

Harold McFarlane Remarks in Opening Plenary of WFS

Calgary, June 1, 2009

Good afternoon ladies and gentlemen.

I am delighted to be here. Thank you Jim Harvie and Duane Pendergast for inviting me to participate in this Western Focus Seminar and this opening session on New Nuclear Frontiers

Congratulations to CNS for holding this first meeting in Western Canada. It is a beautiful area with many exciting developments.

I live not far down the road in Idaho, just on the edge of the Western Energy Corridor that runs from Utah to Northern Alberta. My wife and I have taken the short drive to enjoy many early fall vacations in Alberta and British Columbia.

At this juncture I am struck by just how international this Western Focus Seminar needs to be. And not just because Alberta is a major exporter of energy.

During the next couple of days we will be discussing the possibility of a sea change in the way the world thinks about nuclear energy: Extending the benefits of clean, safe, reliable nuclear energy beyond electricity supply.

In addition to supplying steam for production in Alberta's oil sands, using nuclear heat for hydrogen production, manufacturing processes, and water desalinization could multiply nuclear's already large impact on avoiding greenhouse gas emissions.

In the US for example, nuclear energy generates almost three quarters of all emission-free electricity, even though it comprises only 10% of total capacity.

For Alberta, application of nuclear energy to oil sands production could mean a dramatic drop in GHG tail pipe emissions.

Concern about climate change is rapidly becoming a unifying factor in international policy. After years of foot dragging, it is startling to see how quickly political forces in the US have recently lined up behind climate change initiatives.

Every independent, respected analysis that I have seen, such as the reports from the World Energy Council, state that nuclear has to be a part of any solution for addressing climate change.

However, the real test will come when investment decisions face the economic realities of the different options and all their associated uncertainties.

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While I come from an R&D background, the primary challenges are not something that we are going to fix in the laboratory.

To be sure, there are several technical issues ahead of us, but we have reached a point where the heavy lifting will be done, if it is to be done, by commercial corporations.

That is why I think this conference is so fascinating. We will have the opportunity to hear from some of those companies whose innovation and vision may lead to a new nuclear era.

Much of the focus of this seminar will be on small and medium size reactors for application in Alberta and other parts of Western Canada. Small—not immature—but deliberately small reactors.

One of my assignments in recent months has been to learn more about these systems to understand what, if any, assistance is deserved or required by federal investment.

From that perspective, I am delighted to be here, because there is more content on that subject than I have seen in any other meeting.

So I don't have any great insight on the issue of nuclear applications in Western Canada. I am here to learn.

The sense that I have is one of tremendous opportunity here in Alberta and in neighboring Saskatchewan.

Not only because of the energy business sector here, but more so because of strong leadership in the public arena. To me this is the catalyst that nuclear energy has been missing in many parts of the world.

To borrow a phrase from the theme of the conference, it would be fitting if this new nuclear frontier were to lead the world into a new age of nuclear applications.

While this is an exciting opportunity, it should not be a signal for unbridled enthusiasm and promotion.

The barriers to entry for previously unproven nuclear energy systems are both very high and very real. A strong confluence of economic, policy and regulatory conditions is required.

So here's my challenge to the participants in this seminar. Let's try to come away with a common understanding of the issues in making this dream of nuclear energy in Western Canada a reality.

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What are the economic, technical and regulatory issues associated with each of proposed concepts?

Transparency in understanding and communicating those issues may be a first necessary step on the road to game-changing innovation and international leadership.

Thank you again for having me here this afternoon. I am looking forward to the next two days of the Western Focus Seminar.