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RECOMMENDATIONS OF THE BLUE RIBBON COMMISSION  
ON AMERICA'S NUCLEAR FUTURE  
WEDNESDAY, FEBRUARY 1, 2012  
House of Representatives,  
Subcommittee on Environment and Economy,  
Committee on Energy and Commerce,  
Washington, D.C.

The subcommittee met, pursuant to call, at 9:37 a.m., in Room 2322, Rayburn House Office Building, Hon. John Shimkus, [chairman of the subcommittee] presiding.

Present: Representatives Shimkus, Whitfield, Bass, Latta, McMorris Rodgers, Harper, Cassidy, Gardner, Barton, Green, Butterfield, Barrow, Matsui, Capps, and Waxman (ex officio).

Also Present: Representatives Kinzinger and Inslee.

Staff Present: Charlotte Baker, Press Secretary; Dave McCarthy, Chief Counsel, Environment/Economy; Andrew Powaleny, Assistant Press

Secretary; Tina Richards, Counsel, Environment and the Economy; Chris Sarley, Policy Coordinator, Environment and the Economy; Brett Scott, Staff Assistant; Peter Spencer, Professional Staff Member, Oversight; Lyn Walker, Coordinator, Administrator/Human Resources; Alex Yergin, Legislative Clerk; Jeff Baran, Minority Senior Counsel; Alison Cassady, Minority Senior Professional Staff Member; and Caitlin Haberman, Minority Policy Analyst.

Mr. Shimkus. We are going to call the hearing to order and welcome our first panel. And I will begin with my 5-minute opening statement.

Good morning, and welcome to our first Environment and the Economy Subcommittee hearing of 2012. Today I am pleased to kick off the subcommittee's agenda on a topic many of you know I am very engaged with and passionate about, the disposal of high level nuclear waste. As a result of our successful defense programs, and as contractual obligations to taxpayers and consumers who have invested billions of dollars and counting, we, as a Federal Government, have a responsibilities to permanently dispose of nuclear waste. This debate has lead us here today to discuss a report from the Blue Ribbon Commission on America's nuclear future and how its recommendations might aid in moving the existing law forward while staying ahead of the curve into the future.

As I read the report over the last few days and -- I actually did read the report --I agree with many of the Commission's recommendations. I too think a new organization tasked with nuclear waste management is needed. I agree access to the funds nuclear utility ratepayers and taxpayers have invested should not be squandered by political brinkmanship. And as I have been talking about each week on the House floor, I agree that Yucca Mountain as designated by law remains fixed on the table as a solution to the nuclear waste debate.

In the wake of the administration's interference with the independent technical evaluation of the repository of Yucca Mountain,

the resulting Blue Ribbon Commission found what many of us have long have been saying about the failed management of nuclear waste. The Commission's report correctly advises control of the nuclear waste fund be removed from the purse string of political ideologues and entrusted to a new organization dedicated solely to implementing the waste management program set forth under law.

It is clear the dysfunction within and between the Nuclear Regulatory Commission and the Department of Energy has rendered the current waste management structure ineffective. We simply cannot burden our children with 65,000 and growing metric tons of nuclear waste simply because of a bureaucratic failure to carry out of the law of the land.

Yucca Mountain remains the most shovel-ready, thoroughly-studied geological repository for spent nuclear fuel, there are possibly no other 230 square miles in the world that has been examined and reexamined more by America's greatest scientific minds than Yucca Mountain.

Three decades of study, \$15 billion and quite frankly, common sense support the current requirement to secure high level nuclear waste on Federal property, under a mountain in a desert. While the extensive research and millions of man-hours by expert scientists and engineers have proven we can safely and securely store nuclear waste at Yucca Mountain, this debate is also about jobs.

The Department of Energy estimates continuing construction at Yucca Mountain would employ 2,600 workers, with about 1,100 of them

being additional jobs and new jobs. Additionally, DOE estimates an almost equal number indirect jobs bringing the total to 7,000 jobs in Nevada, a State currently suffering from 13 percent unemployment. In addition to job creation, this would help stimulate the struggling Nevada economy.

