

25 Noise at Work

Contents

Title	Page
Introduction	1
Roles and Responsibilities	2
Use of Headsets and Acoustic Shock	10
Noise Assessment and Risk Assessment Process	11
Exemptions	13
Retention of Records	14
Related Documents	15
Annex A - Noise Hazard Check	A1
Annex B - Management of Noise Flow Chart	B1
Annex C - Competence	C1 – C2

Introduction

1. This chapter sets out the procedures and guidance for the assessment and management of risk from exposure to excessive noise at work, for compliance with the Control of Noise at Work Regulations (CNAWR), Control of Noise at Work (Northern Ireland) Regulations (CNAW (NI) R) and the Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations (MSFV (CNAR) R).
2. For the purpose of the regulations noise is defined as “any audible sound” whether it is wanted or not. Hearing damage from noise may be caused by exposure to a short impulse of extremely loud noise (e.g. gunfire) or from prolonged exposure to continuous (e.g. a military band or an engine room) noises. The risk of damage to hearing is directly related to the volume of the noise and the exposure time. The potential to damage a person’s hearing is not the only risk from noise at work, as lower levels of noise can be a workplace stressor¹ which can cause anxiety or psychological harm to the individual. Noise can be considered a form of environmental pollution (see JSP 418). Noise at work can also contribute in preventing the hearing of alarms or warning signals forming a contributory cause of accidents or reducing communication.
3. A temporary reduction in hearing sensitivity can often be experienced after leaving a noisy environment; although hearing normally recovers within a few hours. This temporary hearing loss should not be ignored as repetitive exposure could produce permanent hearing loss or could cause tinnitus² to develop. It is therefore essential that awareness is raised, and the risk of hearing damage is managed to minimise its effect on Defence personnel and resources. Many Defence personnel are forced to take medical retirement each year as a result of Noise Induced Hearing Loss (NIHL) from exposure to excessive noise in their workplace. As well as the

¹ a chemical, condition or other stimulus that causes stress to a person / organism

² a sensation of sound (ringing, whistling, buzzing or humming) experienced by an individual when there is no external noise source present

damaging effect to an individual, there is a detrimental effect on the department; skill shortages, recruitment cost, retraining as well as compensation payments.

4. All Defence activities conducted within GB must comply with the CNAWR and CNAW (NI) R and any host nation legislation / standards at all workplaces (including, Royal Navy ships, army boats, other small vessels, aircraft and premises). Royal Fleet Auxiliary (RFA) operated vessels, and vessels which are not part of the Royal Navy (e.g. Service police boats, chartered vessels) are covered by the MSFV (CNAR) R which has comparable requirements.

5. Defence shall comply with the legislation detailed above wherever reasonably practical to do so. Where it is not possible to comply with the requirement in the regulations, but the continuance of the activity is in the interest of national security the legislation allows an application for exemption. An exemption certificate must be obtained; see paragraphs 53 - 58 for more details.

Roles and Responsibilities

Top Level Budget / Trading Fund Agency (TLB / TFA)

6. TLB / TFAs should ensure that sufficient resources are made available to:

- a. provide competent advice;
- b. conduct noise assessments;
- c. provide sufficient information;
- d. instruction and training; and
- e. ensure the effective implementation of noise control measures at all levels throughout the organisation.

7. Legacy equipment is the responsibility of the TLB owner if bought before the introduction of through-life purchasing systems. The TLB owner should ensure that all legacy equipment is identified, and resources and procedures are in place for its maintenance to eliminate or reduce noise exposure to the user to a level that is as low as is reasonably practicable (ALARP) and minimise the risk of damage to hearing when operated, according to the hierarchy of risk controls³. This may as a last resort include the use of Personal Protective Equipment (PPE).

Procurement or acquisition teams and local purchase

8. Defence procurement or through-life acquisitions teams shall ensure that all equipment, machinery and platforms that are purchased or supplied comply with the relevant statutory requirements. Risk controls shall be identified in order that the equipment, machinery or platform is designed and constructed so that the noise emissions produced by its operation is as low as is reasonably practicable to personnel operating, riding on / in the equipment or platform, or maintaining it. Personnel who are not involved in the use of the equipment but may be affected by

³ Management H&S at Work Regulations 1999, Schedule 1

the noise generated by it when in operation should also be considered. The Supply of Machinery (Safety) Regulations requires manufacturers and suppliers of machinery to ensure that the design and construction of equipment eliminates or reduces noise emissions to a minimum (taking into account technical limitations), unless it is specially designed and constructed for military or police purposes. This means that the item has no equivalent which is available on the civilian market.

9. Where Defence has been granted an exemption to regulations it is the policy of the Secretary of State⁴ that MOD shall implement, so far as reasonably practical, standards that are at least as good as those required by legislation.

10. All new equipment and platforms should be technically engineered to eliminate or reduce noise exposure to the user to a level that is ALARP and minimise the risk of damage to hearing when operated; this may as a last resort include the use of PPE. Defence procurement or acquisition teams should ensure that where noise exposures are likely to occur during work activity which will be in excess of legislative limits, these are identified, that the information is recorded in the safety case⁵, and appropriate information on noise levels is supplied to ensure safe installation (if appropriate), use and maintenance to the end user.

