THE CONTROL OF NOISE AT WORK REGULATIONS 2005

Guidance for Pub and Bar Operators

To avoid duplication reference is made throughout this guidance to
"**Sound Advice"** –
comprehensive guidance
for the music and entertainment sector –

http://www.soundadvice.info

INTRODUCTION

The Control of Noise at Work Regulations 2005 are based on a European Directive and came into effect in April 2006. Musical entertainment involves noise deliberately created for enjoyment and therefore a two year transitional period was granted to enable practical guidelines to be developed. For the music and entertainment sector the Regulations take effect from **6th April 2008.**

Music and entertainment sectors are defined in the Noise Regulations as "all workplaces where live music or recorded music is played, be it in a restaurant, bar, public house, or nightclub, or alongside live music or a live dramatic or dance performance".

The Control of Noise at Work Regulations 2005 give employers and workers responsibility for managing the risk of noise. Hearing can suffer permanent damage from excessive noise which may not show up until later in life. This guide aims to help pub operators take steps to ensure that people working on the premises do not suffer hearing damage. This includes responsibility for the door supervisors, DJs and musicians working on the premises although DJ's and freelance musicians also have a responsibility to protect their own hearing.

Most noise will be generated by amplified music and the risk will arise where the volume is sufficiently loud to cause damage to hearing. The Regulations do not provide protection for members of the public who make an informed choice to enter noisy premises.

With today's diverse range of entertainment the provision of a comfortable, safe environment for both customers and staff makes good business sense. Achieving the right balance between protection of workers and customer enjoyment does not necessarily mean the end of music in pubs.

REQUIREMENTS AND DUTIES

Under the Control of Noise at Work Regulations 2005, employers are required to:

- **Assess the risks to employees from the noise**
- **Take action to reduce the noise exposure that produces the risk**
- **Where necessary provide hearing protection**
- **Provide information, instruction and training**
- **Carry out health surveillance (where there is a risk to health) ***

  ***** Applies to employees only

The Regulations set out noise exposure levels at which employers must take certain actions. Noise is measured in decibels (dB). Harm can be done either from repeated exposure to noise or from a single exposure to a high noise level. The control of both types of damage are reflected by the Regulations. An "A" weighting (dB(A)) is used to measure **average** noise levels and a "C" weighting (dB(C)) is used to measure **peak** noise.

The Regulations require action to be taken at certain action levels –

EXPOSURE ACTION VALUES AND EXPOSURE LIMIT VALUES			
	Daily or weekly personal noise exposure * (Level of exposure to noise of employees averaged over a working day or week)	Peak sound level (the maximum noise (peak sound pressure) to which employees are exposed in a working day)	Action to be taken to reduce risk
Lower exposure action values (i.e. the lower average level at which action should be taken)	80 dB (A)	135 dB (C)	• Undertake noise risk assessment and record results • Identify any employees who are required to work in noisy areas • Make hearing protection available on request • Establish a maintenance programme for equipment supplied to reduce noise risk • Provide training
Upper exposure action values (i.e. the upper average level at which action must be taken)	85 dB (A)	137 dB (C)	• Establish and implement a programme of control measures • If these measures do not reduce exposure below 85dB(A) then suitable hearing protection must be worn and • Health Surveillance programme implemented where necessary
Exposure limit values (maximum exposure limit)	87 dB (A)	140 dB (C)	• Reduce to below limit values (taking into account personal hearing protection)

* Music played in venues will vary widely throughout the week, e.g. some pubs may feature live music once a week, karaoke another night and jukebox/background music at other times. Other venues may trade on playing loud music every night. Where the exposure of an employee to noise varies markedly from day to day, an employer may use weekly noise exposure in place of

daily personal noise exposure for the purposes of compliance with the Regulations. See section below on exposure management.

