

Comments from Beyond Nuclear on Executive Order 14300, titled Ordering the Reform of the Nuclear Regulatory Commission

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Nuclear Regulatory Commission
By email

Hello, Messrs. Garmon and Miller,

Comments for Beyond Nuclear on the EO charging NRC to reexamine the LNT.

In 2015, petitioners filed three petitions for rulemaking seeking to amend NRC's Part 20 regulations to discontinue the use of the linear nothreshold (LNT) model as the primary scientific basis for the agency's radiation protection standards. In 2021 three NRC commissioners voted, based on NRC staff recommendations, to deny these petitions. Here are excerpts of the explanations they gave for this denial:

Commissioner Hanson:

"...the LNT model continues to provide a prudent regulatory basis... to minimize the risk of unnecessary radiation exposure."

Commissioner Wright:

"the LNT model is premised upon the findings and recommendations of national and international authoritative scientific bodies that have expertise in radiation protection and continue to support the model."

Commissioner Baran:

"national and international authoritative scientific bodies with expertise in the science of radiation protection, including the National Academy of Sciences, National Council on Radiation Protection and Measurements, International Commission on Radiological Protection, and International Atomic Energy Agency, all support the continued use of the LNT model. Moreover, the U.S. Environmental Protection Agency, National Cancer Institute within the National Institutes of Health, and National Institute for Occupational Safety and Health within the Centers for Disease Control also recommend that NRC continue to base its radiation protection standards on the LNT model."

The science up until 2021 didn't support abandoning LNT and, in fact, indicated the opposite: that additional protections were warranted, especially to address exposure from radionuclides inside the body, disproportionate impacts on women and children, and certain non-cancer outcomes like harm to pregnancy and autoimmune disorders. The science since 2021 has, if anything, been pointing to greater harm from exposures — exposures that current regulations erroneously consider "low", again, particularly from radionuclides inside the body. Changing NRC staff and commissioners will not change the science underpinning this 2021 determination, particularly where the LNT model falls short in protecting human health.

Thank you for the opportunity to comment. I am attaching a report compiled by Dr. Ian Fairlie in support of the LNT (beginning on p 2). You may also find my comments from this consultation in the Federal Register for these dockets: [Docket Nos. PRM-20-28, PRM-20-29, and PRM-20-30; NRC-2015-0057]

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