

U.S. Transport Council Summit
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Panel: “Blue Print for Progress”
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We are entering a new global and national situation that is providing a convergence of opportunities that taken together provide a great prospect to solve the difficult problem of what to do with our Nation’s used nuclear fuel.

Let me address these emerging forces in three broad categories of ENERGY, ENVIRONMENT & SECURITY.

Every nation on the globe, including the US, needs affordable secure energy supplies to drive our economies. Recent events make that clear to every citizen of this earth: from China, India and to every citizen here. Nuclear energy is the only technology that can produce the quantities of high grade electrical energy that the developed and developing world desperately needs. Yes we need conservation and renewables, and we will always rely on coal, but nuclear is the only proven technology for the necessary quantities for future electricity and future hydrogen sources.

The globe and US needs clean environmentally friendly energy supplies. Nuclear does not emit air pollutants such as heavy metals nor carbon.

Global security is even more important since 911 and the problems encountered with the practical implementation of the NPT. In many areas steps have been taken to improve things, but more must be done to assure that nuclear energy technology is available to all nations, but only for assured “peaceful” uses. Steps have been taken to strengthen the nuclear technology safeguards for possible expanded secure nuclear electricity generation in India, positive steps have occurred in North Korea, and I am hopeful that something along the lines of the EU-3 proposal can be worked out in Iran. I hope that international relationships can be forged that can afford every country the right to peaceful nuclear energy and that appropriate assurances to all nations that verification of peaceful uses is also achieved.

An essential aspect of what I envision as improved international nuclear cooperation is the management of special nuclear materials, including residual used nuclear fuel. A significant announcement was made by Secretary Bodman this week to the IAEA General Conference in Vienna regarding Multilateral Nuclear Approaches to address reliable nuclear fuel supplies. Although this proposal addresses only the front end of the nuclear fuel cycle, similar approaches could be used for the back end of the cycle as well.

This Administration and Congress has expressed a willingness to promote nuclear energy. I believe all these factors point toward a near term global and national nuclear renaissance, including improved approaches for disposition of used nuclear fuel from reactors.

It is rumored that the Administration is working on an integrated comprehensive proposal. Congress has indicated that they would like action to change the status quo also. Secretary Bodman promised Senator Domenici last spring that he would review the situation and

recommend a path forward, so I expect that something should be announced in the relative near future.

The Secretary has assembled a very capable team at DOE that is able of looking at this issue in a holistic and integrated manner across the classical internal DOE organizations. I believe this fresh look is capable of utilizing untapped synergies between RW, NE, NNSA and EM to address UNF and HLW disposition related issues. I do not have any inside information, but I have worked in and with all these organizations and believe substantial improvements can be achieved by this new team.

As we heard from Dr. Finck this morning, there are future advanced nuclear technological enhancements that can supplement and enhance the performance of a Yucca Mountain repository, but they can not replace it. A geologic repository is absolutely essential to the disposition of used nuclear fuel, regardless of the development of any known technology.

All these signs are good, but when is something going to happen with the existing UNF that the Federal government has a legal and moral obligation to take?

Currently all the fuel remains and continues to accumulate at operating reactors. Of special concern to me are the 10 sites in 8 states where UNF is stranded at isolated shutdown reactors. These reactors have finished their power production days and leaving unwanted UNF stranded in these locations is a situation that was never envisioned. These sites are on our Atlantic shores, eastern rivers, our Great Lakes, the Mississippi, and our western rivers and Pacific shores. These sites were not chosen and inappropriate for indefinite storage of UNF. I believe these materials should be transported to secure isolated long term operating federal nuclear facilities ASAP. This is an unnecessary risk that can, and should be promptly eliminated.

The primary question is how and when can DOE start to meet its obligation?

I believe the YM repository will be the final resting place for HLW. YM has made great progress with a sound science program for over 20 years, but it has had a difficult time over the last three years and new progress is likely to emerge soon.

Yucca Mountain is a good site that has been evaluated with a world class science program, but it is not a perfect site. The only perfect site is the Sun, but to get there. That is a transportation challenge that is even hard for the USTC.

Since we can not reasonably get to the Sun, we need to continue with a good site, Yucca Mountain. We should not get caught in an impossible search for the practically unobtainable "better" when we have "good".

Even though I believe the new DOE team can improve and succeed with a revised YM repository, the fact is it will be delayed.

I believe that YM is necessary but insufficient to meet our national and global needs. For various reasons, including regional equities, I believe the nation needs one or more integrated early receipt facilities to compliment the YM repository.

The siting of these additional facilities will be a political challenge, but I believe the economic nuclear paradigm has changed significantly. Volunteer sites have been achieved in Finland,

Sweden and France and I believe it can be achieved here also. Equitable assured arrangements can be made at existing nuclear sites that might receive UNF as part of integrated planned advanced nuclear technology developmental activities. Assurances that these sites will not be the final resting place for byproduct HLW can be made in a manner that should be politically acceptable. The benefits to a host site can be very substantial while safety and security can be assured.

If a Federal receiving facility can not be achieved in a reasonable time, a viable alternative does exist with the Private Fuel Storage. PFS is licensed and is capable of performing a national service in the relatively near future if necessary.

When I first came into the RW under Ben Ruche in 1985, my first job was transportation and nuclear transportation was 10 years away and was called the Achilles Heel. It has remained 10 years away for 20 years, however, I think that is about to change.

We should not let transportation become a critical path. Nuclear transportation is a proven safe operation here in the US and overseas. There is a ready, willing and able private industry capable to do the job. DOE should utilize existing proven, experienced contractors to provide a diverse, redundant, safe and secure transportation program. Truck and rail transportation systems have been successfully used and should be developed to assure that the transportation infrastructure is available to safely and securely transport the UNF as soon as a facility is available to receive it.

That I believe could be sooner than many people think.

Thank you and I am available to address questions.

NEW NUCLEAR FUEL DISPOSITION OPPORTUNITIES IN A CHANGED WORLD

The world's economic, security, environmental, and technological situation has changed significantly in the last several years and these changes bring new opportunities for substantial policy improvements and redirections in the spent nuclear fuel management arena. The passage of new energy legislation; the need for more US nuclear energy; growing state, national and international momentum for carbon emission and other air pollutant reductions; post September 11th Homeland Security threat reduction improvements; desires to improve global nuclear security; rapidly emerging needs for clean electricity supplies in developing countries; and the technological advancements in advanced fuel cycle technologies provide a substantial foundation for future enhancements and improvements in current spent nuclear fuel management programs. Past progress, lessons learned, and new spent fuel/waste management technological innovations coupled with current and future economic, security, and environmental issues can create new approaches that can help the Federal government meet its obligations while simultaneously addressing many of the difficult regional/state issues that have historically hindered progress.

This paper will examine and integrate the synergy of these issues to explore options and discuss possible new opportunities in the vitally important area of spent fuel management and the entire back end of the nuclear fuel cycle.