ASBESTOS—TRY NOT TO PANIC!

Asbestos is one of just a few dozen materials that have made the dishonor roll of known human carcinogens. The cancer associated with asbestos, a tumor of the chest lining called mesothelioma, is especially painful and virulent. Steve McQueen died from mesothelioma. Although no one knows for sure how Mr. McQueen contracted mesothelioma, there was speculation that he was exposed to asbestos as a result of his love of auto racing. The flame-retardant suits used in auto racing of the time contained asbestos.

Under the circumstances, homeowners might be forgiven for feeling panicky upon discovering asbestos caked around their boiler, wrapped around steam pipes or coating acoustical ceilings. But in fact, the owners of homes containing asbestos are rarely at risk.

"Asbestos isn't going to jump out and eat you alive," says Michael E. Beard, a chemist with the U.S. Environmental Protection Agency, "as long as you don't do something foolish like go in and sand it."

Asbestos-related disease occurs only after the mineral's microscopic fibers are released into the air and inhaled. No inhalation, no disease. The risk is also dose-related: the more you inhale, the greater your chance of long-term harm.

Evidence suggests that inhabitants of buildings containing asbestos can't be inhaling much. One source of reassurance is the absence of even one report of a person getting an asbestos-related disease solely from exposure to home building materials. Asbestos-related diseases—mesothelioma, lung cancer, and an emphysema-like condition called asbestosis—occur primarily in people exposed at their workplace where there was far more asbestos dust than the ordinary person could encounter in a lifetime.

Measurements of homes and commercial buildings containing asbestos typically find airborne asbestos-fiber levels that are little different from those in outdoor air which contains asbestos dust from auto brake linings, building demolitions, mining, manufacturing and other sources.

Because the risk from indoor asbestos is small, at best, it is currently beyond the ability of science to measure it directly. However, when scientists extrapolate down from vastly higher work-related exposures—which have been quantified—the lifetime cancer risk at typical indoor levels is less than 1 in 100,000. By contrast, the lifetime cancer risk from long-term exposure to 4 Pico curies per liter of radon, the EPA-approved "action" level, is 2 in 1000—about 200 times greater.

Therefore, if you have asbestos in your home, your goal should be to make sure it's intact and stays that way. For many, if not most homeowners, this will not require costly removal but rather following a plan for what's called "management in place."

WHERE IS IT?

Suspect that you have asbestos if your house dates from before the late 1970's. That's when Federal authorities banned many asbestos building products. Asbestos turns up most commonly in older houses and apartment buildings in the following places:

AROUND BOILERS, STEAM PIPES, AND DUCTWORK.

Between 1920 and 1970, asbestos was widely used to insulate heating systems. If you have a plaster-like coating on your boiler or white, chalky, corrugated material around your pipes, it's probably asbestos.

IN FLOOR COVERINGS.

If you have 9-inch vinyl floor tiles, there's a better-than-even chance they contain asbestos. The adhesive under the tiles often contains asbestos, too.

ON CEILINGS.

Many "popcorn" ceiling finishes that were sprayed on between 1945 and the late 1970s contain lots of asbestos in a particularly fragile matrix. Some acoustical ceiling tiles may also contain it.

IN EXTERIOR SIDING AND ROOFING.

Asbestos-cement roofing shingles and siding were widely used.

If you have suspect materials, see if they're disintegrating or being worn down. If they're OK, simply inspect them periodically and maintain them. Repaint ceilings and siding when necessary, for instance, and wax vinyl-asbestos floors.

If the materials are damaged, or if you plan to remove, sand, drill, or cut them, you need to know for sure whether they contain asbestos. Have a lab test them. A recent EPA survey of labs found an average charge of $23 a sample.

WHEN IT'S FALLING APART.

How to handle damaged asbestos depends on its condition, its location, and what's apt to happen to it in the near future. Spots of deterioration on pipe insulation can probably be wetted with a spray bottle (to control dust) and carefully wrapped with duct tape but only if the pipe is in an out-of-the-way place where it won't be hit or further damaged.

Another option is a more permanent covering. Commercial "encapsulants," which must be applied by a trained professional, are available for pipe and boiler insulation. Vinyl siding will encapsulate exterior asbestos-cement shingles. A layer of drywall can cover a sprayed-on ceiling. Plywood covered by a sheet of vinyl can hide a deteriorating vinyl-asbestos floor. After encapsulation, you must not breach the barrier—for example, by drilling into a ceiling to install a new light fixture.

Asbestos that is falling apart, being hit, or in the path of leaks should probably be removed completely.

THE TRUE HAZARD.

For most homeowners, the biggest risk for large-scale release of fibers comes when asbestos is disturbed during repairs. There is no guarantee an untrained plumber or contractor knows the first thing about handling asbestos safely. In fact, it's best to assume the opposite.

To protect yourself, hire a trained asbestos abatement contractor to do the demolition or removal, and then turn over the rest of the job to the regular contractor. The abatement contractor should isolate and cover the work area with heavy plastic drop cloths, wet

down the material to minimize the release of dust, dispose of the asbestos in compliance with local environmental laws, and clean up afterward with a HEPA vacuum cleaner.

This is expensive, no way around it. Removing asbestos around pipes, for instance, costs $10 to $20 per linear foot. But cleaning a whole house after the job has been done wrong is the most costly option of all.