National Council on Radiation Protection and Measurements (NCRP) Drop-In Visit

Chairman Macfarlane

January 3, 2014

ML13360A322

National Council on Radiation Protection and Measurements Drop-In Visit

CONTENTS

TAB 1A

Drop-In Visit Agenda

January 3, 2014

TIME	PERSON VISITED	CONTACT PERSON	EXTENSION
10:45am – 11:15am	Chairman Macfarlane	Catina Gibbs	301-415-1820

Meeting Attendees Representing
National Council on Radiation Protection and Measurements

- Dr. John Boice, President
- Dr. David Schauer, Emeritus Executive Director

Summary

The U.S. National Council on Radiation Protection and Measurements (NCRP) requested this meeting with the Chairman. The purpose is: to inform the Chairman of the NCRP, a congressionally chartered organization; to discuss areas where the NCRP and NRC have collaborated in the past; and to discuss present and future areas of common interest in radiation protection.

Current Issues

Topics of Discussion

1. One Million U.S. Radiation Worker Study. NRC is collaborating with the Department of Energy, NASA and the Environmental Protection Agency in this national effort to evaluate the health consequences of low-dose radiation exposures that are experienced gradually over many years, providing insight into the slope of the cancer-dose response curve. The NRC licensees are an important component of this study and include nuclear power workers and industrial radiographers. NCRP has the lead in directing this nationwide study. Several NRC staff are assisting with the overall effort.

2. Registry of Radiation Workers, NRC's Radiation Exposure Information and Reporting System (REIRS). In the 1980s when Dr. John Boice was with the National Cancer Institute (NCI), he had contacted NRC Chairman Lando Zech and subsequently Chairman Kenneth Carr regarding the possibility of setting up a registry of the NRC licensees that could be used for epidemiologic purposes. NRC made the changes in the early 1990s, and NCRP is currently working closely with NRC staff and their contractors to use these data for studying the health of radiation workers.

3. Analysis of Cancer Risks in Populations Near Nuclear Facilities. NRC has initiated pilot studies to consider community risks in the vicinity of nuclear power plants. Dr. Boice has been and remains available to provide advice as needed to NRC staff and the National Academies. He directed the NCI study of cancer risk around nuclear power plants conducted in the 1980-1990s.

4. Participation with NRC. John Boice alongside NRC's Dr. Brian Sheron testified in Congress on Fukushima. He also was a speaker at RES seminars at NRC on radiation epidemiology and on Chernobyl health consequences.

5. Guidance in Protection. As the nation's uses of radiation continue to increase in areas of nuclear power and medical applications, there is a continuing need to provide guidance on radiation health and protection issues. The initiatives that NRC has ongoing include the evaluation of limits for exposure to the eye in the workplace, a general evaluation of radiation protection guidance for the United States, possible issues involving environment and non-human biota effects, and emergency response following nuclear or radiological incidents, such as Fukushima. NCRP is just completing a report on decision-making during the late phases of a nuclear incident, and NRC is contemplating a new report on providing guidance for emergency workers and first responders after an incident occurs.

   On December 12, 2013, NCRP hosted a meeting to discuss whether new radiation protection guidance from the NCRP would be helpful to government agencies involved in the protection of workers, patients and the public. Participants included the NRC, Environmental Protection Agency, Department of Energy, Department of Homeland Security and the Department of Defense. Meeting members were generally supportive of updating the NCRP guidance since it has been over 20 years since the last update.

NCRP Background

The National Council on Radiation Protection and Measurements (NCRP), formerly the National Committee on Radiation Protection and Measurements, and before that, the U.S. Advisory Committee on X-Ray and Radium Protection (ACXRP), seeks to formulate and widely disseminate information, guidance and recommendations on radiation protection and measurements which represent the consensus of leading scientific thinking. The Council is always on the alert for areas in which the development and publication of NCRP materials can make an important contribution to the public interest.

The Council's mission also encompasses the responsibility to facilitate and stimulate cooperation among organizations concerned with the scientific and related aspects of radiation protection and measurements.

