The Honorable Joseph Knollenberg

TALKING POINTS FOR DOE-NERI WORKSHOP

April 23, 1998

at the
American Association for the Advancement of Science

Talking Points for DOE - NERI Workshop
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8:35 a.m. until 9:00 a.m.
at the
American Association for the Advancement of Science
1200 New York Avenue, N.W.

I. Introduction

Thank you, Dr. Moniz for that kind introduction. It's a pleasure to be here today to speak about the Nuclear Energy Research Initiative (the NERI program) . The caliber of participants here today for this DOE sponsored workshop is a testament to the strengths and merits of this proposed program.

Nuclear Energy has a strong future. Can you imagine how many problems could be solved if the United States were to actively pursue a stronger nuclear energy program?

- Safe, clean energy production well into the next millennium.

- A domestic energy source which would reduce our reliance on foreign fuel supplies.

- An energy source with no greenhouse gas emissions.

- An opportunity to reduce our non-proliferation risks both in the United States and in Russia by <u>combining</u> our weapons grade plutonium with uranium in a MOX fuel to be used in commercial reactors.

- A potential for reprocessing nuclear fuel as our friends in France, England, and Germany have done for years and thus eliminating more than 90 percent of the spent nuclear fuel as waste.

- The vast amount of spin-off technologies including the already discovered and yet-to-be

discovered medical applications.

Before I begin my remarks on the NERI program, l would like to focus on a few other related issues.

II. Kyoto

As you may know, I had the opportunity to attend the Global Climate Change meeting in Kyoto, Japan last December where the Administration signed onto an agreement to reduce the United States greenhouse gas emissions to 7 percent below 1990 levels by the years 2008 to 2012.

I have been quite critical about the United States supporting a treaty which places the United States and other industrial nations at a competitive disadvantage to 132 nations which have no reductions requirements.

In Kyoto, Japan was a strong proponent for placing, strict reductions on greenhouse gas emissions on industrial nations. However, they also have an existing plan for reaching their reduction requirements.

With 44 existing commercial nuclear power plants already, they have construction plans to build at least 20 more. Since nuclear power plants no greenhouse gas emissions, this alone will allow them to reach their reduction target.

In the United States, there appears to be no similar plan to use new commercial nuclear energy plants to reduce the United States' greenhouse gas emissions. And in fact, in a deregulated electricity market, we may see some our older plants shut down.

We have a great opportunity to bring environmentalists back to the option of nuclear energy. Nuclear energy as many in Europe and Japan and elsewhere have realized provides a reliable

and safe energy source that does not emit greenhouse gases.

We should learn from our European friends and begin to utilize nuclear energy more.

III. MOX Fuel

Turning to the issue of MOX fuel, I want to express my strong support for the dual-track approach to solving the weapons grade plutonium disposition issue. I see MOX fuel as a key to our non-proliferation goals.

Russia has been rather forthcoming that they consider their weapons grade plutonium stockpile as a resource, not a waste product to be vitrified and sent to a nuclear waste repository.

Furthermore, it is my understanding that Russia has reservations about whether vitrified waste is actually secure from proliferation. The argument is that any government which can afford to vitrify the waste can afford to later extract the plutonium from the vitrified waste and use it as weapons plutonium.

By moving forward with the MOX fuel option, the United States can demonstrate to Russia how serious we are about reducing our weapons grade plutonium and that Russia needs to follow suit with their own MOX fuel program.

If they see their plutonium as a resource, that's fine. They can apply that resource to ensure their weapons grade plutonium is used in a safe and productive manner as fuel in their nuclear energy plants.

IV. Yucca Mountain Nuclear Waste

I also want to discuss the issue of nuclear waste and Yucca Mountain. This fall, my office

worked with many other congressional offices to secure a veto-proof majority in the House of Representatives to pass the Nuclear Waste bill.

We only needed 290 votes, but as many of you know, the U.S. House of Representatives passed the Nuclear Waste bill by a vote of 307-120. Unfortunately, we fell just one vote short of the two-thirds margin in the U.S. Senate.

There has been a lot of talk on the hill that the Senate may now have enough votes to override the President's veto.

