

The University of British Columbia Land and Building Services		MOULD PROCEDURE
Work Procedure		
Prepared by: LBS HSE	Approved by: Geoff Atkins	Issue Date: New Policy
		Replaces:

1.0 APPLICATION

Moulds are found both indoors and outdoors. Within buildings, the presence of certain moulds may cause adverse health affects. Employees of Land and Building Services (LBS) will take the following precautions as they encounter or remediate mould found in buildings at UBC.

2.0 REFERENCES

- 2.1 WCB Guidelines – Part 4 Indoor Air Quality
- 2.2 United States Environmental Protection Agency (EPA) Mold Remediation in Schools and Commercial Buildings (March 2001)
- 2.3 New York City Department of Health, Bureau of the Environmental and Occupational Disease Epidemiology. Guidelines on the Assessment and Remediation of Indoor Environments (January 2002)

3.0 DEFINITIONS

ABATEMENT	The reduction or removal of a contaminant.
NON-POROUS	Impermeable to air, water or other fluids (e.g. glass)
POROUS	Permeable to air, water or other fluids (e.g. wood)
REMEDIATE	Eliminate or reduce IAQ hazards through source control, ventilation control, or exposure reduction.
MINIMAL AMOUNT OF VISIBLE MOULD GROWTH	Total surface area contaminated: up to 1 m ² (10 sq. ft.).
MODERATE AMOUNT OF VISIBLE MOULD GROWTH	Total surface area contaminated: between 1 m ² and 3 m ² (between 10 sq. ft. and 32 sq. ft.)

LARGE, ISOLATED AREAS OF VISIBLE MOULD GROWTH

Total surface area contaminated: between 3 m² and 30 m² (between 32 sq. ft. and 100 sq. ft.)

EXTENSIVE, VISIBLE MOULD GROWTH

Total surface area contaminated: more than 30 m² (100 sq. ft.)

IAQ

Indoor air quality (IAQ): characteristics of the indoor climate of a building, including the gaseous composition, temperature, relative humidity, and airborne contaminant levels.

4.0 HAZARDS

- For most healthy individuals, exposure to mould does not result in adverse health effects
- Those with compromised/sensitized immune systems may be more sensitive to the effects of mould exposure and may experience symptoms such as; nasal & sinus congestion; coughing & wheezing; breathing difficulties; sore throat, skin & eye irritation; and, upper respiratory infections.
- People with pre-existing health conditions (e.g. asthma and allergies) may be more susceptible to mould exposure reactions or symptoms.

5.0 RESPONSIBILITIES

5.1 Worker

- Participate in mould education and when required mould remediation training
- Conduct a pre-job inspection of work site
- Follow established safe work procedures.
- Report mould concerns to immediate supervisor

5.2 Managers, Supervisors, Heads and SubHeads

- Ensure that workers under their direct supervision have had general mould education and when required, mould remediation training.
- Inspect work site for Mould Hazards
- Develop and implement safe work procedures
- Ensure safe work procedures are followed.
- Monitor work activities to ensure compliance

5.3 University HSE Department, Occupational Hygiene

- Investigate complaints related to IAQ as may be required and recommend appropriate action
- Act as resource to UBC Departments

5.4 LBS Safety Group

- Perform visual assessment of area reported as having mould growth.
- Determine level of response and recommend appropriate action.
- Act as a resource to UBC LBS

5.5 Technical Services

- Formulate Scope of work for mould removal projects
- Estimate maintenance resources to repair conditions causing mould growth conditions

5.6 Facility or Project Manager

- Refer IAQ concerns originating from client Departments to University HSE, Occupational Hygiene
- Communicate status of the building investigation and remediation, including information on any known or suspected health risks to building occupants
- Coordinate extensive mould remediation projects with input from LBS HSE
- Initiate reviews by technical services
- Act as project sponsors
- Apply for funding from Capital Renewal & Deferred Maintenance Program Manager

5.7 AVP, Directors or Associate Directors

- Provide tools and resources for developing, implementing and reviewing programs and procedures.
- Establish education and training programs for workers

6.0 PROCEDURES

6.1 Water Damage

- In the case of flood damage or sewage backup, the first priorities are to thoroughly clean and dry the area within 24 to 48 hours. As soon as possible eliminate or control the moisture source to prevent mould growth. The Facility Manager will coordinate flood and sewage control.

