

#### PRIME MINISTER , PREMIER MINISTRE

The National Research Universal (NRU) reactor is a true Canadian success story. Yet, few Canadians are aware of Canada's largest and most productive science facility, now celebrating its 50<sup>th</sup> anniversary.

The NRU was designed entirely in Canada with Canadian companies fabricating and supplying all of its components, except the heat exchangers. The fruit of their labours was realized on November 3, 1957, when the reactor attained criticality, becoming, at the time, the world's most powerful research reactor.

The NRU does not produce electricity: it has had a much more important role in the development of the Canadian industrial and scientific communities. As Canada's primary research reactor, NRU played a crucial part in the support and advancement of the CANDU design. As the facility for the Canadian Neutron Beam Centre, NRU enabled the Nobel Prize winning work of Bert Brockhouse, and has had a profound impact in the testing and manufacturing of aerospace, health, automotive, chemical, electrical and computing materials.

Perhaps the greatest impact of the NRU, however, is one that is truly global in scope. Each year, the medical isotopes it produces are used in the treatment and diagnosis of lifethreatening diseases affecting 20 million patients around the world. Indeed, the contribution that NRU has made to global health over the past five decades is simply phenomenal.

This milestone presents an ideal opportunity for Canadians to learn more about the NRU, and its tale of success. On this special occasion, I am pleased to commend all the men and women who have been a part of this outstanding facility —your efforts have brought a great deal of prestige to our nation, and have made the world a better place to live.

*OTTAWA* 2007

Mr. Ken Petrunik Chief Operating Officer Atomic Energy of Canada Limited 2251 Speakman Drive Mississauga, Ontario L5K 1B2

Dear Mr. Patrunik:

I would like to express my warmest congratulations to Atomic Energy of Canada Limited on the 50th anniversary of the National Research Universal (NRU) reactor, which achieved criticality on November 3, 1957. The completion of the NRU in 1957 was a landmark achievement in Canadian science and technology, and was a quantum leap forward from its predecessor, the National Research Experimental reactor.

The NRU reactor has been the cornerstone of the Canadian nuclear industry and has been an essential component in the development of the CANDU design. It also has a long and distinguished history as an important platform for basic scientific research. This culminated in the awarding of the Nobel Prize in Physics to Mr. Bertram Brockhouse in 1994 for his seminal work on the development of neutron scattering techniques for studies of condensed matter.

Atomic Energy of Canada Limited's dedicated staff have made the NRU an ongoing success. I understand that the NRU has an impressive operating record and routinely produces more than 50 percent of the world's molybdenum-99 requirements.

Again, congratulations to AECL and all its employees on the NRU's 50th anniversary.

