

Healthcare Disaster Recovery: Surrounded by Mayhem...Disaster Clean Up and Environmental Testing

Presented by:

Safetech Environmental Limited

Al-care Disaster Kleen-up



Who Am I

- I am well known throughout the Medical Industry.
- When I wake up, I like to change into something more comfortable depending on the weather.
- I Love flying.
- I like warm climates
- I frequent trashy establishments
- I enjoy spending time with the sick and elderly in my spare time.

Surrounded by Mayhem



Flood Timeline (48 Hours)

1. Flood
2. Mitigate Source of Water Infiltration
3. Initial Clean-Up
4. Pre-Restoration Evaluation
5. Scope of Work Developed
6. Initiate Drying – Accessible Locations
7. Site Meeting
8. All Affected Areas Vacated and Drying Initiated
9. Evaluation of Drying Activities

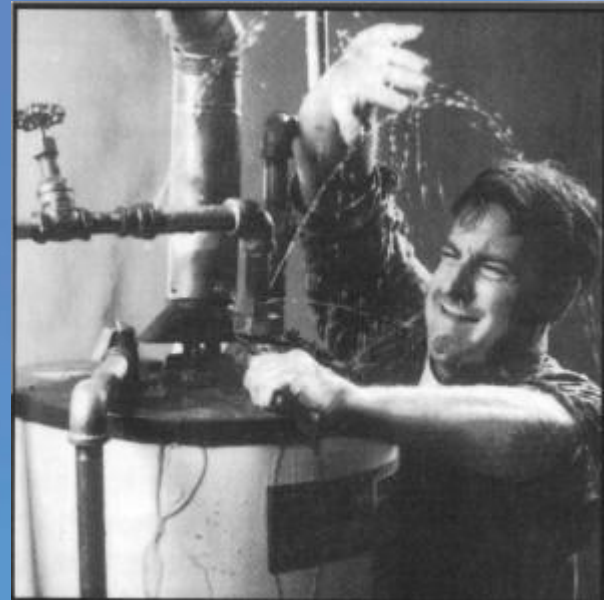
Multidisciplinary Team

- Environmental Services
- Facility Management (bldg. maintenance & operations)
- Infection Prevention & Control Personnel
- Medical & Nursing Staff
- Restoration Contractors
- Environmental Consultants
- Security