In 2000, research done by the University of Nevada, Las Vegas, concluded the Yucca Mountain project contributed nearly 200 million to the Nevada economy that year and similar amounts in 2001. The reality is Yucca Mountain not only fulfills our commitment to the American taxpayers to secure highly level nuclear waste as required by law, but makes a commitment to the people in Nevada to turn around a struggling economy and expanding infrastructure and creating jobs.

I would like to welcome the co-chairs of the Blue Ribbon Commission, a former colleague of ours, Congressman Lee Hamilton, it is great to see you and welcome back. And Lieutenant General Scowcroft. I would say beat Navy, and also Air Force, but you might have twisted loyalties there. I look forward to their thoughts on implementing some of the recommendations and how they fit into current law.

I also want to thank our second panel of witnesses for being here today to give us their outside perspective on the report, as those who have been a part of the process for many years, their input will invaluable as we consider how to utilize the Commission's recommendations. With that, I finish my opening statement and I would like to recognize the ranking member, Congressman Green from Texas,

for 5 minutes.

[The prepared statement of Mr. Shimkus follows:]

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Mr. Green. Thank you, Mr. Chairman, for holding this hearing entitled "Recommendations of the Blue Ribbon Commission on America's Nuclear Future." Many of us on this subcommittee have been anxiously awaiting the completion of the Blue Ribbon Commission's report since they were tasked with the responsibility a couple of years ago. As a long-term supporter of nuclear energy, because this is a cleaner energy alternative, I had the opportunity to visit countries like France and Sweden to learn about their nuclear energy programs. I accompanied our committee colleague, Representative Murphy on a CODEL to France and Sweden last year and were able to see how French and Swedish reprocess and store their nuclear waste.

The issue of long-term and interim nuclear waste storage and disposal is a very important topic in this country and there is no doubt we are well behind our foreign counterparts when it comes to disposing of nuclear waste.

This subcommittee's examining the issue of nuclear waste storage in past hearings. These hearings have primarily been focused on Yucca Mountain and the actions of the Nuclear Regulatory Commission, and we have yet to examine other issues or alternatives for permanent nuclear storage and disposal.

I had the opportunity to visit Yucca Mountain last year also with Chairman Shimkus, and I have supported the use of Yucca Mountain in the past and still believe it is a terrible waste of taxpayer dollars to have this \$12 billion facility sitting unused in the desert.

While I am supportive of using Yucca Mountain as a permanent

nuclear waste disposal facility, it is clear that certain political realities must be accepted in the here and now, and we have been fighting a battle to use Yucca since it was first proposed in 1987 and have not been able to come to a resolution. The issue of Yucca Mountain may not be resolved in the near future, but perhaps there will come a time we can move past the political logjam, and if we do, we can revisit utilizing Yucca Mountain in the future. Regardless one fact is certain, the U.S. has a very real and serious impending issue at hand with regard to the storage and disposal of nuclear waste, and it must be dealt with sooner rather than later.

Currently spent fuel and reprocessed waste is stored at nuclear plants in 30 sites scattered across the U.S., local communities are spending millions of dollars to ensure the safety and protection of our nuclear waste. Even with these current sites, we are still producing nuclear waste and that waste will need to be stored for at least 1,000 years. If we begin reprocessing our nuclear waste, it still will not solve or eliminate our problem. I strongly support research and developing of reprocessing because it could, in the future, reduce the amount of the waste and it is not the ultimate solution, but it is not the ultimate solution of our nuclear storage problem.