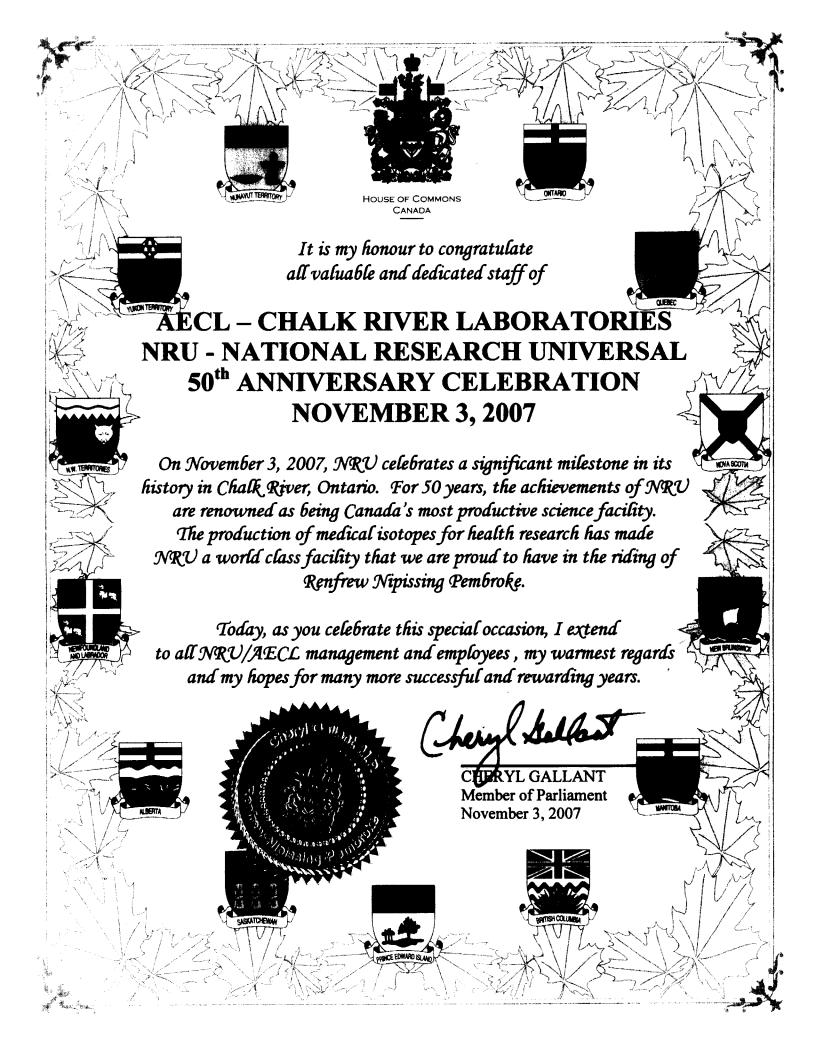
Yours sincerely,

The Honourable Gary Lunn, P.C., M.P.

c.c.: Mr. Brian McGee Vice President

Chalk River Laboratories

**Canadä** 



President

Président

COPY FOR: Mr. Brian McGee



28 August 2007

Mr. Robert Van Adel President Atomic Energy of Canada Limited 2251 Speakman Drive Mississauga, Ontario L5K 1B2

Dear Mr. Van Adel:

I understand that 2007 is the 50th anniversary year for Canada's national neutron source: the NRU reactor at AECL's Chalk River Laboratories. I wanted to take this opportunity to congratulate you and your staff on the highly successful operation of one of Canada's great science facilities.

NRU has achieved so much for Canada and made significant impacts in the fields of health, energy, environment, education, industry and basic research. I learned recently that NRU achieved a new record for the production of the important isotope molybdenum-99. That is a remarkable feat and you and your staff can be very proud of this accomplishment.

I appreciate the partnership between NRC and AECL that allows the operation of the NRC Canadian Neutron Beam Centre within the NRU facility. Even at 50 years old NRU is an intense source of neutrons that enables researchers from Canadian industries and universities to gain knowledge about materials of importance to them. Advanced materials are responsible for innovations in a great number of fields: drug delivery, aircraft design, electronics, medical implants, automotive design and many others. This unique Canadian facility is heavily used by scientists, professors and students from every field.

With nuclear technology increasingly recognized as an important part of our electrical generation industry, I am sure that Chalk River Laboratories and NRU will continue to play an important role in Canadian science.

Yours sincerely.

Pierre Coulombe, Ph.D., P.Eng.

Canadä

# CANADIAN ASSOCIATION OF PHYSICISTS



### ASSOCIATION CANADIENNE DES PHYSICIENS ET PHYSICIENNES

Suite / Bur. 112, Imm. McDonald Bldg., Univ. of / d'Ottawa, 150 Louis Pasteur, Ottawa, Ontario, Canada, K1N 6N5 Tel. / Tél. : (613) 562-5614: Fax / Téléc. : (613) 562-5615; E-mail / Courriel : cap@physics.uottawa.ca ; Internet : www.cap.ca

Le 12 octobre 2007

M. Brian McGee, Chief Nuclear Officer Laboratoires ÉACL de Chalk River 1 Plant Road Chalk River, Ontario K0J 1J0



2005 International Year of Physics Année internationale de la physique 2005

Cher M. McGee,

L'Association canadienne des physiciens et physiciennes (ACP) est heureuse de s'associer aux célébrations du cinquantième anniversaire du réacteur NRU de Chalk River.