ASSESSING THE RISK

Typical noise levels in a busy pub playing music on say a Friday night could exceed 95 dB (A). It is therefore likely that workers in venues playing amplified music will be exposed to noise levels greater than the upper action value of 85dB.

Average noise levels in some pubs and clubs could be:

Job	Average dB(A)
Bar staff	92
Floor staff	93
DJ	96
Security	96

The aim of the noise risk assessment is to help decide what measures are necessary to ensure the health and safety of employees who are exposed to noise. It is more than just taking measurements of noise – sometimes measurements may not even be necessary. A responsible manager should be able to carry out simple listening tests. If the simple tests show that no potentially harmful levels are likely, no further action is necessary other than recording the assessment.

SIMPLE LISTENING TEST: DO YOUR EMPLOYEES HAVE TO RAISE THEIR VOICES TO CARRY OUT A NORMAL CONVERSATION WHEN ABOUT 2M APART FOR AT LEAST PART OF THE DAY ?

If the simple listening test indicates there may be a potential risk then a suitable noise risk assessment should be carried out. The risk assessment should be carried out by *a competent person (i.e. someone who has the knowledge and experience to carry out this task).*

See flow chart attached at Annex A.

All staff should be assessed as individuals within an area (e.g. behind the bar) or activity (e.g. collecting glasses). A risk assessment should:

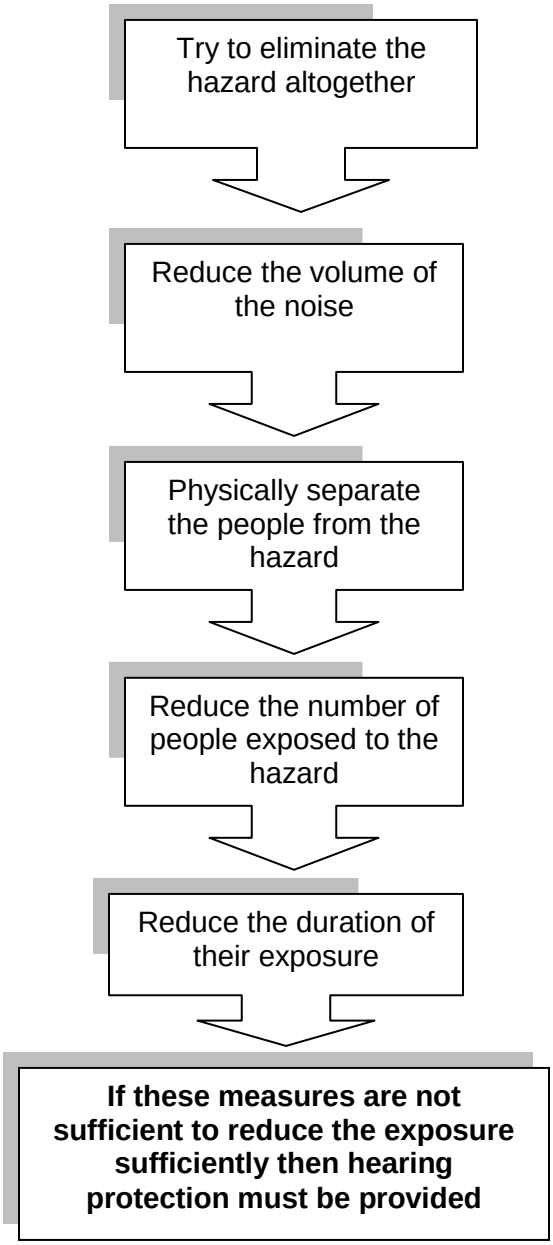
- Identify where there may be a risk from noise and who is likely to be affected
- Contain a reliable estimate of your employee's exposures and compare the exposure with the exposure action values and limit values
- Identify what you need to do to comply with the law, e.g. whether noise-control measures are required and, if so, where and what type
- Identify any employees who may need to be provided with health surveillance and whether any are at particular risk.

