

KEY POINT REVIEW

Asbestos is a mineral composed of fibers that have fireproofing and insulating qualities, but it is a health hazard when fibers break down (become **friable**) and are inhaled. Asbestos has been banned for use in insulation since **1978**. **Encapsulation** can prevent asbestos fibers from becoming airborne.

Lead can be found in pipes, pipe solder, paints, air, and soil. **Lead-based paint** is found in many of the housing units built before 1978. Lead accumulates in the body and can damage the brain, nervous system, kidneys, and blood.

The **Lead-Based Paint Hazard Reduction Act of 1992 (LBPHRA)** requires disclosure of known lead-based paint hazards to potential buyers or renters.

Real estate professionals must provide buyers and lessees with ***Protect Your Family from Lead in Your Home***, a pamphlet created by EPA, HUD, and the Consumer Product Safety Commission. Contractors and remodelers who disturb painted surfaces in homes, schools, and child care facilities built before 1978 must be trained and certified in the EPA's lead-based work practices. The pamphlet ***Renovate Right*** must be given to the property owner before work begins.

Radon is an odorless, tasteless, **radioactive gas** produced by the natural decay of radioactive substances in the ground and is found throughout the United States. Radon gas may cause lung cancer. Testing for radon in buildings is not a federal requirement.

Formaldehyde, described as a hazardous air pollutant in the Clean Air Act Amendments of 1990, is used for building and household products, such as **urea-formaldehyde foam insulation (UFFI)**, and may cause respiratory problems, eye and skin irritations, and possibly cancer. Since 1985, it has been regulated by HUD for use in wood products.

Real estate professionals should check state formaldehyde disclosure requirements, and appraisers should note the presence of formaldehyde.

Carbon monoxide (CO) is a colorless, odorless gas that is by-product of fuel burning. Inhaling CO may cause carbon monoxide poisoning, which can result in death unless the gas is properly vented. CO is detectable with available carbon monoxide detectors, which may be required by state law.

Polychlorinated biphenyls (PCBs), which are suspected of causing health problems, may be found in electrical equipment. The manufacture and commercial distribution of PCBs has been banned since **1979**.

Chlorofluorocarbons (CFCs), used in refrigerators, aerosol sprays, paints, solvents, and foam applications, are no longer manufactured worldwide, for the most part since 1996.

The **EPA** has guidelines for remediation and/or cleanup of mold and moisture problems in schools and commercial buildings. Real estate professionals should recommend a **mold inspection** if mold is evident or suspected because of water problems.

Groundwater is found under the earth's surface and forms the water table. The **Safe Drinking Water Act (SDWA)** of 1974 regulates the public drinking water supply. On transfer of property, any water source other than a municipal supply should be tested, as should any septic system. The EPA protects and improves the quality of wetlands under the Clean Water Act.

Underground storage tanks (USTs), which contain petroleum products, industrial chemicals, and other substances are subject to federal law (regulated by EPA) and state law. When a purchase is being considered, a careful inspection of any property on which USTs are suspected should be conducted.

Waste disposal sites can be owned by municipalities, be part of commercial enterprises, or be found on farms and other rural properties. A landfill disposal site, whether excavated or created in previously mined property, is **lined** to prevent seepage, **capped** with soil for aesthetic reasons, and **vented** to release gases created by decomposing waste.

Brownfields legislation encourages development of abandoned properties by shielding innocent developers from liability for toxic wastes that existed at a site prior to purchase.

The **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)** is administered and enforced by EPA. CERCLA established a **Superfund** to clean up uncontrolled hazardous waste sites and identifies **potential responsible parties (PRPs)**.

Strict liability means that the landowner has no defense to the responsibility for cleanup; **joint and several liability** means that each of several landowners is responsible for the entire cleanup; and **retroactive liability** occurs when the present owner and previous owners are considered responsible for cleanup. CERCLA also defines when **innocent landowner immunity** applies.

Environmental liability issues for **real estate professionals** include discovery of environmental hazards by questioning the owner and recommending an **environmental site assessment (ESA)**. A **Phase 1 ESA** is a physical examination of the property and investigation of its history; a **Phase 2 ESA** includes sampling of soil and other materials, and is performed if it appears a problem may exist. An **environmental impact statement (EIS)** is required for federally funded projects and may be required by the state or locality.

State laws cover **disclosure of known material facts regarding property condition**, which may include environmental hazards.