

A Guide on Noise Control in the

Entertainment Industry



This guidebook is prepared by
the Occupational Safety and Health Branch,
Labour Department

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Introduction



Employees working in the entertainment venues and mahjong parlours may be exposed to excessive noise leading to occupational deafness.

The deafness is permanent as there is no effective cure for this condition. The use of the hearing aids is usually of limited benefit. Some people may suffer from a permanent sensation of noises or ringing in the ear, known as "tinnitus".

The risk of noise-induced hearing loss is directly related to the intensity of the sound and the duration of the exposure.

This Guide aims at providing practical guidance on preventive measures to minimise the risk of permanent hearing damage resulting from excessive noise exposure for the employees in the entertainment industry.

Employers' Responsibilities

The general duty of care embodied in the Occupational Safety and Health Ordinance places responsibilities on employers or persons in control of workplaces to ensure the health and safety of their employees at work.

Noise is a physical hazard and it can cause hearing loss or other hearing damage to persons after prolonged exposure to excessive levels. The employers should therefore take steps to prevent hearing loss of their employees by carrying out noise assessment and implementing control measures to reduce the risks which may include installing engineering controls and providing hearing protection to the employees.



Employees' Responsibilities

Employees are obliged to follow the safety procedures, noise controls and other measures put in place by the employers or venue operators. When the hearing protectors are being used, they must be used properly. Damaged equipment will not provide adequate protection and it should be reported to the employer for obtaining a replacement.

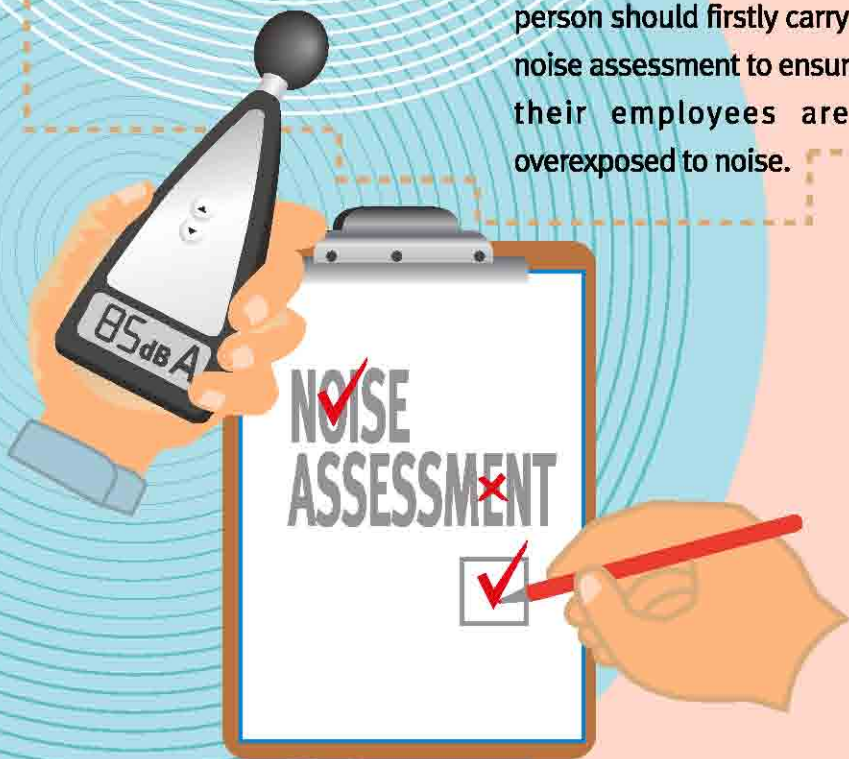
Employers

Employees

What are the action levels for **noise controls** in the workplace?

≥85

When the noise levels in the workplace are likely to reach or exceed 85dB(A)*, the responsible person should firstly carry out a noise assessment to ensure that their employees are not overexposed to noise.



*Note : The dB (decibel) is a scale used to indicate the intensity of sound. The "A-weighting" scale, dB(A), reflects more accurately the frequency response of the human ear.

