



**American Association of Physicists in Medicine**

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***Office of the President***

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August 26, 2015

Annette Vietti-Cook  
Secretary  
U.S. Nuclear Regulatory Commission  
11555 Rockville Pike  
Rockville MD 20555-0001

Attn: Rulemaking and Adjudications Staff  
Re: Docket Nos: PRM-20-28, PRM-20-29 and PRM-20-30 (80 FR 35870)

Dear Ms. Annette Vietti-Cook:

The American Association of Physicists in Medicine<sup>1</sup> (AAPM) is pleased to provide comments on the three petitions from Drs. Carol Marcus, Mark L. Miller, and Mohan Doss for rulemaking (PRM) (Docket Nos.: PRM-20-28, PRM-20-29, PRM-20-30) requesting that NRC amend its “Standards for Protection Against Radiation” regulations and change the basis of those regulations from the Linear No-Threshold model of radiation protection to the radiation hormesis model. See the attached file for the Notice titled, “Linear No-Threshold Model and Standards for Protection Against Radiation.”

AAPM agrees with the current position of the Commission as stated in Staff Requirements Memorandum to SECY-12-0064 – *Recommendations For Policy And Technical Direction To Revise Radiation Protection Regulations And Guidance* dated December 17, 2012. That memo disapproved the NRC staff’s recommendation to develop the regulatory basis to reduce the occupational dose limits.

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<sup>1</sup> The American Association of Physicists in Medicine’s (AAPM) is the premier organization in medical physics; a broadly-based scientific and professional discipline encompassing physics principles and applications in biology and medicine whose mission is to advance the science, education and professional practice of medical physics. Medical physicists contribute to the effectiveness of radiological imaging procedures by assuring radiation safety and helping to develop improved imaging techniques (e.g., mammography CT, MR, ultrasound). They contribute to development of therapeutic techniques (e.g., prostate implants, stereotactic radiosurgery), collaborate with radiation oncologists to design treatment plans, and monitor equipment and procedures to insure that cancer patients receive the prescribed dose of radiation to the correct location. Medical physicists are responsible for ensuring that imaging and treatment facilities meet the rules and regulations of the U.S. Nuclear Regulatory Commission (NRC) and various State regulatory agencies. AAPM represents over 8,000 medical physicists.

The AAPM has reviewed the petitions and notes that currently the Linear-No-Threshold (LNT) model has been extensively reviewed by scientific experts and continues to be identified as fundamental to the existing radiation protection framework. The AAPM agrees that any action changing the basis of United States regulations from that fundamental underpinning needs additional research and justification.

Should you have any further questions, please contact Lynne Fairbent, Senior Manager for Government Relations at [lynne@aapm.org](mailto:lynne@aapm.org) or 301-209-3364.

Sincerely,

A handwritten signature in blue ink, appearing to read "John M. Boone", written over a horizontal line.

John M. Boone, Ph.D., FAAPM, FSBI, FACR