SPEAKER / PRESENTATION INFORMATION

Name	Dr. Peter WOOD	**Phone**	
Company / Organisation	NDA RWMD	**Alt Phone**	
Company Address	Harwell, Oxfordshire, OX11 0RH, UK		
Email	peter.wood@nda.gov.uk		

Biography	Peter Wood has a degree in Chemistry and a doctorate in electroanalytical chemistry from the University of Oxford. Peter joined the nuclear industry in 1980, conducting research into the performance of nuclear fuel in and out of reactor. He was seconded to the OECD Halden Reactor Project during 1991-92. Peter moved into waste management in 1994 and into the NDA (Nuclear Decommissioning Authority) in 2007. He is currently the Criticality Research Manager in the Research Group of RWMD (Radioactive Waste Management Directorate).
Title	***Criticality Safety Research for a UK Geological Disposal Facility***
Abstract	The Radioactive Waste Management Directorate (RWMD) of the UK's Nuclear Decommissioning Authority (NDA) is charged with the delivery of a Geological Disposal Facility (GDF). The wastes and materials that might require management in a GDF include Intermediate Level Waste (ILW), High Level Waste (HLW), Spent Fuel, plutonium, and uranium. With the exception of the vitrified HLW, these all contain ton quantities of fissile radionuclides, principally U-235 and Pu-239. Safety assessments and supporting studies have been conducted over the past twenty years, initially focusing on ILW, but recently being extended to other materials. The presentation will: • Outline safety arguments for the disposal of wastes and materials containing fissile material; • Describe the research program undertaken to understand criticality under repository conditions; • Summarize the status of this research program and its reporting; • For some outstanding areas of uncertainty, identify research needs and opportunities; for example validation needs and benchmarking opportunities in order to build confidence in the models that have been developed to predicted the consequences of hypothetical criticality events; and • Indicate how the understanding gained and model predictions are being applied in safety cases