

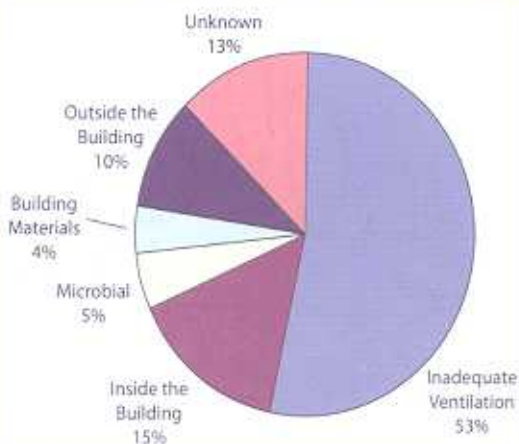
INDOOR AIR QUALITY



DEPARTMENT OF ENVIRONMENT

**MINISTRY OF NATURAL
RESOURCES & ENVIRONMENT**

WHAT CAUSES INDOOR AIR PROBLEMS?



Source:
Adopted from the National Institute of
Safety & Health (NIOSH)

IDENTIFYING AIR QUALITY PROBLEMS

- ◆ Unusual and noticeable odour
- ◆ Stale or stuffy air
- ◆ Noticeable lack of air movement
- ◆ Frequent headaches, nausea or fatigue experienced within the indoor environment
- ◆ Excessive humidity
- ◆ Presence of mold or mildew
- ◆ Noticing that one feels healthier when outside of the indoor environment

HOW DOES OUTDOOR AIR ENTERS INDOOR?

Outdoor air enters indoor by:

◆ **Infiltration**

Outdoor air flows indoor through openings, joints and cracks in walls, floors and ceilings and around windows and doors

◆ **Natural ventilation**

Air moves through opened windows and doors

◆ **Mechanical ventilation**

There are a number of mechanical ventilation devices, from outdoor-vented fans that intermittently remove air from a single room such as bathrooms and kitchens to air handling systems that use fans and duct to continuously remove indoor air

IMPROVING INDOOR AIR QUALITY

- ◆ Keep indoor well ventilated
- ◆ Install air cleaners
- ◆ Do not smoke indoors
- ◆ Grow air cleaning plants indoors
- ◆ Choose natural pest control

INDOOR VS OUTDOOR AIR QUALITY

Alam Sekitar Malaysia Sdn. Bhd. and Perunding Good Earth Sdn Bhd. were commissioned to undertake an Indoor Air Quality (IAQ) study at a various locations in Putrajaya and Shah Alam from 29th. August 2008 till 15th. November 2008.

The objectives of the study were to obtain baseline indoor air quality data for selected parameters and to assess the level of air contaminants in the study area. It was also aimed at finding whether the indoor air quality is affected by the outdoor air quality.

The parameters tested in the study are:

1. Carbon Monoxide
2. Carbon Dioxide
3. Humidity and Temperature
4. Particulate Matter
5. Volatile Organic Compounds

**The test followed the Code of Practice on Indoor Air published by Department of Safety and Health (DOSH)*

SUMMARY OF FINDINGS

- ◆ **Indoor levels of particulate matter (PM10) were lower than outdoor air**
- ◆ **Volatile Organic Compounds (VOC) were not detected at both indoor and outdoor during the monitoring period**

The results indicate that it is advisable to stay indoors during hazy conditions but do make sure that the

**INDOOR AIR QUALITY
IS GOOD!**

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