Surrounded by Mayhem



Engineering



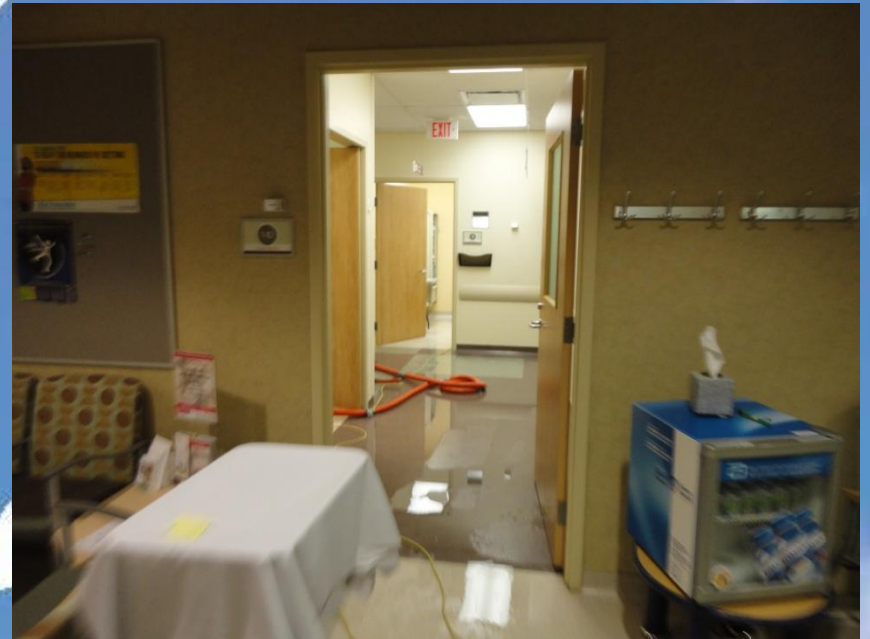
Relocation/Logistics



Initial Clean-Up



Surrounded by Mayhem



Initial Clean-Up – Just the Beginning



Initial Clean-Up



Environmental Consultant

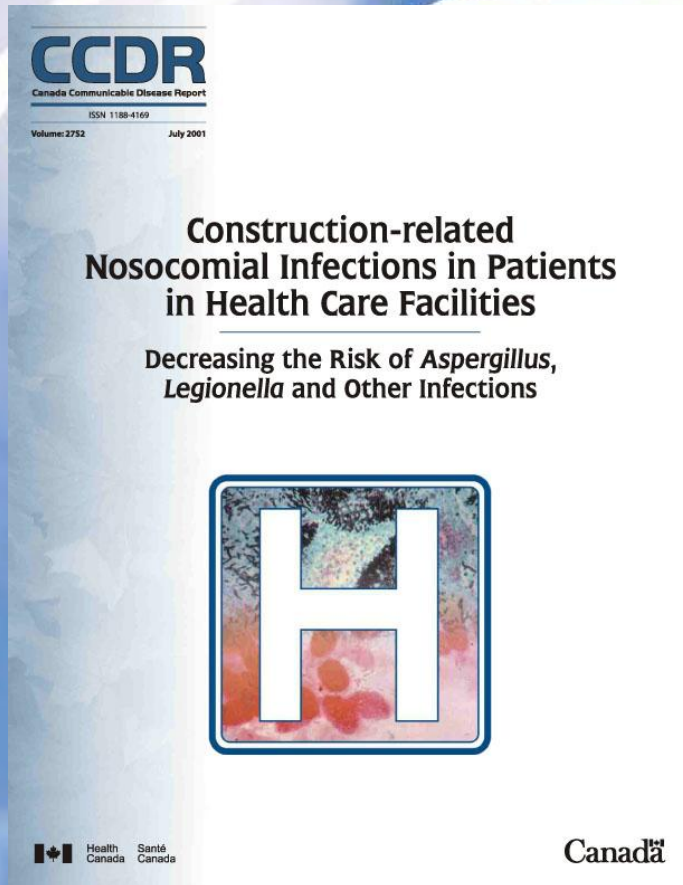
- Act as an independent third party to provide professional advice and quality assurance for the project
- Reduces liability of:
 - Remediation Contractor
 - Property Owner/Manager of Insurer



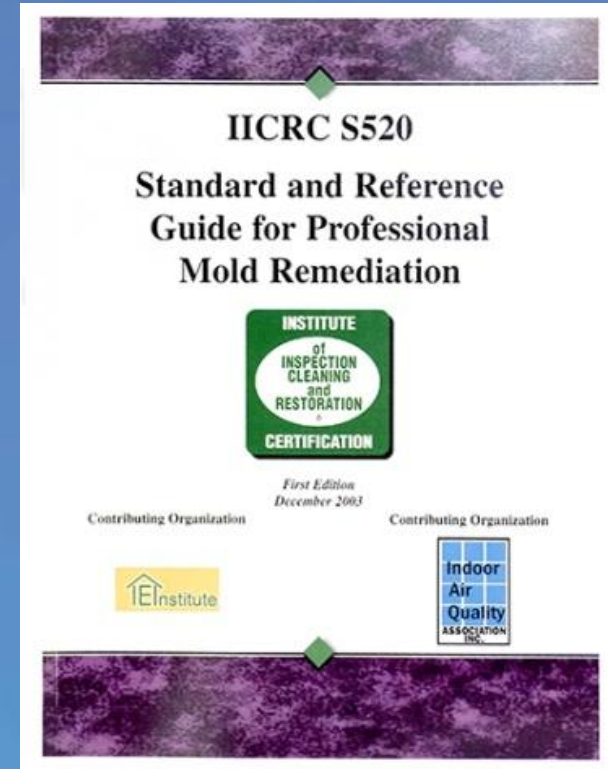
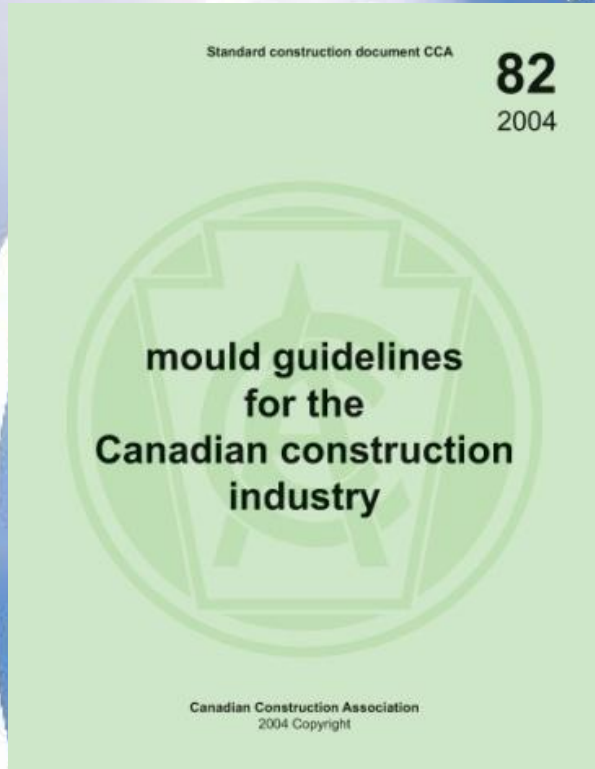
Pre-Restoration Evaluation