We should send the President the Nuclear Waste bill. He should sign it. And if he vetoes it. Then we should hold a vote to override his veto.

Yucca Mountain is perhaps the safest place in the world to store spent nuclear fuel certainly safer than on our river and lake shores in communities across America. At a recent hearing before the Energy and Water Appropriations Subcommittee, of which I am a Member, I asked Lake Barrett, the Director of the Office of Civilian Radioactive Waste within the Department of Energy if there were any showstoppers from Yucca Mountain becoming the eventual permanent repository for spent nuclear fuel.

I asked him about volcanoes, earthquakes, floods, Chlorine-36, heat tests, and automobile accidents and on each one he stated there are no showstoppers to make Yucca Mountain the permanent repository.

Perhaps nothing can help the nuclear energy industry more than solving the nuclear waste issue.

V. Nuclear Energy Research Initiative (NERI Program)

At this time, I will focus on the program you are all here to discuss. The Nuclear Energy Research Initiative will strengthen the future of nuclear energy.

The NERI program is designed to reinvigorate the Department of Energy's nuclear energy R&D based on competitive and peer reviewed applications concerning such issues as more efficient reactor designs, lower costs, improved safety, better on-site storage techniques, and proliferation-resistant reactors. As you know, the Administration has requested $24 million for this program.

In the November, 1997 report from the President's Committee of Advisors on Science and Technology (PCAST), entitled Federal Energy Research and Development for the Challenges of the Twenty-First Century, the PCAST panel recommended further nuclear energy research and development (R&D) to insure our nation's nuclear energy program is strong and growing. Specifically, they encouraged R&D in the areas of nuclear waste, non-proliferation, and nuclear safety. They also expressed a concern about whether nuclear energy is economically viable.

With the NERI program, we will conduct research that will address these concerns and pave the way for nuclear energy to emerge as a more prominent energy source for the United States.

VI. Solar and Renewable Energy, Fossil Energy, etc.

There is no shortage of funding for the other areas of energy supply research. Last year, we appropriated $296 million for Solar and Renewables R&D. That included $79 million for photovoltaics; $44 million for Wind energy; and $90 million for biomass/biofuels research. And Fossil Energy R&D received $362 million for fiscal year 1998.

Last year, nuclear energy research only received $7 million. We are asking for less than $50 million for nuclear energy R&D. $24 million of this would be used for the NERI program. $10 million would be used for another new initiative which I support the Nuclear Energy Plant Optimization program.

In addition, I support a funding level of $14 million for the ongoing University Reactor Support Program and especially the Nuclear Engineering Education Research (NEER) grant program to ensure that the top nuclear scientists in the world are in the United States.

This, year let s make sure we get an appropriate level of funding for nuclear energy R&D this year. As I have already started, it is the safe, clean, and reliable energy source to carry us into the future.

VII. Peer Reviewed, Competitive Research

The one area that I want to stress the most is that when you set out to design the intricacies of the NERI program, make sure it is done in a manner that encourages competition and peer reviewed research.

We also want to make sure we have a well coordinated effort between the national laboratories, universities, and industry. Whether they collaborate on a project or work independently shouldn't matter. We are in search of the best research and once the NERl program is in place we should get out of the way of progress.

With peer reviewed competition, we will all receive the benefits of the best research available.

VIII. The Problems With the Office of Nuclear Energy, DOE

I support the NERI program on its merits, but I have some concerns..

First, as you may know, there are strong concerns that the Office of Nuclear Energy within the Department of Energy is not being directed in a manner that makes Congress want to

give this program additional funding.

It is difficult enough to get a new program funded no matter how non-controversial it is. To get funding for Nuclear Energy R&D is a very difficult proposition. Although everyone in this room understands how important this type of research and development is, we must work together to make this argument and overcome our opposition in Congress.

I can assure you that I will try to work with Chairman McDade, a person for whom I have enormous respect and the other members of the Energy and Water Subcommittee and the staff to secure funding for the NERI program.

IX. Conclusion

Thank you for allowing me to speak today. I applaud your efforts to get the NERI program off the ground, and I look forward to working with you in the future to make nuclear energy a safer and more widely used energy source in the United States.