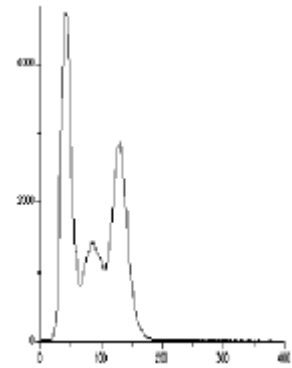




MIDWEST  
CHAPTER

# THE SPECTRUM

NEWSLETTER OF THE HEALTH PHYSICS  
SOCIETY'S  
MIDWEST CHAPTER  
May 2008  
[www.midwesthps.org](http://www.midwesthps.org)



## Annual Meeting, May 21, 2008

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### The LNT Theory: Is it time to Consider a Change in Regulatory Policy?

Dr. Kenneth L. Mossman  
Professor of Health Physics  
School of Life Sciences, Arizona State University  
Administrative Judge, Atomic Safety and Licensing Board  
U. S. Nuclear Regulatory Commission



As described by Ludwig E. Feinendegen in the October 2007 issue of *Health Physics*, "the current debate on health risks from ionizing radiation is turbulent-to say the least. The main issue is the potential induction of cancer following exposure to low doses of both low- and high-LET type radiations."

This was also the topic of the most recent meeting of the April 14-15, 2008 NCRP, at which it was recognized that considerable debate exists over the applicability of a linear-non threshold (LNT) model for characterizing the biological responses and health effects of exposure to low radiation doses.

*(continued on next page)*

**See inside for a report on the April 14-15 NCRP symposium on low-dose and low-dose-rate radiation effects and models.**

(from previous page)

Dr. Kenneth L. Mossman, Professor of Health Physics in the School of Life Sciences at Arizona State University in Tempe will address the Chapter to discuss a number of issues (e.g., scientific, economic, and social factors) that drive the LNT debate.

Dr. Mossman has authored a timely new book with respect to this debate, *Radiation Risks in Perspective*. The message of the book conveys the need for simplifying radiation protection by balancing risks from radiation exposure in life, putting these risks in perspective, and optimizing protection by basing regulations on measurable doses rather than on calculated risks.

Dr. Mossman's research interests include the biological effects of low-level radiation, radiation exposure in pregnancy, health effects of environmental radon, radiological risk assessment and risk management, and radiation protection and public policy.

Dr. Mossman served as president of the Health Physics Society from 1993-1994. In 1984, Dr. Mossman was awarded the Elda Anderson Award from the Health Physics Society and in 1994 was elected a Fellow of the Society in recognition of outstanding contributions to the field of Health Physics. In 1995, he received the Marie Curie Gold Medal. From 1996-1998, Dr. Mossman served as a Sigma Xi Distinguished Lecturer. In 2001, he was elected a Fellow of the American Association for the Advancement of Science (AAAS) in recognition of distinguished contributions to the field of health physics and for advancing the understanding of the health effects of low doses of ionizing radiation. In 2002, he received the Health Physics Society's Founders Award. In 2003, Dr. Mossman was awarded a John Simon Guggenheim Memorial Foundation Fellowship. Dr. Mossman has over 160 publications in the open literature including seven books and proceedings related to radiation health issues.

Throughout his career Dr. Mossman has also served on a number of national and international advisory groups including advisory groups of the National Research Council, National Institutes of Health, U.S. Nuclear Regulatory Commission, the Nuclear Energy Agency of the Organization for Economic Cooperation and Development (Paris), and the International Atomic Energy Agency (Vienna). He has testified before the U.S. House of Representatives and the U.S. Senate on various radiation-related issues.

Dr. Mossman earned the B.S. in biology from Wayne State University. He was awarded the MS and Ph.D. degrees from the University of Tennessee in radiation biology and the MEd degree in higher education administration from the University of Maryland. Dr. Mossman and his wife, Blaire, currently make their home in Scottsdale, Arizona.

### **President's Message**

This year the Chapter ventured in a new direction by organizing the Midwest Health Physics Technical Symposium at Argonne National Laboratory. The event featured five hours of presentations. There were two focal points—healthcare health physics and radiological aspects of homeland security. Also covered were a variety of other topics, ranging from operations of the NCRP to what it's like to run your own HP business. Speakers came from as far away as Washington DC. There were four vendor displays plus information tables from the Illinois Emergency Management Agency and the DOE National Nuclear Security Administration.