≥90

When the daily exposure levels of the employees, based on an 8-hour work period, are found to reach or exceed 90 dB(A), the responsible person should make every effort to reduce the noise levels as far as reasonably practicable and provide hearing protection to the employees.



≥140

No person should be allowed to work in an area with peak noise levels reaching or exceeding 140 dB* without suitable hearing protection.



How can the Entertainment Industry **reduce** noise exposure of their employees ?

Typical noisy entertainment workplaces are discos, bars, karaoke shops, nightclubs, game centres, mahjong parlours and venues playing recorded or live music. The disc-jockeys, bar attendants, waiters, musicians, technical staff and other personnel working close to the source of noise are likely to be affected.



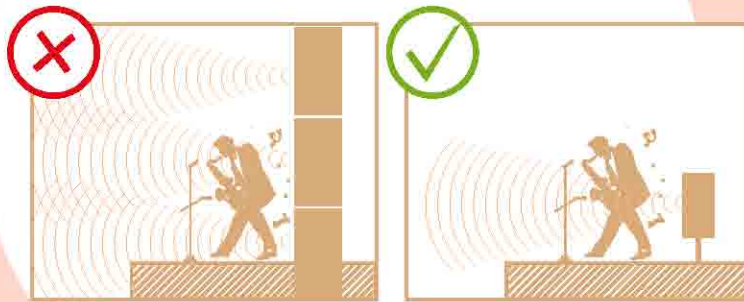
Engineering controls when used properly can significantly reduce the noise exposure of employees. The measures include noise reduction at source, and the application of insulation, isolation and segregation techniques to reduce the noise transmission. **Consideration of noise control is best at the time of designing new venues or carrying out major renovation projects** to avoid the need of rectifications at a later stage. Professional assistance from acoustic consultants and sound engineers is sometimes required for resolving complex acoustics problems.



Some effective control measures for reducing employees' noise exposure are:

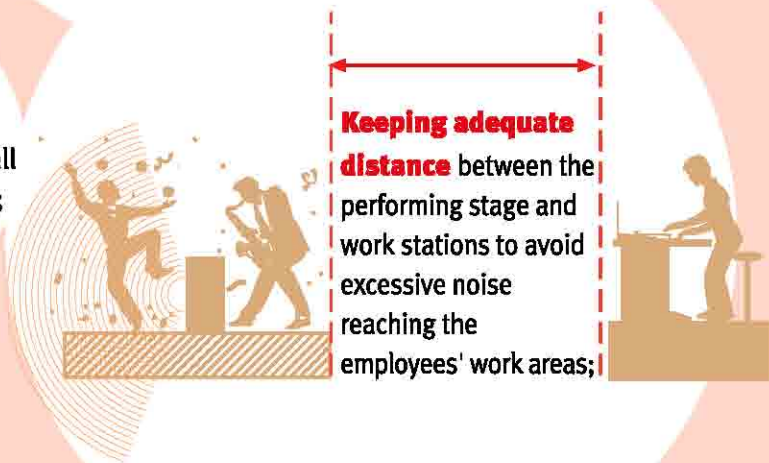
- Reduce the noise at source by minimizing sound output from amplifier systems.

Using appropriate sound equipment for the venue, i.e. never use high output equipment for small venue;



- Reduce noise transmission by :

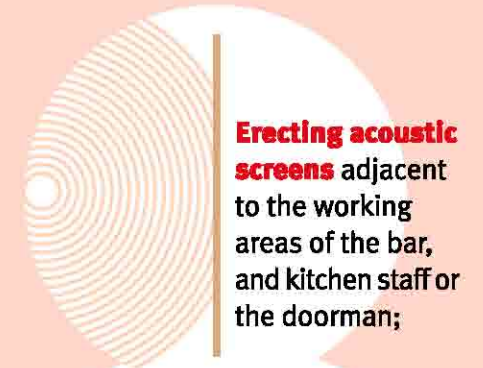
Providing sound absorption by acoustic ceiling, wall linings and carpets;



