

Rulemaking1CEm Resource

From: RulemakingComments Resource
Sent: Monday, October 19, 2015 5:10 PM
To: Rulemaking1CEm Resource
Subject: Comment on PRM-20-28, 20-29 & 20-30
Attachments: Comment (421) of Stephen Gerard.pdf

DOCKETED BY USNRC—OFFICE OF THE SECRETARY

SECY-067

PR#: PRM-20-28, PRM-20-29, and PRM-20-30

FRN#: 80FR35870

NRC DOCKET#: NRC-2015-0057

SECY DOCKET DATE: 10/19/15

TITLE: Linear No-Threshold Model and Standards for Protection Against Radiation

COMMENT#: 421

Hearing Identifier: Secy_RuleMaking_comments_Public
Email Number: 1215

Mail Envelope Properties (d3a344adc6424b12b00f410071993ab0)

Subject: Comment on PRM-20-28, 20-29 & 20-30
Sent Date: 10/19/2015 5:09:30 PM
Received Date: 10/19/2015 5:09:31 PM
From: RulemakingComments Resource

Created By: RulemakingComments.Resource@nrc.gov

Recipients:
"Rulemaking1CEM Resource" <Rulemaking1CEM.Resource@nrc.gov>
Tracking Status: None

Post Office: HQPWMSMRS02.nrc.gov

Files	Size	Date & Time
MESSAGE	298	10/19/2015 5:09:31 PM
Comment (421) of Stephen Gerard.pdf		66772

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

October 18, 2015

Secretary,
US Nuclear Regulatory Commission
Washington, DC 20555-0001
Mailed (US Mail) and Fax to: (301) 415-1101

Re: Docket ID: NRC-2015-0057
Proposed Rule: Linear No-Threshold Model and Standards for Protection against Radiation

To the Secretary,

I am writing you in strong support of the petitions of Dr. Carol Marcus and others to abolish the use and reliance on the linear no-threshold model as a basis for rulemaking to create standards for protection against radiation exposure.

I have practiced Nuclear Medicine for 26 years, both in the academic setting for 15 years, and for the past 12 years in a community hospital setting. I have also served my current community hospital as the Radiation Safety Officer, having become all the more familiar with the regulatory requirements imposed by ALARA and similar regulations that require strict adherence to controlling and regulating exposure of low-level radiation to hospital workers and to patients alike.

Throughout my career, I have become well aware of the burden that such strict and onerous regulatory requirements impose on both patients and healthcare workers, requirements for which it is now well known have no basis in the scientific literature. The evidence is overwhelming that low-level radiation exposure not only is not harmful, but is most likely beneficial. Therefore, to continue to require ongoing regulation and restriction of such low-level radiation exposure is wasteful of our already limited resources for providing health care due in part to the time spent by many in and out of the hospitals to comply with such requirements.

No one disputes that radiation exposure above certain thresholds contributes to an excess of carcinogenesis. However, such levels are hundreds of times higher than those levels we are required to monitor and record. As examples of this, we are required to monitor occupational exposures using devices, such as personal dosimeter badges, for all workers expected to receive 500 mrem/year or more, and then to report in writing to such workers their annual cumulative doses that exceed 100 mrem over the year. Such doses are miniscule, representing trivial exposures that are well within the range of variability from natural background exposure rates around the world.

Radiation phobia has largely driven another imaging initiative, namely PET-MRI, as an alternative to PET-CT for imaging patients with cancer. Eliminating the radiation exposure of the CT scan for anatomic localization of the PET abnormalities, typically corresponding to sites of primary or metastatic cancer, has been a significant justification to promote consideration for use of this modality. However,

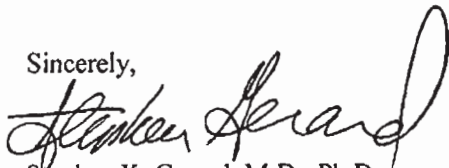
PET-MRI imaging equipment will cost 4-5 times that of our existing PET-CT technology. The evidence cited in Dr. Marcus' petition and otherwise in the literature discounts the likelihood of increased cancer risks arising from patients' exposure to radiation from the CT scan of the PET-CT procedure, when performed at reasonable intervals.

These are but two examples of money being wasted on unnecessary medical initiatives driven by radiation phobia, which is driven by the linear no-threshold hypothesis. Such initiatives do not pass muster in their analysis of cost benefit. Our health care system is already struggling to maintain affordability, for a variety of reasons. Continuing to rely on the linear no-threshold hypothesis is one source that you can remove from fueling the fire of unnecessary costs incurred to our already financially-challenged health care system.

I urge you to act in favor of the evidence in the literature cited in Dr. Marcus' petition, and to discontinue the use of the LNT hypothesis as a basis for rulemaking for radiation safety guidelines.

Thank you for your attention and consideration.

Sincerely,



Stephen K. Gerard, M.D., Ph.D.

664 Noe Street

San Francisco, CA 94114

skgnuc@comcast.net