NRC NEWS

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Prepared Remarks for
The Honorable Dale E. Klein
Commissioner
U.S. Nuclear Regulatory Commission
at the
National Rural Electrical Cooperation Association's 68th Annual Meeting
Atlanta, Georgia
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Thank you, and good afternoon, everyone. I am pleased to join you at your 68th annual meeting and to be invited to serve as a panel member for this forum on nuclear energy. I have to confess that I am also delighted to be for a day or so outside of the Washington, D.C. area, which seems to be trying its best this year to be the Nation's snow capitol.

What I would like to do this afternoon is to discuss with you some of the issues associated with the future generation of electricity in the United States and the likely role of nuclear power in that future energy mix. My perspective on these matters is governed by my role as a member of the U.S. Nuclear Regulatory Commission, the independent federal agency responsible for protecting the public health and safety and the environment, and for ensuring the security of NRC-licensed facilities, including nuclear power plants.

But before I begin let me tell you how pleased I was to be invited to address this group, because I have been waiting a long time to say "thank you!" Yes, thank you for the work you do to improve the lives of millions of Americans. I am expressing those thanks not as a Commissioner of the NRC but as a Missouri farm boy who saw how electricity transformed our family farm. We didn't have electricity until the Rural Electrical Cooperatives brought it to us. Because of electricity, we were able to operate our farm more efficiently, and I had time to do my chores as well as my studies. I know what affordable and reliable electricity means to the average family, to the small business owner, to the farmer, to the shopkeeper, to the community and to the country. So thank you all again for the work you do.

We have known for some time that the global demand for energy is going to increase dramatically over the next 30 years. The recent economic downturn may ultimately work to push that reality down the road by a few years, maybe even a decade, but we have to face the fact that the demand for electricity around the world and here in the United States is going to double, and probably no later than mid-century. The bottom line is that our nation will need to increase its electricity generation

capacity. We must begin to plan now for the future and, to be blunt, even starting now is a little bit too late.

As a federal regulator, my primary concern is with safety in the nuclear industry and security at the nation's 104 currently licensed nuclear power plants and with overseeing the design and construction of any new plants that may be licensed in the future. I am not, therefore, an advocate for nuclear power. The advocacy role for nuclear power rests with the Department of Energy. But I am, as I think my background makes clear, a strong advocate for electricity. And so let me talk about a few realities where these two elements intersect.

In his State of the Union address last month, President Obama talked about the need to reenergize the U.S. nuclear industry. His administration is talking about increasing the dollar amount available in loan guarantees to power companies who wish to construct them. And, under the Bush Administration, a great deal of progress was made to streamline the siting and licensing processes and to open the door for an expansion of nuclear power. But none of this can happen overnight; the enthusiasm surrounding the possibility of new plant construction must be kept to a reasonable level.

For nuclear power to maintain its current 20 percent share of the electricity supply in the United States, the industry would need to add 50 new power plants, with an average of 1,000 megawatts each over the next 30 years. Not even the most enthusiastic pro-nuclear people think that there will be 50 new plants generating electricity any time soon. Nuclear power plants are extraordinarily complex; they are engineered to a very high level of precision; and can reasonably be expected to operate for sixty years or more. You can't just decide you want one and start construction the next day.

The U.S. Nuclear Regulatory Commission must ensure that each new plant is securely designed, is appropriate for the site chosen for it and will be able to operate safely over the course of its expected life span and, perhaps, even beyond it. I mention this because many of the 104 operating nuclear power plants operating in the United States are now approaching the end of their original 40-year licenses; most have applied for a 20-year license renewal. NRC reviews of license renewal applications are extensive and are focused on the technical aspects of plant aging and how such effects will be managed. At present, 60 of the 104 operating reactors in the U.S. have received renewed licenses.

At the same time, the NRC has received 18 applications to build 28 commercial power reactors. To handle these applications, to keep pace with the renewed interest in the technology, the NRC created a new licensing process potentially involving three steps: certifying a plant design, obtaining an early site permit, and submitting an application for a combined license to construct and operate the plant.

The purpose of the new review process was to provide both applicants and the public the opportunity to resolve site and design issues before construction begins and to provide a more predictable and stable licensing environment. Currently, 13 of the 18 applications are under NRC staff review. Five other application reviews have been suspended or deferred by the NRC at the request of the applicants for various reasons.

This is, by no means, a phenomena confined to the United States. The latest information I have suggests that around the world, 61 new plants are scheduled to open in the next few years. China alone is building 21 new plants in the short term.

Everywhere the interest in nuclear power is being driven by the promise of new reactor designs, by environmental concerns, by the need to be less dependent on fossil fuels and, as I said at the outset, by the need to meet increasing demand for electricity.

There is still much work to do, but the most important thing the NRC and the industry need to do is ensure that the 104 currently licensed reactors continue to operate safely. Public confidence and support for new nuclear plants cannot be maintained if we continue to have problems at existing plants.

Second, both the industry and the NRC have to guard against complacency. Improved performance does not mean that accidents cannot or will not happen in the future. We need to ensure that we remain vigilant because accidents can happen, they tend to have multiple causes, human performance is almost always a contributing factor, and even the best equipment can fail under certain conditions.

Third, the industry needs to submit high quality applications for new nuclear power plants and reduce changes to the minimum to ensure that the NRC can remain on schedule in its safety and environmental reviews of new nuclear power plant applications.

Fourth, we must ultimately find a *political* solution to the question of high level waste disposal. In that regard, the DOE secretary has recently announced the membership of the long-awaited blue ribbon panel to study alternatives to the Yucca Mountain high level waste repository. Those of us with a few grey hairs remember – and even have participated in – the many distinguished commissions and study groups that have previously addressed this same issue. But regardless of politics, I can assure you that the NRC takes very seriously the role of ensuring the safe and secure storage of used fuel and high-level waste until a decision is reached.

There are, of course, many other factors involved in ensuring that there is a next generation of nuclear power plants – some are technical issues, some are environmental and social issues, and some are political issues. But I hope I have given you a sense of the complexity of the task ahead of us.

Let me conclude by noting that all of us – the rural electric cooperatives, the nuclear industry, and the NRC – all have important roles to play in ensuring an adequate supply of electricity to the American people in the future. The NRC's role is to be a firm, decisive, effective, and fair regulator; the nuclear industry's role is to maintain and operate licensed nuclear plants safely and reliably, and to plan for the future by planning for and building new plants to expand generating capacity; and your organizations need to continue to deliver electricity reliably to rural Americans so that future generations of young Americans will have the opportunities that I had to grow, shape, and develop their own futures.

Thank you very much.