



**ARC · CNRC**  
From Discovery to Innovation...


**Canadian Neutron Facility**  
*Part I: Snapshot of the "Big Science" Landscape*

**John H. Root**  
Director <http://neutron.nrc-cnrc.gc.ca>

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**CNF: THE PAST**

**1998/99 – AECL, NRC Partnership**

■ CNF is a dual-purpose research reactor:

- advanced materials research capability for Canadian industry and universities
- essential testing for CANDU power reactor design

*... from a presentation by NRC VP Peter Hackett to McGill, U de M, E. Poly, Oct. 15, 1998*





**CNF: LATER...**

AECL focusing on ACR, nuclear business

"We're no longer a national research lab funded by the government, looking for solutions that might have market applications," he said. "We are a company that is technology-based and we are going to develop technologies that not only serve our client base but that are sold into the marketplace to lessen the burden on the government of Canada."

AECL President R. Van Adel in 2000, as reported in North Renfrew Times, Aug. 13, 2003.




**AECL SITUATION TODAY**

- AECL will not support a request for CNF funding now.
- AECL is concerned that an initiative for CNF funding might compete with other requests by AECL for federal government funding – full commitment to the ACR project, for example.
- Dept. of Natural Resources commissioned an investigation (Gorbet Committee) to recommend on the greater commercialization of AECL.
- Chalk River Labs one of five business units



## NRC SITUATION TODAY

NRC President Arthur Carty was leading the CNF file in 2003/04. As of April, he assumed a new role as National Science Advisor to the Prime Minister (in PCO).

Interim NRC President Michael Raymont is getting the NRC house in order, in preparation for a new President.

“Commercialization of Science” is an important theme.

NRC VP Peter Hackett resigned in July. Interim VP is Andy Woodsworth.

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## CHALK RIVER LABORATORIES

- Subject of a CNSC study (authors incl Alec T. Stewart) that draws attention to the critical need to rebuild depth of staff and proposes that CRL be re-positioned more as a national laboratory, distinct from the increasingly commercialized role of AECL.

- NRCan consultation with users of Chalk River Laboratories found widespread support for the “national laboratory” function of Chalk River. Users included the power generating companies, as well as NRC, CINS, DND, CNSC, DFAIT

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## GOVERNMENT SITUATION - Turbulence

- Election in Ontario knocked out long-time PCs
- Ministries re-organized, some funding programs have been merged, e.g. OIT, ORDCF, Research Performance Fund.
- Emerging recognition of the value / importance of nuclear power (blackouts vs. air pollution)
- Federal election produced a minority government with Conservative opposition
- Restructuring of caucuses, ministries, and cabinet procedures
- Prior interaction with “Alliance” suggests affinity to the CNF as a “national laboratory”, but not as a contribution to a crown corporation’s business

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## MAJOR SCIENCE INVESTMENTS

NRU	\$510M (2004 dollars)	1957
TRIUMF	\$100M (2004 dollars)	1974
SNO	\$73M	1998
CLS	\$174M	2004

+ telescopes, undersea network, international projects (e.g. CERN)... etc

*“...large, lumpy projects that require a special allocation”,  
said John Manley as Minister of Industry in June 2000.*

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## MAJOR SCIENCE INVESTMENTS

Auditor General in 2001 criticized the recent management of major science investments, citing SNO as a key example. Recommends:

- Proposals consider complete and accurate costs and risks, not just scientific opportunity
- Costs include capital, operating, decommissioning, inflation and contingencies
- Interdepartmental mechanism for evaluation, management and reporting

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## FUNDING CNF – We are on the right track

Positioning CNF as a key element of Canada's infrastructure for science and industry

- Infrastructure transcends single government, department and agency → interdepartmental / central government
- Speaking of “national infrastructure” places CNF in the context of a Major Science Investment, and outside of issues such as AECL's business plan

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## CNF - REPOSITIONED



*An opportunity for governments to invest strategically in Canada's infrastructure for science and industry.*

<http://www.cnf-ccn.gc.ca>

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## CNF - OVERALL VISION


The centrepiece of a revitalized nuclear science and engineering research capability – a national laboratory.

Research for energy and materials with impacts on:

- |                         |                           |
|-------------------------|---------------------------|
| Health                  | Manufacturing             |
| Environment             | Materials production      |
| Public safety           | Education of HQP          |
| International relations | Canadian life and culture |

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## TAKING ACCOUNT OF THE LANDSCAPE

Bringing CNF forward for funding decision will require a solid foundation of reliable information and a widespread understanding of the project across government(s).

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