6.2 Trouble Calls or Unplanned work

1. As part of your pre job inspection, inspect area for mould and other hazards
2. If greater than minimal amounts of mould are found, Stop Work
3. Do not disturb mould
4. Contact your Supervisor
5. For minor amounts of mould, supervisor may issue minor mould remedial procedures obtained from LBS HSE
6. For greater than minor amounts of mould, Supervisor will contact LBS HSE for an assessment.

6.3 Planned or project work

1. Project Manager/Coordinator/Supervisor to conduct a Hazard assessment of work site and if mould is found, indicate on I-B-28
2. For greater than minimal amounts of mould, person conducting hazard assessment to contact LBS HSE (for minimal amounts of mould, use the enclosed procedure)
3. If the mould issue is the responsibility of client departments, or if signs, symptoms are reported, contact University HSE, Occupational Hygiene at 2-2643.
4. When mould issue is the responsibility of LBS, LBS HSE to determine the level of mould growth. (see definitions). Any disturbance of a mould source for sampling purposes should not be conducted without taking the necessary safety precautions (PPE, respirator, and gloves)
5. Greater than Moderate areas of visible mould growth contact Technical Services for scope and estimate and contact LBS HSE to obtain specific procedures for mould abatement.
6. When extensive amounts of mould remediation are required, contact LBS HSE.
7. The cost of mould remediation shall be borne by the project.

7.0 TRAINING

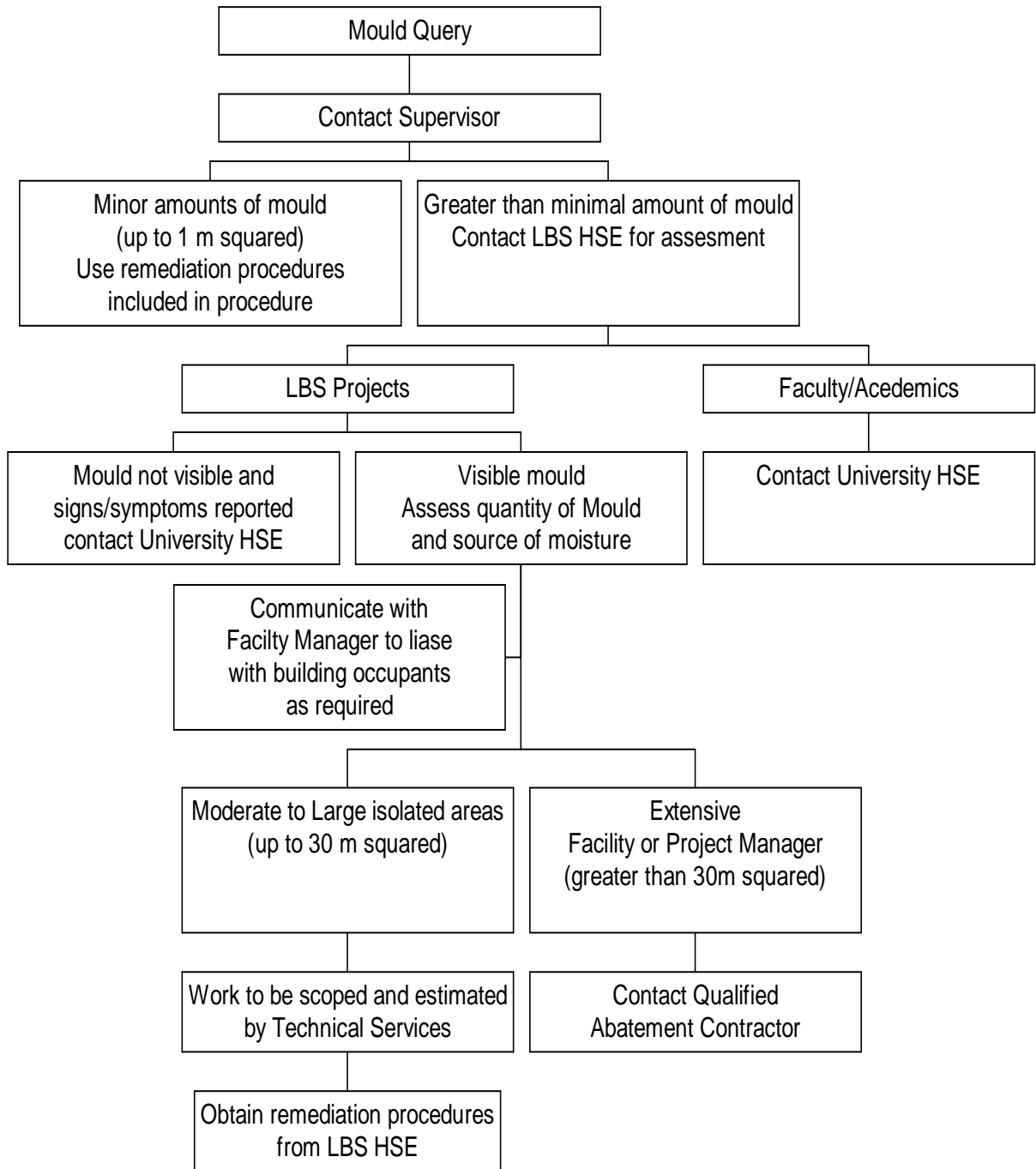
- An introduction to mould handling procedures will be provided to workers that may be required to work on mould contaminated surfaces. This includes trades and custodial personnel
- Mould remediation training will be provided to workers who are asked to remediate more than minimal amounts of mould in their daily work.