- **Scope of Work Determination**
 - **Category**
 - **Class**
 - **Construction of impacted materials**
 - **Degree of impact**
 - **Full extent of migration**
 - **Presence of hazardous materials**
 - **Areas of the building impacted (occupant sensitivity)**
 - **Time from date of loss**
- **Use results of pre-restoration evaluation to produce a comprehensive scope of work**

Guidelines and Standards for Health Care Facilities



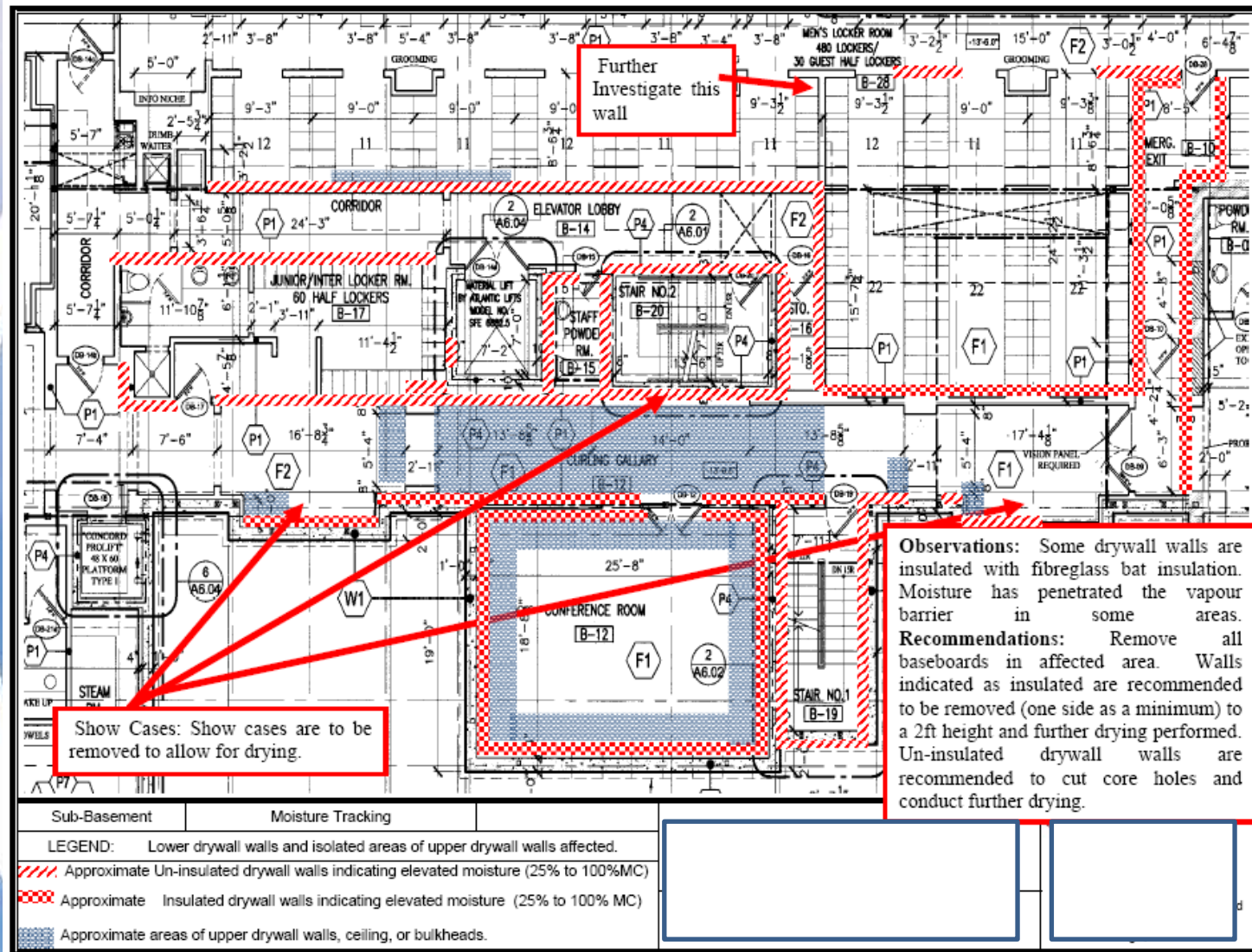
Mould Remediation: Guidelines and Standards



