

# Local Exhaust Ventilation: Director's Briefing

## What is LEV?

An engineering control system to reduce exposure to airborne contaminants such as dust, mist, fume and vapour or gas in a workplace. LEV systems usually consist of;

**Hood** – Where the contaminant enters the LEV

**Ducting** – This conducts the air and contaminant to the discharge point

**Air cleaner or arrestor** – This filters or cleans the extracted air where necessary

**Air mover** – This powers the system and is usually a fan

**Discharge** – This releases the extracted air to a safe place.



## Control Methods

The hierarchy of control requires that hazardous substances are either eliminated, substituted or where this is not possible adequately controlled through engineering means.

The introduction of LEV into a workplace is not as simple as many historically have perceived.

It is not acceptable to use “tin bashers” to fashion a hood, attach a fan on the end of it with flexible ducting and claim you are adequately controlling exposure.

Having a good understanding of the hazard is the first and crucial step. The input of many different stakeholders is required to ensure that adequate control is achieved.

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## The consequences of failure to comply

Failure to adequately control exposure can lead to;

- Incidence of occupational ill health (acute or chronic)
- Breach of COSHH Regulations
- Failure to comply with Health and Safety at Work Act
- Increased insurance premiums
- Absenteeism
- Occupational ill health claims
- Consequential loss
- Prosecution.



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## A summary of the steps required when specifying LEV

1. Identify the hazard
2. Understand the hazard and how it behaves
3. Identify a competent system designer
4. Provide a clear design specification including the level of control required
5. Review the design specification
6. Identify competent system builders/installers
7. Obtain all necessary paperwork related to system (eg handbook)
8. Ensure system is fully commissioned and meets design specification
9. Ensure system is maintained
10. Ensure system is thoroughly examined and tested in line with the requirements of the COSHH Regs.

## Legislation

There is much legislation requiring employers to provide a safe working environment. However the most significant of the legislation is the Control of substances Hazardous to Health (COSHH) Regulations 2002 (as amended).

The COSHH Regs require employers to ensure that his employees exposure to substances hazardous to health is either prevented or where this is not reasonably practicable, adequately controlled.

Ways of demonstrating Adequate Control Include;

1. Workplace exposure Limit (WEL) is not exceeded
2. Principles of good practice in Schedule 2A of COSHH have been applied
3. For substances assigned R45, 46, 49, 42, 42/43 appear in schedule 1 or COSHH Regs or in Section C of the HSE's Asthmagens publication, that exposure is reduced as far as is reasonably practicable.

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