



PROJECT REPORT

Hearing Protection in Entertainment Venues

February - March 2008

Summary

The aim of this project was to raise awareness in entertainment venues of the new requirements coming into force in April under the Control of Noise at Work Regulations 2005. 11 visits were made to carry out night time sound level surveys and during the day time to discuss by appointment what steps are appropriate to protect the hearing of employees and customers. All premises visited failed to comply fully with the new Regulations and so there was much opportunity to discuss action needed. Some staff were considered to be at risk of hearing loss.

Method

Late night sound level surveys were carried out at two night clubs and three live music venues. A Cel 480 type 1 precision sound level meter was used by an officer who had obtained a Diploma in "Noise and Vibration Control". Sound levels and working practices were considered in relation to the HSE Guidance on the Regulations - L108 and the draft recommendations "Sound Advice" issued by the Music and Entertainment Sector working party supported by the HSE. Following day time meetings, letters were written setting out the requirements of the Regulations not currently met and giving examples of practical control measures which should be considered.

Findings – Sound levels observed

1. Late night sound level readings revealed the following:
 - Behind the bar in Night Clubs with live music - levels of 90 - 93 dB(A) Leq, and 101 dB(A) max.
 - Both the Night Clubs visited operate three nights a week. Taking into consideration the hours staff work and using table 2 of the HSE guidance L108, it was found that some staff are exposed to a level of approximately equivalent to the upper exposure action value of 85 dB(A) Leq (40 hour week)
 - Behind the bar in Pubs with live music – levels of 86 - 98 dB(A) Leq, and 97-105 dB(A) max.
 - Taking into consideration the hours staff work and using table 2 of the HSE guidance L108, it was found that staff in some Pubs with live music are exposed to a level of approximately equivalent to the lower exposure action value of 80 dB(A) Leq (40 hour week)

Requirements made of Night Clubs

1. These premises were required to review their noise exposure risk assessments and adopt control measures compliant with the new Regulations and current guidance.
2. They were asked to make their own sound level surveys and come to a conclusion as to which staff are subjected to levels at or above the upper exposure action value. Exposure above this level leads to an obligation to carry out staff health surveillance and to set up hearing protection zones. Four occupational health specialist providers are listed in West Sussex under www.yell.com. Some of these firms are qualified to arrange audiometric tests and administer the relevant health

questionnaire. Hearing protection zones must have Regulation compliant signs. In the zones it is compulsory for staff to wear suitable hearing protection.

3. The Regulations require that where exposure levels present a risk to staff, means other than personal hearing protectors, should be used to reduce staff exposure to as low as level as is reasonably practicable. A risk may exist if the lower exposure action value is exceeded especially where an employee has poor hearing to start with. A risk will exist if the upper exposure action value is exceeded. Clubs were required to consider technical and organisational control measures including the following:
 - An increase in the sound absorbing materials in walls and ceilings of bar and cloak room areas.
 - Use of acoustic screening between the dance and bar areas.
 - Use of anti-vibration mounts for large speakers.
 - The installation of an amplification system which easily enables peripheral speakers in staff areas to be set with a 10 or more dB reduction compared to the dance area.
 - The location of the DJ Console in relation to speakers and the equipment used by the DJ. The provision of suitable DJ protective headphones.
4. The duty of the club operators under the Health and Safety at Work etc Act towards customers was explained and guidance given as to the steps that can be taken to ensure customers are not exposed to risks as far as is reasonably practicable. These measures include use of a sound limiter to ensure levels do not exceed 107 dB(A) event Leq, warning customers of the risks when this parameter will exceed 96, and ensuring customers can not get closer to speakers than three metres.

Requirements made of other entertainment venues

1. Pubs with live music were found to have some staff exposed to levels approximately equivalent to the lower exposure action value of 80 dB(A) Leq (40 hour week). The proprietors were thus asked to arrange for a noise exposure risk assessment to be carried out and appropriate control measures adopted. These measures would include instructing and informing staff and making suitable personal hearing protection available. The proprietors were also advised to discuss the issues with the musicians they employ.
2. A large ten pin bowling alley was visited. The back area where the machinery resets the pins was found to be an excessively noisy environment. A review of the noise exposure risk assessment and adopted controls was required. Technicians work in this back area some of the time. Some of the machinery has a lot of hard metal surfaces. No sound absorbing material was found to be installed in this area. No health surveillance was in place for technicians.

Resources

The equivalent of one month of an inspector's time was spend on this project.

Conclusions and opportunities for further action

1. Some staff working in entertainment venues are exposed to a risk of hearing loss. Many employers in this industry have been slow to embrace and fully commit to the concept of protecting the hearing of staff. There needs to be a culture change. In this context, the HSE national campaign is most helpful.
2. Having carried out advisory visits, there is a need for follow up inspections to ensure employers are taking steps to comply with the new Regulations. Further noise surveys may be need to demonstrate the exposure of staff.

3. It is difficult for small employers such as a Pub landlord hosting live music, to have the ability to tackle this issue. There is a need for local authority inspectors to offer advice and guidance to assist securing compliance.
4. A closer working relationship between local authority inspectors and occupational health specialists could usefully be developed to agree appropriate action. At Chichester a meeting has been held with one such specialist. A training session on this topic with an occupational health specialist speaker amongst others is planned for later in the year for local authority inspectors working in Sussex.

Report by David Gibson, Senior Environmental Health Officer, 2 May 2008

Approved by Ian Brightmore, Environmental Health Manager, 9 May 2008

References

1. HELA LAC 59/5. Advice on the enforcement of the Noise at work Regulations 1989 in leisure premises (where recorded or amplified). [Still current guidance despite Regulations having been replaced]
2. "Sound Advice" Draft report produced by the Music and Entertainment Sector working party with assistance of HSE. (<http://www.soundadvice.info/index.htm>)
3. Controlling noise at work- Guidance on the Control of Noise at Work Regulations 2005. HSE publications - L108