

Prepared Remarks of NRC Chairman Dale E. Klein
NEA 50th Anniversary
Industry Panel Remarks
October 16, 2008
Paris, France

Welcome to this panel discussion on “Challenges for New Nuclear Builds.” We have a very impressive group of speakers. Before I introduce them, let me offer my congratulations to the Nuclear Energy Agency on its 50th anniversary. I will be addressing some of the good work that the NEA does at tonight’s dinner, so rather than elaborate on that right now, let me turn directly to the theme of this panel.

As Luis Echavarri told us this morning, when outlining the contents of the NEA’s new publication, *Nuclear Energy Outlook*, nations around the world are looking to nuclear energy to help address rising energy demand and climate change concerns. But this global interest in building new commercial nuclear reactors is hardly without challenges. Our speakers will share their perspective on these challenges, which include, among other considerations, the need for large capital investment, ensuring the quality of the global supply chain, and training the next generation of employees—for both industry and government.

Speaking for my own agency, I can say that the NRC is adequately prepared for the additional workload we are facing—which is substantial, since new combined license applications continue to be submitted almost every week. But our staffing needs have been met only thanks to great effort and careful planning, which began several years ago. I know that other regulatory bodies have been facing similar challenges, and have also been preparing for added responsibilities. But I would hope that none of our panelists

from industry assert that regulatory hurdles constitute the most significant challenge to new builds.

I know that in the U.S., the high standards the NRC demands in engineering, construction, and quality of components; as well as the thoroughness of our oversight process; may appear onerous to some people. But it is my belief—and I believe many of my fellow regulators would share this belief—that these high standards actually benefit industry over the long term. Certainly, they have contributed to the level of public confidence in nuclear safety that is making the current expansion in global nuclear power possible. For that expansion to proceed, of course, we must all recognize that safety is a concern not only for regulators. Utilities, vendors, plant designers and engineers, and fuel suppliers must also devote themselves to making safety and security a priority.

With that, let me introduce the panelists. Each speaker will make a brief 5-minute presentation, and then I will open the discussion by posing a few questions. Let me note that if anyone violates the rules of the panel, I will be forced as a regulator to take appropriate action!

Our first speaker is **Dr. Aris Candris**. Dr Candris became President and CEO of Westinghouse Electric Company on July 1 of this year. Prior to that appointment, he was Senior Vice President for Nuclear Fuel, providing fuel fabrication, components, and services to commercial nuclear power plants worldwide. He began his Westinghouse career in 1975 as a senior engineer in the former Advanced Reactor Division. Dr. Candris holds a B.A. in physics, math and engineering from Transylvania University in Lexington, Kentucky, and an M.S. and a Ph.D. in nuclear engineering from Carnegie Mellon University.

Andre Claude Lacoste is Chairman of the French Nuclear Safety Authority. He is a graduate of both the Ecole Polytechnique and of the National Higher School of Mines in Paris. He worked in various positions in the Ministry of Industry, and first joined the Nuclear Safety Authority in 1993. In November 2006, when the ASN was made an independent administrative authority headed by a Commission of five Commissioners, Mr. Lacoste was appointed Chairman of the Commission by the President of the French Republic, for a mandate of six years.

Hugh MacDiarmid was named the President & Chief Executive Officer of Atomic Energy of Canada Limited (AECL) by the Prime Minister of Canada in January 2008. Prior to his appointment, he was the Managing Director of Holden America LLC. Mr. MacDiarmid graduated with a Master's degree in Business Administration from Stanford University. He previously served as President and CEO of Laidlaw Transit, and as Executive Vice-President at Canadian Pacific Railway from 1995 to 2001.

Luc Oursel was appointed President and CEO of AREVA NP on January 2 of 2007, and became a member of the AREVA Executive Board in March of last year. He is a graduate of the National Higher School of Mines in Paris. He began his career in the French administration, where he held several positions in the energy sector. His previous positions in the private sector include President and CEO of Schneider Electric Italia, and CEO of the Geodis Group.

Thank you. Let me open the discussion by posing a few questions.

- 1) The first question is for the industry panelists. Several nations—including Finland, France, and the U.S.—are facing obstacles to nuclear expansion that are

the result of what is, frankly, an inadequate level of skill in the nuclear workforce. If industry wants approval for new builds on the level that occurred 20 or 30 years ago, I would like to hear more about what they are doing to reinvigorate the trained workforce that will be necessary for this to occur.

- 2) My second question is for my regulatory colleague, Andre Lacoste. You have often expressed the view that nations—especially new entrants to nuclear energy—cannot rely only on technology. Governments must understand, and support, the need for independent and well-trained regulatory bodies—and supply them with adequate authority and resources. What additional steps does the international community need to take to ensure that these measures for strong safety oversight are in place in every nation that adopts nuclear power?
- 3) This question is for the vendor panelists. What lessons have you learned regarding design and construction of nuclear power plants that you could share with countries such as the U.S., who are in the early planning stages for new reactors?

