

Our Sick Building Syndrome – Synopsis of the Issues facing Barbados

Presented by

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Syndrome



A "**syndrome**" is a **group of signs and symptoms that occur together** and characterize a particular abnormality or condition."

(Merriam-Webster)

Sick Building Syndrome (SBS)



“The term "sick building syndrome" (SBS) is used to describe situations in which building occupants experience **acute health and comfort effects** that appear to be linked to time spent in a building, **but no specific illness or cause can be identified.**

The complaints may be localized in a particular room or zone, or may be widespread throughout the building.”

(MedicineNet.com)

Sick Building Syndrome (SBS)



“A set of **symptoms related to chemical, particulate or biological exposure** that cannot be related to a specific cause, but are alleviated when the occupant leaves the building.”

(Health Canada)

Building Related Illness (BRI)



“A **specific illness** with a **known cause** that is a result of exposure to an indoor agent”

(Health Canada)

Mass Hysteria (MH)



“a condition affecting **a group of persons**, characterized by excitement or anxiety, irrational behavior or beliefs, or **inexplicable symptoms of illness.**”

(Dictionary.com)

Indoor Air Quality (IAQ)



“The **physical, chemical and biological characteristics of indoor air** in non-residential workplaces with no internal industrial processes or operations, which can affect the comfort or health of the occupant”

(Health Canada)

Inside Air Quality (IAQ)



The future of work may require focus on
INSIDE Air Quality

Airborne Contaminant



- Any physical, chemical or biological agent **not normally present** in the air, **or** found at **abnormally high** concentrations.

Acceptable Air



Acceptable Air is “air in which there are **no known contaminants at harmful concentrations** as determined by cognizant authorities and with which a substantial majority (80% or more) of the **people exposed do not express dissatisfaction**”

(ASHRAE)

Our Sick Building Syndrome – Is There a Cure?

Synopsis of the issues



- **Health impact**

Effects on Humans



- **Aesthetic** (unpleasant smells, discomfort)
- **Contact Irritation** (eyes, skin)
- **Respiratory Irritation** (sinuses, airways)
- **Allergenic** (eyes, sinuses, skin)
- **Narcotic** (sleepiness)
- **Infection** (viruses, bacteria, moulds)

Effects on Humans



- **Diseases** caused by mould and yeast-like fungi.
- **Invasion of living tissues** by fungi causing serious disease and even death (especially in immunocompromised individuals).
- **Localized microbial infections**, some of which may be very serious.

Effects on Humans



- **Organic Dust Toxic Syndrome (ODTS)** - may occur after a single heavy exposure to dust contaminated with fungi, produces flu-like symptoms
- **Hypersensitivity Pneumonitis (HP)** - may occur after repeated exposures to an allergen and can result in permanent lung damage

Effects on Humans



- **Aspergillosis** - infectious disease that can occur in immunosuppressed persons caused by several species of *Aspergillus*
- **Respiratory Infections** caused by *Histoplasma capsulatum* and/or *Cryptococcus neoformans* (often present in bird and bat droppings).

Effects on Humans



Minor symptoms and most prevalent health effects caused by exposure to various contaminants:

- eye irritation (itching and watering)
- nasal irritation, nasal congestion
- throat irritation
- coughing
- hoarseness, changed voice
- skin irritation, itching
- headache
- nausea
- fatigue
- changed sensation of taste

All of the above are essentially allergic or localized irritant responses

Effects on Humans



- **Mental Health Issues** – psychological stress and strain
- **Low morale** – demotivated
- **Hysteria**
- **Mass Hysteria** - (also known as **collective hysteria**, **group hysteria**, or **collective obsessional behaviour**).

Our Sick Building Syndrome – Is There a Cure?

Synopsis of the issues



- Productivity impact

Effects on Productivity



- Reduced functional and slow tempo of work by staff due to discomfort, malaise or mental due rest
- Staff in 'sick bay' rather than at workstation
- Staff spending time "checking with co-workers about odours, discomforts and feeling ill

Effects on Productivity



- Lost time from frequent “walk outs” by staff claiming conditions to be intolerable
- High levels of “self absenteeism”
- Ultimately, protracted “certified medical leave”

Our Sick Building Syndrome – Is There a Cure?

Synopsis of the issues



- Capital costs

Capital Costs



- Payment of salaries for “**Presenteeism**”
- Payment of overtime to make up for lost productivity
- Recruitment and payment of temporary staff

Capital Costs



- Payments for “unscheduled” Air Conditioning servicing
- Payments for “unscheduled” industrial / commercial cleaning
- Payments for “unscheduled” professional services (e.g. IAQ assessments, architectural modifications, engineering advice, etc.)

Capital Costs



- Unplanned expenditure on repairs and/or building maintenance works
- Unscheduled replacement of large fixed assets (e.g. 20 ton AC units)
- Payment for Legal representation against claims by staff for damages/compensation

Our Sick Building Syndrome –

**These are the issues...
...Is there a Cure?**



- Health impact?
- Productivity impact?
- Capital costs?

All-partitive approach:

- Government
- Architects
- Engineers
- Builders
- Artisans
- Facilities Owners
- Service providers
- Employers
- Occupiers
- Employees
- Visitors

Q&A and Bright Ideas!



Thank You.



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