2. SCOPE

This Procedure covers the Control of Noise at Work Regulations 2005 and risk assessment of noise within all operations undertaken within NERC. Although it does not describe in detail the legislation applying to ships, this is very similar to above regulations and the same provisions / action values / limits and precautions will be relevant. This procedure does not cover environmental noise hazards.

3. INTRODUCTION

Noise in the workplace may be defined as unwanted sound for example caused by plant, machinery and work processes. It may also arise from external sources, for example passing road traffic, trains or aircraft.

Prolonged exposure to high levels of noise will cause irreversible damage to hearing. It is also known that exposure to sudden, very loud noise can cause immediate damage to hearing.

Damage to hearing may take two forms:

- **Noise Induced Hearing Loss (NIHL)** is irreversible damage to the hearing ability of a person caused by exposure to excessive levels of noise. NIHL is different to normal deterioration in hearing due to ageing, which is usually across all frequencies, but is typically most pronounced at
higher frequencies. This can be life changing since we rely on these frequencies in human speech and merely amplifying all frequencies or speaking more loudly will not rectify the problem and background noise makes the effects of hearing loss even worse.

- **Tinnitus** is the presence of 'sounds', typically ringing, buzzing, rumbling, humming or high pitched whistling, heard by the sufferer that are not caused by external noise.

Risk of damage to hearing can be minimised by reducing the level of sound to which the ears are exposed and/or by restricting the duration of the exposure to the noise.

NERC will seek to reduce the risk of damage to the hearing of staff from noise to the lowest level **reasonably practicable**, and, where necessary, to protect staff and others from unnecessary distraction and disturbance caused by noise.

All staff are required to comply with these procedures by co-operating actively with the objectives of any noise control programmes in their workplace.

Any workplace and/or location which is identified as likely to expose people to high levels of noise will be subject to assessment by a technically competent person to identify all those persons who are exposed to noise as defined under the *Control of Noise at Work Regulations 2005*. As a rough indicator, if the noise level is such that you have to shout in order for someone standing 2 metres away to understand you, this indicates a need to undertake a Noise Risk Assessment.

Any indications of possible symptoms, including diseases, should be reported, investigated and recorded.

### 4. DEFINITIONS

**Exposure Action Value:** A level of noise at which action must be taken to reduce exposure.

**Exposure Limit Value:** A level of noise which must not be exceeded

**dB(A):** Noise is measured on a logarithmic scale, so that an increase of 3 decibels (dB) corresponds to a doubling of the noise level. Normal conversation is at about 50dB, whilst traffic noise is at 80dB. When noise is measured at work a weighting is applied to the sound pressure to give greater emphasis to the frequencies at which the human ear is more sensitive and less emphasis at the frequencies to which the human ear is not so sensitive. This weighting scale for the human ear is called the ‘A weighted decibel scale’ or dB(A).

**dB(C):** An almost linear noise measurement scale with very limited weighting or adjustment, which is used to measure very high noise levels.

**Daily Personal Noise Exposure or LEP,d:** The total amount of noise exposure integrated over the whole working day is called the daily personal noise exposure and is usually shortened to LEP,d.

### 5. LEGAL REQUIREMENTS

**General requirements**

The *Health & Safety at Work Act 1974* requires employers to provide a safe place of work and places a general duty on employers to protect the health of staff (which by implication includes hearing).

The *Management of Health & Safety at Work Regulations 1999* (MHSWR) require employers to assess the risks to their employees (which will include hearing).

The *Personal Protective Equipment at Work Regulations 1992* place duties on the employer to provide suitable Personal Protective Equipment (PPE) for its employees where they are exposed to risk where control by other more preferred means is not possible (i.e. PPE is the means of protection
of ‘last resort’). An assessment of suitability is also required. Part of any noise risk assessment whose conclusion is that PPE must be used will be to identify the suitability of any hearing protection (a form of PPE) that may be specified. In addition, any employee provided with PPE by virtue of the risk assessment should make full and proper use of it in accordance with any training on its use.

The **Health & Safety (Safety Signs and Signals) Regulations 1996** specify the format to be used for signs demarcating where hearing protection must be worn i.e. a Hearing Protection Zone (HPZ).

