

Canada Issues Radon Guidance

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Citing new scientific data, Paul Glover, on behalf of the Minister of Health, issued a Canada wide indoor air quality guideline for radon at 200 Becquerel per cubic meter. Although this guidance has been forthcoming for some time, it was formally issued on April 28, 2007, and like a starter's pistol, several programs and activities are lifting off of the blocks.

What is Canada's New Guidance

The Canadian guidance of 200 Bq/M³ can be converted to units of measure used in the U.S. by dividing by 37, or essentially 5.4 pCi/L, which is slightly above the U.S. action level of 4.0 pCi/L, but significantly lower than previous Canadian guidance of 800 Bq/M³.

Similar to the U.S. action level, the Canadian guidance of 200 (Bq/M³) is just that -- a guidance. There is no legal requirement that homes be lowered to less than 200. In fact, the April 28, 2007 notice cites that there may be cases where the "*application of all reasonable remediation techniques will still leave a residual radon level greater than 200 Bq/M³.*". On the other hand, the guidance will likely become the target, as it has in the U.S., for acceptable levels when tested at the time of real estate sale, as well as the level above which radon mitigation will be undertaken.

However, unlike the U.S. recommendations, the Canadian program is distinguishing between guidance for new homes versus guidance for existing homes. In the April, 2007 amendment to the Canadian Environmental Protection Act, 1999, it is proposed that a guidance of 100 Bq/M³ be established for newly constructed buildings. This is certainly in concert with ALARA, but could cause, if adopted, a different approach to new construction in Canada versus what is being done in the U.S. In other words, the U.S. approach to new construction is a passive system that reduces radon by 50%, but not necessarily to the 100 Bq/M³ (2.7 pCi/L) proposed in Canada, which may result in the addition of either active fans or other building systems to further reduce indoor radon levels.

It is also important to note that the Canadian guidance is not just for homes, as the "*guideline also applies to public buildings with a high occupancy rate by members of the public, such as schools, hospitals, long-term care residences, and correctional facilities.*" So it would appear that the Canadian radon program is taking on a larger scope than what the U.S. program formally has.

Another interesting clarification is that the Canadian program has defined normal occupancy areas as being any part of a dwelling where a person would spend more than 4-hours per day. According to the guidance this "*would include a finished basement with a family room, guest room, office or workshop. It would also include a basement apartment. It would exclude an unfinished basement, a crawl space, or any area that is*

normally closed off and accessed infrequently, e.g. a storage area, cold room, furnace room, or laundry room.”

Also, like the U.S. EPA's initial guidance in the early 1990's, the Canadians have provided guidance on the speed by which action should be taken. *“If the radon concentration is found to be greater than 600 Bq/M³, the remedial actions are recommended to be completed in less than a year; between 200 Bq/M³ and 600 Bq/M³ the remedial actions should be completed in less than two years.”*

Building a Radon Program/Industry

Previously when the Canadian guidance was 800 Bq/M³, there was not a booming radon measurement as well as radon mitigation industry in Canada. However, with the guidance being dropped and the attention that this issue is receiving in Canada, it is likely that this situation will change. Health Canada, which is spearheading the radon issue in Canada, is currently conducting a series of stakeholder meetings designed to bring together the various players that will likely be impacted by an enhanced awareness of radon.

The first of these stakeholder meetings was held in Ottawa on June 22, 2007 and was comprised of individuals representing the home building industry, real estate industry, home inspectors, scientists, contractors, federal housing authorities, mortgage interests, etc. I had the privilege of attending this meeting and I must say that I was very impressed with the professionalism of those involved. Different from meetings like this I have attended in the U.S., there was no discord or acrimony over the merits of a radon program, but rather how can industry and government cooperate to make this a successful program. Wow -- what a breath of fresh air!

On the other hand, the group is aware that now the guidance is in place a tremendous amount of work lays ahead in adding the infra-structure to support such a program. It is one thing to advise the public to test and fix their homes, but it is another to have qualified laboratories and service providers available to fulfill the need generated.

As a stop-gap measure, Health Canada is recognizing individuals who are certified with other credentialing bodies. This includes the NEHA-NRPP and NRSB national certification programs in the U.S. as well as certification programs existent in other countries. This does not mean that Canada has no experience with radon. In fact, there have been a number of radon remediation projects in Canada over the years and several respected radon scientists reside in Canada. Rather, there needs to be a larger number of service providers distributed around the country.

It was also apparent from the meeting, that although individuals certified by non-Canadian agencies will be recognized initially, there was a feeling that the protocols and approaches taught or utilized by individuals certified outside Canada's borders may not be the most optimal for its program or the housing stock and climate that exists in Canada. So it is likely that as time passes, Canadian specific measurement and mitigation

standards will be developed and that these methods will form the basis for a Canadian specific certification program.

So, hats off to our cousins to the north! You have passed a major milestone. We offer our assistance and our experiences-both good and bad. You have a remarkable opportunity to build a strong program for the Citizens of Canada.

As always, who says there is nothing new in radon?

Doug Kladder