- Performance based standards (not health based)
- Extent of precautionary measures are based on quantity of mould (not type)
- Objective is to remove mould *growth* (not to kill or to encapsulate)

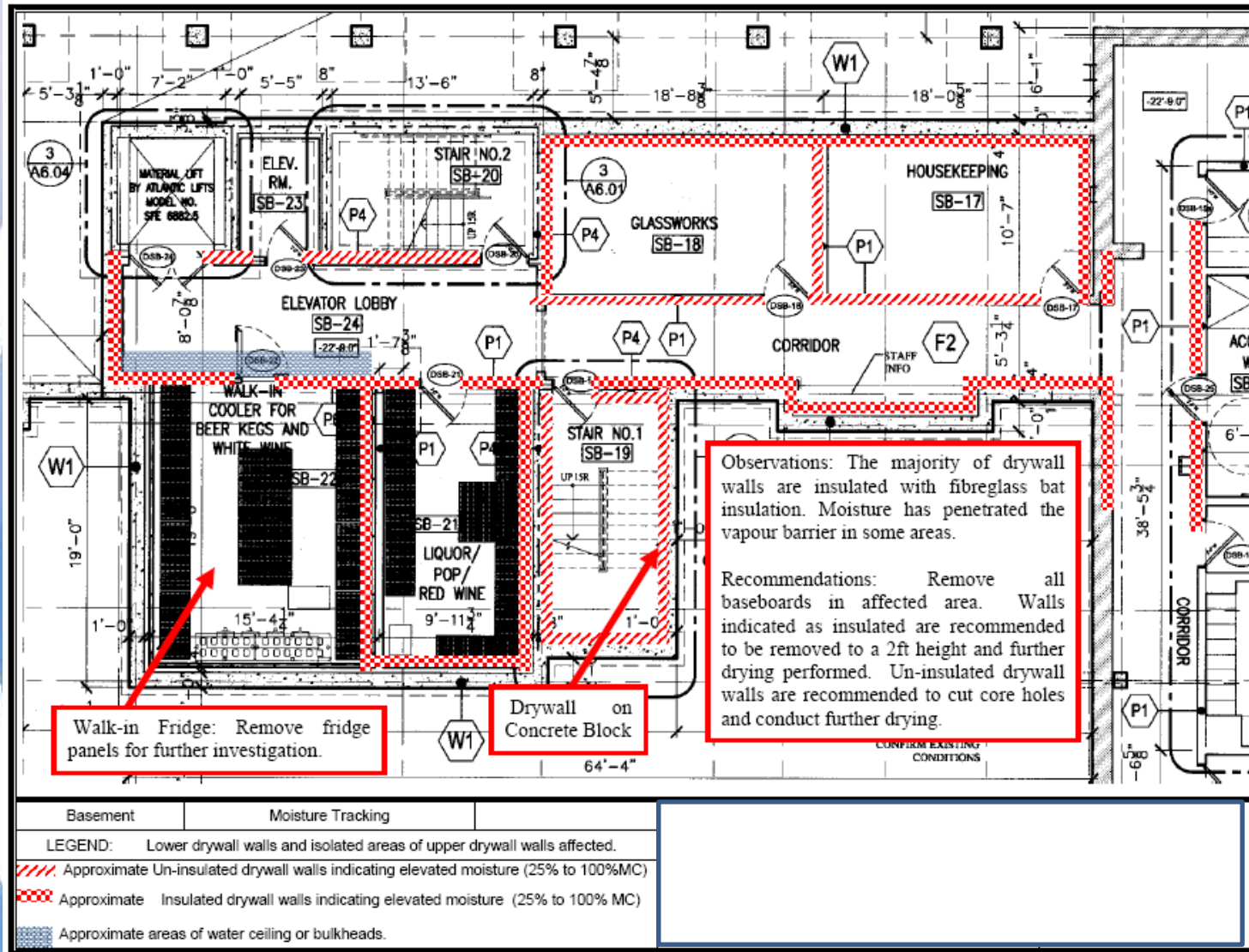
Pre-Restoration Evaluation

- Scope of Work Floor Plan



Pre-Restoration Evaluation

- Scope of Work Floor Plan