### Duties on Manufacturers and Designers of Machinery

Section 6 of the **Health & Safety at Work etc Act 1974**, as amended, imposes duties on designers, manufacturers, importers and suppliers of plant and machinery for use at work to provide noise information and to control noise emissions from machinery.

The **Supply of Machinery (Safety) Regulations 2008** require manufacturers, importers and suppliers of machinery to design and construct machinery so that the risks from noise emissions are reduced to the lowest level taking account of technical progress and the availability of means of reducing noise, in particular at source. They shall also supply pertinent noise level information, as detailed in the Regulations, to the purchasers of the machinery, provide instructions, advise of any residual risk from noise emission, and if necessary, provide safety signs on the machinery.

### Control of Noise at Work Regulations (CNWR) 2005

The **CNWR 2005** require that where there is any work carried out which is liable to expose any employees to noise at or above the lower exposure action value (see below for details), that a noise risk assessment be undertaken.

Where the employees are likely to be exposed to noise at or above the lower exposure action value the risk should ideally be eliminated at source or reduced to as low a level as is reasonably practicable. It is also necessary to inform employees of the risk, provide training and education on the risks from noise and make available suitable hearing protection on request.

Where employees are likely to be exposed to noise at or above the upper exposure action value a programme of organisational and technical measures must be implemented, which in the first instance must be by means other than the use of hearing protection. This will include choosing appropriate work equipment emitting the least possible noise, taking account of the work to be done.

If the exposure limit value is exceeded, the noise exposure must be reduced forthwith to below the limit value.

Only if the other organisational and technical measures are unable to reduce the noise exposure at source below the upper exposure action value or the exposure limit value may the provision of personal hearing protection be relied upon to reduce exposure. This may require the designation of HPZs. Under the **CNWR 2005**, where it is deemed necessary to rely on use of personal hearing protectors to reduce noise exposure below the upper exposure action value or exposure limit value, **employees must make full and proper use** of the personal hearing protection (as well as of any other control measures provided) and report any defects in the personal hearing protection or other control measure.

**Exposure Action Values and Exposure Limit Value**

- **Lower exposure action value (LEAV)** – a daily (L_{EP,d}) or weekly personal noise exposure of 80 dB(A) and a peak sound pressure of 135 dB(C).
- **Upper exposure action value (UEAV)** – a daily (L_{EP,d}) or weekly personal noise exposure of 85 dB(A) and a peak sound pressure of 137 dB(C).
- **Exposure limit value (ELV)** – a daily (L_{EP,d}) or weekly personal noise exposure of 87 dB(A) and a peak sound pressure of 140 dB(C).
Use of the weekly personal noise exposure (LEP,w) as an alternative to the daily version is only allowed where the noise exposure varies markedly from day to day and where daily noise exposure on one or two working days in a week is at least 5 dB higher than the other days or where the working week comprises three or fewer days of exposure.

Health surveillance, including testing of hearing, is required if the noise risk assessment indicates there is a risk to the health of the employee and keep a health record of all those who undergo health surveillance for noise exposure.

Information, instruction and training on noise risks and the control measures should be provided to those staff likely to be exposed above the lower exposure action value.

Separate regulations apply to staff on board sea going vessels under maritime law and are not specifically covered by this Procedure, although they are very similar in their requirements and have identical EAVs and ELVs. These Regulations are the Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations 2007 (SI 2007/3075).

The CNWR 2005 apply to aircraft in flight over British soil.

6. OPERATIONAL PROCEDURE

General

Where the LEAV is likely to exceed the CNWR 2005 require noise risk assessments to be carried out.

Control of Noise at Work Policy

This policy covers the way in which NERC deals with the control of noise exposure at work and the protection of staff from risk of noise-induced hearing damage, or other risk associated with the noise to which they are exposed.

- All persons are required to comply with this procedure by co-operating actively with the objectives of the noise control programme.

- Managers SHALL identify any workplace and/or location which is likely to expose people to high levels of noise (i.e. at or above the LEAV) and commission a formal noise risk assessment by a technically competent person.

- Where any person is identified as being exposed to a LEP,d at or above the LEAV but below the UEA V should be taken to either eliminate the noise or control it at source to a level as low as is reasonably practicable, employees at risk should be informed and provided with training and education on the risks from noise and, where control by other means is not reasonably practicable, be provided with suitable hearing protection.

