



NRC NEWS

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No. S-08-035

**Prepared Remarks of NRC Chairman Dale E. Klein
Hungarian Academy of Sciences
Budapest, Hungary
September 23, 2008**

Thank you. I am very pleased to be here. When Dr. Ronaky asked me to come speak to you—and also to visit the Bataapati site—I was very pleased to accept. I was not aware when I accepted that I would be speaking in such a beautiful, historic, and inspiring setting! But I am certainly honored to be here.

As a signatory to the Nuclear Non-Proliferation Treaty, including the additional Protocol, and a member of both the Nuclear Suppliers' Group and Euratom, Hungary can certainly be considered as one of the world's mature and responsible nuclear nations. Equally impressive, from my perspective, is the fact you have sited a low and intermediate level waste repository—something the United States has not done for decades. Therefore, I believe that both of our nations can learn from each other. The HAEA and the NRC already have a strong and long-standing relationship, which I believe has benefitted both our nations; and I look forward to strengthening this partnership even more during my time as NRC Chairman.

The topic I was asked to speak about is “The Nuclear Renaissance.” I will be happy to address that theme, especially as it relates to developments in the United States. It may be useful, however, to begin by providing a very short description and history of the Nuclear Regulatory Commission.

When the U.S. first developed nuclear power, there was a single government organization dealing with nuclear matters—the Atomic Energy Commission. In 1974 the U.S. Congress recognized that one agency should not *regulate* nuclear power and also *promote* it. They created what is now the Energy Department, which supports the development of nuclear energy, and the NRC, which is an independent regulator. Having a strong and independent regulator has been a significant part of why nuclear power has succeeded in the U.S.

Our agency licenses and regulates nuclear power plants, fuel cycle facilities such as uranium recovery and processing, and the transport and storage of nuclear waste. We also license the use of nuclear materials for medical, agricultural, and other purposes. In addition, the United States has made the choice for a single agency, the NRC, to regulate both the safety and the security of commercial nuclear facilities and materials. In my experience, this was a good

decision, since it allows a single body to take both safety and security requirements into consideration, and balance the needs of both.

Let me mention three other factors that I believe have made the NRC an effective agency. First, we have worked hard to be an efficient and timely regulator. In 1989, our agency began establishing the new combined construction permit and operating license application process. The combined license application—along with design pre-certifications and early site permits—provides U.S. companies a more effective and efficient approach to licensing review, with no compromises on safety or security. I also believe that this approach has encouraged standardization of plant designs and increased attention to developing passive safety systems.

In addition to efficiency and timeliness, we also strive to maintain a high standard of public accountability. We think that transparency is the key to public trust. I know that Dr. Ronaky shares this view—which is one reason the HAEA is a well-respected agency. We view nuclear regulation as the public's business and, as such, we believe it should be transacted in a fair, predictable, and open manner—while also protecting proprietary information, and limiting access to security related information. The public needs to be informed about our regulatory processes, and about how to properly understand the uses and risks of radiation.

And that brings me to the third point: understanding and evaluating risk. At the NRC we have used risk assessment in some form for a long time to focus attention on areas that are most risk-significant. What this means in simple terms is that we do not treat all problems equally, but rather weigh the safety significance through a risk assessment program. This approach allows us to make consistent and informed decisions—which may not always be popular, but are defensible. This means that when I brief our Congress I am able to defend the scientific basis of our decisions, and the NRC is able to maintain its reputation for objectivity and independence.

There are other factors that I believe have contributed to the good nuclear safety record in the United States—especially the efforts by industry to police itself through the Institute of Nuclear Power Operations. This a private organization created by industry to promote excellence and high standards of safety. It was created in response to failures uncovered by the Three Mile Island accident in 1979; just as the World Association of Nuclear Operators was created in response to Chernobyl. I believe that this demonstration by industry to strive for excellence, as well as an effective regulatory organization, are both necessary for public confidence in the safety of nuclear power.

With that introduction, let me turn to the current state of the so-called “Nuclear Renaissance” in the United States. So far, the NRC has received 14 site applications for 23 new reactors. As you are probably aware, these are the first new reactor license applications to be submitted in decades. These applications represent several different designs. As a regulator, I would have preferred just two designs: one boiling water reactor and one pressurized reactor. But we have to review the applications we receive. Still, there is a greater degree of standardization today, compared with the current 104 operating reactors in the U.S., almost every one of which is different. You see, in the U.S we have 104 different kinds of nuclear reactors, but one kind of cheese. In France, they have one kind of nuclear reactor, but 104 kinds of cheese.