I would like to note that reprocessing spent fuel could be a job creator in this country. Research and development jobs are needed in the U.S. and we should be doing more in the reprocessing arena to foster job development as well as reducing our nuclear footprint. That is

why I look forward to the testimony of Blue Ribbon Commission. I think it is important we learn how we can begin the process of finding one or more interim and alternative storage and disposal sites to Yucca Mountain. I am also interested in hearing the opinions of the Commission on creating a new organization dedicated to nuclear waste management, reprocessing investments in U.S. research and development for the workforce development, and legislative proposal to help access funds from the nuclear ratepayers for nuclear waste management.

I want to commend the Blue Ribbon Commission for completing a report on time and producing a consensus document. In this Congress, it is impressive that all 15 members of the Commission signed the report. Additionally, I know they reviewed more than 1,000 comments and submitted the draft report and included several changes that are reflected in the final report. I also want to thank the witnesses for appearing today, and I look forward to your testimony. Thank you.

Mr. Shimkus. The gentleman yields back his time. The chairman now recognized the Chairman Emeritus Congressman Barton for 5 minutes.

[The prepared statement of Mr. Green follows:]

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Mr. Barton. Thank you, Mr. Chairman. I don't think I will take that time. It is good to see -- I still call him Congressman Hamilton, but Dr. Hamilton and General Scowcroft, I have been around here long enough to remember when both of you were -- when the Congressman was actually chairman of the Foreign Relations Committee in the House, and General Scowcroft was National Security Advisor to the first President Bush, so it is good to have you two gentleman still serving the public.

On the Energy and Commerce Committee, I think we have 59 members, only three of them served when the Nuclear Waste Policy Act in 1982 was passed, Mr. Waxman, Mr. Dingell, and I believe Mr. Markey.

Mr. Hall, who is on leave from the committee on the Republican side, is the only Republican who was here then. I didn't get here until 1985.

My first job as a White House fellow for President Reagan at the Department of Energy in 1981 was to brief the then Secretary of Energy, James B. Edwards, on the proposed Nuclear Waste Policy Act. They asked me to brief him because they thought if an Aggie could understand it and explain it, then anybody could. And so the technical experts spent a day explaining to me what they were trying to do, and then I had 15 minutes to explain that to the Secretary of Energy.

So I have been involved with this for a few years and it is a shame that we are still where we were basically then, and that is that we don't have a solution. And it is really not fair to you two gentleman or the other commissioners to expect you to pull nuclear waste depository rabbit out of a hat when we haven't been able to do it in the Congress for the last 30 years. We are not here to name names,

but if I had to name somebody who really put the fly in the ointment, I would say former Senator Bennett Johnson of Louisiana and Senator Trent Lott of Mississippi. They made a deal in the Senate to put it in Nevada over the objections of the Nevada delegation and the Nevada delegation pledged eternal opposition, and they meant it and that is kind of why we are here today.

Gentleman, in your final report the Secretary of Energy you do speak of the importance of Federal relations and public confidence. You discuss how a continued delay to store the 65,000 metric tons of inventory, which as Congressman Green pointed out, is growing is damaging America's standing in the world as a source of nuclear expertise, as a leader of global issues on nuclear safety, non proliferation and security. We have spent in the neighborhood of \$15 billion building Yucca Mountain and don't have a whole lot to show for it. I think that is inexcusable.

Dr. Peter Swift, who is the chief scientist for Yucca's lead laboratories, Sandia National Laboratory, has discussed how the technical basis for the Yucca Mountain repository has been developed by hundreds of scientists and multiple technical experts. He said, "One of the main conclusions of these analysis is that the estimated releases of radiation doses to hypothetical future humans are well below the EPA and NRC standards." He goes on to say, there is sufficient technical basis for the Nuclear Regulatory Commission to issue a license authorizing construction of the facility. To kind of put that in layman's terms, he is basically saying we can continue to

have debates about how many nuclear angels are dancing on the head of the pin, but there is basis to think that the current design is sufficient and safe and we should move forward.

I do think that your report is going to help us in the political arena make a decision on what to do. I also believe that it is probably time to reform the Nuclear Waste Policy Act of 1982 incorporating some of the recommendations that you gentlemen and your other commissioners have made in the report. We do need to develop secondary geological disposal facilities. It is important to provide real access to the funds for the sole purpose of waste management.