- Where the noise exposure of any person is identified as being at or above the UEA V but below the ELV organisational and technical measures must be taken to reduce noise which, in the first instance, do not rely upon the use of Personal Protective Equipment (PPE). Staff so identified will be advised of the noise level to which they are exposed. If noise reduction measures cannot be effected immediately, the employees exposed shall be provided with, and required to wear, hearing protection. Appropriate training and instruction about hearing and protection will be provided to these persons.

- The organisational and technical measures used should apply the general principles of prevention from the MHSWR, which are included in CNWR interpreted as including 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 (buy quiet);
c) the design and layout of workplaces, work stations 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.

- If the noise level is at or above the ELV it must be reduced forthwith to below the limit.

- **Hearing protection Zones (HPZs)**, where wearing of hearing protection is mandatory, may need to be designated if other organisational and technical measures cannot reduce the noise exposure sufficiently. HPZs will be indicated by warning signs placed within and at entry points to these areas. Persons working in or entering the areas so designated must wear hearing protection. It should be noted that the use of PPE is the least preferred means of control.

- Where reliance is placed on wearing hearing protection to protect persons against hazardous exposure to noise, it must be remembered that this may mask fire alarms or other audible forms of alarm. This indirect effect must be taken into account, which could include supplementing audible alarms or warnings with visible ones or using hearing protection with built-in communication facilities.

- **Training** on noise hazards will be given to all staff who are identified as likely to be exposed to noise at or above the LEAV.

- **Health surveillance**, including audiometry, will be required for those staff who are exposed to noise at or above the UEAV or if they have pre-existing hearing conditions.

- The noise emission levels for all proposed new equipment must be obtained by the purchaser / procurer and taken into account when making the purchasing decision. Where it is considered the sound contribution of the new equipment will significantly and adversely affect the noise profile of the workplace, and in all cases where the new equipment produces a noise level above 80 dB(A), NERC will follow a 'buy quiet' policy. It will be the duty of the purchaser and the manager approving the purchase, if necessary in conjunction with the manager of the area where the new equipment will be used or the manager of the persons using the equipment, to follow this policy. This will involve taking into account the noise level produced by the machine, the work that needs to be done, the available machines and, where possible, selecting appropriate work equipment emitting the least possible noise.

**Further Action**

This procedure incorporates the action values and limits specified in the **CNWR 2005** as the basis of the policy. The values and limits are set relative to the reduction of hearing damage risk, but not necessarily their elimination, although they are now at a significantly lower level than when the original noise regulations were first introduced in 1998.

**7. ROLES AND RESPONSIBILITIES**

**Senior Managers** are responsible for:

- supporting positive action on noise where it is a hazard by all management levels.
- campaigns to encourage managers to act on noisy activities / areas.
- delegating responsibility to line managers
- auditing
- monitoring the effectiveness of the safety system
- submit annual reports on safety performance via DASIC to NERC.
Line Managers are responsible for:

- assessing equipment and users on site and identifying equipment / tasks / areas where levels of noise are likely to exceed the lower exposure action value
- ensuring a ‘buy quiet’ policy is implemented for all new equipment whose purchase they approve
- delegating specific responsibilities for noise to responsible persons
- arranging for noise risk assessments of relevant areas etc under their control
- ensuring any actions arising from a noise risk assessment are progressed and implemented
- ensuring records of noise assessments are kept
- being on the alert for reports of symptoms and taking action to deal with them
- ensuring that training on risk from noise is given to relevant staff
- ensuring that relevant staff are subject to health surveillance
- instituting noise control measures, including monitoring compliance of staff where use of hearing protection is a requirement of a noise risk assessment (e.g. within a HPZ)
- monitoring the effectiveness of safety systems
- encouraging a positive safety culture.

Competent persons are responsible for:

- carrying out workplace noise risk assessments as requested.
- advising line management of their findings with recommendations as appropriate.

