

NUCLEAR INITIATIVES: STEPS ON A LONG JOURNEY

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In November 1997, I joined the American Nuclear Society at your Winter Meeting in Albuquerque. I shared with you my concerns that the nation was not moving to correct decades of poor national decisions involving nuclear technologies. And I shared with you my concern that our nuclear policies – as they affect both civilian and military goals – do not reflect scientific, military, environmental, or economic realities. I announced my intent to lead a national dialogue to seek reevaluation in those policies.

Six months have now passed. There is real progress. There is also a very long journey ahead of us. I've welcomed and appreciated the inputs I've received from the American Nuclear Society. Many of you have been generous in offering your time and your insights, to me and to my staff. You've helped shape our directions. Today I'd like to take stock of our progress.

A critical point was made at a hearing I recently held on Advanced Nuclear Systems. Dr. Hank Jenkins-Smith emphasized that we must encourage public debate on nuclear technologies from the perspective of an integrated package of benefits and risks.

If only nuclear waste, or only transportation of spent fuel, are discussed, the public sees only the risks. But if transportation and waste are viewed as integral parts of the broad benefits of nuclear technologies, then the public can weigh those risks in the context of integrated system benefits. I need your help in reinforcing this point, and the next couple of months will be critical as Congress finalizes next year's budget for nuclear activities.

My Appropriations Subcommittee has completed their work now and the full Appropriations Committee has approved our proposal. The next step will be debate and votes in the full Senate, followed by conference negotiations with our House colleagues when they complete their work. I anticipate that the Senate and House versions will be different, so those negotiations will be challenging this year.

The largest reason for difficulties in all civilian energy accounts this year traces to the Administration's decision to under-fund ongoing water projects by \$1.3 Billion. The Administration then trumpeted their support for large increases in the civilian energy budgets, but the fact that our energy and water budgets are appropriated and capped together turns their Budget proposal into something of a bad joke.

All Members of Congress are very sensitive to the importance of water projects in their States and districts, and an election year just increases their emphasis. It isn't possible to cut \$1.3 Billion in ongoing water projects. Trying to do it in an election year is simply impossible. Most of those water funds had to be restored and that had to impact the civilian energy programs.

Despite these challenges, the current Senate Bill treats nuclear projects well. There is a three-pronged integrated approach to nuclear technologies and national security in the Bill. First, we maintained our strategic nuclear deterrence capability. Second, we required actions to really reduce the threat posed to us from proliferation of nuclear weapons

materials by moving to eliminate reserves of weapons plutonium in Russia and the United States. And lastly, we moved to reconsider the use of nuclear power to generate electricity with zero airborne emissions.

We fully funded three new programs, proposed by the Administration, partly at our urging, including:

- * \$10 Million for the Nuclear Energy Plant Optimization program to develop new technologies to extend the life of existing facilities,
- * \$25 Million for a new Nuclear Energy Research Initiative, and
- * \$10 Million to support nuclear engineering programs at universities.

In addition, we proposed three additional programs:

- * \$5 Million to jointly develop with Russia a new reactor technology that could burn large amounts of plutonium from dismantled Russian nuclear weapons, and do it with the strongest of safety and non-proliferation features,
- * \$15 Million to pursue Accelerator Transmutation of Waste to significantly shorten the half-life of spent nuclear fuel and other radioactive waste and possibly enable new options for our nation's spent fuel policy. and
- * \$20 Million to determine the cellular and biological effects of low-level radiation – with the goal of developing radiation protection standards that are better grounded in scientific reality, as opposed to the current gigantic extrapolations from data at high doses.

Each of these funding items should be of great interest to the American Nuclear Society and each responds to specific inputs and concerns that I've heard in meetings and testimony.

For example, the Nuclear Energy Plant Optimization program responds to the real threat that nuclear energy plants may be shut down at the end of their licensing cycle, rather than renew their license. Shutdowns would force a switch to more fossil fuel sources, with impact on the environment and on greenhouse gas emissions. I want to provide the best opportunity for those plants to continue to provide clean, low cost power.

Our Energy and Water Bill also raises concerns about the Nuclear Regulatory Commission and their role in nuclear technologies. Our Report notes the significant improvements in operational measures of nuclear power plants. at the same time that the NRC has dramatically increased the number of citations for minor infractions -- almost tripling them since 1995.

I've heard from people, from NRC employees to utility employees, that the NRC has become far too focused on just creating more regulations and far less focused on developing the strong safety ethic that remains essential for our nuclear plants. NRC needs to move beyond their focus on "design-basis" regulation to a focus on performance and risk-based regulations.

Our Bill succeeds in capping the recent growth of the NRC. Furthermore, we substantially raised the visibility of debates on current NRC practices, and we obtained a commitment from the committee with oversight of the NRC that hearings would convene later this year on these issues.

