

INDOOR AIR QUALITY

Indoor air quality (IAQ) refers to the quality of a building's environment in relation to the health and wellbeing of those who occupy space within it. IAQ is determined by many factors, including lighting, noise levels, air quality and damp conditions.

www.cleanairthailand.com

IAQ OVERVIEW

Facilities
management and
the institution of
effective cleaning
and maintenance
regimes are by far
the best policy to
reduce indoor air
pollution.









Indoor air quality (IAQ) refers to the quality of a building's environment in relation to the health and wellbeing of those who occupy space within it. IAQ is determined by many factors, including lighting, air quality, noise levels and damp conditions.

Workers are often concerned that they have symptoms or health conditions from exposure to contaminants in the buildings where they work. One reason for this concern is that their symptoms often get better when they are not in the building. While research has shown that some respiratory symptoms and illnesses can be associated with damp buildings, it is still unclear what measurements of indoor contaminants show that workers are at risk for disease.

Despite uncertainty about what to measure and how to interpret what is measured, research shows that building-related symptoms are associated with building characteristics, including dampness, cleanliness, and ventilation characteristics.

Indoor environments are highly complex and building occupants may be exposed to a variety of contaminants (in the form of gases and particles) from office machines, cleaning products, construction activities, carpets and furnishings, perfumes, cigarette smoke, waterdamaged building materials, microbial growth (fungal, mold and bacterial), insects, and outdoor pollutants. Other factors such as indoor temperatures, relative humidity, and ventilation levels can also affect how individuals respond to the indoor environment.

Understanding the sources of indoor environmental contaminants and controlling them can often help prevent or resolve building-related worker symptoms. Practical guidance for improving and maintaining the indoor environment is available.

Workers who have persistent or worsening symptoms should seek medical evaluation to establish a diagnosis and obtain recommendations for treatment of their condition.

SICK BUILDING SYDROME



Sick Bulding Sydrome (SBS) if not identified and fixed car cause the following problems:

- > Lost productivity
- > Reduced occupant comfort
- > Staff complaints
- > Expensive building repairs
- > Damage to fittings

- > Increase in sick days
- > Increased energy use
- > Health problems!



A one-day IAQ assessment saved us one million Baht per year in lost energy costs. The humidity in the building is now much lower because the IEQ test results showed we were introducing too much hot and humid outside air.

Chief Engineer - Peninsula Hotel, Bangkok

IAQ TESTING

We only use the GrayWolf IAQ equipment range from the USA.
Market leaders in the field of IAQ.
Accurate, reliable and sophisticated results.









IAQ Standards & Their Importance

Thailand doesn't currently enforce any rigid IAQ standards, therefore we use a combination of the following organisations 'Standards' to ensure clients obtain a comprehensive and relevant assessment which complies with globally-recognised guidelines:

- > US EPA (Environmental Protection Agency)
- > Hong Kong Government (Special Administrative Region)
- > Singapore NEA (National Environment Agency)
- > Health Canada (IAQ Department)

The above organisations provide stringent IAQ parameters that are designed to protect building occupants against air quality problems and the air quality levels they prescribe are respected as the industry standard.

All our IAQ assessments adhere to the details contained within the guidelines laid down by these organisations.

The Air You Breathe is Like a Bowl of Soup



Just like the ingredients in a bowl of soup, the air you are breathing is made up of a number of 'ingredients' that have to be in balance.

For example, you may feel that your thermal comfort is perfectly acceptable but there are two ways to achieve this condition; the balanced way and the unbalanced way!

Our IAQ assessments have provided simple solutions to complicated problems which have helped large buildings 'balance' their indoor air quality and also save substantial sums of money related to wasted energy

PARAMETERS WE CAN INVESTIGATE

- > Total Volatile Organic Compounds (TVOCs)
- > Respirable Suspended Particulate (PM_{0.3} to PM₁₀)
- > Nitrogen Dioxide
- > LUX Lighting
- > Air Movement & Velocity
- > Carbon Dioxide
- > % Relative Humidity

- > Formaldehyde
- > Noise Pollution
- > Carbon Monoxide
- > Temperature
- > Ozone



OUR SOLUTIONS



Our service goes beyond simply telling you what kind of problems you have. We are

also exclusive Philips 'Specialist Lighting' distributors for Thailand and have the engineering knowledge to help you choose the best methods of preventing ongoing IAQ problems.

Once our IAQ assessment has been completed we work closely with facilities management to ensure proper preventative measures are implemented.



As members of the US Green Building Council we can provide bespoke solutions to improve the IAQ of your

building and also help you set up an IAQ program that will help prevent ongoing problems and also supply you with LEED (Leadership in Energy & Environmental Design) points towards certification.

OUR CUSTOMERS



















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Don't let your staff or customers suffer any longer.

Contact us now to set up an IAQ appointment.

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