We invited health physicists from throughout the Chicago area and from neighboring chapters in Illinois, Indiana and Michigan. There were 77 participants with some in the audience traveling as much as 200 miles to attend. The program elicited many favorable comments. Many attendees particularly appreciated the opportunity to become familiar with operations and developments outside their own areas of specialization.

The Board is pleased at the favorable response and is already discussing whether there should be similar events in the future and what improvements can be made. Your comments and suggestions would be appreciated. You can send them to me at [gdauidson@anl.gov](mailto:gdauidson@anl.gov).

Gerald Davidson

**A Summary of the NCRP Symposium on April 14-15, 2008  
“Low-Dose and Low-Dose-Rate Radiation Effects and Models”**

**By S.Y. Chen, Argonne National Laboratory, Argonne, IL**

**(Author’s Note:** This brief report was prepared from a long series of presentations made by leading experts in fields related to radiation protection. As it is impossible to capture every presentation in detail, the summary was based on the author’s own impressions and interpretations. It is understood that the NCRP will publish the entire proceedings in a special edition of the journal *Health Physics* in the near future.)

**THE 2008 PROGRAM**

The 2008 NCRP Symposium (at North Bethesda, Maryland) was a much anticipated event by many in the radiation protection community; the attendance reached 500, a record high. The two-day symposium consisted of a series of topical presentations that also featured two lecture series – the Warren K Sinclair Keynote Address and the Lauriston S. Taylor Lecture on radiation protection and measurements. The general program was structured in a sequence that began with discussions at the molecular and cellular levels, together with tissue and animal studies, followed by human epidemiology studies and the potential implications of low-dose radiation effects on regulatory policy and the public. A debate was also arranged on the merit of reversing the prevailing LNT dose-risk model, which was advocated by the French representative (based on the findings of the report by the French Academy of Sciences and Medicine) and opposed by a U.S. representative (based on the current prevailing view of BEIR VII and other findings).

*(The above is an excerpt from a summary of presentations at the NCRP Symposium that is in preparation by Chapter member S.Y. Chen. The full summary will be posted on our web site, <http://www.midwesthps.org/>, when available.)*



*Photo by Eila Grahn*

Joseph Klinger, Assistant Director, Illinois Emergency Management Agency, speaking at the technical symposium on responses to radiological emergencies

**Attention Members**

The mailing label on this newsletter lists the date through which your dues are paid. If you would like to pay your dues for 2008, please submit a check in the amount of \$15.00, payable to Midwest Chapter HPS. If you haven’t already done so, please complete the Membership Update form that was included in the last issue of the Spectrum (available on our website). You can bring the update form and the dues payment to the annual meeting or mail them to:

Midwest Chapter HPS  
P.O. Box 513  
Westmont, Illinois 60559

## Annual Meeting 2008

### The LNT Theory: Is It Time to Consider a Change in Regulatory Policy?

**Date:** Wednesday, May 21, 2008

**Time:** 6:00 PM Social Hour  
7:00 PM Dinner  
8:00 PM Featured Speaker

**Location:** Greek Islands Restaurant  
300 East 22<sup>nd</sup> Street  
Lombard, IL 60148  
630-932-4545

**Cost:** \$24 per person for members & spouse; \$27 per person for non-members.

#### Menu

**Complete dinner (soup, salad, and dessert) with following choice of entrée:**

**Chicken Riganati**

(quarter piece of chicken baked Greek style with olive oil, herbs, and spices)

**Keftedes**

(Beef and lamb meatballs stewed in tomato sauce)

**Vegetarian Mousaka**

(Baked eggplant, zuchinni, and potato casserole topped with béchamel sauce)

Each entrée will be served with rice and potato.

***Please specify your choice of entrée when you make your reservation.***

**Reservations:** Phone or e-mail your reservation to John Schrage, our Program Chair, at (630) 657-2821 or [John.Schrage@exeloncorp.com](mailto:John.Schrage@exeloncorp.com) by 4 pm Monday, May 19<sup>th</sup>. Please specify an entrée.

**Midwest Chapter Health Physics Society  
P.O. Box 513  
Westmont, Illinois 60559**