



Figure 2. Artist's impression of the CNF Building, including the neutron beam guide hall on the right.

The closure of NRU will coincide with an increasing demand for knowledge of the structure and dynamics of materials. It will also coincide with a projected shortage of neutron beam sources worldwide.

All industrialized, and some newly-industrialized countries, have access to neutron beams from research reactors. However, because of the growing international awareness of the critical importance of neutrons for advanced materials development, the global demand is now exceeding supply. Australia, China, Egypt, Germany, Holland, Japan and Thailand have identified the requirement for advanced materials research facilities in the twenty-first century and are already constructing, or planning to construct, new research reactors. In addition, all nuclear vendor countries have research reactors to support their commercial programs.

The CNF Proposal

The National Research Council of Canada (NRC) and

Atomic Energy of Canada Limited (AECL) are jointly proposing a new Canadian Neutron Facility for Materials Research (CNF) to support next-generation neutron-based materials research and innovation in Canada. The proposal is brought forward with full regard for academic, research and industrial stakeholders. The purpose of the proposed CNF is two-fold:

- to provide the advanced materials research capability to meet the needs of Canadian universities and industry,



Figure 3. NRU, the primary irradiation neutron facility in Canada, will come to the end of its life by 2005.