related ill health and to allow action to be taken to prevent its progression and protect other personnel. It is also important in monitoring the effectiveness of control measures, though it is not a substitute for controlling risk at source.

62. Further information on health surveillance is set out in [Chapter 14](#) (Health surveillance and health monitoring) of JSP 375 Volume 1 and also in Annex E (Managing audiometric health surveillance) to this chapter.

63. Where personnel have reported a loss in hearing acuity, the commander, manager or accountable person **must** take action to remove them from the noise source, and act upon any advice provided by Occupational Health or Service Health units as to whether to permanently remove the individual from the work activity and place them on alternative duties to prevent repeated exposure. Repeated exposure to such noise may lead to permanent damage or make such permanent damage worse.

If the risk assessment indicates that there is a risk to health

64. Commanders, managers and accountable persons **must** provide suitable health surveillance where the risk assessment indicates a risk to the health of the personnel under their area of responsibility, for example a risk from exposure to noise without taking account of the noise reduction provided by hearing protection. Health surveillance **must** be provided for personnel who have:

- a. regular and frequent daily exposure or peak sound pressure levels at or above an upper EAV. This can also be indicated by weekly personal noise exposures that are mostly above the upper EAV;
- b. occasional exposure at or above an upper EAV where there is any concern that preventive measures may not be effective (for example if, on the day high noise exposures occur, the daily personal noise exposure or peak sound pressure is well above an upper EAV, making personnel highly reliant on personal hearing protection);

c. exposure between the lower and upper EAVs, or exposure only occasionally above the upper EAV, where the health of personnel may be at particular risk from this noise. Personnel at particular risk include, for example, those with pre-existing hearing loss, or those having treatment with certain medication, or those who have been exposed to certain chemicals which can act in combination with noise and can cause further damage to hearing (further information on this is set out in Annex B to this chapter).

65. If health surveillance is provided in accordance with the paragraphs above and as set out in Annex E to this chapter, there **should** be no need for personnel to seek separate advice from a doctor, however this does not prevent personnel from seeking further advice through the National Health Service or other private medical providers, if they wish to do so.

Consultation with personnel and their representatives

66. Commanders, managers and accountable persons **should** consult with the personnel concerned and their safety representatives before introducing health surveillance. It is important that personnel understand that the aim of health surveillance is to identify noise-related harm early and to provide advice on their fitness to work in a noisy environment.

67. The understanding and co-operation of personnel is an important requirement if health surveillance is to be effective. As part of this, there **should** be a clear procedure in place describing how any personnel identified with work-related injury will be managed for example the steps for medical evaluation, reporting, recording, reassignment to alternative duties if necessary and so on.

Information, instruction and training

Policy Statement 6 (CNAWR - Regulation 10)

Where personnel are exposed to noise which is likely to be at or above a lower Exposure Action Value (EAV), the commander, manager or accountable person **must** make sure that those personnel are provided with suitable and sufficient information, instruction and training.

68. It is important that personnel understand the level of risk they may be exposed to, how it is caused and the possible effects and consequences. Commanders, managers and accountable persons **should** be as informative and open as they can to the personnel that are exposed and to their safety representatives.

69. It is important to tell personnel:

- a. their likely noise exposure(s) and the risk to hearing the noise creates;
- b. what is being done to control risks and exposures;
- c. how to use equipment provided to control noise;
- d. where and how to obtain hearing protection;
- e. how to correctly fit and wear any hearing protection provided and what their limitations are;
- f. how to report defects in hearing protection and noise-control equipment;
- g. their legal responsibilities under the Noise Regulations;

- h. what health surveillance they will be provided with and how it will be provided; and
- i. what symptoms they **should** look out for (such as difficulty in understanding speech in conversation or when using the telephone, or permanent ringing in the ears), to whom and how they **should** report them.

70. Information, instruction and training can be provided in different ways, for example verbal explanations, computer-based training, videos and leaflets. The important thing is to make sure that the information is provided in a way in which personnel can understand it. Commanders, managers and accountable persons **should** make sure that personnel are familiar with this policy and any additional guidance provided by the [HSE](#).