Staff are responsible for:

- following management instructions and requirements of noise risk assessments
- abiding by the requirement to wear hearing protection in HPZs
- minimising risk to themselves and others
- helping choose/select new equipment for purchase, following the principles of ‘buy quiet’
- cooperating in the production of noise risk assessments
- reporting any defects or problems with any controls including personal protective equipment that is being used to reduce noise exposure
- reporting symptoms to the local Accident reporting system
- Attending training and health surveillance as required by any risk assessment
8. SYSTEM DIAGRAM

Figure 1
Managing noise risks

Assess the risks
Identify noise hazards
Estimate likely exposure to noise
Identify measures required to eliminate or reduce risks, control exposures and protect employers
Make a record of what you will do in an action plan

Key
Employer action

Protect your employees
Eliminate or control noise risks
Eliminate or reduce risks using good practice and known control and management solutions
For the higher-risk cases, plan and put in place technical and organisational noise-control measures
Make sure the legal limits on noise exposure are not exceeded
And provide hearing protection
Protect your employees with hearing protection
Make its use mandatory for the high-risk cases (keep working on technical and organisational control measures)
Manage the use of hearing protection with zones, instruction and supervision

Worker information and training
Consult workers and allow their participation
Give employees information, instruction and training about the risks, control measures, hearing protection and safe working practices

Health Surveillance
Provide health surveillance (hearing checks) for those at risk
Use the results to review controls and further protect individuals
Employee co-operate and attend for hearing checks

Maintain and use the equipment
Maintain any noise control equipment and hearing protection
Ensure that anything supplied is fully and properly used
Employees use the controls provided and report any defects
Employees use hearing protection where its use is mandatory

Review what you are doing
Review as things change:
- Changes in work practices
- Changes in noise exposures
- New ways to reduce risks
9. WHAT MIGHT GO WRONG? Possible sources of system & individual failure

Management:

The “Piper-Alpha syndrome”: The system is perfect in theory but everyone is operating it simply to
conform with the law. There is no safety culture because there is no ownership of or commitment to
the safety systems. Remedy – continuing management commitment, leadership by example,
involvement of staff in the assessment and operation of safety systems.

Mixed messages: they come from management at all levels. Managers are often unaware of
the conflict. If staff are told: “Safety is paramount”, “Deadlines have to be met” and “Costs must be kept
down”, which do they respond to in practice? If the senior manager is saying “Safety first” but the
immediate supervisor is saying “We haven’t time to do that”, who will staff listen to? “Safety must not
be allowed to get in the way of science” expressed at any management level, and not countered, can
undo months of effort to install a safety culture. Remedy – making managers aware of their
inconsistencies, rapid and clear countering of negative messages, leadership by example.

Passing the buck: “Safety is the job of the Safety Adviser – nothing to do with me.” The message to
staff is that safety is of peripheral interest and to be delegated if at all possible. Remedy – remind
managers that they carry both legal responsibility and liability. By ducking responsibility they increase
liability - for both the individual manager and the organisation. Compensation payments come out of
the science budget of the Research Centre. HSE will prosecute the most senior manager against
whom they can prove negligence.

Pressure from supervisors: Most likely to affect more junior staff and, particularly, students and
casual workers. Remedy – senior management support for susceptible staff. Make it clear to
supervisors that such pressure is unacceptable. A culture of acting on information given by “whistle-
blowers”.

MAKE SURE THE MESSAGE IS CONVINCING, CONSISTENT AND ENFORCED

Staff:

Over-commitment to the job: Common in self-motivated scientists. Remedy – The message is
“short-term savings in time can lead to long-term adverse consequences for the individual and the
organisation”.

Leisure activities: Many leisure activities can cause hearing problems and staff should be aware that
there is interaction between work and leisure activities.

10. MANAGEMENT, MONITORING AND AUDITING

Management:

The management of workplace noise requires:
- Clear lines of responsibility
- The setting of priorities and goals
- Documentation of the management system
- Commitment to provide facilities and equipment required for safety
- Provision of accredited training where a need is identified
- Records of the assessments and agreed dates of revision
- Follow-up of actions taken as a result of reported symptoms
- Agreed monitoring and auditing systems
- Provision for staff feedback
Monitoring:

The monitoring of workplace noise requires:

- Documentary evidence that tasks have been identified and assessed for risk
- Written records of the process of assessment
- Documentation of management follow-up after introduction of such systems
- The recording of incidents, injuries, illness and fatigue associated with noise
- Documentation of actions taken as a result of follow-up and accident reporting
- Assessment of safety attitudes amongst staff
- Documentation of training undertaken
- Maintenance of equipment
- Measurement of hearing

Auditing:

The auditing of the workplace noise policy requires:

