CONSTRUCTION SAFETY EDUCATION PROGRAM

#23

MOULD

This education program provides general information on mould. It is intended to give contractors and workers practical information relating to the precautions to be taken when working in mould contaminated areas.

This education program contains general information. For specific regulatory requirements concerning mould, please consult the Guidelines for the Investigation, Assessment, & Remediation of Mould in Workplaces, the Workplace Safety and Health Act & Regulation.

Additional information on mould is available from the Construction Safety Association of Manitoba, the Manitoba Department of Labour and Immigration, Workplace Safety and Health Division, and the Canada Mortgage and Housing Corporation (CMHC).

INTRODUCTION

This mould awareness program has been developed for the employer and the worker. The contents of this program are intended to act as an awareness or review. In the event that work in being carried out in a mould contaminated area or the area may be suspect to mould contamination, please consult the Manitoba Department of Labor Immigration, Workplace Safety and Health Division, Guidelines for the investigation, Assessment and Remediation of Mould in Workplaces.

What is mould and how does it grow?

Mould is a microscopic fungus. It is in the same grouping of organisms that would include: yeast, mushrooms and even rust. Moulds, although very adaptable, do need dark, damp places to flourish and will reproduce at an alarming rate if given the right circumstances. Mould can even sit dormant for a period of up to a decade if undisturbed and can reactivate given a moist, dark, damp condition.

Why is Mould a concern?

Almost any surface will host mould and this concerns everyone that may be working in a contaminated area or even near a contaminated area. With over 100,000 different types of mould we are constantly being exposed to mould everyday without even knowing.

Mould can cause adverse health effects and depending on the type of mould, the level of exposure, it could trigger anything from an allergic reaction to respiratory problems. Those who are at the greatest risk are people who have pre-existing health conditions, such as weakened immune systems or respiratory disease. Pregnant women, children and the elderly are also at risk.

Identifying Mould

- **Visual:** Stains and discolorations of material (fabric, carpet, plywood, and drywall) is a sign of mould. There may also be exterior growth which is fuzzy in appearance and texture. Mould can also grow in any colour.

- **Odour:** A musty or earthy smell will often indicate that mould is present, do not be fooled though, not all moulds produce an odour.

- **Water Damage:** Obvious wet spots or if an area has had previous water damage, particularly if the area has remained dark and damp. The potential for mould growth has heightened.

Communicate suspect findings

Let's face it, we are not mould specialists. If mould is may be suspected in an area that you are working in; or will potentially going to work in; or even if you are working in a close proximity and suspect mould - You need to let your supervisor know right away.

The communication of existing and/or potential hazards is part of your legal duty to 'share required information'. It is also included as your right to participate in your own health and safety. In doing this you are also helping to prevent possible exposures to yourself, other workers and the general public as well.

Control the Moisture Control the Mould

Moisture is the root cause to all mould concerns. The obvious best possible solution is to prevent moisture in the first places. If moisture can be controlled by way of a HVAC system or possibly fixing a leaking crack in the roof, wall or foundation or making sure that building materials are stored correctly away from moisture you are in a far better position to control the growth of mould.

Mould Remediation

When a mould remediation project is equal to 10m² or smaller; providing abnormal health affects have not been observed. Usually the site maintenance staff, armed with the proper training and P.P.E. could handle cleaning up the mould. If the area would be any larger than 10m² it would be advisable that a professional mould remediation specialist be consulted for proper removal.

Think E.A.P. 1. 2.3.

 # 1 Engineer Controls: If the prevention or elimination of mould is not possible, the very first thought when considering a control method is an appropriate engineering control - to modify the work or work process that will control the hazard (ie: HVAC systems; containment systems; sealants etc.

 # 2 Administrative Controls: When engineering controls might not be the only answer to a safety problem, consider administration controls. This may include appropriate training or a job rotation that minimizes the exposure to the hazards. Solely on its own this control can be a helpful tool or maybe complement the engineering, P.P.E or even a combination of both may be the answer.

 # 3 Personal Protective Equipment Controls: Generally, PPE should be used in conjunction with other control methods when controlling a hazard. If no other solution is possible, appropriate Personal Protective Equipment is absolutely mandatory – extreme diligence should be taken to ensure the PPE is appropriate to control the hazard and is properly worn **– it IS your last line of defense.**

In all cases it is important that we try to eliminate the hazards before we work. Sometimes, in order to eliminate the hazards, we may be put directly into the hazardous situations. If it is already recognized that mould has contaminated an area that you will be working in, you will need to wear the proper protective equipment and be put through training that will allow you to know what you are dealing with and how to work amongst it safely.