NCRP has been active in the areas of radiation protection and measurements since its inception as "The Advisory Committee on X-Ray and Radium Protection" in 1929. It was originally established to represent all of the national radiological organizations in the United States on a collective, scientific basis and to serve, in essence, as the United States national analog of the International X-Ray and Radium Protection Committee, which was created in July 1928 under the auspices of the Second International Congress of Radiology and, subsequently, evolved into the International Commission on Radiological Protection. NCRP originally operated as an informal association of scientists seeking to make available information and recommendations on radiation protection and measurements. More than 30 major reports were produced during the early period of the NCRP's history including the first recommendation specifying a maximum permissible level of exposure.

With the vast increase in the use of radiation that took place in the 1940s and 1950s, the NCRP's program expanded significantly to meet the new needs and, subsequently, it was recognized that continuation of the informal mode of operation was inappropriate. As a result, the NCRP was reorganized and chartered by the U.S. Congress in 1964 as the National Council on Radiation Protection and Measurements.

The Charter of the Council (Public Law 88-376) states its objectives as follows:

"To:

1. collect, analyze, develop and disseminate in the public interest information and recommendations about (a) protection against radiation (referred to herein as radiation protection) and (b) radiation measurements, quantities and units, particularly those concerned with radiation protection;
2. provide a means by which organizations concerned with the scientific and related aspects of radiation protection and of radiation quantities, units and measurements may cooperate for effective utilization of their combined resources, and to stimulate the work of such organizations;
3. develop basic concepts about radiation quantities, units and measurements, about the application of these concepts, and about radiation protection;

4. cooperate with the International Commission on Radiological Protection, the Federal Radiation Council, the International Commission on Radiation Units and Measurements, and other national and international organizations, governmental and private, concerned with radiation quantities, units and measurements and with radiation protection."

It should be noted that while the Charter recognizes the importance and the national character of the NCRP, it does not make the Council a governmental body; it is a private corporation. Also, the Charter does not entitle the Council to congressional appropriations. NCRP is a nongovernmental, not-for-profit, public service organization and has status as an educational and scientific body which is tax exempt [under provision 501(c)(3) of the Internal Revenue Code].

The Council treats nonionizing radiation as well as ionizing radiation. It has produced more than 150 scientific reports, the major output of the Council. Approximately three to six reports are produced each year, and more than 1.5 million copies of NCRP publications have been distributed. In addition, the annual meeting, open to the scientific community and the public, addresses, each year, a timely scientific issue.

The work of NCRP has a significant impact on almost all activities in the United States which utilize or create radiation. The recommendations of the Council are important to radiation users — medical, industrial and governmental; to the general public; and to other state, national and international groups concerned with radiation matters.

The recommendations promulgated by the Council provide the scientific basis for radiation protection efforts throughout the country. Individuals and industrial organizations employing radiation sources turn to these recommendations to be sure that their equipment and practices embody the latest concepts of protection. Nongovernmental groups concerned with improving protection efforts and disseminating information on radiation protection look to the Council for guidance. Governmental organizations, including the Nuclear Regulatory Commission, the Public Health Service, the Environmental Protection Agency, and state governments utilize NCRP's recommendations as the scientific basis of their radiation protection activities. NCRP also works closely with various international bodies concerned with radiation protection, such as the International Commission on Radiological Protection.

Similarly, the work of NCRP on measurement of radiation has found broad application throughout the United States and the world. Effective dissemination of information about radiation properties and effects requires that the measurement techniques employed and the quantities and units used be comparable throughout the United States and the world. The Council contributes to this goal by formulating and publishing the consensus of scientific opinion on various measurement problems. In the measurement area, NCRP works closely with the International Commission on Radiation Units and Measurements.

Participants in the Council's program voluntarily contribute their services in support of the Council's objectives. Their ability and experience represent the cornerstone of the Council's program and are a major force for progress in radiation protection and measurement.

