



## STIRRING UP TROUBLE

### ASBESTOS HAZARDS IN HOME RENOVATIONS

by Richard Cairney

When Murray Larkins looks back on the many house renovations he has done, there is a hint of pride in his voice that comes from restoring homes that are now more than a century old. But there is also a cautionary tone as he considers the unseen hazards of such projects, particularly asbestos. For homeowners thinking of large or small home improvements, or those in the market for a house that needs some TLC, asbestos is a threat few even realize exists.

"It's there and it can kill you," says Larkins. "It can kill anybody. It goes to that saying, 'What you don't know can kill you.' I really view asbestos that way."

#### A widespread hazard

Until the mid-1980s asbestos was used in everything from drywall mud and tape to linoleum flooring and countertops; it was in ceiling tiles and adhesives. Exposure to asbestos has been linked to mesothelioma (a cancer of the lining of the lung), lung cancer and a chronic lung disease called asbestosis. According to Health Canada, asbestos poses health risks only when the fibres are present in the air that people breathe. If the fibres are enclosed or tightly bound in a product, for example in asbestos siding or asbestos floor tiles, there are no significant health risks.

On his first home renovation, a 1915 house in Edmonton, Larkins recalls ripping out a ceiling and having vermiculite insulation that had been blown into the attic by a previous owner raining down on him. When Larkins looked into it, he found from U.S. EPA sources that about 70 per cent of the vermiculite on the North American market at that time was mined in Montana. The mine also had asbestos deposits, and the vermiculite product contained asbestos.

"I knew this was going to be bloody dirty work, so I wore a hat and sunglasses," says Larkins. "This is very innocent ignorance. It was probably by the time I was on my third house that I came to understand vermiculite was really bad."

The Canadian Mortgage and Housing Corporation would have told Larkins to wear an approved face mask, gloves and protective clothing. As an added precaution, he should have taped his sleeve and trouser cuffs and washed the clothes separately after use.

"If they are hiring a contractor to work in their home they should test prior to the work ... My advice is that whatever you're doing, have it tested first."

—Diane Radnoff, Occupational Hygienist

### Protecting the public

Starting in the early 1970s a series of provincial and federal laws and international agreements came into effect to protect the public from asbestos. By the mid-1980s many products containing asbestos had been declared dangerous and prohibited, although some were still used until the late 1980s.

Diane Radnoff, a senior occupational hygienist with Alberta Employment and Immigration, says homeowners and contractors have an excellent resource in the *Alberta Asbestos Abatement Manual* (see Resources, page 9). The document details information on asbestos-containing products, health risks, legislation, removal and sampling procedures, and qualifications workers must meet to remove asbestos. The health and safety requirements for working with asbestos are contained in Part 4 of the OH&S Code, Chemical Hazards, Biological Hazards and Harmful Substances.

While homes built after the mid- to late 1980s are less likely to have asbestos-containing products, there is no legislation requiring homeowners to remove existing products. Asbestos is not a hazard until it is disturbed. Radnoff says homeowners who are planning renovations—even removing linoleum—should hire a company to test for asbestos before getting down to work.

"There is no legal obligation for homeowners to test. However, if they are hiring a contractor to work in their

home they should test prior to the work—this allows the contractor to use the proper work procedures and will also protect the homeowner," she says. "My advice is that whatever you're doing, have it tested first."

Radnoff adds that renovators should keep in mind that Alberta legislation covers employers and workers. Employers, such as renovation contractors, must conduct a hazard assessment and control hazards that could affect workers exposed to them.

### Asbestos disclosure

But what if you are buying or selling a home? What are your responsibilities? Sheldon Johnston, a realtor and owner of Coldwell Banker Johnston Real Estate, says there was a time when sellers were required to disclose to potential buyers any hazardous material on the property. But most people didn't even know if their homes had asbestos products.

"One of the reasons Alberta stopped using these property disclosure statements a number of years ago was all these sellers said, 'My property doesn't have this,' but most of them were actually wrong—they just didn't know they had these materials in their homes."

