

**Chairman Howard and Members,**

**My name is William J. Angell<sup>1</sup>,**

- I am **Professor Emeritus, University of Minnesota** where I served for 30 years as Director of the Midwest Universities Radon Consortium, a U.S. Environmental Protection Agency Regional Radon Training Center.
- I have also served as **President of the American Association of Radon Scientists and Technologists as well as the Association's North Star Chapter.**
- Furthermore, I am **an active member of consensus-based radon measurement and mitigation standards development** in accordance with American National Standards Institute guidelines.
- Finally, I served as a **Visiting Scientist at two federal research laboratories, Lawrence Berkeley National Laboratory and the Radiation and Indoor Environments National Laboratory, as well as on the World Health Organization's International Radon Project.**

First, let me say, **"Thank you for your service on this critically important committee and your consideration of this bill."**

Today, I stand before you to **ask for your support House File 4613 calling for Minnesota rental housing property owner testing for indoor radon according to national consensus-based standards, disclosure of test results, and, when appropriate, reduction of unsafe radon concentrations.**

- While **my position is consistent with that of being an internationally respected scientist,**
- I am **motivated by the lung cancer deaths due to indoor radon exposure of two of my relatives who never smoked:**
  - my 38-year-old brother-in-law, Barry, and
  - my 62-year-old mother-in-law, Jenny.

**Exposure to radon in Minnesota's rental housing units is responsible for about 180 lung cancer deaths per year<sup>2</sup>.**

- By comparison, **there are about 35 residential fire deaths per year in Minnesota per year<sup>3</sup>. Further, there are about 14 accidental carbon monoxide deaths each year in Minnesota in all settings<sup>4</sup>.**

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<sup>2</sup> Based upon Center for Disease Control (CDC), National Cancer Institute (NRI), and other data compiled the American Association of Radon Scientists and Technologists (AARST) for Minnesota, 638 radon-induced lung cancer deaths per year in Minnesota according to' Radon Report Card for Minnesota (<https://aarst.org/report-card/> accessed 3/19/24) divided by 28% of the State's occupied housing stock being rental.

<sup>3</sup> State Fire Marshall, 2019 *Fire in Minnesota*, St. Paul, MN: Minnesota Department of Public Safety, [/https://dps.mn.gov/divisions/sfm/mfirs/Documents/Fire%20in%20Minnesota/Fire-in-Minnesota-2019.pdf](https://dps.mn.gov/divisions/sfm/mfirs/Documents/Fire%20in%20Minnesota/Fire-in-Minnesota-2019.pdf)

<sup>44</sup> According to CDC data reported by Minnesota Department of Health, "Carbon Monoxide (CO) Poisoning in Your Home," St. Paul, MN: MDH, <https://www.health.state.mn.us/communities/environment/air/toxins/index.html#:~:text=Data%20specific%20to%20Minnesota%20show,information%20Carbon%20Monoxide%20Data%20Portal.> (accessed 20 March 2024).

- **If you assume all Minnesota carbon monoxide deaths occurred in residences, then we could state radon in the home kills more than 3-times as many people than residential carbon monoxide and residential fires combined!**
- **Over 75-year expectant primary service life, radon in the State's rental housing is responsible for about 13,500 lung cancer deaths.**
- **This bill is a major step to reduce premature deaths of Minnesota tenants.**

**The cost of radon-induced lung cancer in Minnesota is about \$260 million/year according to the National Cancer Institute of which \$73 million/year is associated with rental housing radon exposure.**

**Insuring safe indoor radon exposures are maintained in Minnesota's rental housing is an environmental justice issue that has been ignored far too long.**

**One might ask, "Why not simply encourage tenants to test for radon?" Renters are, of course, in an incredibly weak position to fix any radon problem they discover and, the tight housing market does not reasonably allow them to move to another home with safer concentrations of radon.**

- **There is a proposed amendment to HF 4613 that allows tenants to test for radon and to terminate the lease if the landlord fails to respond. In addition to the issue I already stated, this approach in multifamily rental housing does not assure protection of other tenants in the building and it violates national, consensus-based standards calling for 100% testing of ground floor apartments. This approach further violates Minnesota Department of Health requirements.**

**Today, you have an opportunity to insure 650,000 Minnesota families who rent can be reasonably safe in their homes from radon-induced lung cancer. Please support this bill.**

I would be happy to take your questions.

Thank you.