

B. L. Broadhead has 24 years of experience in the fields of radiation protection and shielding, criticality safety and spent fuel source term analyses. He has served as principal investigator on a number of projects including: development of the nuclear criticality slide rule for use in emergency response to criticality accidents, application of sensitivity/uncertainty analysis techniques to both criticality safety validation and reactor pressure vessel damage assessments. He led an EPRI-sponsored study to evaluate the uncertainties associated with dose rate analyses of loaded spent fuel casks and is currently drafting an NRC-sponsored regulatory guide on shielding analysis of transport and storage casks containing spent fuel. Dr. Broadhead is the primary instructor for the SCALE shielding and source terms course typically taught twice per year in Oak Ridge and abroad.

Dr. Broadhead has worked at Oak Ridge National Laboratory in the Nuclear Engineering Applications Section since 1977. He is currently a senior development engineer with specialties in sensitivity and uncertainty analysis (LEPRICON, AROBCAD projects), criticality safety studies (validations, burnup credit, TMI rubble and  $UF_6$  cylinders) and radiation protection and shielding analyses (Radioactive Materials Packaging Handbook, spent fuel cask design and review, Hiroshima/Nagasaki dose reassessment, criticality accident slide rule, criticality accident alarm system qualification).