Site Meeting – “In the Know”

- Critical to have site meeting with all parties involved



Work Area Isolation



Work Area Isolation



Negative Pressure



Initiate Full Scale Specialized Drying



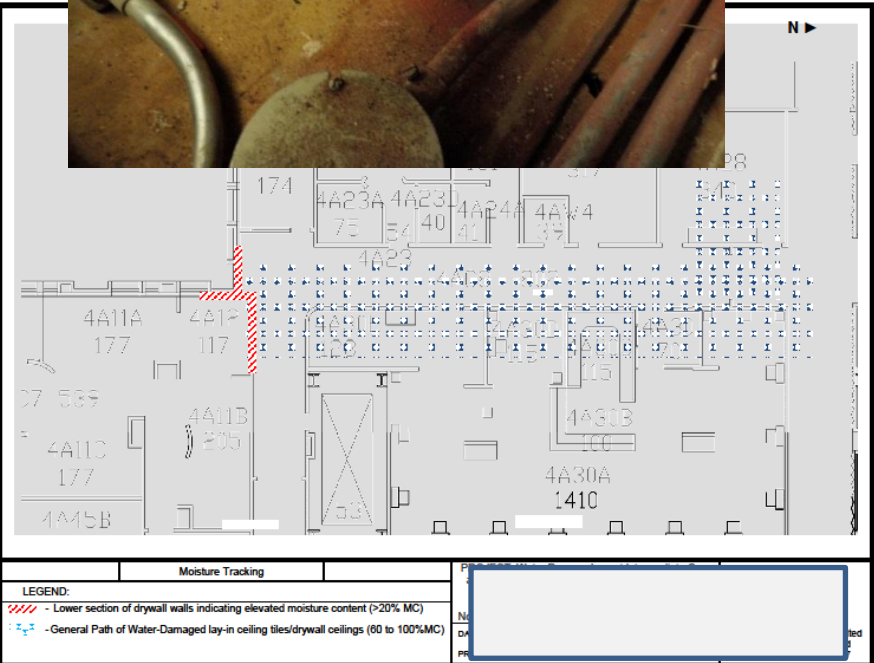
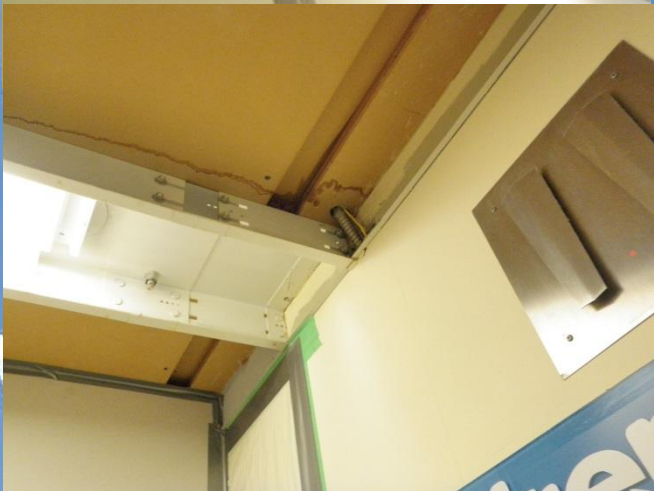
Initiate Full Scale Specialized Drying



Case Study

Sometimes, no matter what you do....

