

Mr. David P. Heinrichs is the Nuclear Criticality Safety Division Leader within the Nuclear Operations Directorate at the Lawrence Livermore National Laboratory (LLNL). As Division Leader, Mr. Heinrichs' principal responsibility is to provide comprehensive criticality safety support to the LLNL institution, programs, facilities, and all on-site and off-site activities with fissionable materials. Principal customers include the LLNL Nuclear Materials Technology Program (NMTP), Nuclear Counter-terrorism (NCT) Program, Weapons Program, Joint Nevada Programs Office (JNPO), and the US DOE Nuclear Criticality Safety Program (NCSP). As the LLNL Subject Matter Expert (SME) for criticality safety, Mr. Heinrichs is also the technical liaison to the CDNS, DNFSB, DOD, DOE, and NNSA for criticality safety issues.

Mr. Heinrichs received his M.S.E. in nuclear engineering (1982) and B.S. in applied mathematics and physics (1980) from the University of Michigan. Upon graduation, Mr. Heinrichs was selected by the American Nuclear Society (ANS) to participate in an international exchange program in reactor physics at the Commissariat à l'Énergie Atomique Centre d'Études Nucléaires de Cadarache in France. In 2006, Mr. Heinrichs received the Award for Technical Excellence from the American Nuclear Society, Nuclear Criticality Safety Division. Mr. Heinrichs is a registered Professional Engineer (Nuclear).

Mr. Heinrichs' areas of expertise include nuclear criticality safety, reactor physics, analytical methods, radiation shielding, criticality alarm systems, and nuclear accident dosimetry. Mr. Heinrichs started his professional career as a nuclear engineer at the Yankee Atomic Electric Company from 1983-1986 and Middle South Utilities (currently, Entergy) from 1986-1988 where he participated in analytical methods development, fuel design, assembly design, core design, licensing, start-up and fuel management specializing in BWR reactor physics. In 1988, Mr. Heinrichs joined the Rocky Flats Plant as a Senior Principal Criticality Safety Engineer. In 1991, he joined the Lawrence Livermore National Laboratory and provided criticality safety support for LLNL fissile material operations at nine on-site nuclear facilities and two off-site nuclear explosive facilities. In 2006, Mr. Heinrichs accepted his current management position.

Mr. Heinrichs was previously elected to two three-year terms on the ANS Nuclear Criticality Safety Division Executive Committee and participated in the activities of ANSI/ANS-8.1 working group for approximately 10 years. He currently is active in the following advisory and working groups:

- ANSI/HPS-N13.3 Criticality Accident Dosimetry Working Group
- DOE Critical/Subcritical Experiment Design Team (C_EdT)
- DOE Criticality Safety Study Group (CSSG)
- DOE Cross-Section Evaluation Working Group (CSEWG)
- DOE Endusers Group
- DOE Nuclear Data Advisory Group (NDAG)
- IEC/TC45B Working Group B9 on Criticality Alarm Systems
- International Criticality Safety Benchmark Evaluation Project (ICSBEP)
- JOWOG-30 US Criticality Safety Point-of-Contact

Finally, Mr. Heinrichs is the manager responsible for all US DOE Nuclear Criticality Safety Program tasks assigned to LLNL. Under these auspices, in 2009 and 2010, Mr. Heinrichs was US Head of Delegation of a multi-laboratory team that participated in two international nuclear accident dosimetry exercises at CEA-Valduc.