11. Where the noise emissions of the equipment or platform (following risk mitigation to ALARP) require the use of PPE hearing protection to be worn by the end user, and no further engineering solutions can be incorporated into the design to reduce the equipment or platform's noise emissions; it is the procurement or acquisition team's responsibility to specify the type of hearing protection or provide sufficient information to enable appropriate measures for hearing protection to reduce the noise exposure to the end user.

12. When procuring hearing protection PPE including that which is incorporated as a part of other equipment (e.g. protective helmets with or without communication systems), acquisition teams should ensure that any such equipment complies with the PPE at Work Regulations.

13. Defence personnel with local purchase responsibility and / or hiring equipment or machinery locally should ensure that the equipment is suitable for the activity being undertaken, and that it is supplied with sufficient information to ensure its safe use when being used in accordance with manufacturer's instructions and that this information is passed on to the end user.

Commanding Officer (CO) / Head of Establishment (HoE)

14. The CO / HoE shall consult and co-ordinate the activities of all site / vessel personnel as necessary to:

- a. eliminate or minimise noise exposure risks to personnel for the equipment, platforms or areas under their direct control;

⁴ Policy in DSA01, the SofS Policy Statement and DSA Charter

⁵ Safety cases should be produced for equipment and platforms (ships, boats, vehicles and aircraft) and identify the location of the noise hazards produced by the equipment and / or platform.

- b. ensure that all areas where excessive noise exposures activities are likely to occur that these are identified on the site hazard register and / or safety case, and included in induction and safety briefs;
- c. that where excessive noise exposures are likely to occur that sufficient resources are available to carry out noise assessments; and
- d. complete risk assessments, implementing subsequent recommendations.

15. The CO / HoE shall ensure that where noise exposures are identified that pose a significant risk to the hearing of Defence personnel that procedures are in place to:

- a. identify personnel (new and existing) who require health surveillance (JSP 375, Volume 1 Chapter 14) and JSP 950;
- b. monitor to ensure health surveillance is being carried out on identified personnel;
- c. ensure action is taken if health surveillance shows deterioration in hearing of personnel; and
- d. ensure that the information / actions are recorded and can be easily obtained (this information can assist in defending against future NIHL claims).

Managers

16. Managers are responsible for ensuring that Defence personnel are not exposed to excessive noise whilst at work and to reduce exposure through use of technical engineering solutions and management controls to ALARP.

17. The manager should first look at the Site Hazard Assessment or Safety Case Report, which should have identified the areas where work activities could produce excessive noise. In each of these areas an initial assessment should be carried out in order to identify the potential noise hazard; a prompt template for this Noise Hazard Check (NHC) is at Annex A. An NHC is a means of estimating whether a noise assessment is required. The manager should ensure that an NHC is conducted by a person familiar with the work environment and processes, the person does not need to have had noise assessor training to undertake this task. Occupational noise exposure (even if not considered excessive by the NHC) may be associated with other health problems in addition to noise induced hearing loss (e.g. acoustic shock).

18. If the NHC identifies a noise hazard, the manager should arrange for a noise assessment to be carried out (MOD Form 5017 can be used), or specialist assessment commissioned. This assessment shall be conducted by a competent person with sufficient knowledge, experience of noise and taking noise measurements. The assessment shall be carried out in conjunction with the manager, and personnel exposed to the work activity causing the noise. Suitable control measures should be developed in consultation with personnel and where appropriate trade union appointed and / or employee safety representatives.

19. When used, the MOD Form 5017 should be referenced on the activity risk assessment (JSP 375, Volume 1, Chapter 8). Advice on where to obtain competent noise assessors should be sought through the local health and safety adviser, engineering adviser, Service environmental health personnel and / or civilian occupational hygienists, or the TLB Safety Centre (SC) or Chief Environment Safety Officer (CESO). The competent person can assist the manager with the development of the action plan to mitigate the findings of the risk assessment (for more information on the noise assessment process see paragraphs 49 - 51). Noise Levels shall be baselined against statutory noise exposure limits. Lower exposure action value (LEAV) is 80db(A), 135db(C); Upper exposure action value (UEAV) of 85db(A), 137db(C); and a limit of 87db(A) or 140db(C). Staff should be aware that if the LEAV is exceeded then hearing protection must be offered by the employer, if the UEAV is exceeded the hearing protection must be used and it is up to management to enforce it. Specialist instruction will be required for impulse noise on firing ranges and explosives (db.(C) rating).

20. Where it has been identified that there is a workplace with unacceptably high noise levels present, the first action must be to see if the noise levels can be reduced by engineering or management controls. Once these controls have been applied and the noise levels have not been sufficiently reduced to as low as is reasonably practicable, then that area must be designated a Hearing Protection Zone (HPZ)⁶. All personnel needing to access an HPZ must wear suitable hearing protection and the HPZ shall be clearly marked with suitable warning signage (see JSP 375, Volume 1, Chapter 6). Suitable PPE hearing protection must be made available for all personnel required to work in an HPZ. All personnel required to work in an HPZ shall be placed in a Health Surveillance programme to ensure that their hearing is not being affected.

