

MARIHUANA GROW OPERATION REMEDIATION GUIDELINES

Revised November 2007

This policy is effective November 14, 2007 and is approved by Robert Bradbury, Director of Health Protection.

BACKGROUND

Marihuana grow operations (MGOs) are operated with little or no regard to the immediate or future safety of the occupants or neighbours. Buildings that have been used as MGOs may contain significant health and safety hazards. Substantial damage and hazardous conditions found in these homes can include structural problems, electrical tampering, and chemical contamination, increased levels of combustion gases and abundant growth of visible and hidden moulds. Inspector files Notice of Health Hazard with Land Titles Office when houses are deemed to be Unfit for Human Habitation.

Calgary Health Region's Environmental Public Health Program has been actively involved in the assessment of these marihuana grow operations since 2003, working in partnership with the Southern Alberta Marihuana Investigative Team and the City of Calgary Safety Codes Team.

PURPOSE

The purpose of this guideline is to describe the Calgary Health Region's current requirements to have an Unfit for Human Habitation Order and Notice of Health Hazard removed from a remediated MGO property.

AUTHORITY

Section 62(1) of the Public Health Act of Alberta gives the Public Health Inspector/Executive Officer of the Calgary Health Region the authority to carry out inspections and issue written orders.

HAZARDS WITHIN MARIHUANA GROW OPERATIONS

An Executive Officer for Calgary Health Region attends the property, usually at the time of the police intervention and criminal investigation. The property is assessed for physical damage to walls, floors and ceilings from possible electrical bypass, water damage, ducting holes, chemical spills and moulds. The combustion stacks from the heating, ventilation and air conditioning (HVAC) system and hot water tank are often disconnected for the purpose of discharging the combustion gases into the building. Tampering of HVAC systems and hot water tanks can result in a build up of carbon dioxide (CO₂), with pockets of carbon monoxide (CO) and other combustion by-products, and a possible oxygen-depleted indoor environment. Electrical system tampering can lead to fires or electrocution. Chemical contamination on surfaces, a result of mixing and spraying fertilizers and pesticides in and around the crop areas, presents a health risk to government officials, consultants, and contractors as well as to future occupants if the areas are not properly cleaned and

remediated. In addition, some activities by the “grow operators” may introduce hazardous substances into the buildings, such as asbestos-containing building materials, lead-containing paints or mercury from thermostats. In most cases the property is posted as Unfit for Human Habitation and a subsequent Executive Officer’s Order is issued to the owner¹ requiring thorough investigation and remediation of the site, including confirmatory air quality testing.

1. Remediation and Air Testing Contractors

Alberta, at this time, has no established mechanism to license, regulate, permit or otherwise certify persons or companies qualified to investigate, remediate and test the environmental conditions within former drug operations. Owners are responsible for selecting contractors and/or consultants using the same diligence they would in choosing someone to perform any other professional service. Calgary Health Region (CHR) can offer advice and guidance to concerned parties to aid in the selection process but cannot recommend or guarantee the work of any company. Be aware of potential conflict of interest issues if the company doing the mould/air testing is involved in the abatement or remediation process. It is highly recommended that the company chosen to test for mould carries environmental liability insurance in the minimum amount of \$1,000,000.00 and qualifies for Professional Errors and Omissions coverage and be a member in good standing of the Better Business Bureau (BBB) and/or the Institute of Inspection, Cleaning and Restoration or an equivalent professional body.

A Project Manager must be specifically named for each site and should be an Environmental Health or Indoor Air Quality Consultant. The Project Manager shall begin communication with CHR early in the process to obtain permission to enter and proceed.

Duties of the Project Manager include:

- conduct a preliminary assessment identifying and delineating the extent of mould and water damage and any hazardous materials and contamination, such as lead, asbestos, pesticides and mercury contamination, that were disturbed or caused by the MGO operator, or that may be impacted by the planned mould remediation or by general repair and renovation work
- prepare a scope of work plan based on this assessment and the Executive Officer’s Order and submit a copy to Region for review and comment
- obtain permits from the City or Municipality
- complete and submit a final report to CHR once all work has been completed

The Project Manager or his Site Supervisor must be present on site to observe and document the following activities:

- remediation or abatement of any hazardous materials, including moulds and water damaged materials
- removal of any remaining MGO equipment and chemicals
- removal of drywall, vapour barrier and insulation
- removal of carpet and underlay or other flooring

¹ “Owner” means the registered owner and any agent of the owner in actual or apparent possession or control of land or premises (Alberta Regulation 173/99 Public Health Act Housing Regulation)

Region may reject or require replacement of a Project Manager or Site Supervisor if a finding is made of:

- criminal activity
- disregard for public health or the environment
- failure to comply with the requirements of this Guideline or the Executive Officer's Order
- disregard for and/or non-compliance with health, safety, or pollution rules or standards
- misrepresentation or falsification of sampling, figures, reports or data
- negligence, incompetence or misconduct in the performance of duties

2. Permit Applications

Before carrying out any work inside the property, the Project Manager or his Site Supervisor shall apply to the City or Municipality for all required permits which may include Building, Electrical, Plumbing/Gas and Mechanical. These permits are subject to final inspection and completion by the relevant Safety Codes Officers.

It is important to note that in Calgary and many other jurisdictions, the electrical service is cut off at the time of the police intervention due to hazards associated with the electrical tampering. In Calgary the gas and water are also cut off. During months of cold weather, it is important that water lines are drained to prevent pipes from bursting.

Preliminary inspections of the electrical repairs and gas line repairs need to be carried out so that services can be reinstated to the building to enable proper cleaning and air sampling.

