

Joint meeting with the Virginia Chapter of the Health Physics Society



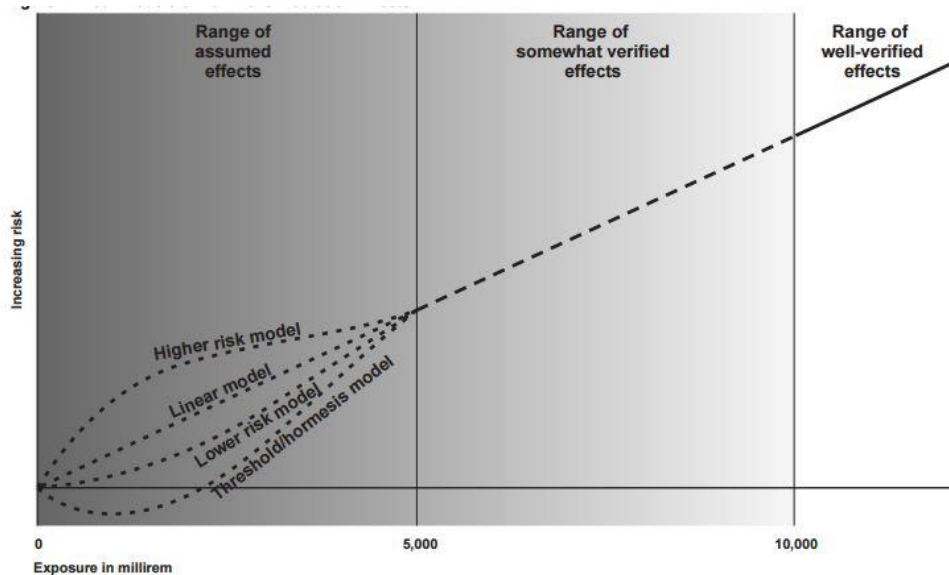
Rod Adams, [Atomic Insights](#)



"Linear No-Threshold Model Impacts - Low-dose radiation exposure should not be feared"

January 21, 2016 at 5:30 p.m.

At [Dominion Innsbrook Technical Center](#), Glenn Allen, VA



From GAO/RCED-00-152 "[RADIATION STANDARDS Scientific Basis Inconclusive, and EPA and NRC Disagreement Continues](#)", June 2000

Topic:

Rod will be discussing the ongoing debates and developments surrounding the Linear No-Threshold (LNT) Model for human health risks from ionizing radiation. LNT is a model used in radiation protection to quantify radiation exposure and set regulatory limits. It assumes that the long term, biological damage caused by ionizing radiation (essentially the cancer risk) is directly proportional to the dose. This allows the summation by dosimeters of all radiation exposure, without taking into consideration dose levels or dose rates. In other words, radiation is always considered harmful with no safety threshold, and the sum of several very small exposures are considered to have the same effect as one larger exposure (response linearity).

One of the organizations for establishing recommendations on radiation protection guidelines internationally, the UNSCEAR, has recommended in 2014 policies that do not agree with the Linear No-Threshold model at exposure levels below background levels of radiation to the UN General Assembly from the Fifty-Ninth Session of the Committee. Its recommendation states that "the Scientific Committee does not recommend multiplying very low doses by large numbers of individuals to estimate numbers of radiation-induced health effects within a population exposed to incremental doses at levels equivalent to or lower than natural background levels." This is a reversal from previous recommendations by the same organization.

Speaker Biography:

Rod graduated from the Naval Academy in 1981 and then served for 29 years in roles of increasing responsibility, mostly associated with the nuclear navy. One of his jobs in the Navy was as the Chemistry and Radiological Controls Assistant. As Engineer Officer, he was responsible for the overall radiation safety program for the ship. Unlike most career officers, he took a lengthy mid-career break from active duty. During the period from 1993-1999 he created Adams Atomic Engines, Inc., started publishing Atomic Insights, and then served as the general manager for a small manufacturing company. He returned to active duty in 1999, taught at the Naval Academy and served in a variety of budget and financial analysis roles at Navy Headquarters in Washington, D.C.

At several ANS meetings in the mid 1990s, he met Jim Muckerheide, Alan Waltar, Ted Rockwell, and a number of other people engaged in challenging assumptions about the health effects of low dose radiation. They convinced him that there was no basis for the linear no-threshold model that was the basis for the ALARA principle. He's been studying and writing about the topic intermittently ever since. In 2015, he joined Scientists for Accurate Radiation Information (SARI).

More about Rod and his publications can be found at Atomic Insights (atomicinsights.com).

About Atomic Insights:

[Atomic Insights](#) LLC is a for-profit, tax-paying, publishing company based in Virginia whose aim is to produce and distribute accurate information about a variety of topics associated with atomic technologies. We discuss atomic energy, the competitors to atomic energy, radiation, the risks and benefits of using nuclear technology, and the hazards of avoiding the use of nuclear technology.

Schedule:

- Social Hour - 5:30 p.m.
- Dinner - 6:00 p.m.
- Presentation - 6:45 p.m.
- Adjourn - 8:00 p.m.
- Directions to the [Dominion Innsbrook Technical Center](#)

COST: \$25 (\$15 for students) includes dinner and social refreshments.

Reservations have closed as of 4 p.m. on Monday, January 18, 2016. Please address any questions to VA-ANS [Nicole Waugh](#).