Further advice about risk assessment is available in **"Sound Advice"**

REDUCING THE RISK (CONTROL MEASURES)

There are many solutions to reducing noise exposure in pubs and bars but no single technique will be appropriate for every situation. Noise control measures should be applied in the following sequence:

CHART A



In many cases the solution may be simple because the volume can be lowered without affecting trade. However it is still worth considering how loud the music needs to be during the course of trading periods, e.g. volume produced by a live performer and the background music between performances. Where it is not appropriate to simply reduce the volume, a number of relatively simple measures can be implemented to protect workers from noise:

- Orient speakers away from working areas.
- Install a noise limiter on power supply to DJ and band.
- Install sound barriers to shield working areas.
- Ensure shift patterns keep staff from being exposed for long periods of time as above.

Design

Methods of reducing noise in work areas can be split into two areas; physical separation and focusing the music to the desired areas. Architects/designers and owners /operators proposing new buildings or refurbishments may wish to consult competent acousticians before undertaking any major work.

The noise in a venue is made up of two components. The direct path is the uninterrupted path between the loudspeaker and the ear and the reverberant path is the sound reflected off one or more surfaces. To be effective most noise control methods need to have acoustic absorption to control the reverberant paths (note: absorption can also improve the quality of the music reproduction).

- Lining the ceiling above the dance floor with acoustically absorbent tiles
- Lining walls with acoustic absorbent coatings (durable coatings are available for the lower parts of walls)
- Lining workstations with absorbent coatings
- It is important that the materials used meet flame retardant and propagation standards.

Physical separation

The following techniques help to separate staff from the music:

- Position bars away from the dance floor and performance areas
- Provide separate quiet areas or “chill-out” rooms (preferably with noise levels less than 80 dB(A)).
- locate bars in “quieter” areas
- Place acoustic screening to protect specific work locations from direct noise sources. The effectiveness of screens depends on their design and location.

Focussing

Successful noise control in pubs and bars requires the music to be focused where it is required (i.e. the dance area). The following techniques can help to focus the music on the dance floor and therefore reduce noise levels in other areas:

- Distribute the sound evenly over the dance floor using directional speakers mounted in the ceiling and facing downwards.
- Increase the number of directional speakers above the dance floor to avoid “hot-spots”.
- Install vibration isolation mounts to speakers to prevent noise entering the building structure.
- Reduce the volume of peripheral speakers and avoid them if possible.
- Do not have speakers pointing toward the bar and other work locations.

Management

Venue operators putting on frequent music events or DJ's are encouraged to develop a written statement of policy. This document should aim to provide clear messages regarding the control of noise in the venue to all staff and subcontractors which may include the following:

- Description of control measures designed to protect workers
- Provision and use of hearing protectors, whether compulsory
- Recommended and maximum permitted noise levels (amplifier volume settings) and whether noise limiters are installed
- Any special advice or requirements, for example for DJs
- Use of house equipment, such as amplifiers, speakers, whether provided and whether use of house system is compulsory
- Communication of the risk to hearing from noise

(Further information is available in **Sound Advice**). It should also include policies on the following.

Level setting and monitoring

The volume level of the music is critical to the protection of employee's hearing. The volume in each venue is dependent on factors such as the type of venue, the effectiveness of the venue design and the type of music played, which is likely to vary during each event. The venue's policy should clearly state the criteria used to determine noise levels. The policy should be communicated to all people who have the potential to influence the noise generated (for example duty managers, DJ's, musicians and technicians). Control and monitoring can be achieved in many ways and some techniques may include:

- Noise limiters which are designed to prevent the volume of music from exceeding a predetermined level. One type controls the volume in discrete steps and is therefore virtually undetectable. The other type switches off the power to the music system if a specific volume is exceeded; this is not recommended because of the abrupt cut off. Noise limiters should be tamper-proof or located in secure areas.

- Spot checks of the noise level using a sound level meter at a predetermined reference location.