Depuis 50 ans, le NRU est un lieu privilégié de la physique nucléaire au Canada. Des scientifiques de partout utilisent les installations de diffusion de neutrons pour caractériser différents types de matériaux dans le cadre de recherches pures ou appliquées dans de nombreux domaines. Des isotopes produits au NRU, utilisés dans le diagnostic médical et le traitement, aident chaque année des millions de personnes à travers le monde. L'information recueillie de tests effectués au NRU a contribué au développement des centrales CANDU.

Le NRU a été le lieu de recherches fondamentales de la plus haute qualité, en particulier sous la conduite du D<sup>r</sup> Bertram Brockhouse, récipiendaire du prix Nobel de physique en 1994. L'ACP est fière d'avoir décerné sa première certification professionnelle (phys.) au D<sup>r</sup> Brockhouse en juin 1999. La même année, l'ACP instituait la médaille Brockhouse pour réalisations exceptionnelles en physique de la matière condensée et matériaux.

La session d'histoire de la physique, lors du congrès de l'ACP à Québec en juin 2008, rappellera l'histoire du NRU, ainsi que le centième anniversaire du prix Nobel de Rutherford.

L'ACP souhaite longue vie au NRU. Soutenu par une vision et des ressources appropriées, le réacteur continuera de fournir aux chercheurs d'ici et d'ailleurs un extraordinaire outil de recherche fondamentale ou appliquée.

Louis Marchildon, phys.

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Président de l'ACP

# DEEP RIVER & AREA CHAMBER OF COMMERCE

Mr. B.E. McGee Chief Nuclear Officer AECL Chalk River Laboratories 3 October 2007

The Deep River and Area Chamber of Commerce would like to send you a well deserved letter of congratulations. It has come to our attention that on November 3<sup>rd</sup> 2007, NRU will be celebrating a fifty year milestone. WELL DONE!!!

As our Chamber is comprised of local area businesses both large and small, we are always mindful of the wonderful things that AECL and in particular NRU are doing to improve our quality of life, both locally and globally.

Fifty years of operation is indeed a milestone to be celebrated, but NRU's last fifty years of successes could not have all been achieved without the high level of professionalism and dedication from all the men and women that have been connected with NRU for its entire lifespan. From the very first scientists, engineers and support staff that were responsible for the reactor reaching criticality to today's highly dedicated staff. You all deserve to be recognized for you contributions to humanity. Past, present and future generations have and will continue to benefit from the work you have been doing and are continuing to do.

Businesses in our area are proud to be able to serve those who work at Chalk River Laboratories. It is safe to say that our local small to medium size businesses survive primarily through the local existence of AECL. It is for this reason that we feel as though we are all sharing in the joy of this milestone right along side of you.

We are honoured to be joining you in celebrating this significant milestone and wish you success in all your future endeavours.

Sincerely.

Mr. Brian McInall

BAM Unall

President

Deep River and Area Chamber of Commerce

PO Box 1227

Deep River, Ontario

K0J 1P0



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August 28, 2007

Mr. Robert Van Adel President and Chief Executive Officer Atomic Energy Canada Limited 2251 Speakman Drive Mississauga, Ontario Canada L5K 1B2

#### Dear Mr. Van Adel:

I would like to express my warmest congratulations on the 50th anniversary of the National Research Universal (NRU) reactor which achieved criticality on Nov. 3, 1957.

I know that NRU, a landmark achievement in Canadian science and technology, is the first reactor in the world that can be refueled while operating at full power, and is a remarkable concept of today's CANDU design having distinguishing features.

By providing a unique facility for scientists across Canada, NRU also produces the fundamental knowledge to develop AECL's fleet of CANDU power stations and continues to support further development and maintenance of CANDU reactors around the world.

Looking back on our business activities, AECL and KOPEC have been successfully maintaining a solid business relationship up to now since KOPEC participated in the design for Wolsong NPP units 2, 3 and 4 in 1990.

Once again, congratulations on the 50<sup>th</sup> anniversary of NRU and I believe that AECL and KOPEC could further build up a productive outcome with continued co-operation and friendly relationship.