3. Removal of Materials

All grow op related materials remaining behind, including plant pots, soil, fans, lights, cutting, tools and general rubbish, shall be removed and disposed of.

Chemicals, both in their original containers and in mixed solutions, must be properly disposed of and not dumped into the sewers. The local fire department or hazardous material transfer stations (the City has a list of these) may accept these chemicals for disposal and should be contacted in that regard.

Walls, floors and ceilings, including floor coverings, drywall, vapour barrier, insulation and wooden framing, in any grow area or chemical mixing area are considered contaminated with an assortment of chemicals and possible mould and must be removed and properly disposed. Unless more extensive removal is required in the Executive Officer's Order, intrusive testing on all remaining levels may be required.

4. Attic Considerations

Heat and odours are frequently vented out of the grow areas through or into the attic. This involves cutting holes for the ducting through floors and ceilings until the ducting reaches into the attic area. In colder seasons, particularly if the "grow" was being maintained in winter months, this can result in significant amounts of condensation building up inside the attic with resultant water damage to the underside of the roof, beams, insulation and ceilings beneath. Often water seeps down the outer edges, through soffits and possibly between exterior and interior walls making intrusive testing

for moisture and moulds imperative. These continual moist conditions are suitable for mould growth.

When moist conditions have been maintained in the attic, all insulation in the attic area is to be removed and disposed. Vapour barrier will have to be removed or properly repaired as necessary. Roof sheathing, trusses and/or beams must be assessed for structural damage and repaired or replaced.

5. Cleaning With Detergent and Water

All nonporous and semi-porous surfaces in all areas are to be thoroughly cleaned with detergent and warm water and quickly dried (e.g. fans, heat, towel drying). Surfaces such as wooden beams and studs and concrete may require aggressive scrubbing with a stiff brush. If mould has deeply penetrated into wood to the point that scrubbing is not effective or if the wood shows obvious signs of decay, it should be replaced where at all possible. Porous or fleecy surfaces/materials should be removed from the premises and thoroughly cleaned or replaced.

6. Cleaning the Ventilation System

Contaminants are easily carried from one area to another through the ventilation system. All air cleaning filters need to be replaced, all vents and grills removed and cleaned, and all ductwork thoroughly cleaned. It is recommended that the furnace cleaning company be a member in good standing of the Better Business Bureau (BBB) and/or the National Air Duct Cleaners Association or an equivalent professional body.

7. Air Scrubbing

Air scrubbing, using high efficiency particulate (HEPA) air scrubbers, is to be done in all areas of the building to remove airborne spores. Filtration of air should be undertaken such that a minimum of six (6) equivalent air exchanges are completed.

8. Air Sampling

Air sampling is required in all areas of the building, including attics, crawlspaces and attached garages. Calgary Health Region has developed a protocol entitled "Fungal Air Testing, Investigation and Reporting Requirements for Residential Marihuana Grow Operations" which is attached as Appendix A.

9. Rebuilding

Physical damage must be repaired in accordance with the current Alberta Building Code.

If a borehole for electrical bypass exists, it must be moisture proofed from the exterior and the excavation site not filled until inspected and approved by the City or Municipal inspector. Holes in ceilings and particularly in floors require proper repair and need to be left visible for inspection by the City or Municipal inspector.

General renovation work, such as painting, reinstalling drywall, or laying of new flooring or sub flooring must not occur until suitable air testing results have been received and accepted by Calgary Health Region and all repair work has passed City or Municipal inspection.

All repairs affecting the structure, including floors and the building envelope, require inspection and reporting by a Professional Engineer.

10. Owner-Assisted Remediation

The Property Owner may assist with painting or other reconstruction tasks but must first seek approval from the Region and the Project Manager.

11. Inspections

The Project Manager is responsible for ensuring that all remediation work is completed. After work is completed, the Project Managers must contact appropriate inspectors to verify that work was completed properly. Inspections are required to be carried out by the City or Municipality in authority to verify the work done meets Code and to close the following permits:

- Electrical permit for system repairs, both interior and at the service entry site
- Building permit
- Plumbing and Gas permits
- Mechanical permit (if required by the City or Municipality)

City of Calgary Safety Codes Officers will not carry out final inspections until they have received verification from CHR of satisfactory air quality inside the premises.

Once inspections have been completed and passed, the insulation, vapour barrier and drywall can be replaced.

12. Submission of Documents

The Project Manager is responsible for the thoroughness and accuracy of remediation reports and must ensure that all documents pertaining to the assessment, cleanup, repair, sampling, and Safety Codes Officers' inspections are submitted to CHR. The information contained in the documents should clearly state the address, the date the work was performed and the name of the person and company who performed the work, along with original, signed reports and detailed photographs or video. These records are used to verify that the property was assessed, cleaned up and repaired as required, and that air sampling results indicate that the property is suitable for reoccupancy.

13. Removal of Notice of Health Hazard

Upon submission of complete and satisfactory documentation, the Calgary Health Region will remove the Notice of Health Hazard from the property title following payment of a fee.

CALGARY HEALTH REGION CONTACTS

Please view our web site at www.calgaryhealthregion.ca/envhealth.

To ask specific questions or request additional information not found on our web site, contact Vicki Wearmouth, CPHI(C), Public Health Inspector, Calgary Health Region by telephone at 1-403-943-8095 or by email at Vicki.Wearmouth@calgaryhealthregion.ca.

To report a known or suspected marihuana grow operation or methamphetamine laboratory, contact your local law enforcement agency.

Approved November 14, 2007



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