

Dr. Jack Brenizer
Program Chair of Nuclear Engineering at Penn State University
Thursday, October 17, 2002 - Ramada Inn and Conference Center, Lynchburg, Virginia
(From Route 29 take Exit 7, Odd Fellows Road. Ramada Inn is First Right)

CHANGES AND CHALLENGES IN NUCLEAR ENGINEERING EDUCATION

This is a dynamic and exciting time to be involved in any area of nuclear engineering. The public's acceptance of nuclear power and nuclear science applications, such as irradiated foods, is increasing. This new atmosphere surrounding nuclear engineering is felt throughout our industry, research and education. Nuclear engineering education is also faced with changes and challenges that are the direct result of this positive outlook for nuclear applications, especially nuclear power. In his presentation, Dr. Brenizer will give his view of the current state of nuclear engineering education at the university level and his thoughts on changes that may occur in the future. He will use specific examples from Penn State's Nuclear Engineering Program and its research reactor to illustrate both the changes that have occurred and the impact these changes will have on the education of future nuclear engineers.

Jack Brenizer is a Professor of Mechanical and Nuclear Engineering and Program Chair of Nuclear Engineering at Penn State University. From 1981 through 1998 he was on the Faculty of the School of Engineering and Applied Science at the University of Virginia where he taught courses in radiation interaction with matter, radiation dosimetry, radiation detection, and general engineering. From 1982 to 1984 he was the Reactor Director for the University of Virginia's two research reactors.

Dr. Brenizer is actively involved in research in the areas of radiation detection, neutron radiography, and neutron activation analysis. He was involved in the redesign of the real-time neutron radiographic facility at the University's Breazeale Nuclear Reactor, a part of the Radiation Science and Engineering Center. He works primarily on 10B measurements in metal neutron shielding plates, real-time neutron radiographic nondestructive evaluation techniques. He has published or presented over 80 papers describing his research activities and has presented many invited lectures on neutron radiography.

He is a member of many professional societies including the American Nuclear Society, Health Physics Society, Sigma Xi, American Society for Nondestructive Testing, American Society for Testing and Materials, American Society of Engineering Education and SPIE (International Society for Optical Engineering). He is a board member of the International Society for Neutron Radiography. He is the Vice-Chair of ASTM Committee E07 on Nondestructive Testing and the US "expert" representative of the International Organization for Standardization (ISO) activities in neutron radiography. From 1990 through 1999 he was Convenor of the ISO group. He is a former subcommittee chairman of ASTM E07.05 (Radiology (Neutron) Method) and the section chairman of ASTM E07.05.03 (International Activities in Neutron Radiology). He received the 1997 ASTM E07 Charles W. Briggs Award.