

Dr. Robert Michael (Mike) Westfall is an Emeritus Member of the NCSP CSSG and a Distinguished R&D Staff Member of the Reactor and Nuclear Systems Division at Oak Ridge National Laboratory, where he retired as a full-time staff member in 2008. In this capacity, Dr. Westfall continues to advise on opportunities for improvements in NCS analytical methods and nuclear data pertinent to nuclear criticality safety. Previously, Dr. Westfall served in similar roles on the DOE response to DNFSB Rec.93-2 (Methods & Experiments Subcommittee, Nuclear Criticality Safety Steering Committee, 1993 to 1998) and the DOE Nuclear Criticality Technology & Safety Project (NCTSP, 1984 to 1993).

Dr. Westfall received his Ph.D. in nuclear engineering from The University of Virginia (1974), his M.S. in nuclear engineering from The University of Washington (1964), and his B.S. in engineering–physics from the University of Oklahoma (1962).

Dr. Westfall's areas of technical expertise include neutron transport methods (analytical, numerical, stochastic), the evaluation and processing of nuclear data, and their combined application in the analysis of nuclear systems, both reactors and fissile systems outside reactors.

Some of Dr. Westfall's technical accomplishments include:

- A complete analytical solution for the finite-radially-reflected critical cylinder and its demonstrated use as a benchmark for the evaluation of numerical transport methods (1970-1974),
- The development and enhancement of integral transport methods and software for treating resolved-resonance processing in multi-region systems (Codes: EPIGRAM, GAROL, ROLAIDS, 1968-1979),
- Development and demonstration of the fine and broad energy group structures for the 218 and 27 group ENDFB/IV neutron cross-section libraries (Currently expanded to 238 and 44 group structures),
- Advisor to the NRC on the design and performance of the Moist Bulk Oxide and Shipping Cask Critical Experiment Programs (RFP and PNL, 1977-1982).
- Initial SCALE System project leader for the NRC (Concept development and software structure definition, 1976-1980),
- Technical leadership for criticality safety applications (TMI-2 disrupted core models and fuel removal, burnup credit feasibility studies, criticality accident alarm system detection capabilities, 1979-1990), and
- Leadership and coordination of the analytical methods and nuclear data program elements for the DOE MES/NCSSC and NCSP (1993-2005).

Dr. Westfall has served in a number of administrative roles, including: Head-ORNL Nuclear Engineering Applications Section, 1981-2000; Chair-ORNL Criticality Safety Review Committee, 1990-2006; Technical Program Chair-International Conference on Advances in Nuclear Engineering Computational Methods, 1985; General Chair-NCSD Conference on Criticality Safety Methods and Physics, 1993; Chair-ANS Mathematics & Computation (M&CD) Division, 1988; Chair-ANS Oak Ridge/Knoxville Section; 1990; Honors & Awards Chair-M&CD, 1990-1999,-NCSD, 2000-2007; Member-OECD/NEA Working Party on Nuclear Criticality Safety, 1997-2006; Chair-OECD/NEA Experts

Meeting on Critical Experiments, 1995; Co Chair-DOE/NCTSP Work Group on Physics Criteria for Benchmark Critical Experiments, 1985-1990.

Dr, Westfall has received the Distinguished Service Awards from the ANS Nuclear Criticality Safety Division and the ANS Oak Ridge/Knoxville Section.

Regarding international consensus standards activities, Dr. Westfall has served since 2003 as a vice-chair of the Nuclear Technical Advisory Group (NTAG), which administers U.S. participation in ISO Technical Committee 85, "Nuclear Energy, Fuel Cycle and Radiological Protection". In this capacity he developed the financial support for U. S. hosting of the 2008 ISO/TC-85 meeting in Orlando, FL and served as Head of U. S. Delegation for the 2010 ISO/TC-85 meeting in Korea.

Regarding domestic standards, Dr. Westfall serves as a member of ANS/N-16, the consensus committee for nuclear criticality safety standards. A significant effort for N-16 was the leadership in coordinating N-16 action in the clarification of the NCS Double Contingency Principle. In June 2010 Westfall completed six years of service as a member of the ANS Standards Board. Also, since 1977, he has served as a technical expert on the working group for ANSI/ANS-8.15, "Nuclear Criticality Control of Special Actinide Elements".

Since 1988, Dr, Westfall has lectured in the University of Tennessee Nuclear Engineering Dept., Graduate-Level Course, NE-543: "Advanced Topics in Nuclear Criticality Safety", Sections on Neutron Kinematics, Cross Section Processing, Transport Methods Modeling, Establishing Parametric Limits, and Designing Reactivity Controls for Criticality Safety Analysis Applications and Methods Validation, U.T. Oak Ridge and Knoxville Campuses.

For the past several years, Dr, Westfall has served in a consulting capacity for the Y-12 NCS Program, advising on neutronics issues and performing quality reviews on new NCS evaluations in the areas of safety basis, completeness and good readability.

Through ORNL, Dr. Westfall continues to support the DOE/EM NCS Program in the areas of surveying and addressing NCS technical needs. Currently, he is supporting the NCSP in the IP&D areas of (1) the utilization of post irradiation evaluation (PIE) data from former DOE weapons programs for enhancing the testing and validation of actinide neutron cross sections and decay data, and, (2) the organization and preservation of information from former DOE critical experiment programs.