



PHH ARC Environmental News

Summer 2006 Featured Article:

Clean-up and Testing of Illicit Drug Labs

Background on Grow Ops and Meth Labs

“I got a phone call last night and the cops closed down my rental suite”. One of twenty or so phone calls a week we receive from distraught homeowners. The home grow op or meth lab is raided by police, the property is evacuated and the power is switched off. The manufacture of illicit drugs creates significant health and safety risks not only to the people manufacturing the drugs, but also to anyone who may unwittingly occupy a building after it has been used for drug manufacture, and the surrounding neighborhood.

Illicit drug manufacture falls into two broad categories, the outdoor or indoor growing of marijuana (grow-ops) or the indoor manufacture of methamphetamine (crystal meth) or crack cocaine (meth labs). Growing marijuana has become an increasingly sophisticated, lucrative and common process in Canada. Coquitlam and Port Coquitlam, BC reported over 240 grow-ops were busted in the first five months of 2006. In June 2006, a fire in a Burnaby, BC apartment building revealed six separate grow-ops in a 42 unit building.

Several years ago the water vapour that resulted from growing the marijuana plants was vented directly into the building's attic space, causing severe condensation problems and extensive mould growth. More recently the practice has been to line all the walls in the grow area with a vapour barrier and to use often highly sophisticated ventilation and filtration systems to remove the water vapour, improving growing efficiency and ironically reducing mould damage. In a recent investigation carried out by PHH ARC in the interior of BC there was over \$20,000 worth of equipment left in the grow op. The RCMP had removed 400 plants with an estimated street value of more than a quarter of a million dollars.

Despite the sophisticated production methods used, condensation still occurs in the grow areas, sometimes resulting in extensive mould growth. Other concerns include the health and environmental impact of residues of pesticides and fertilizers that are used in production. Electrical, mechanical, and structural changes made to accommodate the installation, can also compromise building safety.

Manufacturing crystal meth is a simple process requiring only a basic knowledge of chemistry. There are recipes and instructions freely available on the internet. The ingredients are common household chemicals. Common cold remedies or diet pills containing ephedrine form the basis of the drug and these compounds are refined using a combination of alcohols, acids, solvents phosphorous and iodine. Many of these

compounds are highly toxic, corrosive and explosive or flammable. There have been fatalities amongst the people who “cook” the meth from the effects of these chemicals. They can also create significant risk to neighbours through explosions and fires.

The residues of these chemicals can penetrate deep into building finishes, carpets and furnishings. Children are particularly susceptible to exposure to these chemicals as they spend time playing on contaminated carpets and have far more frequent hand to mouth contact than adults.

Municipal By-Law Legislation

When a grow-op or meth lab has been discovered, the RCMP remove the plants and any finished product, but often all the equipment, chemicals and contamination are left behind for the building owner to deal with. Fifteen percent of meth labs are discovered as a result of fires or explosions caused by the cooking process. A significant proportion of grow-ops are discovered through illegal bypass of electric meters which is used to supply the powerful lamps that are used to grow the plants indoors. The RCMP are usually the first to attend the site. Most grow-ops and meth labs are located in rental properties, and the owners are frequently unaware until they hear from the municipality or RCMP.

Once the RCMP have completed their investigation it is the owners responsibility to determine and repair the impact the illicit drug operations had on the building. Many municipalities have bylaws that come into effect when the grow-op or meth lab is discovered. The bylaws require that electricity and water supplies to the building are cut off (for safety reasons and to discourage future occupancy) until the building has been cleaned up. The owners will be notified, often a notice is posted on the building and occupancy is prohibited (resulting not only in inconvenience but significant loss in rental income).

Clean-Up and Testing

Municipal bylaws normally require thorough remediation and cleaning of the grow-op or lab area, and testing by environmental health and safety (EHS) consultants to verify that contaminants have been removed. Some municipalities allow owners to carry out their own clean-up; others require that the clean-up is carried out by a professional company; however, no specific certification of the cleaning company is referred to in the bylaw.

Calgary Health Region has the authority to issue an “Unfit for Human Habitation” order against a grow-op which has extensive requirements, including stipulated air sampling, clearance levels for mould, and hazardous materials assessments to be completed before

occupancy is re-allowed. Calgary is the exception and most municipal bylaws and requirements are less detailed.

In uncontrolled clean ups contaminated surfaces are simply painted over in an attempt to disguise the contamination and no intrusive investigation is carried out to assess mould growth within wall cavities, which is often found due to the permeability of drywall.

Once the clean up has been completed EHS consultants are generally asked to assess the building and to complete some form of certification addressed to the municipality warranting that the building is “free from biological and chemical hazards” or “contains no risk to the occupants”.. Some of the certificates are signed by engineers or other professionals who may not have the specific expertise to make these statements or appropriate insurance to cover any liability resulting from the certification.

There is no defined standard defining when a property can be deemed to be “clean”. Testing for crystal meth and crack cocaine is very sensitive and the residues can be identified to the nanogram level (one billionth of a gram) on swabs. Testing of banknotes has shown that a significant proportion of banknotes have detectable traces of cocaine simply from skin contact with people who use cocaine, yet these traces are unlikely to pose a significant health risk to people coming into contact with them. There are as yet no Canadian regulatory standards set for surface testing, though there are widely accepted guidelines originating from US regulators that define acceptable clean up standards.

Risk Management

There are a number of precautions rental landlords can take to either reduce the risk of a property being used as a grow-op or meth lab or mitigate and remediate the damage caused.

All rental properties should be inspected by the owner or their representative at frequent intervals. Commercial buildings as well as residential property are often used for grow-ops or meth labs and tend to attract less attention, as the activities in the building may appear to be a result of legitimate manufacturing processes.

If a grow-op or meth lab is discovered, the extent of contamination should be verified by an experienced EHS consultant before any clean-up activity has been carried out which might disguise the impact.

Do not discard any chemical containers until the property has been inspected. Once the extent of contamination has been determined, chemicals should be disposed of following local regulations.



When selecting a consultant to inspect the property, verify that the consultant is experienced in hazardous material investigation. The certification should be signed by a Certified Industrial Hygienist or Registered Occupational Hygienist. The professional should carry professional liability insurance that does not specifically exclude mould contamination.

When selecting a contractor verify that the contractor has specific training in and carries insurance relating to the clean up of mould and hazardous materials.

When purchasing any property, verify disclosure statements identifying whether or not a property has been used as a grow-op or drug lab, which can significantly impair resale value, particularly if there is no clear remediation report.

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