In fact, Johnston says, hazardous waste is probably the last thing on a homebuyer's mind: "They are looking to see if the home is a good fit for their family—if they can picture their family living there."

### Inspections and testing

Johnston strongly suggests buyers ask home inspectors to look for products used in the home, but he advises consumers to make sure their home inspector is qualified to make that decision. In Alberta, there are prescribed ways to take samples but anyone can do it—you don't need a special licence or permit. However, testing is another matter: only certified personnel are allowed to examine samples to determine their safety.

Johnston adds that if you're hiring a contractor to come in and do work, be sure the company has workers' compensation coverage—it's also a good idea to check with your own insurance company, as well, before work begins.

Few home inspectors test for hazardous materials. Whether you're buying a home or planning renovations, Ken Strickland, who works with Dewar Western Inc., an industrial insulation and hazardous materials removal company, is the kind of guy who knows about asbestos. With more than 20 years of experience working with hazardous materials, Strickland is familiar with asbestos in homes and public buildings.

"If you're looking to renovate a specific item like a floor or room or to drywall an attic space, it's good to contact someone like me. We would take a sample and do tests and proceed with a cost estimate to have it removed," says Strickland.



### Asbestos abatement

Business owners who discover asbestos are required to report the findings and develop a plan for abatement, which would be carried out when appropriate, probably during future renovations. If abatement is not carried out immediately, the employer must ensure that workers are not exposed to the asbestos. According to Part 4, Section 36(1) of the OH&S Code, an employer who is responsible for removing or abating asbestos or for demolishing or renovating a building or equipment containing asbestos must notify a Director of Inspection of the activity at least 72 hours before beginning the activities that may release asbestos fibres.

Newer homes and buildings should be safe, but Strickland points out that builders could continue to use existing in-stock products that contained asbestos even after laws prohibiting their import, manufacture and sale had been passed.

“Contractors were allowed to use these materials if they had them in stock, so there are incidents where houses and buildings continue to have them. I just did a library in a small town that was built in the mid-80s and I found three samples of insulation on piping and ducting that contained asbestos.”

One of the most common projects Strickland sees where

asbestos comes into play is furnace replacements in homes built during the 1940s. Back then, even duct tape contained asbestos—more than 20 per cent. He follows the rule of thumb that if there is no reason to disturb the asbestos, don’t.

### Removal vs. encapsulation

One solution that saves time and money—in the short term—is to encapsulate existing asbestos. For example, instead of removing linoleum that contains asbestos, you could just install new flooring on top of it.

“I actually saw five layers of linoleum once in an older home,” says Strickland. “But in my opinion that is not the best thing to do because when you encapsulate asbestos, at any future date you have twice as much material that has to be taken out and that adds to your costs.”

Larkins, who has just purchased a 99-year-old home in Calgary, learned that lesson years ago. And he offers this advice to anyone considering renovations or improvements: make safety your priority. Larkins adds that “ignorance and a lack of money” can get in the way of safety.

### Don’t skimp on safety

“Some people won’t buy the more expensive mask that will protect them, 100 per cent,” he says. “They’ll spend

that money on tools or screws and drywall—the stuff that they feel is actually going to do them the most good.

“A tough thing about asbestos abatement is that you are always selectively renovating so it is very seldom that you will go in and demolish the whole interior of a house. You’re doing this a bit at a time. You’ll do the bathroom, then the kitchen, and the problem is it is almost impossible to contain carcinogens, things like asbestos, or even dust. They do have some very clever handyman grade to commercial grade containment systems, but it is difficult when you are living in the house. You have to put your well-being first.”

Alberta Occupational Health and Safety advises that the following four principles should be followed in any work procedures where asbestos-containing products must be disturbed:

- 1) Isolate the work area.
- 2) Protect workers.
- 3) Minimize the release of asbestos fibres.
- 4) Ensure that the area is properly cleaned up after the work is completed.