21. The selection of hearing protection where required should be made in consultation with a competent person to ensure the identification of the correct type of protection for the noise source and the personnel who are to use it. Hearing protection should be maintained in accordance with manufactures instructions, properly stored and cleaned (JSP 375, Volume 1, Chapter 15 refers). Hearing protection is a last resort solution where other methods of removing the risk from noise have been introduced and a significant exposure to noise still remains. HSE advises that under conditions of use, hearing protection will give lower protection than predicted by manufacturers' data which is obtained from standardised tests. Therefore, the precautionary principal should be applied when selecting PPE hearing protection. Hearing protection is available through the Defence Clothing Catalogue.

22 Suitable information, instruction and training should be provided to Defence personnel, visitors and contractors. The training, where appropriate, should include:

- a. an understanding of the noise hazard they may be exposed to;
- b. how the noise is caused and the possible effects;
- c. the required control measures (advice can be provided by the competent noise assessor);

⁶ Any area where the daily or weekly average exposure is likely to exceed 85 dB(A)

- d. where and how people can obtain Personal Protective Equipment (PPE) (e.g. ear defenders / earplugs) and its correct fitting and use;
- e. the reporting requirements of defects in noise control equipment and PPE;
- f. how PPE should be used, cleaned and stored;
- g. the need for health surveillance (early detection of hearing damage and enables early action to be taken to prevent any further deterioration);
- h. identification of hearing damage symptoms (e.g. difficulty in understanding speech in conversation, or a permanent ringing in the ears);
- i. reporting of hearing problems;
- j. awareness of the effect that the work activity may have on themselves and other people in the vicinity when using portable equipment and the controls required; and
- k. use of prescribed medicines, drugs, etc that may have ototoxic⁷ reactions. (certain antibiotics, chemotherapy and anti-inflammatory drugs are known to be ototoxic - some of which are over the counter products).

23 Defence personnel identified as being at risk from exposure to noise should be placed on a suitable Health Surveillance Programme (JSP 375, Volume 1, Chapter 14) involving a baseline audiogram⁸ carried out before they start work in an area or on an activity / process that exposes them to high noise levels (e.g. working in a HPZ). Managers should ensure that personnel who are subject to health surveillance are assessed at least annually (or as directed by Occupational Health or Service Health units) for a reduction in their hearing acuity. Special consideration should be given to those who already suffer from a hearing condition or are particularly sensitive to damage i.e. young persons (JSP 375, Volume 1, Chapter 19). Advice on setting up health surveillance programmes is obtained through the local Services Medical Officer or Regional Occupational Health consultant (for Service personnel) and the relevant TLB safety organisation for civilian staff. Audiograms and advice for civilian staff can be requested from the civilian occupational health contract via DBS (CHR).

24 If it is reported (either by the individual or by occupational health) that any Defence personnel have experienced a loss in hearing acuity, the manager should take action to remove them from the noise source, or where this is not possible to introduce additional controls to reduce their noise exposure (limit time exposure) to allow their hearing to recover. If the loss in hearing acuity is permanent, the manager

⁷ An ototoxic substance is drug or chemical (prescribed or over the counter) which can cause damage to the inner ear when combined with noise. Damage to the inner ear can result in hearing loss, tinnitus, and / or dizziness. Mis-use of organic solvents (glue-sniffing) also have ototoxic properties

⁸ The baseline audiogram is the reference audiogram against which all future audiograms are compared to

should confer with Occupational Health or Service Health units to assess whether to permanently remove the individual from the work activity and place them on alternative duties.

25 Managers shall ensure that Defence personnel working practises are monitored e.g. equipment being used properly; PPE (if required) is being worn correctly.

26 All equipment / platforms shall be regularly maintained / repaired (as appropriate and in accordance with manufactures' instructions) to minimise the noise produced and / or maximise the effect of control measures and records kept up to date. All noise control measures (shields, dampening systems) on equipment / platforms shall be regularly inspected, and any deficiencies promptly rectified and recorded (see Chapter 23).

27 In an environment where noise may interfere with communications managers should consider alternative means of communicating instructions and / or warnings to Defence personnel e.g. flashing light where a horn or siren may not be heard.

28 The use of personal audio systems (e.g. MP3 players and personal stereos) at work should be discouraged. If personal audio systems are permitted, the manager must specify the conditions of use. Where the use of personal audio systems could give rise to safety issues (e.g. which could result in mis-heard or missed instructions or provide a distraction which could result in injury to the user or another person), the activity / area risk assessment and local policy should prohibit their use.

Directors of Music (DOM) / Bandmasters (BM)

29 For this section the term "noise" is replaced with "sound"

30 For DOMs and BMs the management of the risk of damage to musicians' hearing from sound poses a dilemma, especially as the sound produced is required for the performance. The majority of the sound that musicians are exposed to is generated by their own and other band members' instruments and is, therefore, unavoidable. Musicians' hearing is susceptible to damage due to the close proximity of other musicians playing instruments and from the duration in performances / practice and sound levels produced.