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Good evening.

Let me begin by congratulating the leadership and the staff of the Nuclear Energy Agency for organizing this successful 50th anniversary celebration, and for hosting a very productive conference. I think that we had some very interesting and informative discussions on a range of issues

For half a century, under the sponsorship of the OECD, the NEA has helped promote international dialogue and cooperation to encourage the safe and peaceful use of nuclear energy. Both industry and regulators have benefitted from the NEA's efforts to bring countries together to address state-of-the-art science and technology issues, legal questions, and regulatory challenges to enhance world-wide nuclear safety.

Now, as the world seems to be moving toward a significant expansion in nuclear power, the work of the NEA will only become more important. I know that we in the United States hope to continue participating in NEA activities, and cooperating with all the member nations, for another 50 years.

Speaking as a regulator, I know that I must often interact with nations that don't have formal bilateral agreements with the United States. So the forum provided by this Agency offers a valuable avenue for communication. Nuclear safety has no boundaries, and for that reason we should all work to ensure that no political divisions interfere with this common goal.

I can say that my own agency is pleased to cooperate with any nation that is committed to strong regulatory oversight and the peaceful use of nuclear energy. This was a point I emphasized a few weeks ago in Vienna, when Chinese Vice Minister Li and I shared a podium, and discussed the extensive cooperative activities between our nations, including the training of Chinese regulators on the U.S. certification process for the AP1000, the exchange of visiting inspection teams, and the sharing of information on the regulatory processes and inspection methodologies in each of our countries.

This type of international cooperation will become even more important as the global resurgence in nuclear energy continues. In the United States we speak of a “Nuclear Renaissance”—in other words, a “rebirth” of nuclear energy. But as my colleague Andre Lacoste points out, France, Japan, and other nuclear nations have not been experiencing a Renaissance, because the growth in nuclear energy, and the development of new nuclear technologies, never stopped. Therefore, I think that any resurgence in American nuclear energy will have an international character.

For that reason, the United States is an enthusiastic partner in both the Multinational Design Evaluation Program and the Gen IV International Forum; and I commend the NEA for acting as the Secretariat for these important cooperative programs. Harmonizing codes and standards for current generation reactors, which is the aim of MDEP, and collaborating internationally to develop the next generation of power plants—as Gen IV seeks to do—should contribute to a more safe and secure future for nuclear power.

As a way of wrapping up the discussions from today’s conference, let me mention three other areas that I think will require our attention over the next several years.

First, I think that many of us are concerned with meeting the future demand for medical isotopes. This is an issue that comes up constantly in my discussions with regulators from other nations. I know that France will be hosting a workshop on this topic in early 2009. The NRC looks forward to participating in that workshop, and to working with NEA member nations to address this important subject.

Another issue that will take on greater importance, especially given the new reactors that are being planned or built around the world, is nuclear waste. I noticed earlier that Minister Claude Birraux's name was on the list of those attending this dinner. He and Minister Christian Bataille were leaders in the French national dialogue on spent fuel management. Their efforts helped France plan and implement a long-term, step-wise approach to addressing the spent fuel challenge—which I think has been very impressive. Again, I hope that the NEA can continue to provide a forum where nations can share their experiences, and learn from one another about how best to deal with issues such as nuclear waste.

Finding suitable methods and locations for disposing of nuclear waste is a significant concern among the general public in the U.S., as well as other nations. And that brings me to my final point. Ensuring public confidence in the safety and security of the entire nuclear fuel cycle must be a priority. Maintaining a strong safety record over nuclear materials and facilities is, obviously, the best and most important way of doing this. But public confidence can also be strengthened by demonstrating, through regulatory transparency, that high safety standards are being upheld.

At the NRC, we believe that public confidence is enhanced when regulators operate in a fair, predictable, and open manner—while also protecting proprietary

information, and limiting access to security related information. We believe that the industry and the general public should have a reasonable expectation of timely regulatory decisions based on good science and high quality engineering practices. All stakeholders in the nuclear industry—the financial community and, especially, the public—must be made aware of the status and progress of issues that may affect them. This is an approach that has worked well for us, and I believe such an approach can be beneficial for other nations interested in expanding commercial nuclear power.

Ladies and gentlemen, I mentioned earlier that we had a very productive day. I think that for most of us, it has also been quite a long day! Therefore, I will stop here, and close by saying that the United States and the Nuclear Regulatory Commission were very pleased to participate in today's events, and we look forward to continuing a long and mutually beneficial relationship with the NEA and all its members.

Thank you.