Sincerely yours,

In Hoe Song

President and Chief Executive Officer Korea Power Engineering Company, Inc.

cc: Mr. K. Petrunik, Senior Vice President & Chief Operating Officer, AECL

Mr. M. Ingram, Vice President, CANDU Services, AECL

Mr. R. DeGregorio, Senior Representative, Director, AECL-Korea



### KOREA ATOMIC ENERGY RESEARCH INSTITUTE

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October 4, 2007

**Mr. Robert Van Adel**President and Chief Executive Officer
AECL

Dear Mr. Robert Van Adel

On behalf of the 1,127 staff members of KAERI, I would like to congratulate you on the 50<sup>th</sup> anniversary of the NRU reactor. We all know about NRU's great contribution to nuclear materials research and neutron beam research, especially in the field of medical radioisotope production. The medical treatment and diagnosis of cancer has definitely improved our and our families welfare and lives over the last several decades.

Since the conceptual design stage of HANARO, and even before, AECL and KAERI have maintained friendly and close relationships. The world is increasingly recognizing that global warming is triggering detrimental hazards and the importance of a clean nuclear energy supply. I believe this provides all the nuclear researchers at your institute and ours with the impetus to further development of nuclear technology and its application. In this context, I have confidence that the close cooperation between AECL and KAERI will contribute to the growth and the roles of both institutes in the world's nuclear society.

Once again, congratulations on the 50<sup>th</sup> anniversary of the NRU reactor.

Yours Sincerely,

Youn Ho JUNG Acting President

KAERI



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October 11, 2007

Mr. B.E. (Brian) McGee Chief Nuclear Officer AECL Chalk River Laboratories 1 Plant Road Chalk River, Ontario K0J 1J0

Dear Brian:

On behalf of OPG and its employees I want to congratulate you and the AECL on the occasion of the 50<sup>th</sup> anniversary of the National Research Universal (NRU) reactor at Chalk River.

The NRU has played a seminal role in the history of nuclear power in Ontario. The knowledge gained from its operation and the many tests it has conducted over the years have been instrumental in the development, refinement and ongoing operation of the CANDU reactor. Many of our employees, and those of our predecessor, Ontario Hydro, have participated in -- and benefited from -- the research conducted at the NRU. OPG values this important and productive relationship.

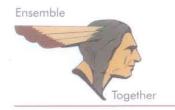
The NRU has also made a significant contribution to human health and wellbeing by providing a steady and reliable source of radioisotopes that are used in medical diagnoses and cancer treatment around the world.

We look forward at OPG to the continued contribution the NRU will make not only to the nuclear industry but to our society as a whole.

Congratulations, once again.

Sincerely,





### Municipalité régionale de comté de Pontiac

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Litchfield, October 4 2007

Mr. B.E. McGee, Chief Nuclear Officer AECL Chalk River Laboratories 1 Plant Road Chalk River, Ontario K0J 1J0

#### 50 YEARS OF CANADIAN NUCLEAR INNOVATION AND EXCELLENCE

Dear Mr. McGee

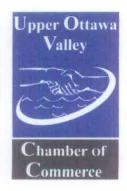
I, Michael McCrank, as warden of the Pontiac and on behalf of the 18 municipalities in the MRC of Pontiac extend to you and to your team of employees this letter of congratulations on reaching this significant milestone.

Over the past 50 years AECL has lead the community in strides both economically and technically. The evolution of science and technology has been completed transformed over the past 50 years and your excellence has made its mark worldwide.

I and my fellow citizens are very proud of your ongoing achievements and look forward to the future advances in sciences initiated by you and your team for many years to come.

Congratulations!

Michael McCrank Warden MRC Pontiac



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October 5, 2007

Mr. B.E. (Brian) McGee, Chief Nuclear Officer AECL Chalk River Laboratories 1 Plant Road Chalk River, Ontario K0J 1J0

Dear Mr. McGee:

On behalf of the Upper Ottawa Valley Chamber of Commerce, I would like to congratulate AECL on the 50<sup>th</sup> Anniversary of the National Research Universal (NRU) reactor.

The NRU has served as a cornerstone for the development of the nuclear industry in Canada. As a business community we are very proud to have a world class facility like Chalk River Laboratories and particularly NRU in our area.

Congratulations on marking this milestone in Nuclear history.

Yours truly,

Dave Fisher, President

Upper Ottawa Valley Chamber of Commerce

**Board of Directors**