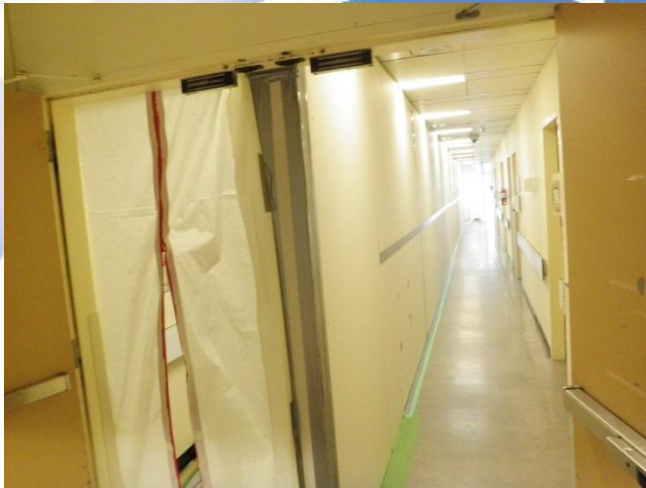
Initial assessment for water damage in Level 2/3 Neonatal



Case Study

Sometimes, no matter what you do....

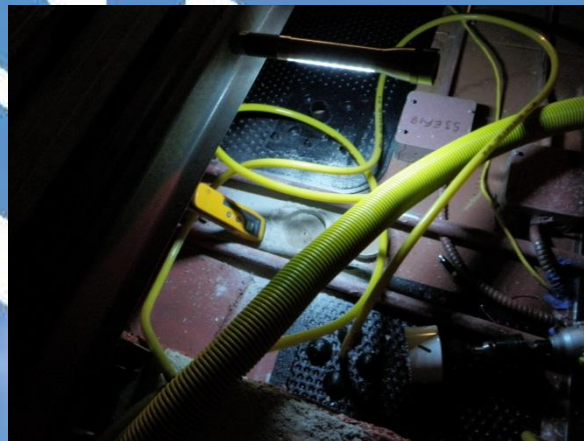
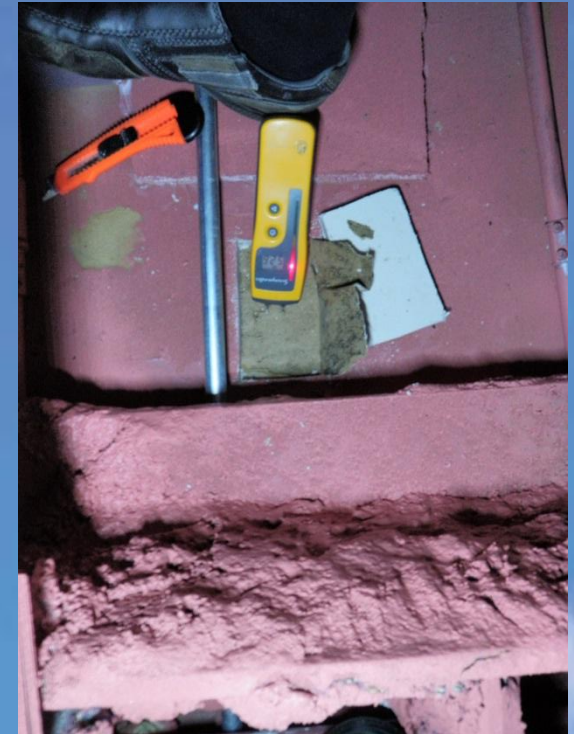
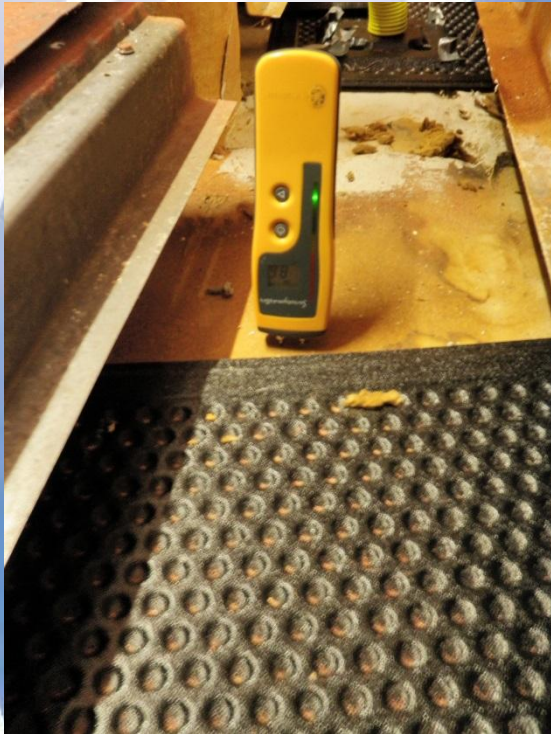
Initiation of infection control measures and accelerated drying



