



**Deep River Science Academy
Summer Lecture Series**

Co-sponsored by
Canadian Nuclear Society
Chalk River Branch



**AECL's Decommissioning & Waste Management Program:
Challenges, Opportunities and Recent Developments**

The Deep River Science Academy and the Chalk River Branch of the Canadian Nuclear Society are pleased to welcome Dr. William (Bill) Kupferschmidt, who will speak on AECL's decommissioning and waste management program.

The birth of Canada's nuclear program has its origins in the 1940's when the "Atomic Energy Project", under the auspices of the National Research Council of Canada, was established at what is now known as Chalk River Laboratories (CRL). Tremendous growth took place at the CRL site during those early days. In 1952, Atomic Energy of Canada Limited (AECL) was created as a Federal Crown Corporation with the mandate to exploit the power of the atom for the benefit of humanity. With this mandate, AECL has become a world leader in nuclear technologies and research and development. Work since the early years have produced the CANDU reactor, in operation in several provinces in Canada and in countries worldwide. AECL also plays a world-leading role in the production of radioisotopes for medical diagnostic and treatment purposes. These are two of AECL's many significant contributions to Canada and the world.

In support of these achievements, various facilities have been built over the years, which have served their purpose and are no longer needed. Wastes have also been generated, or accepted from third parties such as hospitals and universities, that require state-of-the-art, long-term management solutions. To address these challenges, several initiatives are underway at CRL, AECL's Whiteshell Laboratories in Manitoba, and at prototype reactor sites in Ontario (Douglas Point) and Quebec (Gentilly-1). For example, the Liquid Waste Transfer and Storage Project at CRL is underway to recover and process radioactive liquid wastes, currently stored in underground tanks that, in some cases, date back to the initial operations of the site. This project will stabilize the wastes and place them in modern, monitored storage for subsequent solidification and long-term management. Another initiative, the Fuel Packaging and Storage Project, has been initiated to recover, condition and store in modern facilities some of the used fuel that is currently stored on the CRL site. In addition, various decommissioning projects are underway, including the removal of redundant structures at the CRL site and a major project to fully decommission Whiteshell Laboratories. The expertise that has been, and continues to be, developed in undertaking these initiatives are also being used to support the nuclear industry in Canada directly.

This presentation will summarize some of the challenges and opportunities ahead as AECL moves forward with an accelerated decommissioning, waste management and environmental remediation program at its sites. It will also review other significant waste management initiatives and developments within Canada.

Bill Kupferschmidt obtained a B.Sc. (Honours) degree in Chemistry from the University of Guelph in 1977, and a Ph.D. in Physical Inorganic Chemistry from the University of Alberta in 1982. During his twenty plus years with AECL, he has held various technical and managerial positions, including Manager, Research Chemistry Branch at Whiteshell Laboratories, Director, Reactor Safety Division at Chalk River Laboratories and, since 2002, General Manager, Decommissioning & Waste Management. In 2004, Dr. Kupferschmidt also assumed the position of AECL's Chief Environmental Officer, with responsibility for overall policy and compliance matters associated with AECL's environmental performance for its products, services and sites.

Dr. William (Bill) C.H. Kupferschmidt, General Manager

Decommissioning, Waste Management & Site Projects, AECL, Chalk River Laboratories

6:30 PM, Thursday, 2006 July 27

**Bennett / Mackenzie Room
J.L. Gray Centre, Deep River**

(Entry via rear security entrance)

Refreshments will be served – ALL ARE WELCOME

Further information: Blair Bromley at 584-8811 Ext. 3676, or 584-1518