Mr. Jerry E. Hicks was Senior Support staff to NNSA in criticality safety before retiring in January 2016. In this capacity he assisted NNSA headquarters staff and field offices in the oversight of criticality safety at NNSA sites, with some assistance on request to the DOE offices of Environmental Management and Science. Mr. Hicks was also the Federal Technical Capability Panel Sponsor for the Criticality Safety qualification standard for federal staff. He is active in supporting several standards writing groups, including ANSI/ANS 8.1, 8.3, 8.5, 8.6, 8.10, 8.21, and 8.24, and serves on the American Nuclear Society (ANS) standards Non-Reactor Nuclear Facilities Consensus Committee (NRNFCC). Mr. Hicks received a Bachelor of Science in Chemical Engineering from New Mexico State University in 1976. Mr. Hicks has also assisted in revisions to DOE Standards 1158 and 1173. Mr. Hicks is a member of the Nuclear Criticality Safety Division (NCSD) of the ANS, and has served as vice-president and president of the division.

Mr. Hicks started his career in process development for melt spinning of polyester fiber. In 1978, he moved to Rocky Flats in plutonium recovery research and development. This included development of experiments and conceptual design of pyrochemical spent fuel recovery systems, design and development of unit operations for aqueous recovery of plutonium, development and systems integration for new types of waste treatment processes, and development of media and other components for acid-resistant HEPA filters, and efforts to develop soil decontamination methods and supporting Non-Destructive Assay technology. This breadth of experience led to work as the operations design representative for a major rebuild of the process systems of an aqueous recovery building. After several years in plutonium recovery, Mr. Hicks moved to the criticality safety department at Rocky Flats. The criticality safety experience began with code calculations and criticality safety training for fissionable material and floor support of operations. Mr. Hicks soon became a lead criticality engineer for the foundry operations, and was lead criticality engineer for several parts of the Rocky Flats plant over the next dozen years. This work included all the traditional roles of criticality safety staff, including development and review of criticality guidance for operations, and technical review of guidance developed by other staff. The lead and review efforts also led to coaching younger staff, several of whom are successful practitioners of criticality safety today. Mr. Hicks was also one of the early users of human factors applications to criticality safety, and also developed skill in applying several of the probabilistic techniques to criticality safety issues. This led to frequent assistance to the nuclear safety analysis group at the site. The number of legacy and historical issues, combined with a loss of site process knowledge, also required skill in applying statistics to determine the boundaries of credible abnormal events. Mr. Hicks also became a primary resource for criticality safety issues that were outside the normal production and decommissioning efforts at the site, including assisting in analyses of personnel doses in moving to areas other than the muster sites, and service on the plant emergency operations cadre for several years.

After leaving Rocky Flats, Mr. Hicks served as a consultant until joining the NNSA. Work during this time included criticality safety design work on the Pit Disassembly and Conversion Project using both the SCALE and MCNP Code systems, criticality safety

conceptual design for a solvent extraction based fuel recycling pilot plant, MCNP calculations of radiation shielding and dose for proposed plutonium operations, and criticality safety support to the DOE portions of Portsmouth and Paducah.

NNSA work included assistance in the development of the oversight programs for several NNSA sites, field assistance in oversight, and assistance in development of DOE Standards and Directives related to criticality safety, as well as continued support to the ANS standards.