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## RESOURCES

### WEB LINKS

[employment.alberta.ca/SFW/12508.html](http://employment.alberta.ca/SFW/12508.html)

Asbestos-related information from Alberta Employment and Immigration

[employment.alberta.ca/SFW/2988.html](http://employment.alberta.ca/SFW/2988.html)

*Alberta Asbestos Abatement Manual*

This manual describes the principles to be followed when selecting the most appropriate techniques for the safe abatement of asbestos-containing materials. The manual also presents basic information on asbestos and asbestos products, health hazards, requirements for worker protection, safe work procedures, inspection criteria, applicable legislation and competency profiles for those persons involved in abatement activities.

[employment.alberta.ca/documents/WHS/WHS-EP-asbestos-guidelines.pdf](http://employment.alberta.ca/documents/WHS/WHS-EP-asbestos-guidelines.pdf)

*Course Guidelines—Occupational Health and Safety for the Asbestos Worker*  
Explains what must be covered in the course for asbestos workers.

[employment.alberta.ca/documents/WHS/WHS-EP-asbestos-agencies.pdf](http://employment.alberta.ca/documents/WHS/WHS-EP-asbestos-agencies.pdf)

The list of approved training agencies that teach the OH&S for the Asbestos Worker course and administer the exam.

[employment.alberta.ca/documents/WHS/WHS-PUB\\_ch019.pdf](http://employment.alberta.ca/documents/WHS/WHS-PUB_ch019.pdf)

*Asbestos at the Work Site*

This safety bulletin provides basic information about asbestos at work sites and the related employer and worker responsibilities in Alberta.

[employment.alberta.ca/documents/WHS/WHS-PUB\\_who3910.pdf](http://employment.alberta.ca/documents/WHS/WHS-PUB_who3910.pdf)

*Asbestos Project Notification Form*

Alberta’s OH&S Code requires that employers give advance notification of asbestos projects. This form can be completed and submitted by either e-mail or fax.

[edmontonrealestateblog.com/2009/09/guest-post-asbestos-prevention.html](http://edmontonrealestateblog.com/2009/09/guest-post-asbestos-prevention.html)

*Asbestos Prevention*

[www.hc-sc.gc.ca/hl-vs/iyh-vsv/enviro/asbestos-amiant-eng.php](http://www.hc-sc.gc.ca/hl-vs/iyh-vsv/enviro/asbestos-amiant-eng.php)

Health Canada offers assistance and information in the prevention, disposal and removal of asbestos.

[www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/inaiqu/inaiqu\\_001.cfm](http://www.cmhc-schl.gc.ca/en/co/maho/yohoyohe/inaiqu/inaiqu_001.cfm)

*Asbestos, Canadian Mortgage and Housing Corporation.*

Part of CMHC’s *About Your House—General Series*, this fact sheet gives an overview of asbestos and its uses, and describes what problems asbestos can cause and what options homeowners have in dealing with asbestos.

### IN THE ALBERTA GOVERNMENT LIBRARY

[For contact information, please see page 12.]

#### DVD/VHS

##### ASBESTOS: A LETHAL LEGACY (VC 0031)

This dramatic video discusses the use of asbestos and its effects on the worker. Using individual case studies the film depicts the various diseases caused by asbestos and how these diseases affect the worker and the family.

##### ASBESTOS AWARENESS (DVD 035)

This program educates employees about the dangers of working with materials that may contain asbestos. The areas covered include the hazards, composition and nature of asbestos, where it is encountered, limiting exposure to asbestos, protecting yourself when disturbing a material that may contain asbestos and special considerations, such as air monitoring and decontamination.

##### ASBESTOS AWARENESS (VC 0351)

This program was developed to promote an understanding of asbestos and its hazards. It discusses asbestos forms and uses, health effects, potential locations, damage and deterioration, and housekeeping requirements.

##### ASBESTOS: SMALL-SCALE, SHORT DURATION ACTIVITIES (VC 0148)

This two-part program is designed to instruct employees about the work procedures to follow when working with asbestos. The program covers preliminary precautions and appropriate work practices for jobs involving asbestos found in pipe insulation, flange gaskets, pump and valve packing, and insulation above drop ceilings.