

Notes for remarks by

Dr. John Barrett

President and CEO, Canadian Nuclear Association

To the 19th Pacific Basin Nuclear Conference

KEYNOTE ADDRESS 3, LUNCH THURSDAY, AUGUST 28

Thank you for that kind introduction.

It really is an honour to have the opportunity to address all of you today, and to follow so many excellent speakers. I truly feel that, with our industry expanding so quickly around the Pacific Rim, here at PBNC 2014 we are at the center of the worldwide action. It is a region at the forefront of nuclear technology developments. A region of enormous promise to be fulfilled.

I want to talk to you today about how countries cooperate, and what that means for fulfilling the promise that nuclear technology holds for creating a better world. The observations I would like to make are underpinned by experience I have gained in the multi-lateral world – as a senior official of NATO in Brussels; as the chair of the UN Group of Government Experts on Verification in Arms Control, Non-Proliferation and Disarmament. And more recently, as Canada's Ambassador to the International Atomic Energy Agency and Chair of the IAEA's Board of Governors. So what did I learn?

I learned that countries *can* work together to set good, effective standards – whether it's in a military alliance, or in hazardous materials, or in energy systems. More importantly, I learned that countries *must* work together to set standards in any important area of endeavour. Working together becomes a collective endeavour in which all participants have a say, have a stake, and have responsibilities not only to their citizens, but to each other as well.

You can't achieve best practices in isolation. All excellence requires learning from others. If you want to be great at anything, you have to watch and learn from others. Preferably from the best – but any example can be informative.

Setting standards and living up to them is one level of commitment. But striving for excellence and the best of best practices is a higher level altogether. Striving for excellence commits one to openness and cooperation.

For example, in many areas, excellence in one country benefits that country's neighbours – in health, in environmental quality, in economic activity, in security, or in other ways. And if so, then there's a second reason to be open with your neighbours. You affect them and they affect you. There's a moral obligation to be open and to cooperate in everyone's interest. This is an aspiration which we see in the work of WANO – The World Association of Nuclear Operators – in their peer reviews.

Another lesson I learned on the other side of the world is that often, international cooperation works better regionally than globally. Neighbours have greater shared interests than countries that are far apart. Also, in regional cooperation, the number of countries is more manageable.

So, to recap: We can set good standards. We should cooperate to do it. And regional arrangements can be very effective. Now, here we are in Vancouver, on the rim of the Pacific, at the end of August 2014, in the nuclear technology business. What's the state of play?

Here's a quick summary of what's going on.

- 435 reactors operating, generating collectively over 2300 terawatt-hours last year, which is about 13 percent of global electricity consumption.
- Construction of new nuclear power plants and other facilities is occurring very rapidly in Pacific Rim countries, which account for more than half of reactors under construction, planned or proposed. According to World Nuclear Association figures, Pacific Rim countries currently have some 49 reactors under construction, 106 planned and 163 proposed.

- A growing number of countries in the region are, or aspire to be, new users of nuclear power generating technology, including Chile, Vietnam, Thailand, Malaysia, Indonesia and North Korea.
- The Pacific Rim is growing a new web of connections in nuclear technology; in trade in uranium and other nuclear technologies and materials; and in corporate linkages of all kinds. This web of nuclear linkages is getting more dense and complex every year, and will soon rival its counterpart around the North Atlantic.

All this is happening for a reason. The region has an enormous and growing population that aspires to better lives. In our world, better lives are closely tied to energy consumption. The people of the Pacific Rim want what nuclear can offer, from medical imaging and cancer treatment, to advanced materials and manufacturing, to non-destructive testing, to instrumentation, to affordable electric power, to cleaner air, to lower greenhouse gas emissions.

That's why we're here in Vancouver at PBNC: to help to deliver all that to the people of the Pacific Rim. That's why this web of trans-Pacific linkages in nuclear technology is growing. That's why it will, in all likelihood, overtake its western counterpart in the relatively near future.

But let me ask you today: are our governance structures keeping up? They have to. Because we can't deliver all those things securely to the people of our countries, without good standards and best practices. And in the Pacific Rim, we cannot afford NOT to "fulfill the promise" of nuclear technology. There is too much at stake for those people, our fellow citizens.

The greatest risk, for instance, may well be the loss of fragile public trust in these technologies, leading to a slowdown or halt in investment, and consequent delay or failure in "fulfilling the promise" of better lives for the people of this side of the world.

