



Radon affects real estate deals

When it comes to radon, it is important for Colorado property owners to be aware of the risk and radon levels in their buildings. In the context of a real estate transaction, however, it is also important for sellers, lenders and developers to know about the risks of radon, what it means for their deal, and how to assess and mitigate their risk of liability from high levels of radon.

What is radon? Radon is a naturally occurring radioactive gas that is produced as the uranium present in soil, rock and water breaks down over time. Radon gas is found throughout the United States and can seep into structures through air and water, posing a health risk.

What are the health risks? Radon is the second leading cause of cancer next to smoking and, according to the Environmental Protection Agency, more than 20,000 Americans are killed each year by radon. The effects of radon increase if individuals are smokers.

■ **What areas and buildings are at risk?** In order to identify areas with the greatest risk for radon, the EPA created a map that rates each county's risk on a scale of 1 to 3: Zone 1 is the highest risk (greater than 4.0 pico Curies per Liter or "pCi/L," which is the level considered harmful for human health); Zone 2 is considered moderate risk (2.0 to 4.0 pCi/L); and Zone 3 is the lowest (below 2.0 pCi/L). In Colorado, all except 12 counties are slated as Zone 1 for high radon potential. The 12 remaining are in Zone 2, and none are in Zone 3. The map is



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only a guide, however, as radon can be found at high enough levels to be a concern in "hot spots" in any one of these zones, so only air testing can concretely determine radon levels.

While radon is commonly a concern in single-family and multifamily residential properties (where occupants spend the most time and thus have greater exposure), it also can be a concern in commercial properties. In particular, any commercial properties with a sensitive population, such as nursery schools or assisted-living facilities, may warrant more scrutiny regarding radon risk.

Some structures have mitigating factors that may reduce radon risk, such as underground or first-floor parking, which would allow radon gas to dissipate before entering a building.

■ **How are radon levels checked, and what can be done if high levels are found?** Radon testing is done by placing radon canisters containing activated charcoal in a representative number of units or rooms throughout a property, on the lowest level of the structure, and allowing them to absorb the air for two to four days. This is called a "short-term" radon test. Most tenants are receptive to this process when they understand that the canisters are

harmless and that the purpose is to check air quality.

If elevated levels are identified (above 4.0 pCi/L), "long-term" mitigation or long-term radon testing should be conducted, which requires a minimum of 90 days. This will determine if the levels are consistently that high, or if perhaps the high level was an anomaly. For structures with consistently high levels, a radon mitigation system is recommended and, in some cases, required by municipal laws. These systems are relatively inexpensive to implement on both new construction and existing structures. A mitigation system typically consists of an active or passive venting system to help expel the radon gas out of the structure, or a vapor barrier to prevent radon intrusion into the structure.

If a property with high radon levels is also on a private well water system, radon-in-water testing also may be wise as radon can seep into the water supply. This can pose a risk both from ingestion and from radon diffusing from the water into the structure.

Why do various parties in a real estate transaction need to think about radon?

Sellers: The Colorado Real Estate Commission requires that radon hazards, if known by the seller to ever have existed, must be disclosed to the buyer even if a radon mitigation system is in place.

Lenders: As with any environmental hazard, the lender should be aware of the risks involved with a collateral property prior to closing a loan because they can present a liability

to the lender. It is a common practice that a lender's environmental consultant will note the radon zone for a particular area during the course of a Phase I Environmental Site Assessment and may make recommendations based on the findings. Certain lending programs like Fannie Mae and Freddie Mac require radon sampling during the Phase I ESA. If elevated levels are detected, either long-term testing is recommended or the recommendation may go straight to installing a mitigation system.

On a construction loan, the lender may want to ensure that developers are complying with local regulations on installing radon mitigation systems, perhaps through a construction progress inspection. Exactly what steps a lender should take may depend on that institution's risk tolerance.

Developers: Certain municipalities in Colorado require radon mitigation systems for all new construction, though this is not the norm throughout the state. If these regulations are not adhered to, the developer may find himself in the midst of costly legal troubles (and the lender may find that his borrower can no longer pay back the loan).

Radon is a serious subject and should be treated as such, and transacting parties should be vigilant of the risk of radon with their deals. Fortunately, however, radon is a quantifiable concern and one with clear-cut and relatively inexpensive solutions.▲