- Karaoke systems should have in-built noise limiters.

Exposure management

Limiting the time staff spend in the noise will reduce their noise exposure. Industry studies have shown that glass collectors, bar staff and door supervisors required to patrol dance floors are most at risk. Rotating staff between noisy and quieter areas will reduce their exposure as will rotation of staff between quiet and noisy shifts. Task rotation can provide some reduction in exposure where there are workstations situated in quieter areas. Management should have sufficient control and administration to demonstrate how the system safeguards staff. The management should explain the purpose of any rotation system to staff.

Regular "quiet breaks" and periods working in quieter areas should be provided.

The Regulations allow the noise exposure to be averaged over a week rather than a day. Weekly noise exposure takes account of the daily noise exposure for the number of days worked in a week (up to a maximum of seven days). It is important to:

- Ensure there is no increase in risk to health. It would not, for example, be acceptable to expose workers to very high noise levels on a single day without providing them with hearing protection.

- Remember there is an overriding requirement to reduce the risk to as low a level as is reasonably practicable.

The weekly noise exposure can be calculated using the electronic calculator which is available on www.hse.gov.uk/noise/calculator.htm

Further information on daily/weekly averaging is available in **Sound Advice**.

Maintenance

Sound equipment does deteriorate and should be properly checked and maintained. In particular there is a tendency to increase the volume if the music system is distorting.

Equipment such as noise limiters, acoustic screens, sound absorbers and vibration isolation mounts should also be kept in good working order.

PERSONAL HEARING PROTECTION

If a member of staff is exposed to daily or weekly exposures of 80 dB(A) but not to the 85 dB(A) they are entitled to ask for hearing protection (ear plugs/muffs).

If a member of staff is exposed to a level of 85 dB(A) or more then the employer must provide hearing protection and ensure it is used.

Hearing protection should not generally be used as an alternative to controlling the noise by technical or managerial means where reasonably practicable.

There are several types of suitable protection for bar staff, glass collectors and DJ's which provide the right kind of protection whilst enabling staff to communicate with customers:

Glass Collectors:	Compressible earplugs Earmuffs Pre-moulded earplugs
Bar Staff:	Pre-moulded earplugs Uniform attenuator earplugs
DJ's	Headphone monitors In-ear monitors Earmuffs with sound restoration devices (ANC) fitted
Security/door supervisors/ management	Communications equipment is available with built-in hearing protection

DJs should be encouraged to wear earmuffs with sound restoration devices fitted to enable them to monitor the music and also isolate them from the ambient noise in the venue.

More detailed information about hearing protection is available in **Sound Advice.**

TRAINING AND EDUCATION OF STAFF

All workers should be briefed on the dangers of noise to their hearing and this should be recorded. DJs and Bands should be similarly briefed. Employees and individuals who have influence of the noise levels (e.g. DJs) need to understand the risks and how these are being controlled including the proper use of hearing protection.

Employers should endeavour to ensure that employees understand the need to follow instructions on control measures including, for example, abiding by any agreed arrangements for job rotation or restriction of access to noisy areas or following any instructions relating to achieving agreed noise levels as well as wearing hearing protection when required.

Further information is available in **Sound Advice**.

HEALTH SURVEILLANCE

The Regulations require employers to provide health surveillance, including hearing checks, for all employees who *are likely to be regularly exposed above the upper exposure action values, or are at risk for any other reason*. *For example, they already suffer from hearing loss or are particularly sensitive to damage.* It is therefore important to **manage the risk**.

Ideally health surveillance starts before people are exposed to noise, (i.e. for new starters or those changing jobs) in order to establish a baseline.

