



CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS, INC.

POSITION

Relating to: Radon and its Relative Risk

Radon is a colorless, odorless, and tasteless radioactive gas. Being a member of the naturally occurring uranium radioactive decay series, it has always been a part of the environment. Uranium, along with its decay products, is found in soils throughout the world. In areas where the concentration of uranium is sufficient, where there is adequate soil permeability, and where soil gas has ingressed to the building, elevated concentrations of radon can be found in homes, schools and work places.

Radon has become an important issue in the protection of the public from the harmful effects of radiation. Radon first came to the attention of the radiation protection community and the public through studies of its effects on underground miners. Inhalation of radon or, more correctly, its radioactive decay products at high concentrations has been implicated as the probable cause for the elevated incidence of lung cancer in these miners. While the incidence of this increase is well documented, and generally uncontested in the scientific community, there is much controversy as to the effects of radon at average environmental levels found in residential structures. Though agreement over the risk estimates at these levels is not likely to be settled in the near future, the current Environmental Protection Agency's estimates of 20,000 annual lung cancer deaths in the United States attributed to exposure to radon and its radioactive decay progeny cannot be ignored.

Results of environmental epidemiological studies are not complete, and much work is still to be done toward the development and perfection of mitigation and prevention techniques. Nonetheless, it is evident that:

- Elevated levels of radon are a significant problem both from a public health risk standpoint as well as having the potential to cause economic hardship for homeowners.

- There is a strong public need for information and guidance in dealing with the issue.
- The BEIR III and BEIR IV committees, of the National Academy of Sciences, as well as the United Nations Scientific Committee on the Effects of Atomic Radiation, the National Council on Radiation Protection and Measurements, the International Council on Radiation Protection, the United States Environmental Protection Agency, and the U.S. Public Health Service, (USPHS/CDC) have all recognized a correlation between exposures of miners to high radon concentrations and lung cancer and have called for action to reduce elevated radon levels in the indoor air environment.

Based on the preceding rationale, it is the policy of the CRCPD that:

- Radon exposure of the population of the U.S. should be reduced to the lowest practical level.
- A measurement program be undertaken to determine potential radon problem areas throughout the U.S., and levels of radon in all occupiable buildings should be determined.
- Radon mitigation be undertaken to reduce annual average radon exposures to the goal of ambient levels. However, it may not be practical to reduce such levels to below 2-4 pCi/L in all existing or new construction.
- A uniform measurement program be developed in which standardized measurement protocols are used to characterize structures.
- State programs be established for certification of measurement and mitigation companies, which include reciprocity of such certifications.
- Public awareness programs be established by federal, state and local governments.

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Original signed by Charles M. Hardin, Executive Director