31 A risk assessment shall be conducted on the acoustic properties of each venue (no two venues are the same). DOMs and BMs should reduce musicians' exposure to excessive sound as far as reasonably practicable. The most feasible measure is the reduction in the general volume at which music is performed (during technical rehearsals, loud dynamics may not be necessary and should be avoided). Other reductions in musicians' exposure could include:

- a. use of practice mutes for brass instruments;
- b. use of portable acoustic screens and head shields for exposed vulnerable players;
- c. stage layout of performers;

- d. identification and marking or control of loud passages in the piece being performed and the score marked accordingly (especially percussion or brass);
- e. rotation of players;
- f. adequate rest periods for musicians after performances and rehearsals;
- g. limiting exposure of musicians during performance and rehearsal (influenced by programme selection);
- h. reduction in numbers of straight brass players to the minimum required to perform the music; and
- i. use of sound monitors throughout the performance and analysis of the findings.

32 DOMs and BMs should ensure that at all times PPE (personally moulded in-ear protection) is worn by all band members whilst rehearsing or performing when peak or average action values in the CNAWR are reached.

33 Risers (raised platforms) shall be used to raise the second and subsequent ranks of players in concert band situations whenever it is practical for both rehearsal and performances. The use of risers will reduce the muffling effect of playing into the body of musicians sited in front and enable the player to reduce their volume and consequent noise exposure. To be effective, risers must be of sufficient height for the musician's instrument to be directed above the head of the musician positioned in front of them. Acoustic screens should be considered and as appropriate positioned and used in accordance with the manufacturer's instructions.

34 Band leaders or ensemble leaders should notify all personnel not required for rehearsal of the risks and instruct them to vacate the performance area.

35 DOMs and BMs should ensure that the musicians performing in a marching band are directed to produce the same controlled dynamic range. If excessive volume is required from a particular instrument for the benefit of marching troops, (e.g. the bass drum), they should be positioned outside the formation of the band, to reduce the muffling effect provided by the surrounding musicians on parade; where this is not possible effort should be made to generate space around them.

36 Musicians shall be advised of the sound levels to which they are likely to be exposed to whilst rehearsing and performing and that they are more vulnerable to hearing damage from participation in leisure activities which add to their overall sound exposure (e.g. use of personal audio / media players at high volume, attending music concerts etc). Health surveillance shall be provided and all musicians to attend regular hearing tests. Further guidance should be sought from the CNAWR 2005 (L108) and its supporting publication Sound Advice (HSG260), which can be accessed online at www.hse.gov.uk

All Personnel

37 Defence personnel should follow any working arrangements that are put in place for their protection, use noise control devices (e.g. noise enclosures, wearing hearing protection) in accordance with instruction and or training and attend appropriate training as required.

38 Defence personnel who are taking prescribed medicines and / or drugs with known ototoxic⁹ effects (certain antibiotics, chemotherapy and anti-inflammatory drugs are known to be ototoxic - some of which are available as over the counter products) are encouraged to inform their manager so that appropriate action can be taken to protect hearing from noise exposure at work, including seeking medical and / or health surveillance advice.

39 If hearing protection is provided, all personnel are required to ensure that it is properly worn in accordance with instruction and training provided and whilst they are undertaking activities that expose them to excessive noise. The use of hearing protection within an HPZ is mandatory unless management / engineering conditions ensure that the noise hazard cannot occur while persons are present.

40 Personnel should immediately notify their manager of any defect in personal hearing protection and / or other noise control measures (e.g. acoustic shielding, increased noise from equipment suggesting maintenance may be required). Staff who work in noisy environments may be more vulnerable to hearing damage as a result of their participation in leisure activities which may add significantly to their overall noise exposure (e.g. use of personal audio / media players at high volume, motor racing events, etc) and should therefore consider taking steps to lessen their overall noise exposure by reducing volume or wearing ear plugs (where appropriate) etc.

41 Where health surveillance (hearing conservation) programmes are in place, Defence personnel identified at risk of exposure from the noise of the activity being undertaken are required to co-operate with the programme. Defence personnel required to work in a noisy environment or activity should be offered annual hearing tests (or as determined by Occupational Health or Service Health Units) to detect any difference to their hearing. Personnel are entitled to see and have explained to them the results of hearing tests performed on them. Health Surveillance programmes (typically known as hearing conservation programmes) monitor auditory ability participation provides for the early detection of hearing damage and enables early action to be taken to prevent any further deterioration). Its provision is a legal requirement. For more information on health surveillance see JSP 375, Volume 1, Chapter 14.