- Checking that the above documentation is in place
- Certifying that training is adequate and accredited
- Assessing management and staff attitudes by interview

11. References

Health & Safety Executive publications

1. Noise at work – A brief guide to controlling the risks, INDG362 (rev 2) 2012
3. HSE Sound Solutions Case Studies Series SSCS 1 – 60.
4. Noise - Don't lose your hearing (free pocket card) INDG363
5. Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations 2007

Maritime and Coastguard Agency (MCA) publications (for ships)

6. Guidance Note MGN 352 (M+F) on Merchant Shipping and Fishing Vessels (Control of Noise at Work) Regulations 2007
   (http://www.dft.gov.uk/mca/352.pdf)
APPENDIX I: GENERAL GUIDANCE

Noise Risk Assessment

Management should identify areas where there are high noise levels which are likely to exceed the LEAV. As a rough indicator, if the noise level is such that you have to shout in order for someone standing 2 metres away to understand you, this indicates a need to undertake a Noise Risk Assessment. The manager may be able to carry some preliminary investigation that can identify the source of the noise and, if possible, take measures to eliminate the problem or reduce the noise to acceptable levels well below the LEAV.

A list of work activities that may result in significant noise exposure (although not exhaustive) is:

- Operation of noisy machinery – on and off sites (Drilling rigs etc)
- Driving fork lift trucks and other plant vehicles
- Operating petrol engine appliances such as strimmers, chainsaws, lawn mowers etc.
- Construction work
- Workshops especially woodworking machines
- Laboratory equipment such as sonicators
- Maintenance operations and work in plant rooms, where staff may work only occasionally
- Work close to emergency generators (which may be autostart)
- Marine operations such as entry into engine rooms or undertaking tasks such as needle scabbling

Formal noise exposure assessment and action schedule

If the noise risk assessment check procedure has indicated areas where staff may be exposed to high and potentially hazardous levels of noise, then a competent person using an integrating sound level meter or other appropriate instrumentation such as a dosimeter should carry out a more rigorous assessment.

Susceptible persons and other risks from noise

Some persons are more susceptible to noise than others, e.g. those with existing hearing conditions or taking ototoxic drugs. These should be identified by health surveillance but the individual must report any problems / conditions to their manager.

Noise in the workplace can also present other hazards and difficulties. It can interfere with or prevent communication between workers, and is often an annoyance to workers, causing tiredness and inefficiency. It can also mask warning signals and sounds and make them less audible and therefore less effective.

Reduce the Noise at Source

Where staff are found to be exposed to levels of noise that may represent a hazard to hearing, the preferred course of action to reduce their noise exposure is to reduce the level of noise at source.

If the problem is more difficult to resolve, then it may be necessary to seek advice from a competent person, the supplier of the equipment or from a specialist noise control company as to practical methods of noise reduction. When noise control action has been completed, it will be necessary to reassess the situation, to confirm that the workers' noise exposures have been reduced to acceptable levels below the ELV and preferably to below the LEAV and UEAV.

Reduction of Exposure Duration

In some situations, it may be possible to reduce the noise exposure of individual staff by limiting the duration of their duties or sharing the noisy work, so that the daily duration of exposure of an
individual staff member to the highest noise operations is kept to an acceptable level. If a sharing approach is adopted, then it is necessary to ensure both that the staff do not incur significant noise exposure during other duties that they carry out and that they adhere closely to the sharing schedule so that excessive exposure does not occur.

**Hearing Protection**

Hearing protection is the least preferred method of control but still has a place in many hearing protection programmes. The employer is required to make available hearing protection where the exposure is above the LEAV and the employee requests the provision of such protection. At or above the UEAV up to the ELV, organisational and technical measures must first be implemented but if it is insufficient to reduce exposure below the UEAV hearing protection must be made available.

Hearing protection equipment is readily available in two main types, ear plugs and ear muffs. Ear plugs, such as glass down, compressible foam inserts and moulded rubber plugs, require placement into the ear canal by clean hands. Ear muffs are placed around the head covering the outer ear, and may be more suitable for use in conditions where hand soiling is anticipated. Subject to the suitability of the types of hearing protection in the particular working environment, and the adequacy of the protection afforded, workers should be given a choice within each of the main types of hearing protection, and allowed to select the type with which they feel most comfortable. It should be noted that in most office areas noise exposure levels are unlikely to exceed CNWR 2005 criterion levels, and where they do, such as in plant rooms, the levels are likely to be such that most types of hearing protection if correctly worn may be expected to reduce workers’ noise exposure to acceptable levels.