Case Study

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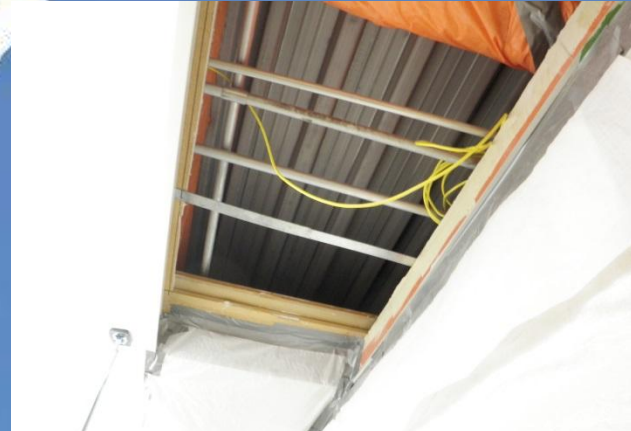
Evaluation of drying success and assessing for mould growth



Case Study

Sometimes, no matter what you do....

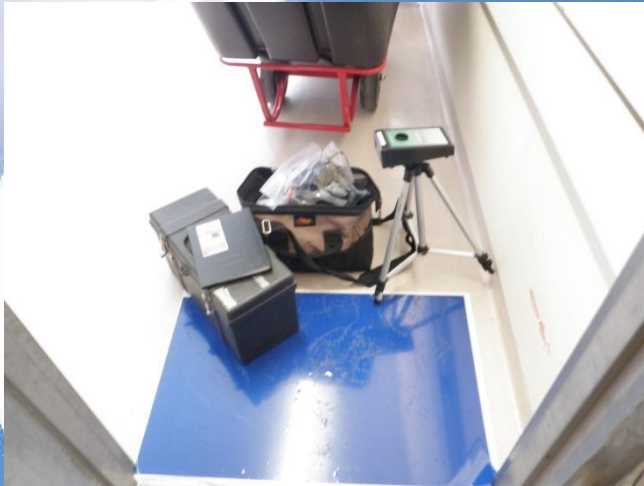
Remediation of mould-contaminated areas



Case Study

Sometimes, no matter what you do....

Final visual inspection and post-remediation verification sampling



Area was successfully restored to pre-loss conditions prior to reoccupancy



Questions?

Who Am I?

- ***Aspergillus fumigatus***
- I am well known throughout the Medical Industry. The most common pathogen is *Aspergillus fumigatus* (Bennett 1994)
- When I wake up I like to change into something more comfortable depending on the weather. These conidia emerge from dormancy and make a morphological switch to hyphae by germinating in the warm, moist, nutrient-rich environment of the pulmonary alveoli.^[7]
- I Love flying. Colonies of the fungus produce from [conidiophores](#) thousands of minute grey-green [conidia](#) (2–3 μm) that readily become airborne.
- I like warm climates. The fungus is capable of growth at 37 °C or 99 °F ([normal human body temperature](#)), and can grow at temperatures up to 50 °C or 122 °F, with conidia surviving at 70 °C or 158 °F—conditions
- I frequent trashy establishments. *A. fumigatus*, a [saprotroph](#) widespread in nature, is typically found in soil and decaying organic matter, such as compost heaps, where it plays an essential role in [carbon](#) and [nitrogen](#) recycling.
- I enjoy spending time with the sick and elderly in my spare time. In [immunocompromised](#) individuals, such as organ transplant recipients and people with [AIDS](#) or [leukemia](#), the fungus is more likely to become [pathogenic](#), over-running the host's weakened defenses and causing a range of diseases generally termed [aspergillosis](#).