Chapter 10

Noise Control

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Chapter 10: Noise Control

Noise is an important factor influencing our health. Excessively high noise levels can cause high blood pressure, digestion problems, ulcers and other physiological problems such as sleeplessness, depression, bad moods and distraction, etc.

The Hotel Industry's Contribution to Noise Pollution

Some of ways that the hotel industry contributes to noise pollution are as follows:

Aspects	Noise sources
Entertainment	• Karaokes, nightclubs, discos • Entertainment in public areas
Equipment and systems	• Air conditioning, chillers, boilers, pumps and compressors • Ice machines • Washing and machine operation in laundry • Dishwashing, cleaning and cooking in kitchens • Lawnmowers and saws in gardening • Hammering and sawing in engineering • Vacuum cleaners in housekeeping
Guest rooms	• Fan coils • Hairdryer • Bathtub filling and emptying • Conversation • Telephone, TV and radio • Door closing
Construction & renovation	• Construction, renovation and maintenance work by engineering staff and contractors • Construction works nearby

(Photo 10.1) Vacuum Cleaner is one of the noise sources in the hotel.

Ways You Can Help

The main objective of hotels is to provide a relaxing and comfortable environment for its guests, so a reasonably low sound level throughout the guest areas is very important. Revenue loss may be caused by annoyed guests who may decide not to return. Noise control will also improve employees' general well-being and productivity.

Some examples are suggested as follows:

a. Housekeeping and Laundry

- *Install gaskets, drop seals and automatic door closers on entrance doors in guest rooms and conference rooms.*
- *Adopt quiet hairdryers.*
- *Use phones rather than alarm clocks to wake up guests.*
- *Install time clocks for noisy ice machines on guest room floors so the machine can be off at night.*
- *Set maximum sound levels for telephones, TVs and music in guest rooms.*
- *Set maximum sound levels for music entertainment in public areas.*

(Photo 10.2) Gasket on the entrance door in the conference room can reduce the noise emission during door closing.

b. Engineering and Maintenance

- *Try to carry out most noisy work at the same time so more quiet time can be left.*
- *Use plant or equipment with quieter motors and transmission, damping, low flow velocities and well designed ducts to prevent transmission from noisy to quiet areas via ducting.*
- *Close all openings around ducts, pipes and cables, etc.*
- *Install sound absorbing barriers underneath bathtubs.*
- *Replace noisy fan coils with efficient quite types.*
- *Replace toilet flush valve with quiet flush tank.*
- *Mount noise attenuators on cooling air opening.*
- *Use windows with good sound insulation such as double glazed windows.*
- *Increase acoustic absorption in music entertainment public areas through acoustic walls, ceiling or carpets.*
- *Move the stage or loud speakers to direct the sound away from staff work locations.*
- *Install sound limiters in the music amplification systems if possible.*

(Photo 10.3) Vibration isolators are adopted in the mechanical plant room.

Case Studies

a. Case study 10.1 – A Hotel in Great Barrier Reef, Australia

A hotel in Great Barrier Reef, Australia has implemented some noise control measures. For example, in its sound-proofed power station, exhaust outlets are retrofitted with mufflers.

(Source: Environmental Management For Hotels by International Hotels Environment Initiative)

b. Case study 10.2 – Hotels in Macao, China

The following measures have been adopted for noise control by some Macao hotels:

- Acoustic walls applied in machine rooms, low noise air compressors in central plant.
- Sound-proof strips applied to guest room doors, and hotel main entrance door.
- Sound control for bar and hotel music after midnight.
- Double-glazed glass panels.
- Sound absorption panels for rooftop cooling towers.

These measures are mostly applications of noise insulation materials to isolate noise sources from noise receivers, although some adopted the selection of low noise equipment.

(Source: Macao Hotel Environmental Survey in 2003)