The Bill also has important requirements about disposition of weapons plutonium in the United States and Russia. Over the last six months I've spoken out repeatedly about real concerns that I have with our nation's directions in this vital area. Slow progress here is

dangerous, it can feed global proliferation of nuclear weapons. We just aren't moving fast enough.

The Administration is accepting current plans for Russia to dispose of their plutonium at a rate of 1.3 tons per year – that's means that the Administration is willing to take 35 years just to dispose of the 50 tons that Russia has declared as excess, and there should be lots more to declare as excess if stockpile numbers are successfully cut.

Meanwhile, the United States is moving ahead with a U.S. MOX program without ever securing a bilateral commitment from the Russians for timetables for conversion of weapons components into unclassified shapes. This could amount to unilateral disarmament. Congress must require a better program design.

I've proposed alternatives to the Administration's current plan, like using European facilities for fabrication of MOX and a set of U.S., Russian, European, and Japanese reactors to burn the MOX – options that are coming to be called "Euro-fab" and "global-burn." But so far I've had no indication of interest from our own Administration, at the same time that the Russian Minister of Atomic Energy has expressed interest in seriously evaluating my ideas. Our own Administration even issued their Request for Proposals for a MOX plant that precluded any use of European facilities even to produce the initial MOX test assemblies that could speed our progress.

Thus the Senate Bill requires that a bilateral commitment on conversion timetables be established before we jump into a major procurement for a MOX fabrication facility in the U.S. I know that some are concerned that this delays the United States' move towards MOX. Well, I've stated repeatedly that I want to see the U.S. burn surplus plutonium as MOX – but at the same time, I don't want to see us spend money on a poorly formulated program that could pose a long term threat to our national security.

Our Bill does not restrict construction of a facility to convert classified shapes into unclassified shapes. the "pits to pucks" part of the demilitarization effort. And once we have pucks, we can put those pucks under bilateral or international inspection and control. which is a real step forward for global security.

We need to push ahead with both the "pits to pucks" facility and with development of those bilateral agreements. Furthermore, we should set a national goal to dispose of around 10 tons of plutonium per year – for us and the Russians – to seize the current opportunities to reduce their stocks of weapons materials.

We should enlist the international community in devising the best, fastest ways of ridding the world of these materials. We aren't talking about a threat to just the U.S., this material is a clear and present danger to the world!!

I hope to accelerate creation of these bilateral agreements in visits with Minister Adamov in Russia in just a few weeks. I'll be traveling with Senators Thompson and Grams to visit several of their key facilities. Minister Adamov will be hosting us for discussions on many of these points. We are also looking forward to discussions on further cooperative programs that can lead to improved nuclear energy and waste handling options.

Let me close with two subjects. First, let me share an announcement of an item of especially high interest in the State of Tennessee. Back in March, Senator Frist and I spoke at a meeting on the "Scientific and Industrial Opportunities for the Spallation Neutron Source." I told you that finding the funds to start construction of the SNS at Oak Ridge was going to be very tough – and I discussed the shortfall in water projects that I mentioned awhile ago.

In March, I said that, despite my support for the scientific role that the SNS would play, I could not state with confidence that we could find funds for the SNS. Despite that challenge, the current Senate Bill fully funds the initial construction of the SNS. That will be an important new facility for Oak Ridge, for Tennessee, for the American Nuclear Society, and for the nation. I'm glad to see construction start.

Second, let me note that the recent events in India and Pakistan emphasize the importance of nuclear technologies. They emphasize the importance of the United States seizing and holding a leadership role in the full range of nuclear issues. Too many in the current Administration have not recognized that role and not recognized the integrated nature of the challenge. Discussions like we're having on slow rates of disposition of weapons plutonium and a crippled nuclear power industry highlight the lack of understanding we face in the current Administration.

India and Pakistan have sent a wake-up call. Our nation must heed that call and seriously value and provide global leadership on nuclear technologies. We need an integrated, coordinated national strategy on nuclear technologies, one that encompasses and recognizes the interrelationships of the civilian and military aspects of these challenges.

Nuclear technologies have tremendous potential to enable a better world, and the American Nuclear Society is a key player in realizing that potential. But without a coordinated approach to these challenges, we will see more countries rattling nuclear sabers and escalating global tensions. And, of greatest concern, we will see further decline in our nation's ability to influence international debates on nuclear issues.

The nuclear dialogue that I started with you last November is essential to craft this integrated picture. My goal is to enable mankind to benefit from nuclear technologies while carefully managing the military parts of this complex puzzle.

I'm excited by our progress in the last six months. I welcome your support and assistance in the coming debates.