

Speaking Notes

For

Denise Carpenter

President and CEO

Canadian Nuclear Association

Atomic Energy of Canada Limited's

Chalk River Laboratories Licence Renewal

October 4, 2011

Check Against Delivery

Good afternoon Mr. President, Commission Members, and members of the local community.

We are here today to speak on behalf of the 71,000 people who work in Canada's nuclear industry.

Nuclear plays a critical role in the daily life of all Canadians. Whether it is safe, reliable, and affordable electricity from nuclear power plants in Ontario, Quebec, or New Brunswick, uranium mining in Saskatchewan, advanced materials research for the aerospace industry in Manitoba and Quebec, or medical technologies across the country – it is difficult to imagine an advanced technological society without nuclear technology.

But nuclear technology would not be possible without nuclear research. Without nuclear research, our nuclear power plants would be unable to resolve operational issues, advanced materials development would decline, and advancements in nuclear-based medical technologies would decrease.

That is why the Canadian Nuclear Association, on behalf of all of its members, asks that the Canadian Nuclear Safety Commission renew AECL's Nuclear Research and Test Establishment Operating Licence for the Chalk River Laboratories, and the associated licence for Dedicated Isotope Facilities.

AECL's Chalk River Laboratories serve as Canada's national laboratory for nuclear science and technology. They provide the infrastructure and expertise to support CANDU technology. They also provide the infrastructure and expertise to support materials science research and medical radioisotope development and production, not just for Canada, but worldwide. And they are a key component of Canada's science, technology, and manufacturing infrastructure.

AECL's investment in nuclear science and technology is also aligned with several key goals of the Government of Canada. These include: clean energy technologies to meet climate change goals, economic development and job creation, and strengthening Canada's science and technology infrastructure.

Please allow me to elaborate.

Regarding clean energy technologies to meet climate change goals.

Nuclear energy is an important part of Canada's clean energy portfolio as Canada and the global community work to address the challenges of climate change. In Canada, the electricity generated by nuclear power plants currently avoids the creation of up to 90 Million tonnes of greenhouse gases every year. Without the continued support of the Chalk River Laboratories, nuclear power plants will be faced with the challenge of obtaining the necessary support services from elsewhere; possibly somewhere outside of Canada.

However, the impact would go far beyond Canada's borders – the nuclear research conducted at the Chalk River Laboratories not only supports the operation and maintenance of CANDU reactors in Canada, but also in countries that have integrated CANDU technology into their own low-carbon energy strategies. These include India, Pakistan, China, and Korea, the European Union, as well as Argentina.

Regarding Economic Development and Job Creation

As in other advanced economies, Canada's government has a long history of investing in nuclear Science and Technology and for very good reasons.

The work done at the Chalk River Laboratories generates revenue in three important areas: contract services from isotope production, services to CANDU owners around the world, and services to the soon to be established private sector company CANDU Energy Inc. As a result, over the last 60 years, the Chalk River Laboratories have accumulated intellectual property assets that support AECL's Nuclear Science and Technology products and services sales in Canada and worldwide.

Nuclear Science and Technology supports materials testing and product improvements in a wide range of industries, including natural resource development and advanced manufacturing, such as aerospace and automotive manufacturing. Nuclear Science and Technology is necessary for the further development of medical technologies, including nuclear medicine and radiotherapy, but also advanced pharmaceuticals other than radioisotope-based diagnostics and treatment.

So there is a clear need to ensure that Canada will maintain its base of highly skilled professionals, and sustain its advantage in science and technology innovation. The Chalk River Laboratories employ thousands of highly trained staff and support a scientific community of 400 researchers from Canadian industry, government, and academia. More than 200 academic researchers from at least 20 Canadian universities use the Chalk River Laboratories on a regular basis.

No less important is the role of Nuclear Science and Technology in the training of scientists and engineers in fields that go far beyond nuclear power generation. These scientists and engineers are highly trained experts in fields as diverse as chemistry, metallurgy, materials engineering, health sciences, safety and accident investigation, and other areas of knowledge that depend on a solid understanding of radiation and nuclear sciences. These specialists will work in industries that use radioactive materials and processes, such as health care, environmental protection, food safety, national security, regulatory compliance and government policy. **But to maintain all of these benefits from nuclear science and technology for Canada's economy, society, and for Canada's role in the world, it is necessary to strengthen Canada's Science and Technology infrastructure:**

In recent years, AECL has initiated a number of government-funded improvement projects. For example, Project New Lease was initiated in 2006 to revitalize the Chalk River Laboratories site and ensure compliance with the conditions of the operating licence. Also in 2006, the Nuclear Legacy Liabilities Program was established to safely and cost-effectively reduce nuclear legacy liabilities and associated risks resulting from more than sixty years of research, development, and operations at the Chalk River Laboratories site.

More recently, in 2008, the Isotope Supply Reliability Program was established to address risks to the continued supply of medical isotopes.

In 2009, the strength of the nuclear science and technology to which the Chalk River Laboratories are home were put to the test when the now 54 year old National Research Universal reactor was taken out of service following the detection of a heavy water leak. To repair the leak, it was necessary to develop new repair techniques, and to fabricate and assemble new repair tools, to address the specific operational issues. Thanks to the impressive efforts of the scientists,

engineers, and researchers at the Chalk River Laboratories, and within Canada's nuclear community, the National Research Universal reactor is in better physical condition today than it was when the licence was issued in 2006.

The ingenuity and resourcefulness shown during this important project is a testament to the impressive collection of skills and experience at the Chalk River Laboratories, and to how AECL would respond to any challenge that they, or the industry, may face. It also shows that AECL is more than capable of safely operating the Chalk River Laboratories now and into the future, for the benefit of Canadians across this country.

Decades of public and private investment at the Chalk River Laboratories, have created a concentration of human resources and technological facilities that will provide significant benefits to Canadians across the country for years to come. They will make it possible to provide rapid and creative solutions to any operational issues affecting CANDU reactors in Canada and worldwide.

In closing I would like to remind you that the activities that take place under the Chalk River Laboratories Program are focussed on a single, unifying strategic outcome:

“For Canadians and the world to receive energy, health, environmental and economic benefits from nuclear science and technology, with confidence that nuclear safety and security are assured.”

In light of this objective, and all of the information that I have just provided, it is the opinion of the Canadian Nuclear Association, that the Canadian Nuclear Safety Commission should renew AECL's Nuclear Research and Test Establishment Operating Licence for the Chalk River Laboratories, including the licence for the Dedicated Isotope Facilities.

At this time we would be pleased to answer any questions.

Thank you.