42 If the annual audiogram (or as directed by Occupational Health or Service Health units) shows that there has been a reduction in their hearing, Defence personnel may be removed from the noise source, or their time exposure to the

⁹ An ototoxic substance is drug or chemical (prescribed or over the counter) which can cause damage to the inner ear when combined with noise. Damage to the inner ear can result in hearing loss, tinnitus, and / or dizziness.

noise source limited to allow their hearing to recover. If the loss in hearing acuity is permanent, the individual should discuss with their manager (together with Occupational Health advice) whether to permanently remove them from the work activity and place them on alternative duties.

43 If Defence personnel experience any ear or hearing problems, they must inform their manager immediately and / or appropriate Occupational Health personnel or Service Medical Officer. Whilst off duty Defence personnel are advised to limit the volume of personal audio systems to help preserve their own hearing and to ensure that any announcements, alarms or other audible warnings can be heard.

44 Drivers of military vehicles are prohibited from using personal audio system whilst driving, JSP 800, Volume 5, Chapter 9 refers. Where the use of personal audio systems is permitted for on duty Defence personnel and used on the Defence estate, the use should be determined by activity risk assessment and local policy. Volume of personal audio systems should be limited for consideration of colleagues and to enable any announcements etc. to be heard by the user.

Use of Headsets and Acoustic Shock

45 Exposure to short duration, high frequency, high intensity sounds through a telephone headset may be a hazard to habitual users performing tasks requiring high levels of concentration; this is sometimes known as “acoustic shock”. There is no clear single cause of these incidents, but one cause may be interference on the telephone line. Current telecommunications equipment has noise suppression to ensure that, even for habitual users, daily and peak noise levels are not exceeded.

46 It has not been established whether the reported symptoms are caused directly by exposure to these unexpected sounds or are associated with a range of reported physiological and psychological symptoms (stress-related pressure) although Defence personnel may be shocked or startled by the sounds, exposure to them should not cause hearing damage as assessed by conventional methods (audiogram).

47 Measures to mitigate the effects of acoustic shock can include:

- a. ensuring work pace and demands are not excessively onerous;
- b. job rotation;
- c. frequent rest breaks; and
- d. stress management techniques.

48 All incidents of acoustic shock should be recorded in accordance with accident and incident reporting procedures (JSP 375, Volume 1, Chapter 16). If symptoms are noticed staff should request referral to their Occupational Health provider (Service Medical Officer / or DBS (CHR) for civilians).

Noise Assessment and Risk Assessment Process

49 If the NHC indicates that there is a noise source problem a noise assessment (MOD Form 5017) should be undertaken by a competent person with sufficient knowledge, experience of noise and taking noise measurements. The assessment should be carried out in conjunction with the manager, and the Defence personnel whose work involves them with potential exposure to the work activity causing the noise. Suitable control measures should be developed in consultation with the Defence personnel concerned and where appropriate trade union appointed and / or employee safety representatives. The MOD Form 5017 should be referenced on the activity risk assessment (JSP 375, Volume 1, Chapter 8). Competent noise assessors may be available from within the unit / establishment i.e. the local health and safety adviser; alternatively, advice can be sought from the TLB safety organisation (for more information on competence see Annex C).

50 The noise assessment should:

- a. identify where the risk is (a single piece of machinery and / or an activity);
- b. identify which personnel are likely to be affected (they should be asked if they have previously worked in an area with a noisy activity or process, this may indicate that they could potentially be sensitised to noise);
- c. identify personnel whose health may be at particular risk from noise, these include:
 - (1) pregnant women (protection of the unborn child);
 - (2) personnel with a family history of hearing loss (if known);
 - (3) young persons (prohibitions on employing anyone under 18 where there is a risk to health from noise);
 - (4) personnel at risk from the interaction of noise and ototoxic substances;
 - (5) personnel working with certain substances or gases which have either a synergistic or potentiating effect on hearing impairment;
 - (6) personnel working with / on vibrating equipment (there is a synergistic effect between noise and vibration); and
 - (7) detail the control measures necessary.
- d. contain a reliable estimate of the noise levels (noise level produced by the equipment) and personal noise exposures (time exposed to those noise levels), and provide comparison with the legislative limits;
 - (1) identify what noise control measures are necessary and prioritise;

- (2) identify what actions need to be taken to control the immediate risk (hearing protection if required, where and what type; and suitable warning signs);
- (3) recommend the long-term controls; engineering, management etc; and
- (4) recommend the type of instruction, information and training; needed to educate personnel on the dangers of noise exposure.

51 The use of MOD Form 5017 is highly recommended to ensure consistency of assessment across Defence. The noise assessment must be based on reliable relevant information, e.g. measurements from equipment or activity used in the workplace, information from similar workplaces, or data from suppliers of the equipment (mindful in the differences that may exist from how the equipment is installed and used), and estimations of personal exposures from the noise source.

52 An action plan should be developed which details who is responsible for its implementation, what actions are required to control exposure and establish a timetable for their completion. Subject matter expertise shall be sought from the competent person and other specialist advice (e.g. engineers, building surveyors, plant maintainers) as necessary.

