
LONGENECKER and ASSOCIATES

Robert Bruce Matthews

EXPERIENCE SUMMARY

Over thirty-five years of scientific and engineering experience in nuclear technologies with a primary focus on nuclear materials, nuclear reactor fuels, nuclear facility operations, and nuclear safety. Matthews worked at national laboratories as a scientist, line manager, and project leader and has been involved in Department of Energy programs in stockpile stewardship, plutonium technologies, nuclear materials disposition, environmental management, and space and terrestrial nuclear power systems. He has direct experience in nuclear facilities management including operations, construction, regulatory compliance, integrated safety management, and safeguards and security. Matthews is the author or co-author of over eighty journal publications, conference proceedings and technical reports. He initiated the international Plutonium Futures Conference and is a Fellow of the American Nuclear Society.

DETAILED EXPERIENCE

Bruce Matthews, LLC (January, 2006 to present) Matthews is an independent consultant for nuclear materials, nuclear safety, and facilities operation. In addition he serves on the National Nuclear Accrediting Board for the Institute of Nuclear Power Operations, the Senior Safety Advisory Committee for the Jefferson Laboratory, and the Safety Oversight Subcommittee for Sandia National Laboratory.

Defense Nuclear Facilities Safety Board (April 2002 – December 2005) Matthews was appointed by President George W. Bush, to be a Member of the Defense Nuclear Facilities Safety Board. The Board provides independent oversight of the Department of Energy's nuclear weapons, materials, and environmental management activities. In addition to his oversight responsibilities, Matthews focused on safety management of high-hazard nuclear facilities and implementation of Integrated Safety Management.

Los Alamos National Laboratory (February 1980 – April 2002) From 1980 to 1993, Matthews was a research scientist and line manager responsible for research, development, fabrication, irradiation testing, and post irradiation examination of advanced reactor fuels for space and terrestrial nuclear reactor fuels programs. In 1993 Matthews became the Division Director for Nuclear Materials Technology. He had overall responsibility for the TA-55 Plutonium Facility and the Chemistry Metallurgy Research Building. That position had two major aspects: (1) Managing nuclear facilities infrastructure including nuclear facility construction projects, facilities operations, nuclear materials control and accountability, waste management, environmental compliance, industrial and radiation safety, training, quality assurance, and safeguards and security. (2) Managing technical and programmatic nuclear materials activities for DOE missions in stockpile stewardship, materials disposition, environmental stewardship, and nuclear energy.

Pacific Northwest Laboratories (May 1978 - February 1980): Research scientist responsible for development of (U,Th)₀₂ proliferation resistant fuels for advanced reactors.

Atomic Energy of Canada January 1970 - May 1978: Matthews' was a research scientist responsibilities included development and testing of sol-gel, sphere-pac, and silicide fuels for CANDU reactors.

EDUCATION

- Ph.D., Materials Science, 1970, University of Wales, Swansea, Glamorgan, UK.
- MS, Materials Science, 1966, University of Denver, Denver, Colorado.
- BS, Metallurgy, 1964, BS, Pennsylvania State University, University Park, Pennsylvania.