Employers requiring further information about health surveillance should see **Sound Advice**

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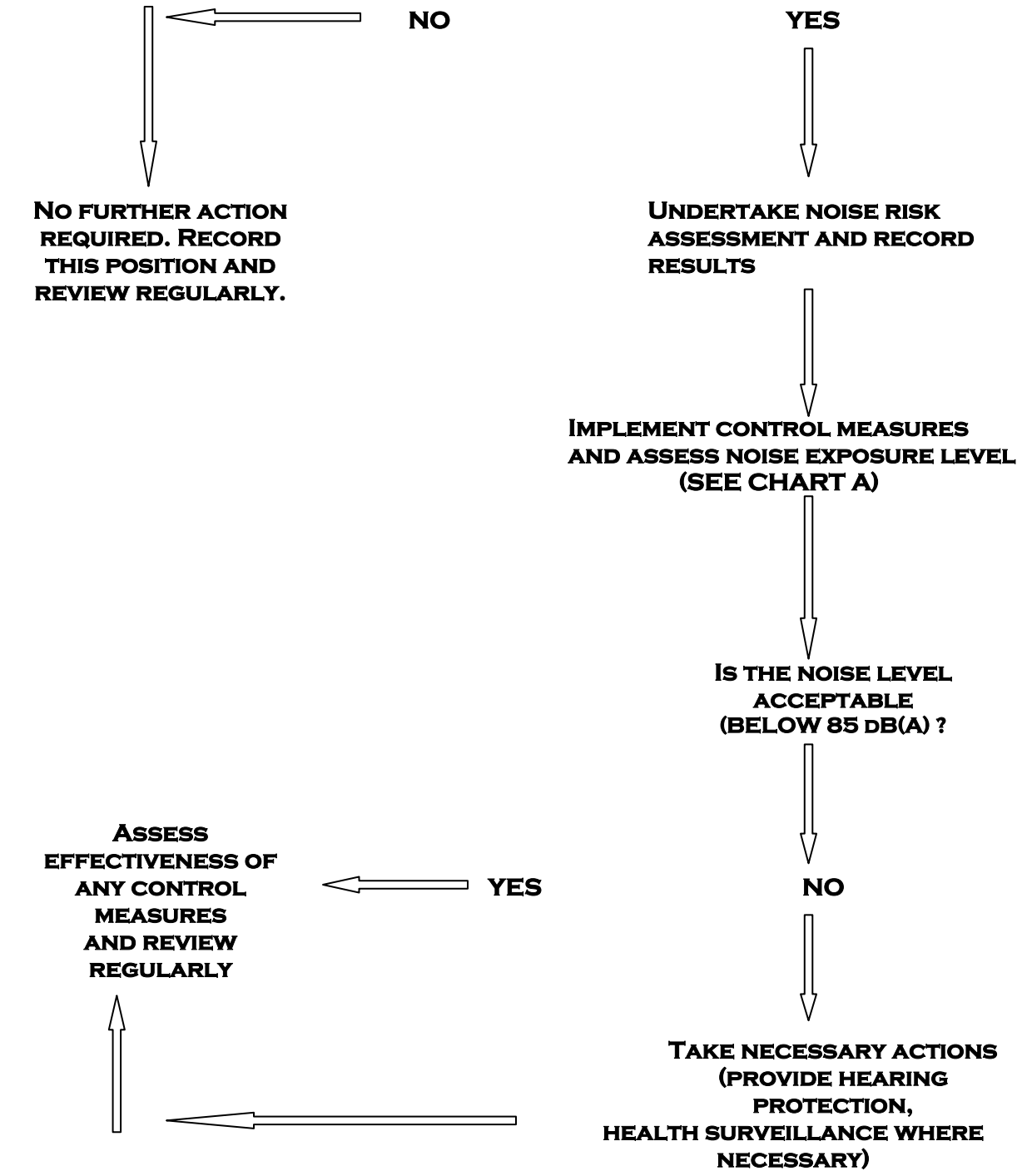
March 2008

Is amplified music played at your premises/
Is the overall noise level likely to be ABOVE 80 dB (A)
for every worker?
(CARRY OUT A SIMPLE LISTENING TEST *)



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