Biographical Data

Dr. John D. Boice, Jr., NCRP President

John D. Boice is a Professor of Medicine at Vanderbilt University, Assistant Professor of Radiology and Nuclear Medicine at the Uniformed Services University of the Health Sciences, and since 2005 a Board Member of the Veterans' Advisory Board on Dose Reconstruction. Until his National Council on Radiation Protection and Measurements (NCRP) election, Dr. Boice was Scientific Director of the International Epidemiology Institute in Rockville, Maryland since 1996. During his 27 years of service in the US Public Health Service, John Boice developed and became the first chief of the Radiation Epidemiology Branch of the National Cancer Institute.

He received a BS in Physics and Mathematics from the University of Texas at El Paso, an MS in Nuclear Engineering and Science from the Rensselaer Polytechnic Institute, and an SM in Medical Physics from Harvard University. He earned a doctor of science (Sc.D.) in Epidemiology from Harvard University in 1977. Dr. Boice is a member of the American Association for Cancer Research, American College of Epidemiology, American Epidemiological Society, American Public Health Association, Health Physics Society, Radiation Research Society, and the Society for Epidemiologic Research.

John Boice was first elected to NCRP in 1979. He served on NCRP's Board of Directors from 1990 to 1994, chaired and vice chaired the 1996 and 2006 Annual Meeting Program Committees, respectively. Dr. Boice also served as a member of the 1988, 1991, and 2003 Annual Meeting Program Committees. In addition, he was Vice Chair of Scientific Committee 1-17 that produced Report No. 170, Second Primary Cancers and Cardiovascular Disease After Radiation Therapy, and has been a member or consultant of seven other scientific committees. NCRP honored Dr. Boice in 2009 as the Thirty-Third Lauriston S. Taylor Lecturer.

Dr. Boice is an international authority on radiation effects and currently serves on the Main Commission of the International Commission on Radiological Protection, the US delegation to the United Nations Scientific Committee on the Effects of Atomic Radiation, and the Congressionally-mandated Veterans' Advisory Board on Dose Reconstruction. He serves on the editorial boards of Journal of the National Cancer Institute as Associate Editor, the Journal of Radiological Protection as International Advisor, and Radiation Research as Senior Editor.

Among many honors and awards, Dr. Boice received the Harvard School of Public Health Alumni Award of Merit in 2008, the Health Physics Society Distinguished Scientific Achievement Award in 2007, the University of Texas at El Paso Distinguished Alumnus Award in 1999, and the Failla Memorial Lecture from the Greater New York Chapter of the Health Physics Society and the Radiological Medical Physics Society in 2007. He also received the E.O. Lawrence Award from the U.S. Department of Energy, the Gorgas Medal from the American Military Surgeons of the United States, and was the Health Physics Society R.S. Landauer Memorial Lecturer. Dr. Boice has authored or co-authored more than 440 publications.

Dr. David A. Schauer, Executive Director Emeritus

David A. Schauer is Executive Director Emeritus of the National Council on Radiation Protection and Measurements (NCRP). During his tenure a number of updated and new publications were issued by the Council.

Dr. Schauer received his doctor of science (Sc.D.) degree from Johns Hopkins University and is a diplomate of the American Board of Health Physics. He received M.S. and B.S. degrees from Georgetown and Liberty Universities, respectively. Prior to being elected NCRP secretary and treasurer, and appointed Executive Director, Dr. Schauer served in various scientific and managerial positions as an officer in the U.S. Navy (1984 to 2004). His primary research interests include thermoluminescent dosimetry and electron paramagnetic resonance biodosimetry. He is a member of numerous organizations including the American Society of Association Executives, the American College of Radiology, and the Health Physics Society.

David Schauer has published a number of scientific articles, proceedings and reports individually and in collaboration with fellow scientists and students. He also contributed book chapters to the "Handbook of Radioactivity Analysis" published by Elsevier Academic Press (2003) and "Advances in Medical Physics: 2012" published by Medical Physics Publishing (2012).