**Record keeping, monitoring and reviewing**

The record keeping required for compliance and proof of compliance with legal requirements and achievement of best practice may be considered in four areas:

- records of what action has been taken, and when the action was taken;
- records of all noise risk assessments, formal surveys, exposure assessments and any follow-up surveys and assessments;
- records indicating all staff members liable to be exposed to noise at levels at or above the LEAV, so their attendance at training courses and refreshers can be arranged.
- records indicating all staff members where the noise risk assessment shows they are liable to be exposed to noise at levels at or above the UEAV, so they can be subject to health surveillance.
- where audiometry (the evaluation of employees’ hearing by individual testing) is undertaken, records generated in this manner will be taken as a type of health surveillance as defined in the MHSWR 1999. It is also important that when employing persons to work in areas where it known that exposure at or above the UEAV is likely to occur, they are subject to audiometry before starting work there to establish a baseline hearing response.
- records of all noise risk assessments and noise surveys of their premises should be kept and archived when they are superseded by new noise risk assessments
- documentation relating to the provision of hearing protection and training course attendance should also be kept.

**Assessment and Maintenance of Hearing Protection**

It is essential that all hearing protection considered for use are types that are suitable for the task and bear the CE label. This indicates that the protectors comply with various safety requirements and that they have been tested to determine the level of protection against noise to be expected when they are correctly worn. Hearing protection (other than disposable ‘one use’ types) will also need to be inspected regularly and maintained to ensure it remains in efficient working order, e.g. seals are in
good condition and headband spring strength is still adequate. Suitable storage may also need to be
provided.

**Monitoring**

The responsibilities listed above should be carried out by managers in the organisation or by the
nominated employee(s) listed in the relevant section of the local Health & Safety Policy statement.

**Regular noise control checks**

- carry out, at regular intervals and when new plant or equipment that might involve excessive
  exposure to noise is purchased, subjective inspection of all work operations and plant areas to
determine whether or not there are significant noise emitting sources and processes.

- where the subjective inspection suggests an increase or problem with noise levels, commission
  an additional or repeat noise risk assessment

- make arrangements for regular workplace inspections to ensure that persons required to use
  hearing protection are being followed, that the hearing protection is being maintained in effective
  working order and that all those necessary have been provided with appropriate information,
## APPENDIX II: POSSIBLE NOISE RISK ASSESSMENT REPORT FORM

<table>
<thead>
<tr>
<th>Work Activity:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Description:</td>
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<tr>
<td>Equipment description</td>
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</tr>
<tr>
<td>Equipment Reference:</td>
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</tr>
<tr>
<td>Assessment prepared using data source</td>
<td>Observation of working practices</td>
</tr>
<tr>
<td></td>
<td>Reference to relevant information</td>
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<tr>
<td></td>
<td>Measurement of noise levels</td>
</tr>
<tr>
<td>Duration of Exposure</td>
<td>Frequency of Exposure</td>
</tr>
<tr>
<td>Level of Exposure</td>
<td>Type of Exposure</td>
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<tr>
<td>Peak Sound Level</td>
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<tr>
<td>Noise Exposure Points</td>
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<td>Hearing Protection available</td>
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<tr>
<td>Any information provided by the manufacturers</td>
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</tr>
<tr>
<td><strong>Elimination / Reduction</strong></td>
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<tr>
<td>Steps which can be taken to prevent / reduce exposure to noise</td>
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</tr>
<tr>
<td><strong>Health</strong></td>
<td></td>
</tr>
<tr>
<td>Effects of exposure to noise on employees or groups of employees whose health is at particular risk from such exposure</td>
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<tr>
<td>Ototoxic Drugs</td>
<td></td>
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<tr>
<td>Vibration</td>
<td></td>
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<tr>
<td>Appropriate information obtained following health surveillance, including where possible, published information</td>
<td></td>
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<tr>
<td><strong>Control</strong></td>
<td></td>
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<tr>
<td>The availability of alternative equipment designed to reduce the emission of noise</td>
<td></td>
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<tr>
<td>Indirect effects on health and safety of employees resulting from the interaction between noise and audible warning signals or other sounds that need to be audible to reduce risks at work.</td>
<td></td>
</tr>
<tr>
<td>The availability of personal hearing protectors with adequate attenuation characteristics</td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX III: TRAINING

