



**WiN-Australia Nuclear Seminar:
The Japanese Nuclear Emergency
10:30am - Friday 1st of July
Building 83 Auditorium, ANSTO**

Overview

On 11th March 2011, a very large earthquake and tsunami caused enormous devastation and loss of life in north-eastern Japan. Eleven reactors at four nuclear power stations in the region shut down safely when struck by the earthquake but the tsunami level that then occurred was far in excess of the design-base events. Four boiling water reactors (BWRs) at the Fukushima Daiichi nuclear power station have been severely damaged, with significant quantities of radioactive materials released. Tony Irwin will review the features of the BWRs involved in the incident, explain the sequence of events and show the roadmap for restoration. Don Higson will discuss the radiological and human aspects including radiation levels, doses received, discharges, evacuation decisions, risk implications and comparisons with Chernobyl.

Biographies

Tony Irwin has a degree in electrical power engineering and worked for British Energy in the UK, commissioning and operating eight nuclear power plants. Following the Chernobyl accident he was a member of a World Association of Nuclear

Operators (WANO) mission that reviewed operating practices at Russian RMBK reactors. In 1999 he joined ANSTO and was Reactor Manager during the construction and operation of the OPAL research reactor. He is a Chartered Engineer in the UK and Australia. Since retiring from ANSTO in late 2009, he is a visiting lecturer for Masters courses in Nuclear Technology at the ANU and University of Sydney.

Don Higson received a degree and PhD in chemical engineering from Imperial College, London. After working on the development of nuclear submarine propulsion for Rolls-Royce & Associates, he joined the Australian Atomic Energy Commission (now ANSTO) in 1964 and specialised in nuclear reactor safety assessment. He has worked as a consultant to the International Atomic Energy Agency on nuclear safety and safeguards. He is a Fellow of the Institution of Engineers Australia, a Fellow of the Australasian Radiation Protection Society (ARPS), a Committee Member of the Australian Nuclear Association and a member of the International Nuclear Energy Academy. He retired from ANSTO in 1995 and founded the ARPS Newsletter, of which he is the Editor.

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