

## Tributes to Wesley L. Nyborg and Dade W. Moeller

It was with great sadness that NCRP learned of the deaths of two Distinguished Emeritus Members, Dr. Wesley L. Nyborg on September 24 and Dr. Dade W. Moeller on September 26. They were outstanding scientists and major contributors to the work of NCRP. We shall miss them.

**Dr. Wesley Nyborg** was recognized as one of the world's experts on the biological interactions and medical applications of ultrasound. He was the Chairman of Scientific Committee 66 that prepared three definitive reports on ultrasound [Report No. 74 (1983), No. 113 (1992), and No. 140 (2001)]. He served as a member of Council and became a Distinguished Emeritus Member in 1988. He was selected as the Taylor Lecturer in 2001 for a presentation on "*Assuring the Safety of Medical Diagnostic Ultrasound*." An obituary for Dr. Nyborg prepared by his daughter, Dr. Elsa Mondou, is presented below.

Dr. Nyborg, Professor Emeritus at the University of Vermont in the physics department passed away September 24, 2011 after a full and wonderful life of 94 years. He was a venerable and gentle man, who loved science with his whole heart and had a fine sweetness of character and humility rare among people. A professor at UVM since 1960, his passion was physics and he authored numerous peer reviewed articles and book chapters with a focus on acoustics, and especially ultrasound, particularly its clinical application and biophysical effects. He did seminal work in ultrasonic cavitation and acoustic radiation pressure. Additionally, he thoroughly enjoyed teaching as reflected in his book *Intermediate Biophysical Mechanics*, and was beloved by his graduate students and colleagues with whom he continued to correspond for many years as true and lasting friends. He was a member of the American Institute of Ultrasound in Medicine (AIUM), the Acoustical Society of America, American Association for the Advancement of Sciences, National Council of Radiation Protection and Measurements (NCRP), and consultant to WHO and FDA.

Born in Ruthven, Iowa in 1917, the last of 6 children of Isaac Nyborg and Alma Larson, Wesley's childhood was spent on the farm in a time and place before electricity and cars were generally available with plow horses, a one-room school house, and family sing-a-longs at the piano for company and comfort. He had an opportunity to go to Luther College, which was rare at that time, and was introduced to physics which became his lifelong intellectual pursuit. He earned his Ph.D. from Pennsylvania State University in 1947, and was Assistant and Associate Professor of Physics at Brown University prior to joining the UVM physics department. Wes was also a deeply religious man who loved God and tried to serve Him. He was active in his church (Community Lutheran) and in his community, and gave freely and generously to many charities. He loved to sing, and was in a barber shop quartet as a young man and in church choirs for many years thereafter.

Wes deeply loved and cherished his wife Beth who died in 1989 after 44 years of marriage, and is survived by his daughter, Elsa Mondou, of Raleigh, North Carolina, four grandchildren, Christine, Michael, Julie, and Martin, and additional family and friends. He was an exceptional man with profoundly good intent, whose gift of unconditional love, and qualities of determination and independent spirit will provide inspiration forever.

**Dr. Dade Moeller** was also considered a world expert for his extensive publications and lectures on the health and safety of workers, other members of the public, and the environment, with a focus on radiation protection. He served as the President of the Health Physics Society in 1971–1972, and was a member of Council for 30 years and became a Distinguished Emeritus Member in 1997. He was a member of nine NCRP scientific committees that prepared reports in his areas of expertise, and was chairman of three of the committees. He was selected as the Taylor Lecturer in 2008 for a presentation on "*Radiation Standards, Dose/Risk Assessments, Public Interactions, and Yucca Mountain: Thinking Outside the Box.*" A tribute honoring the life and accomplishments of Dr. Moeller that was issued on the date of his death by the company that bears his name is presented below.

## Company Honors Life of Namesake, Dr. Dade W. Moeller

Acclaimed radiation and environmental protection scientist passes away at age 84

RICHLAND, Wash. – It is with profound sadness that we announce the death of our namesake, Dade W. Moeller. He passed away peacefully at home from complications due to cancer on September 26, 2011, in New Bern, N.C. Dade enjoyed 84 years of vitality, learning, teaching, love, and laughter.

"Dade was more than our company's namesake," said son and CEO Matt Moeller. "He was the very inspiration from which we built this remarkable company, and the principles by which he lived his life are now our corporate core values – professional integrity, job commitment, and technical excellence. When faced with a challenge, we often ask ourselves, 'What would Dade do?'"