Competency to undertake a noise risk assessment

A competent person is someone who is experienced in the measurement of workplace noise and the determination of staff noise exposures:

- A qualified Occupational Hygienist
- A NERC Safety Advisor who has completed a Noise & Vibration course
- Someone who is in possession of the Institute of Acoustics Certificate of Competence in Workplace Noise Assessment

Training and Instruction for staff exposed above the LEAV

Suitable training and instruction shall be provided for all staff whose noise exposures are assessed as likely to be at or above the LEAV specified in the CNWR 2005. The provision of such training will provide staff with a better understanding of the issues involved. Employers should also consider how other staff using the workplace, for example contractors and temporary staff, may be provided with adequate information about the noise hazards that are present, and the measures that they need to take to protect themselves against noise during the time they are on site. It is also important that supervisory staff receive the same training as other staff members, even though the noise exposures of the supervisory staff may, because of their work pattern, be lower than those of the main workforce.

Training Content

Provision of Information, Instruction and Training

Employers are required to provide information, instruction and training to staff that are likely to be exposed to noise at or above any of the Action Levels defined in the CNWR 2005. The workers should be informed of:

- their assessed likely daily noise exposure levels (L_{EP,D}) or peak sound pressure;
- the risk to their hearing posed by exposure to high noise;
- what to do to minimise the risk to hearing including the correct use of noise control equipment;
- the types of suitable ear protector that are available, and the procedures for its issue, the areas where it should be worn and how they are marked out;
- how to wear hearing protection, ensuring a good fit (ear muffs) and effective placement in the ear canal (plugs, foam inserts, etc.);
- the maintenance of the hearing protection equipment;
- the action they should take when the hearing protection becomes damaged or defective, to ensure that the protection is promptly replaced or repaired; and
- the importance of prompt reporting to management of any defect with noise control equipment and/or materials.

The briefing as a whole should ensure that staff are advised of the duties imposed by the CNWR 2005, including the duty of staff to make appropriate use of noise exposure reduction techniques such as hearing defenders.
Advice about recognising hearing loss

The instruction should include information about the most typical symptoms of noise-induced hearing loss (difficulty of discerning speech in high ambient noise situations, difficulty using the phone, complaints about the television being too loud, failing to hear the door or telephone bell). Permanent ringing in the ears (tinnitus) is another possible consequence of exposure to noise. Staff should be advised that if they experience such symptoms, it is in their own interest to seek medical advice, and advise their employer of the problem.

How often is it necessary to provide training?

There is need for on-going training of all staff that are likely to be subject to daily noise exposure in excess of the LEAV specified in the CNWR 2005. Following initial comprehensive training, during personnel induction procedures for new staff or after adverse daily noise exposure assessments for existing personnel, the employer should provide regular ‘refresher’ training courses to ensure that staff are reminded of their obligations under the Regulations. The refresher courses may be shortened versions of the initial training programme, or may be restricted to specific topics.

Safety signs

HPZs should be marked by the use of appropriate signage. In addition it may be necessary to use signs indicating prohibitions on entry. Where hearing protection/high noise exposure areas are designated and such signs are employed, appropriate arrangements are required for supervision and monitoring.

Making rules is necessary, but so is their enforcement.
APPENDIX IV: SOURCES OF FURTHER INFORMATION

Professional Bodies and Associations

Institute of Acoustics
3rd Floor St Peter's House
45-49 Victoria Street
St. Albans
Hertfordshire
AL1 3WZ

Tel: 01727 848195
Fax: 01727 850533
Email: ioa@ioa.org.uk
http://www.ioa.org.uk/

British Occupational Hygiene Society
5/6 Melbourne Business Court,
Millennium Way,
Pride Park,
Derby,
DE24 8LZ.

Tel: 01332 298101;
Fax: 01332 298099;
Email: admin@bohs.org
http://www.bohs.org/

Association of Noise Consultants
The Old Pumphouse
1A Stonecross,
St Albans
Herts
AL1 4AA

Tel: 0208 253 4518
http://www.association-of-noise-consultants.co.uk/Home