53 The hierarchy of control shall guide the development of the action plan and it may be that action is necessary in more than one area to create a safe working environment. It is a joined-up programme combining health surveillance, information and training and mitigation measures rather than a specific single action that will provide the greatest reduction in the risk from noise exposure. This is known collectively as a hearing conservation programme which should consider:

- a. equipment (noise source):
 - (1) eliminate - remove the activity entirely;
 - (2) substitute - activity for a quieter one (e.g. welding for riveting processes). Substitution can introduce different risks into the work place and these risks must also be considered;
 - (3) replace - equipment / components with a quieter alternative; and
 - (4) switch off equipment when not in use.
- b. environment (location of equipment):
 - (1) insulate - erect a barrier e.g. brick wall, erect an enclosure, or provide a quiet control / rest room for Defence personnel;
 - (2) absorb - fix sound deadening material to walls etc. to minimise reflected noise; and

(3) isolate - install equipment on vibration absorbing mounts to minimise structure borne noise. Avoid placing equipment where noise levels may be increased by reflected sound, e.g. in corners.

c. person:

(1) eliminate - remove the person from the activity entirely;

(2) distance - move operator away from noise source (personnel exposed to loud noise should be given breaks or alternative work in quiet zones to spend time away from the noise source whenever possible. This can also provide breaks for personnel to limit the continuous wearing of hearing protection which may lead to incorrect use of the equipment);

(3) time - design the process to limit personal exposure or implement job rotation;

(4) PPE – if required the provision of suitable hearing protection;

(5) discipline - appropriate training provided and all control measures are complied with including wearing of PPE. All PPE equipment is to be maintained correctly; and

(6) ensure that the health surveillance results of Defence personnel are monitored, and appropriate action taken.

54 The noise assessment should be reviewed on a regular basis (no less than every two years) by a competent person, especially following introduction of new equipment, reports of hearing loss, changes of Defence personnel or after an accident or near-miss where noise could have been a contributory factor to the accident.

Exemptions

55 The provision in the CNAWR / CNAW (NI) R / MSFV (CNAR) R allows the SofS to exempt a person or class of persons from specified parts of the reference specific regulations.

56 An exemption certificate from the CNAWR / CNAW (NI) R / MSFV (CNAR) R will only be granted where the SofS is satisfied that the person or class of persons involved in activities detailed in an Exemption Case Submission (ECS) are carried out in the interests of national security. Any exemption granted will be time limited (five years) and be subject to conditions. Where the provisions of either the CNAWR / CNAW (NI) R / MSFV (CNAR) R cannot be complied with and an exemption is granted, control measures should be put in place to mitigate the noise exposure to a level that is as low as reasonable practicable and minimises the risk to the health and safety of the person or class of persons concerned.

57 The ECS must demonstrate that in order to protect operational capability in the interest of national security the MOD is reliant on the exemption being granted, and

the conditions stipulated in the regulations have been satisfied. The ECS shall include the following information:

- a. the name and purpose of the particular equipment / operation giving rise to the problem;
- b. an outline of the problem and its magnitude – i.e. without exemption how particular activities (e.g. training) will be adversely affected, numbers of people placed at potential risk, the impact on front line operational capability (e.g. military tasks that will become impossible to undertake, or otherwise severely hampered), etc.;
- c. extent of non-compliance (db.(A) and / or db.(C), short or long duration of exposure to excess noise (total noise exposure and level above UEAV and / or limit);
- d. actions undertaken and / or considered to comply with the regulations – where compliance is being ruled out on cost grounds provide cost data;
- e. an action plan for compliance in the short and medium to long term – i.e. mitigation options available, likely costs and timescales, etc.;
- f. the time period for which an exemption is required and the rationale for it;
- g. the plan for health monitoring and assessment by the users; and
- h. where renewal of an existing exemption is being sought, details on the success or otherwise of the previous action plan, including the results of health monitoring.

58 The preparation of the ECS shall include input from operating authorities, acquisition teams and medical personnel etc. as appropriate. The draft ECS must be passed for scrutiny to the DSA and other relevant subject matter experts for a recommendation on approval. After passing scrutiny, the sponsor forwards the completed ECS and draft exemption certificate to the SofS for Defence for signature granting the exemption.

59 If the case is successful, a certificate will be issued by SofS. A copy of the certificate shall be provided to the Defence Safety Authority by the sponsor. If not successful, the activity must be discontinued until such time as it can comply with the regulations.

Retention of Records

60 All Noise and Risk Assessments, Health Surveillance, Training, and Maintenance Records etc. should be kept for a period of no less than 60 years and in accordance with JSP 375, Volume 1, Chapter 39 (Retention of Records).

