Staff at Hartland Landfill meet with Corinne Lapointe, occupational hygiene officer, WorkSafeBC.

Landfill promotes asbestos education for homeowners

By Kathy Eccles

When the Capital Regional District on Vancouver Island became aware that asbestos-containing materials may have been improperly entering the waste stream at Hartland Landfill, the public facility knew its staff was at risk; breathing in asbestos fibres can cause serious health problems, such as lung diseases, and cancer. Changing policies on what the facility would accept was the first step. The next? Developing a pre-approval system supported by homeowner education.

Be "Reno Safe and Waste Wise." That's the message on a prevention brochure distributed by Hartland Landfill in Saanich. The brochure is part of a community outreach program to help homeowners protect themselves, and to protect Hartland staff, when handling and disposing of renovation or demolition materials containing asbestos.

Hartland Landfill was a former dump site before it was taken over by the Capital Regional District (CRD) in 1985. Today, it's an engineered sanitary landfill, and has become a lead innovator in the safe, effective disposal of asbestos-containing materials (ACMs).

Responding to a community health risk

An estimated 3,000 different types of building materials used prior to 1990 contain asbestos, including everything from plaster and ceiling tile to cement board and drywall joint compound.

WorkSafeBC occupational hygiene officer Corinne Lapointe explains, "The bulk of it was used after WWII, when 'the miracle fibre' shifted from being used in the war effort to being used in industry and homes throughout North America."

Hand in hand with the broad use of asbestos comes a devastating statistic: Asbestos-related disease is the leading cause of occupational death in British Columbia. A recent University of Alberta study concluded that the statistic will not decline until 2040.

Lapointe stresses, "If a homeowner tears apart a wall that contains asbestos, the asbestos behaves like pollen: It's microscopic and moves through the air.

Unprotected workers are going to be breathing in the fibres."

The risk also applies to workers at the landfill, if they end up processing materials for disposal or recycling that contain asbestos.

Historically, Hartland Landfill provided a recycling bin for clean drywall; however, random samples of drywall in the bin tested positive for asbestos more than 70 percent of the time. As a result, Hartland Landfill removed the bin to better ensure the safety of its workers.

Chris Robins, manager, Solid Waste Operations, explains, "We looked at measures to find a solution, but there was no foolproof way to fully contain the mud dust from asbestos-containing drywall, so we stopped taking drywall for recycling."

It might seem counterintuitive that Hartland Landfill has banned clean recyclable drywall but accepts asbestos-containing drywall and other ACMs for disposal. The difference is that the ACMs can be safely disposed of when appropriate measures are taken to contain, package, and transport the waste. This way, no employees are subjected to the risk of asbestos exposure.

Clean and contaminated waste streams are well monitored

There is a separate process for clean waste. Lapointe explains, "Before homeowners or contractors bring in hazardous demolition materials, they have to bring in a hazardous-materials survey report and confirm in writing that the homeowner or contractor responsible has safely contained or removed any asbestos-contaminated materials." The company also audits the clean waste to make sure that undocumented materials aren't coming in.

Large loads, over 5,500 kilograms, of uncontaminated demolition and renovation waste require a permit from the CRD before they're accepted by the landfill as asbestos-free.

Drew Fafard, supervisor of Safety and Technical Services at Hartland, clarifies that, "Large loads come in under a permit issued once our staff have reviewed clearance letters, hazardous-materials surveys, and the age of the materials." Piggybacking on its large-load permit system, last year Hartland began administering a strict pre-approval program for small loads of clean demolition materials.

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Robins sums up the process: "Prevention of improper asbestos disposal is the program objective — the main benefit of this process is protecting the health and safety of staff by reducing the risk of exposure to asbestos."

Asbestos-containing drywall and other ACMs are accepted at a special receiving area by appointment only. ACMs also require a laboratory analysis. Customers making appointments for properly packaged ACM disposal receive an email summarizing the disposal requirements.

Community outreach extends to building supply stores

Fafard observes that while large haulers tend to understand WorkSafeBC regulations, "for smaller residential loads, the pre-approval process is more difficult. The education is not always sinking in."