Keeping adequate distance between the performing stage and work stations to avoid excessive noise reaching the employees' work areas;



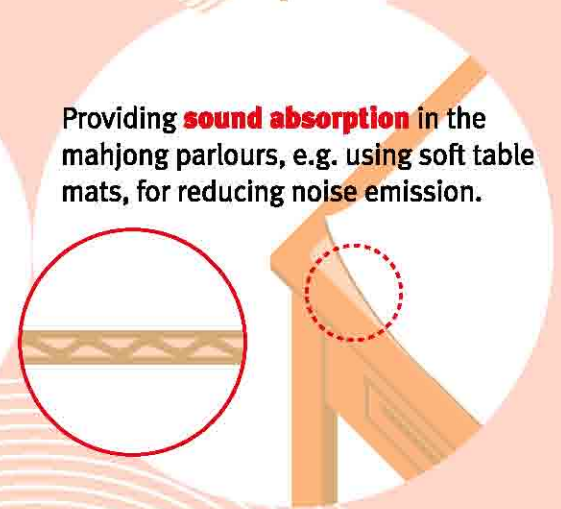
Orientating the loudspeakers to avoid directing the sound in the direction of employees' locations;



Erecting acoustic screens adjacent to the working areas of the bar, and kitchen staff or the doorman;



Segregating the cashier stations, kitchen, staff rest rooms, etc. from the entertainment area by means of doors or partitions with appropriate sound absorption materials ;

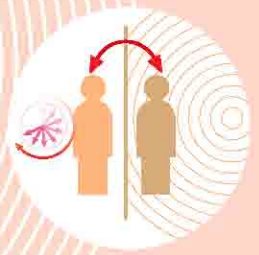


Providing sound absorption in the mahjong parlours, e.g. using soft table mats, for reducing noise emission.



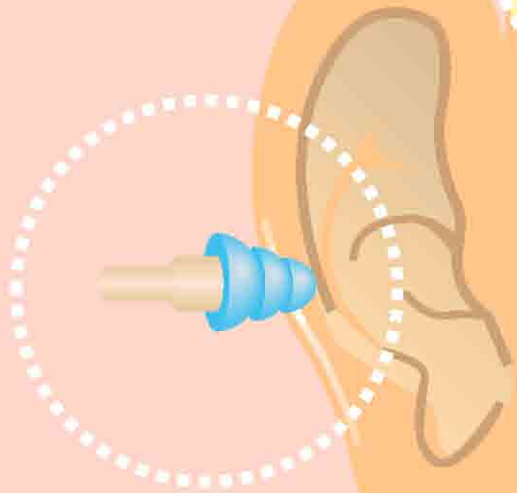
- Restricting access to areas where peak noise levels are likely to reach or exceed 140 dB;

- Reduce the 'daily 8-hour exposure' of employees by decreasing the amount of time exposed to the noise. This may involve a workable arrangement for rotating staff between noisy and quiet positions.



Personal hearing protection

There are various hearing protectors available for use by employees when noise exposure cannot be avoided. The hearing protectors are made of materials to attenuate the noise transmitted to the ear.



The noise attenuation provided by most hearing protectors is frequency dependent but there are some products that provide a linear response to sound. This type of hearing protector will enable the musicians to hear the music normally, but with a reduction of noise intensity rendering the noise exposure less harmful.

The hearing protector offers adequate protection only when they are used properly. **Adequate training should be provided to the employees** in the proper use of the equipment.



Further Information

If you wish to enquire about this Guide or require advice on occupational health and hygiene, please contact the Occupational Safety and Health Branch of the Labour Department through:

Telephone : 2852 4040

Fax : 2581 2049

E-mail : enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major legislation can also be found by visiting our Home Page in the Internet. Address of our Home Page is <http://www.labour.gov.hk>.

Information on the services offered by the Occupational Safety and Health Council can also be obtained through hotline 2739 9000.