Born in 1927 in the small town of Grant, Florida, located on the intercoastal waterway, Dade came from humble beginnings where he learned the value of hard work and ingenuity. The only person from his high school to pass the V-12 Navy exam, he joined the U.S. Navy in 1944. He graduated magna cum laude from Georgia Tech in 1948 with a Bachelor of Science degree in Civil Engineering and a Master of Science in Sanitary (Environmental) Engineering.

After graduating, Dade became a commissioned officer in the U.S. Public Health Service, with duty stations including Oak Ridge National Laboratory, Los Alamos National Laboratory, and the Headquarters offices in Washington, D.C. Then, in 1957, under a U.S. Public Health Service sponsorship, Dade earned his Doctor of Philosophy degree in Nuclear Engineering from North Carolina State University. He began teaching radiation protection courses at the U.S. Public Health Service's Radiological Health Training Center in Cincinnati, Ohio, and, in 1959, he joined the Health Physics Society. Dade became a Certified Health Physicist and a Certified Environmental Engineer, and, in 1961, at only 34 years old, he became the Officer in Charge at the new Northeastern Radiological Health Laboratory in Winchester, Mass., where workers studied the fallout from weapons testing and monitored children's thyroids for the uptake of radioactive iodine. He retired from the U.S. Public Health Service in 1966.

Dade then joined the Harvard University School of Public Health, where, for his tenure of 26 years, he served in several roles, including Professor of Engineering in Environmental Health, Associate Director of the Kresge Center for Environmental Health, Chairman of the Department of Environmental Health Sciences, and Associate Dean for Continuing Education. With a special knack for connecting with his students, Dade was the perennial "owner" of the student-elected "Golden Apple" faculty award at Harvard. His textbook, *Environmental Health*, for which Dade

published a 4<sup>th</sup> edition earlier this year, is the Harvard School of Public Health's preferred text for its course on the topic. He proudly held the title of Professor Emeritus at the School from the time of his retirement from Harvard.

During his busy tenure at Harvard, Dade maintained a full-load of "extra-curricular" activities, all aimed at ensuring the health and safety of workers, the public, and the environment from the hazards of ionizing radiation. He was very active in the Health Physics Society, becoming President in 1971. He also served on and chaired many committees for the U.S. Nuclear Regulatory Commission, U.S. Environmental Protection Agency, National Council of Radiation Protection and Measurements, International Commission on Radiological Protection, National Academy of Sciences, and the American Academy of Environmental Engineers. Dade was a consultant to the World Health Organization for 15 years, and, from 1988 to 1993, he was the founding Chairman of the U.S. Nuclear Regulatory Commission's Congressionally-mandated Advisory Committee on Nuclear Waste.

Throughout his life, Dade earned numerous awards and appointments, including the U.S. Nuclear Regulatory Commission's Meritorious Achievement Award (1988), Distinguished Emeritus Member of the National Council on Radiation Protection and Measurements (1997), Georgia Tech Engineering Hall of Fame (1999), Health Physics Society Robley D. Evans Commemorative Medal (2003), American Academy of Health Physics William McAdams Outstanding Service Award (2005), and Harvard University School of Public Health's Professor Emeritus Award of Merit (2006). He was a Fellow of the Health Physics Society, American Public Health Association (1988), and the American Nuclear Society (1988).

In 1993, after Dade's retirement from Harvard, his son, Matt, founded the environmental consulting company proudly bearing his father's name, Dade Moeller & Associates, and, in 1994, established its headquarters office near the U.S. Department of Energy's Hanford nuclear site in Richland, Wash. Matt had followed in his father's footsteps, graduating from the Harvard School of Public Health 1984 with a Master of Science degree in Environmental Health Sciences.

Today, the company has 9 locations nationwide and more than 300 employees, including more Certified Health Physicists than any other company in the United States. Offering best-in-class services in radiation protection, health physics, worker safety, and radiation training, Dade Moeller recently was ranked the third fastest-growing environmental consulting firm in North America.

"Dade's memory, his reputation, his passion for science, and his commitment to excellence and hard work will live on through every individual that makes this company what it is," said Matt. "Together, we are Dade Moeller."

In addition to his Dade Moeller corporate family, Dade is survived by five children and sixteen grandchildren.

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