Related Documents

61 The following documents should be consulted in conjunction with this chapter:

- a. JSP 375, Volume 1;
 - (1) Chapter 02 - Office & General Workplace Safety;
 - (2) Chapter 06 - Safety Signs;
 - (3) Chapter 08 - Risk Assessment;
 - (4) Chapter 14 - Health Surveillance and Monitoring;
 - (5) Chapter 15 - PPE and RPE;
 - (6) Chapter 22 - Work Equipment; and
 - (7) Chapter 39 - Retention of Records.
- b. Other MOD Publications;
 - (1) DSA01.1 – Defence Policy for Health, Safety and Environmental Protection;
 - (2) DSA01.2 Chapter 2 – Requirement for Safety and Environmental Management Systems in Defence;
 - (3) DSA01.2 Chapter 4 – Risk Management in Health, Safety & Environmental Protection;
 - (4) DSA02 Regulations Suite;
 - (5) JSP 950 - Medical Policy - Leaflet 6.4.4 - Noise at Work Health Surveillance;
 - (6) DSA02-DLSR- Defence Land Safety Regulator and JSP 800 Volume 5; and
 - (7) Defence Clothing Catalogue.
- c. Legislation and Guidance:
 - (1) [HSE L108 - Controlling noise at work: The Control of Noise at Work Regulations](#);
 - (2) [HSE INDG362 - Guidance for employers on the Control of Noise at Work Regulations](#);

- (3) [The Merchant Shipping and Fishing Vessels \(Control of Noise at Work\) Regulations;](#)
- (4) [HSE INDG363 - Protect your hearing or lose it;](#)
- (5) [HSE HSG 260 - Sound Advice;](#)
- (6) [HSE HSG260 - Sound Advice - noise at work in music and entertainment;](#)
- (7) [HSE Noise Exposure Calculators and Ready-Reckoners;](#)
- (8) [HSE Advice on Acoustic Shock;](#)
- (9) [HSE L25 - Personal Protective Equipment at Work;](#)
- (10) [The Health and Safety \(Safety Signs and Signals\) Regulations;](#)
- (11) [The Merchant Shipping and Fishing Vessels \(Safety Signs and Signals\) Regulations;](#)
- (12) [HSE ACoP L22 – Safe use of work equipment;](#)
- (13) [The Merchant Shipping and Fishing Vessels \(Provision and Use of Work Equipment\) Regulations.](#)

Noise Hazard Check

The Noise Hazard Check (NHC) is an initial assessment to ascertain the presence of a potential noise hazard, and whether a noise assessment is required. The NHC can be conducted by anyone familiar with the work environment and process.

Questions the manager or person conducting the NHC need to ask to ascertain the presence of a potential noise hazard.

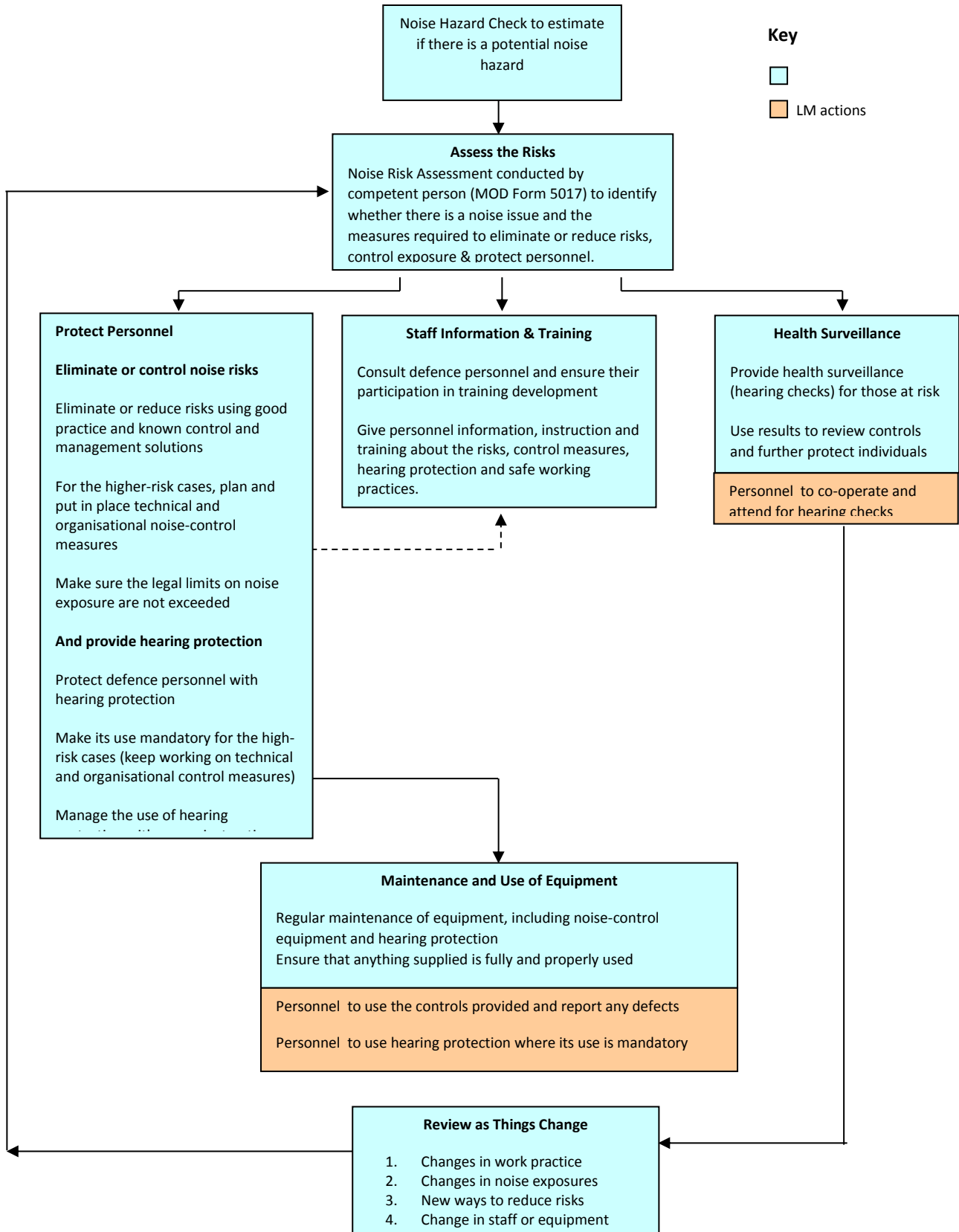
- Do staff work in a noisy environment e.g. construction; engineering, artillery range, airfield, large open plan office etc?
- Are staff using or working near noisy power tools or equipment for more than half an hour each day in total?
- Are there any impacts such as hammering, pneumatic impact tools etc explosive sources such as cartridge operated tools, detonators, or guns etc? and
- Are there areas of the workplace where noise levels could interfere with warning or danger signals?

