Scientists for Accurate

Radiation Information

(SARI)

Secretary, U.S. Nuclear Regulatory Commission,

Washington, DC 20555–0001

ATTN: Rulemakings and Adjudications Staff

Date: 9/29/2015

**SUBJECT: Threshold Determination Recommendations in Support of Petitions - Docket Numbers PRM–20–28, PRM–20–29, and PRM–20–30 which request that the NRC amend its ‘‘Standards for Protection against Radiation’’ regulations and change the basis of those regulations from the Linear No-Threshold (LNT) model of radiation protection -** Docket ID NRC–2015–0057

We, the listed members below from Scientists for Accurate Radiation Information \* (SARI), an organization of like-minded individuals interested in promulgation of scientifically-based information of the true risk from exposure to ionizing radiation, would propose that the Nuclear Regulatory Commission undertake to direct a study (composed of a wide selection of qualified experts) to identify appropriate threshold values for radiation exposure to occupational workers and members of the public in support of a rule change to Title 10 Code of Federal Regulations Part 20 Subparts C and D. It is our view that the current dose limits are not based on science and that threshold values upon which limits could be derived exist for all forms of radiation detriment. It is appropriate that an unbiased expert panel review all current research and make recommendations which would likely, in our view, support that radiological risk is nonexistent below some threshold doses (HPS, 2010) and that the so-called stochastic risk is not supported by research and analysis.

Current radiation exposure limits are the result of what is known as the linear non-threshold (LNT) theory that states that any radiation exposure, no matter how small, is in some way harmful. Recent information has come to light (Calabrese, 2015) showing that early statements to this effect by Nobel laureate Herman Muller and as published by subsequent panels of the Biological Effects of Atomic (now Ionizing) Radiation (BEIR) were unfounded. These statements were promulgated into publications of the International Commission on Radiological Protection (ICRP) and NCRP and ultimately into regulation in the form of dose limits. We feel that development of appropriate science-based threshold values could both relieve the public of unnecessary anxiety and reduce the cost of radiation protection programs.

While the BEIR committee continues to promote this ideology, there have been many recent publications that show that the LNT model is untenable and that there are likely thresholds below which no harmful effects occur. In addition, the data cohort used by BEIR (Hiroshima and Nagasaki exposure victims) does not effectively address stochastic effects below 50 rem (Ozasa, 2012). It is therefore appropriate to perform a new analysis of current dose limits as supported by research data and derive new limits supported by radiological effect thresholds.

We look forward to your positive response to the 3 petitions listed and offer our organization’s support in your deliberations.

Signed,

Charles (Gus) Potter, Sandia National Laboratories

Douglas Osborne, Sandia National Laboratories

John Sackett, Argonne National Laboratory (retired)

Ludwig Feinendegen, Heinrich-Heine University University Dusseldorf, Germany

Wade Allison, Emeritus Professor of Physics, University of Oxford

Meredith Angwin, Carnot Communications

Mohan Doss, Associate Professor, Fox Chase Cancer Center

Jane Orient, Individual Practitioner of Medicine, editor of Doctors for Disaster Preparedness Newsletter and Civil Defense Perspectives

Shizuyo Sutou, Shujitsu University

Patricia Lewis, Free Enterprise Radon Health Mine

Bill Sacks, FDA’s Center for Devices and Radiological Health (Retired)

Robert Hargraves, Dartmouth College

Andrea Jennetta, Fuel Cycle Week / Int’l. Nuclear Associates, Inc.

Scott Dube, Morton Plant Hospital

Vincent Esposito, Adjunct Prof. Univ. of Pittsburgh (Retired)

Jeffrey Mahn, Sandia National Laboratories (retired)

SMJ Mortazavi, Shiraz University of Medical Sciences

Rod Adams, Atomic Insights LLC

Charles W. Pennington, Private Consultant

Leslie Corrice, M.A., Self-employed / Semi-retired

Ludwik Dobrzynski, Nat’l. Center for Nuclear Research, 05-400 Otwock, A. Soltana 7, Poland

Steven Payne, DOE/NNSA

Ruth Weiner, Sandia National Laboratories (retired)

Alan Fellman, Ph.D., C.H.P., Dade Moeller

Jerry Cuttler, Cuttler & Associates

Leo Gomez, Sandia National Laboratories (retired)

SMJ Mortazavi, Ph.D, Shiraz University of Medical Sciences

Charles L. Sanders, Retired

Marek K. Janiak, MD, PhD, Military Institute of Hygiene and Epidemiology, Warsaw, Poland

Mack Easty M.D., U.S.Army (retired)

Robert Reese, Sandia National Laboratories

Edward (Ted) L. Quinn, Past President, American Nuclear Society, 1998-99

**References**

Calabrese, 2015. “On the origins of the linear no-threshold (LNT) dogma by means of untruths, artful dodges and blind faith”, Environmental Research 142 (2015) 432–442.

HPS, 2010. Health Physics Society position statement, PS0010-2, “Radiation Risk in Perspective”.

Ozasa, 2012. Ozasa K, Shimizu Y, Suyama A, Kasagi F, Soda M, Grant EJ, et. al., “Studies of the mortality of atomic bomb survivors”, Report 14, 1950–2003: an overview of cancer and noncancer diseases. Radiation Research 2012; 177:229–43.

# \* SARI’s Charter

**Charter:** *The objective of this group is to monitor for and counter nuclear/radiological misinformation that could adversely impact the world’s ability to effectively respond to nuclear and radiological challenges, to the end point of saving lives.*

Note: All signers of this letter are members or associate members of [SARI (Scientists for Accurate Radiation Information)](http://radiationeffects.org). The above letter represents the professional opinions of the signers, and does not necessarily represent the views of their affiliated institutions.