71. Programmes for controlling noise exposure are more likely to succeed when there is co-operation between commanders, managers and accountable persons and the personnel under their area of responsibility. The involvement of safety representatives can be invaluable in promoting this co-operation. Civilian personnel may also consult with Trades Union representatives as a useful means of communicating health and safety matters in the workplace.

72. It is a legal requirement under the CNAWR and the Health and Safety (Consultation with Employees) Regulations 1996 (as amended), to make certain information available to the relevant Trades Union or appointed safety representatives. These will normally include records of risk assessments covering the personnel represented. The Trades Union or appointed safety representatives **should** be made aware of how the information can be obtained along with any necessary explanations of the meaning of the information.

Information, instruction and training in connection with the employer's duties

73. Commanders, managers and accountable persons are to make sure that all those involved in noise risk control have the necessary training and experience to carry out their part of the work. The ability to understand and apply guidance on the control of noise to equipment, machinery and processes in the workplace may be more important than formal qualifications. If the commander, manager or accountable person are in any doubt as to whether they can identify the best means of controlling risk from noise, they **must** seek advice from a person that is competent in noise risk management, noise-control engineering, health surveillance and so on. Further information on Noise assessment competency is set out in Annex D to this chapter.

74. Anyone who helps to comply with the employer duties under the Noise Regulations (for example by making noise measurements, determining exposures or planning for control of risk through changes to industrial processes or working practices) **must** be competent to undertake the task. A consultant has duties under the HSWA74 to provide competent and correct advice; however, it remains the responsibility of the employer to ensure compliance with the law. Whether a consultant or Defence personnel are used for these purposes, they **must** be able to demonstrate their competence and they **must** be provided with any information on the work necessary for them to undertake the tasks.

Retention of records

75. Record retention **must** be in accordance with JSP 375, Volume 1, [Chapter 39](#) (Retention of Records). Noise risk assessments, audiometric health surveillance, training, and maintenance records **must** be kept for a period of no less than 60 years and follow the individual through-out their careers.

Related documents

76. The following documents **should** be consulted in conjunction with this chapter:

- a. JSP 375 - Management of Health and Safety in Defence, Volume 1:
 - (1) Chapter 2 - Military and civilian workplace safety
 - (2) Chapter 6 - Safety signs
 - (3) Chapter 8 - Safety risk assessment and safe systems of work
 - (4) Chapter 14 - Health surveillance and health monitoring
 - (5) Chapter 15 - Personal Protective Equipment (PPE) and Respiratory Protective Equipment (RPE)
 - (6) Chapter 16 - Safety occurrence reporting and investigation
 - (7) Chapter 26 - Vibration at work
 - (8) Chapter 34 - 4Cs System (The management of visiting workers and contractors)
 - 9) Chapter 39 - Retention of records
- b. JSP 376 - Acquisition Safety Policy
- c. JSP 418 - Management of Environmental Protection in Defence (Leaflet 4.1 Environmental Noise)
- d. JSP 815 - Defence Safety Management System (SMS) Framework
- e. JSP 816 - Defence Environmental Management System (SMS) Framework
- f. JSP 950 - Medical Policy (Leaflet 2-17-2 and Leaflet 6-7-7)
- g. Legislation and guidance
 - 1) [The Health and Safety at Work etc. Act 1974 \(Application outside Great Britain\) Order 2001](#);
 - 2) [The Health and Safety \(Safety Signs and Signals\) Regulations 1996](#);
 - 3) [The Supply of Machinery \(Safety\) Regulations 2008](#);
 - 4) [Merchant Shipping and Fishing Vessels \(Personal Protective Equipment\) Regulations 1999](#);
 - 5) [The Personal Protective Equipment \(Enforcement\) Regulations 2018](#);
 - 6) [The Personal Protective Equipment at Work Regulations 1992](#); and
 - 7) [The Personal Protective Equipment at Work \(Amendment\) Regulations 2022](#).