Listening Checks (excessive noise is defined as)

- Are staff exposed to noise which makes it necessary to shout to talk to someone 1 metre away, for more than half an hour per day in total? The noise levels here are comparable with that of a pneumatic road drill;
- Are staff exposed to noise which makes it necessary to shout to talk to someone 2 metres away, for more than two hours per day in total? The noise levels here are comparable with that of a hand-held power drill; and
- Is conversation at 2 metres possible, but noise is intrusive for more than six hours per day in total? The noise levels here are comparable to a busy street or a crowded restaurant.

If the answer to any of the above questions is YES, then a noise assessment is required (this may also necessitate a noise survey).

Managing Noise Risks



COMPETENCE

NOISE ASSESSORS

1. Noise assessors should have adequate knowledge / experience and skill to undertake the noise assessment. Essentially, they should have the following skill set:
 - a. have knowledge of the Control of Noise at Work Regulations or where applicable either the Control of Noise at Work (Northern Ireland) Regulations and / or the Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations;
 - b. have knowledge of MOD policy (SofS Policy Statement, JSP 375 etc);
 - c. have ability to assess and / or measure noise;
 - d. know how to record results and analyse results;
 - e. can explain the results to others in simple to understand language;
 - f. be able to interpret information provided by others (e.g. noise data by equipment manufacturers);
 - g. be able to identify appropriate control measures;
 - h. know the limits of their own knowledge and know when and where to seek further advice; and
 - i. competency and knowledge up to date to address skill fade.

OBTAINING COMPETENT ADVICE

2. The local health and safety adviser should be the initial point of contact for advice on the availability of competent noise assessors to undertake a noise assessment. If the local health and safety adviser is unable to assist, then managers should contact either the Service Environmental Health personnel / Engineering support / Occupational Hygienists or the TLB Chief Environment Safety Officer / Safety Centre (CESO / SC) for advice.
3. If competent advice is not available from the above-mentioned sources, specialist in-house advice and expertise is available from the organisations listed in Table 1. However, these resources are limited and enquiries from staff within these TLBs will be given priority.

Royal Navy Head of Acoustics and Vibration	Army Army Medical Directorate	Royal Air Force Head of Noise and Vibration Division
Institute of Naval Medicine Alverstoke Gosport Hampshire PO12 2DL Email: NAVYINM- AVS@mod.gov.uk	Headquarters Field Army Environmental Monitoring Team (EMT) Second Floor, Zone 6, IDL 423 Ramilies Building Marlborough Lines Monxton Road ANDOVER SP11 8HJ Email: FdArmy-Sp- EMT@mod.gov.uk	RAF Centre of Aviation Medicine RAF Henlow Bedfordshire SG16 6DN Email: AIR38Gp-CAM- OEM-NVD- GpMbx@mod.gov.uk

Table 1: Source of MOD Internal Competent Noise Advice

4. If the above in-house expertise is unable to provide the service required, the LM should contact their TLB CESO / SC for guidance in sourcing external competent advice and support.

NOISE ASSESSOR TRAINING

5. Noise assessor training can be obtained from the following internal organisations.

Head of Acoustics and Vibration	Head of Noise and Vibration Division
Institute of Naval Medicine Alverstoke Gosport Hampshire PO12 2DL Email: NAVYINM- AVS@mod.gov.uk	RAF Centre of Aviation Medicine RAF Henlow Bedfordshire SG16 6DN Email: AIR38Gp-CAM- OEM-NVD- GpMbx@mod.gov.uk

Table 2: Noise Assessor Training Providers

6. On successful completion of the training staff are requested to notify their local health and safety adviser and update their HRMS or JPA profile accordingly.