

# **Biographical Information for William G. Sutcliffe**

Dr. William G. Sutcliffe is a Senior Physicist/Senior Advisor in the Fission Energy Safety Systems Program, in the Energy Directorate at the Lawrence Livermore National Laboratory. He is the principal organizer of the East-Asia Nuclear Cooperation Meeting on Spent Fuel and High-Level Waste Storage and Disposal being held in Las Vegas, March 7-9, 2000. Dr. Sutcliffe is primarily concerned with nonproliferation and nuclear fuel cycle issues. His interests include international fuel cycle facilities, new and innovative reactor systems that manifest significant nonproliferation advantages, energy security and regional stability, and fissile material cutoff treaty (FMCT) issues. He has organized a number of international sessions and panels dealing with nuclear fuel cycles and nonproliferation.

After graduating from the University of Michigan with a BS Degree in Mathematics in 1960, William Sutcliffe served as a Naval Officer aboard the U.S.S. Boston until 1962. From 1962 until 1964 he taught Mathematics, Physics, Reactor Physics and Shielding in Admiral Rickover's Program at the U.S. Naval Nuclear Power School at Bainbridge, MD. Upon leaving the Navy he continued his studies in Theoretical Physics at the University of Delaware as a NASA Fellow, and was awarded a Ph.D. in 1969.

Since coming to the Lawrence Livermore National Laboratory (LLNL) in 1968 Dr. Sutcliffe has worked on, and led a number of projects. These included: neutron cross section modeling and the development of large hydrodynamic and radiation transport computer codes. He has led various nuclear waste management projects involving uncertainty, risk and decision analyses, where he developed and published a simple method of uncertainty analysis applicable to corrosion, underground flow and solute transport, etc. He has also analyzed the requirements, capabilities, limitations and costs of nuclear weapons systems, and the impacts of various arms control proposals, as well as nuclear materials supply and demand issues and arms control proposals involving nuclear materials.

From 1990 to 1995 Dr. Sutcliffe was a Senior Fellow at LLNL's Center for Security and Technology Studies and became deeply involved in nonproliferation of nuclear weapons technology and materials, and the disposition of nuclear materials. His efforts also included support for the conversion of Russian nuclear weapons programs to peaceful endeavors. He organized and managed a comprehensive plutonium disposition project for the Department of Energy's Office of Nuclear Energy; and served as a consultant to the National Academy of Sciences for the "Management and Disposition of Excess Weapons Plutonium" study. Dr. Sutcliffe was responsible for illuminating the availability and utility of reactor grade plutonium for weapons, leading to the "spent fuel standard." He proposed a declaration and monitoring regime which was recommended by the National Academy of Sciences Committee on International Security and Arms Control.