We are also experiencing a significant increase in licensing activities for uranium recovery and fuel processing facilities. And we recently received an application from the U.S. Department of Energy for a high-level nuclear waste repository at Yucca Mountain in Nevada.

This is a large and complex application of 8,000 pages, with over one million pages of supporting documents and technical reports.

Clearly, this will present our agency with very significant challenges as we proceed to review these applications in a timely manner. In fact, there were concerns expressed by some people that our agency would not be able to handle the extra workload of reviewing many new license applications for both power plants and fuel cycle facilities. And the truth is, it has not been easy. But we are doing it. We are hiring more staff—which means our offices are getting a little cramped; and we have had to locate some temporary office space. But we are meeting our goals, primarily because the NRC management several years ago had the foresight to begin planning for a separate Office of New Reactors, which now has a staff of over 400 people.

Agency-wide, the NRC used to hire 30-50 new people per year. But in 2006, we set a goal of 600 additional full-time employees over a three-year period. In addition, we need to hire another 600 people to compensate for employees who are retiring.

The last time there was a significant expansion in nuclear power in the U.S. was 30 years ago. The people who were hired at the NRC then are now retiring, and one of our greatest challenges is transferring their knowledge to the next generation of employees. Let me emphasize that for now and the foreseeable future, our agency has in place the staff, the expertise, and the policies to oversee a safe expansion in domestic nuclear power—assuming that our high standards for safety and security are fully met.

I am aware that Hungary is also considering adding new nuclear power plants as a potential part of the nation's energy plan. So it is possible that the HAEA will face some of the same challenges the NRC is currently confronting. If that occurs, we will be happy to share our experiences, so that Dr. Ronaky can duplicate what we did right, and avoid what we did wrong. It is important for nuclear regulators to communicate with each other.

I don't mind admitting that my agency has had its share of mis-steps over the years; and we try to share this information with others. As regulators, we must be open and learn from our mistakes. Sharing knowledge, and a commitment to safety, are the cornerstones of good regulation. This is why Dr. Ronaky and I were able to have such a productive discussion, on a variety of important issues, this past April during the meeting of the Convention on Nuclear Safety. We will be seeing each other again next week in Vienna for the Senior Regulators Meeting of the IAEA.

On the matter of international cooperation, let me note at this point that while the U.S. is always willing to play a significant role, it is not always appropriate for large countries such as ours to take the lead in offering advice or guidance to other nations. Often, a nation that has a smaller number of nuclear facilities, but a strong regulatory infrastructure, can exercise greater influence, and have more success, in encouraging good safety and security procedures. I am aware, for instance, of the very productive partnership that exists between Hungary, Slovakia, Slovenia, and the Czech Republic.

As I understand it, representatives of the regulatory bodies from each of these nations hold a two-day meeting every year in Vienna during the IAEA General Conference to share experiences and lessons learned, and discuss ways to enhance safety practices in this region. And I also understand that this partnership has offered valuable assistance to Armenia in its efforts to

enhance nuclear safety. This example of leadership by Hungary—and the regional cooperation of this four-way partnership—is precisely what is needed for the Nuclear Renaissance to proceed safely. And I would hope that this regional cooperation is held up a model for other such efforts around the world.

In fact, I am sure Dr. Ronaky will have some valuable insights to offer at the IAEA meeting next week, when the International Nuclear Safety Group officially presents its report on “Nuclear Safety Infrastructure.” This report—which I had the opportunity to review last week—is intended to offer guidance to those nations that are considering adopting a nuclear power program for the first time. Hungary’s participation in the regional partnership is exactly the kind of cooperative effort that the report recommends.

Let me mention one other point before I conclude. The general public—and even regulators—sometimes have a tendency to focus too much on power plants, and neglect other areas such as fuel processing, waste disposal, and nuclear isotopes. In light of the announced goals of terrorists to obtain weapons of mass destruction, it is critical that all nations exercise strict controls over nuclear facilities and materials. On behalf of the United States government, I want to thank Hungary for its participation in the Proliferation Security Initiative. One thing we have learned is that good regulatory oversight plays an important role in non-proliferation by promoting nuclear safeguards and secure handling of nuclear materials.

There are many other topics that I could address, but perhaps it would be useful if I stopped here and tried to answer any questions you might have. Let me say again how grateful I am for being able to visit Hungary and visit some of your nuclear facilities. Dr. Ronaky and I have developed a good relationship, and I look forward to building on the discussions we have already had, and maintaining a strong relationship between our two regulatory agencies.

I am grateful for the honor of being invited to share some thoughts with you. Thank you for your kind attention, and I would be happy to answer any questions you might have.