

SOLUTIONS FOR INDOOR AIR QUALITY MOULD AND MOISTURE PROBLEMS

Mould and moisture are rapidly overtaking ventilation as the most pervasive cause of indoor air quality concerns in British Columbia buildings.

The wet and windy climate in British Columbia is largely responsible for moisture leakage through the building envelope, the roof and the foundation.

However, other significant causes of moisture damage in BC buildings include:

- Plumbing leakage from water and boiler systems.
- Condensation and moisture in the heating, ventilation and air conditioning system.
- Moisture trapped in the building envelope due to construction with wet materials.
- Occupant activities such as showering and bathing.
- Combustion sources particularly open flame appliances which release water vapor.
- Poor site drainage

If left untreated, moisture damage can result in extensive mould contamination leading to indoor air quality problems and potential health concerns. Once moisture problems have occurred, if not diagnosed and repaired promptly, they can result in increased humidity levels and dampness which will affect indoor air quality and the health and comfort of building occupants.

Occupant health concerns related to indoor mould includes symptoms of respiratory irritation, skin irritation, allergic reactions and asthma. Obvious signs of mould are damp musty or acrid odors and surface stains on walls, floors and ceilings. According to a review conducted by Theodor Sterling Associates for Health Canada, the optimal conditions for indoor air quality to enhance human health and minimize the growth of biological organisms occurs in the narrow range between 20% and 60% relative humidity. In fact, both the Workers' Compensation Board of British Columbia and ASHRAE have adopted this range as criteria for acceptable indoor air quality. Where buildings house a workplace, such as schools, hospitals or office buildings, failure to achieve the required humidity level may trigger a Worker's Compensation Board claim. Unfortunately, meeting this optimal humidity level has proven to be difficult in many moisture-troubled buildings in British Columbia.

Diagnosing and solving moisture-related problems can be complex and costly. Often, some of the greatest cost incurred is caused by intrusive destructive testing and inspection of the building envelope and HVAC Systems when moisture problems are suspected. In many cases it may be possible to avoid this cost by implementing a less destructive and non-intrusive screening procedure. Our screening procedure is based on indoor air quality measurements combined with selective wall cavity sampling for moisture and mould. Using this screening approach, the specific location of mould and moisture damage can be accurately pinpointed. Once those areas of damage have been identified and the extent of damage has been determined, appropriate cost-effective repairs can be implemented. In addition to solving known moisture problems, this indoor air quality performance screening procedure developed by Theodor Sterling Associates may also be effectively applied to proactively manage the risk of building envelope failure and mould related indoor air quality problems for new and existing commercial and residential buildings.

FOR MORE INFORMATION

To find out more about solving Indoor Air Quality mould and moisture problems, call or email Theodor Sterling Associates today.

Clear the Air

Good Indoor Air Quality is Good Business

As a result of the tough new Workers Compensation Board regulation, indoor air quality has become a serious challenge for property managers in BC.

You can meet the challenge by implementing our proactive indoor air quality management program.



**THEODOR
STERLING**
ASSOCIATES

The Indoor Air Quality
Experts Setting the Standard
Since 1973

Tel 604-681-2701
Toll Free 1-877-993-9933
sterling@assist.ca



310-1122 Mainland St.
Vancouver, B.C. V6B 5L1