8.0 REVIEW

The mould procedure will be reviewed by the LBS Safety group annually. The review will:

- Assess exposure control methods to ensure their effectiveness
- Establish requirements for further control methods
- Assess education and training
- Evaluate exposure monitoring data and requirements for further monitoring
- Ensure the effectiveness of the program

9.0 Key steps to mould response



Appendix A

Removal of MINIMAL (total surface area contaminated: up to 1 m² (10 sq. ft.) visible mould growth

Risk Level: Low

Scope of Work: It is essential that you remove or clean the contaminated materials in a way that prevents mould and dust contaminated with mould from leaving a work area and entering an occupied area. The protection of workers performing the abatement requires the use of a single use N95 disposable respirator to prevent the mould from entering the body through the nose and mouth.

Work Procedures:

Setting up Work Area	Prior to beginning work: 1. Vacating people from the spaces adjacent to the work area is not necessary but it is recommended for persons recovering from recent surgery, immune suppressed people, or people with chronic inflammatory lung disease (e.g. asthma, severe allergies etc).
Personal Protective Equipment	1. Single use N-95 type respirator 2. Rubber gloves 3. Splash proof goggles
Work Method for Specified Material	Work method to be followed: 1. Misting, not soaking, surfaces, prior to beginning work will prevent dust and mould spores from spreading. 2. Damp wipe surfaces with a detergent and water except wood – use wood floor cleaner. Scrub as needed. Thoroughly dry area to avoid mould re-growth. 3. Dispose of mould debris contents in well-sealed plastic bags
Clean up and dismantling of work area	Before leaving the work area: 1. The work area and areas used by workers should be cleaned with a damp cloth and/or mop and a detergent solution. 2. All areas should be left dry and visibly free from contamination and debris 3. Wash hands after finishing work and prior to putting anything in your mouth. 4. Dispose of single use N-95 type respirator after use.
Mould Waste Disposal	There are no special requirements for disposal of mouldy materials.