To help, Hartland Landfill makes excellent use of the "Reno Safe and Waste Wise" brochure. Employees hand it out at the public drop-off areas and to anyone who wishes to bring in demolition waste.

In addition, staff visited home-renovation stores around southern Vancouver Island to speak about the CRD's asbestos waste management program and hand out the brochure at renovation DIY classes. "The information was very well received," says Athina Conner, a demolition technician who helped hand out the brochures. "In many cases, the public was entirely unaware of how to safely remove and dispose of their renovation waste."

Inspecting and testing to protect employees from exposure

Even with stringent asbestos control plans in place, some ACMs may sneak through the system. To protect workers in the case of loads that may not be as clean as they are described to be, waste is audited. If the material is suspect, workers won't take it. Fines and customer bans are other ways of deterring improperly labelled waste.

As a precaution, Hartland Landfill also periodically audits permitted materials by taking physical samples. To date, all random audit samples have been clean.

The site also has an asbestos exposure control plan, which gets updated regularly and has an active respirator program and asbestos awareness training for staff. In 2015, Hartland hired a safety consultant to manage exposure monitoring through ambient and personal sampling to ensure the system is working and results are below safe limits for exposure to asbestos, silica, and dust.

Lapointe points to the benefits of periodic monitoring: "It informs workers that it is safe to work at that location. Also, it provides verification that the systems are either working as intended or are in need of further development." She adds, "The level of vigilance and ongoing oversight used at Hartland helps ensure that their hazardous waste management program is working. The systems and commitment are what makes Hartland's program work so well."

With all these checks and balances, making sure that the program was effective also required "more boots on the ground," notes Fafard. Hartland has made a significant investment in human resources by increasing staff at the public bins. The new staff includes a demolition waste technician who is trained in hazardous materials identification. Bylaw-enforcement staff are also at the site to assist.

At the beginning, there were questions from staff about the new procedures, says Fafard. In the end, "our employees found out we were serious about applying the process to eliminate potential exposure to asbestos and bought into it. Now they expect nothing less; they understand the potential risks and how we are addressing them."

Renovation tips from an officer

WorkSafeBC occupational hygiene officer Corinne Lapointe has the following advice for homeowners renovating homes built prior to 1990:

1. Don't disturb any building materials until you have a qualified person in to assess whether hazardous materials are present.
2. Ensure that the person doing the assessment is qualified to do the hazardous materials assessment. And likewise, ensure that the abatement contractor is also qualified. Get references.
3. When the asbestos-abatement work is complete, ensure the qualified person gives you confirmation in writing that the hazardous materials have been safely contained or removed. This is more than just a piece of paper: it tells you that it's now safe for people to work there and that the risk of exposure to hazardous materials has been controlled.
4. If layers of renovations are planned, get a hazardous-materials survey completed for the full house. That way, you know where the hazardous materials are and don't have to have a qualified person back to repeat the process.
5. If additional suspect materials are encountered in the course of the renovation work — for example, as walls are opened up — then work must stop and a qualified person needs to reassess these additional materials and provide a report.

Three steps to ‘Reno Safe and Waste Wise’

Taking renovation materials to a waste or recycling facility? These tips are adapted from the CRD environmental protection brochure, “Reno Safe and Waste Wise.”

1. **Plan ahead and protect yourself.** Hire a qualified professional to identify asbestos and other hazardous materials before you renovate. It's the homeowners’ responsibility to hire qualified abatement contractors to safely remove and properly dispose of hazardous renovation or demolition materials.
2. **Learn how to dispose of home renovation waste.** Check with your local landfill or recycling facility on what waste it accepts and when. Hartland Landfill only accepts properly packaged asbestos-containing materials by appointment. Check each disposal facility's testing and acceptance requirements, including whether asbestos-free drywall is accepted for recycling.
3. **Know what documents you will need.** If your renovation or demolition materials predate 1990, you will need a hazardous-materials survey from a qualified professional, as well as written confirmation that asbestos or other hazardous materials have been safely contained or removed. You may have to complete an online form or other paperwork as well.