Gather your P.P.E.

- Splash proof goggles (clean lenses with seal all the way around edges)
- Nitrile gloves or an equivalent
- Long sleeved shirt and long pants
- Respirator with a minimum rating of N95 (All respirators require training in use and a fit test)

Gather your tools

- Sodium Hypochlorite (household bleach e.g. Clorox or Javex)
- Pale of water
- Hard bristled scrub brush

If you are able to 'eliminate' the hazard – Remove the materials with mould on it, ensure that the above PPE is worn. Waste materials should be removed to an outdoor bin and if practicable sealed in a plastic bag. Generalized process to clean-up and/or remove small amounts of mould:

Cleaning of Material with Mould:

1. Put on all P.P.E. listed above
2. Mix one part (bleach) to ten parts (water) in a pale.
3. Dip the scrub brush into the solution pale and scrub the affected area.
4. Repeat step three until all of the mould is visually out of sight.
5. Allow disinfected area to dry for 24 – 48 hours and inspect the area again.

It's the Law

As detailed in the WSH Act, all persons involved in the workplace must do all that is reasonable and practicable to ensure the safety and health of themselves and those you employ/subcontract. This would include (not limited to) the following"

- Identify both the existing and potential hazards in the workplace.
- Tell all who may be or have been affected by the hazards
- Control the hazard – Either eliminate or reduce the risk
- Take reasonable care of their own health and safety and those they work with.
- Follow all company policies and procedures that they have been trained in.

We all have the Right to Know, the Right to Participate and the Right to Refuse
In the eyes of the law
IGNORANCE IS NOT AN DEFENSE

Mould Self Review
QUIZ

NAME: _____

DATE: _____

T / F – True or False M.C. – Multiple Choice

1. T / F - It is the worker's responsibility to wear and take care of Personal Protective Equipment issued by his/her employer.

2. M.C. - Mould is always
a) Black
b) Green
c) Can be any color

3. T / F - The employer must issue Personal Protective Equipment and train employees in its use, if the employer cannot eliminate or reduce a hazard present in the workplace.

4. T / F - The three rights of workers in regards to health and safety are:
a) The right to refuse dangerous work
b) The right to know about hazards present in the workplace
c) The right to participate in their own health and safety training

5. M.C. - A good cleaner for small mould stains is
a) Antibacterial soap
b) A solution of 1 part household bleach and 9 parts water
c) Sulfuric acid

6. T / F - Mould cannot grow on dry materials.

7. M.C. - If you suspect there is mould in a building
a) Tell your supervisor
b) Ignore it, as it will go away

8. T / F - Personal protective equipment (such as goggles, respirator and Nitrile gloves or equivalent) is not required when cleaning a moldy surface.

ANSWER SHEET - QUIZ

1. T / F - It is the worker's responsibility to wear and take care of Personal Protective Equipment issued by his/her employer.
ANSWER: TRUE

2. M.C. - Mould is always
a) Black
b) Green
c) Can be any color
ANSWER: c) Can be any color

3. T / F - The employer must issue Personal Protective Equipment and train employees in its use if the employer cannot eliminate or reduce a hazard present in the workplace.
ANSWER: TRUE

4. T / F - The three rights of workers in regards to health and safety are:
a) The right to refuse dangerous work
b) The right to know about hazards present in the workplace
c) The right to participate in their own health and safety training
ANSWER: TRUE

5. M.C. – A good cleaner for small mould stains is
a) Antibacterial soap
b) A solution of 1 part household bleach and 9 parts water
c) Sulfuric acid
ANSWER: b) A solution of 1 part household bleach and 9 parts water

6. T / F - Mould cannot grow on dry materials.
ANSWER: TRUE

7. M.C. - If you suspect there is mould in a building
a) Tell your supervisor
b) Ignore it, as it will go away
ANSWER: a) Tell your supervisor

8. T /F – Personal protective equipment (such as goggles, face mask and rubber gloves) is not required when cleaning a moldy surface.
ANSWER: FALSE