If we are to avoid such a loss of public trust, that means doing it as safely as we know how to do it. Doing it as securely as possible. And doing it while safeguarding against the proliferation of weapons based on nuclear technology.

This means propagating the very best practices in governance and regulation. Not just making them available, but *insisting* on them, and enforcing their maintenance.

To this end, I note South Korean President Park's comments two weeks ago, in which she proposed creating a consultative body for nuclear safety in northeast Asia, as well as a regional nuclear security dialogue process. President Park's expressed goals of not only strengthening safety and security, but also building trust among neighbouring nations, are shared by Canada's nuclear industry.

When we look at best regulatory practices, we believe four things are required :

- Regulatory autonomy. This means that regulatory agencies are arms' length from politics, free of corruption, and professional.
- Evidence-based standards. This means that regulatory standards are not set according to what might upset people, or on what is the maximum that industry can be forced to do, or on what we put on the books decades ago and never updated. Rather, they are based on *what science tells us will make a material difference*.
- Transparency. This means being open about what we do and how we do it – to the domestic public and internationally
- Industry compliance. This means setting – and meeting – the highest of standards through a combination of international laws, conventions and agreed actions – and including peer-based pressure and scrutiny.

Let's be clear: Each of us who wants to fulfill the promise must want to do these things. A good international governance regime is *not* a matter of a few major countries telling others how to do things. Rather, this is all of us who want to succeed, resolving to do it right.

Around the world, nuclear weapons are being systematically decommissioned and the materials are being disposed of. We are moving to a different and better kind

of nuclear world, with less unusable weapons for our militaries, and instead more extremely useful energy for civilians.

We are working hard to stop the proliferation of such weapons – and industry plays its role by restricting the transfer of sensitive nuclear materials, technologies, products and intellectual property. Industry is contributing to the greater security of nuclear technologies, sources, facilities and operations – as witnessed by the ongoing work of the Nuclear Industry Summit 2014 in Amsterdam and its follow-up work. And industry is stepping up with governments and regulators to implement with diligence and immediacy the 12 actions of the IAEA’s agreed Action Plan on Nuclear Safety.

There’s another challenge in developing the governance we want and need. Our nations and our governments can be at different points in the cycle and progression of decisions and issues to be managed in the application of nuclear power. Those of us entering nuclear power with first new builds are not encountering the same managerial and technical requirements as those of us with 40-50 years of nuclear power experience who are pre-occupied with waste management, decommissioning and environmental legacy clean-ups.

This puts us at rather different points or orbits in the constellation of nuclear operations and challenges. To put it differently, there is a variable geometry of experiences and expertise. Which means we have every incentive to listen to each other, to learn from each other, to work together. There’s another more dramatic, more compelling way of making this point.

Ask yourselves right now, today: Do you want the promise offered by nuclear energy fulfilled for your fellow citizens? Or do you want to contemplate the idea of playing clean-up-and-catch-up after an avoidable accident?

If you want to fulfill the promise, then you and your government want the best practices in governance and regulation. You want the stamp of approval that confirms that. It’s worth effort. It’s worth persistence. It’s worth paying for.

Remember the key ingredients: Regulatory autonomy; evidence-based standards; transparency; industry compliance.

Coming back to Canada from the IAEA in Vienna, I can tell you that Canada's outstanding record in reactor and transport safety over the past sixty years shows what "standards of competence and a culture of safety" look like in practice.

This performance is literally "no accident." It comes from being persistent, making the effort, investing the funds, to have best practices and institutional integrity in governance and regulation

When your companies and your governments buy Canadian nuclear products and services, they are literally buying the stamp of approval in nuclear safety, security and safeguards. And they are investing in a *relationship* that will help your country to sustain that stamp of approval.

So this is my message to you today. Whether we are new entrants or established nuclear players, we *cannot* fulfill the promise -- for climate, air quality, electric power, living standards, health care, science and engineering -- unless we insist on developing, codifying and sharing the very best practices and institutions we can achieve in nuclear governance and safety.

Canada offers the people, the organizations, the public institutions, the relationships that can help you and your countries get there. With those people and relationships, you get great Canadian nuclear technology. Plus a gateway to technology and business relationships within NAFTA and EFTA, throughout North America and Europe, which will soon include the Comprehensive Economic and Trade Agreement between Canada and the European Union. A combination that no other country now offers you.

Work with your neighbours, work with us here in Canada, work with your international partners. To fulfill the promise of nuclear energy to and for our citizens.

Thank you very much.