And last but not least, I think we do need to work to find opportunities to address recycling and new technologies by instituting legislation to make that possible.

Again, gentlemen, thank you for your time and effort. I hope that your work will actually be used in a legislative fashion in the near future to reform the Nuclear Waste Policy Act and let's finally get going. With that, I yield back, Mr. Chairman.

Mr. Shimkus. The gentleman yields back his time. The chair now recognizes the ranking member of the full committee, Mr. Waxman for 5 minutes.

[The prepared statement of Mr. Barton follows:]

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Mr. Waxman. Thank you, Mr. Chairman. In 1982, Congress passed the Nuclear Waste Policy Act, the Act sought to establish a fair and science-based process for selecting two nuclear fuel and high level radioactive waste. Under this approach, no one State or locality would bear the entire burden of the Nation's nuclear waste. In the years that followed, the Department of Energy began evaluating a number of potential repository sites. Then in 1987, Congress made the decision to designate Yucca Mountain in Nevada as the sole site to be considered for a permanent geologic repository. There was no plan B. As the Blue Ribbon Commission explained, this decision was widely viewed as political and provoked strong opposition in Nevada where the legislation was poorly received.

Ever since Congress decided to short-circuit the site selection process it established 5 years earlier, the State of Nevada, the majority of its citizens, have opposed the Yucca Mountain project. In 2002, President Bush recommended the Yucca Mountain site to Congress. Using the State veto procedures set forth in the Nuclear Waste Policy Act, Nevada then filed an official notice of disapproval of the site. Congress proceeded to override Nevada's veto by enacting a resolution that was marked up in this Energy and Commerce Committee.

Twenty-five years after the 1987 amendments to the Nuclear Waste Policy Act, it is clear that this top-down, Federally-mandated approach has not worked.

The Department of Energy has terminated its Yucca Mountain activities. Last year, and again this year, Congress has provided no

funding for Yucca Mountain, even the biggest advocates for Yucca Mountain in the Republican House have not acted to provide any funding. In light of the poor track record of the current top-down approach, President Obama directed Secretary Chu to charter a Blue Ribbon Commission to perform a comprehensive review of U.S. policies for managing nuclear waste and to recommend a new strategy. The Blue Ribbon Commission spent nearly 2 years conducting this review and its recommendations are timely.

The Commission recommendations deserve our serious consideration. They raise a number of important policy questions, such as whether a new organization should be established to address the nuclear waste problem, how the nuclear waste funds should be used, and whether one or more centralized storage facilities should be developed in addition to one or more geologic repositories.

Answering these questions requires an open mind and a willingness to move past the narrow obsession with Yucca Mountain. It is time to move forward and today's hearing is a good first step. I thank our witnesses for being here today to share their views and I thank them for their contribution and their work on this Commission, which I hope will be helpful to us. Thank you.

Mr. Shimkus. The gentleman yields back his time.

Mr. Waxman. I yield back my time.

[The prepared statement of Mr. Waxman follows:]

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Mr. Shimkus. Then what I would like to do asking unanimous consent is I will put 10 minutes on the clock and we will let you all give your opening statements. This is a very important period of time, and so I don't know how you plan to split, maybe 5 minutes each. So we will put 10 minutes on and then go from there, and just don't be worried about the clock too much. Mr. Shimkus, I would now like to recognize our former colleague Mr. Hamilton for as much time as he may consume.

STATEMENTS OF HON. LEE HAMILTON, CO-CHAIR, BLUE RIBBON COMMISSION ON AMERICA'S NUCLEAR FUTURE; AND HON. BRENT SCOWCROFT, CO-CHAIR, BLUE RIBBON COMMISSION ON AMERICA'S NUCLEAR FUTURE

STATEMENT OF HON. LEE HAMILTON

Mr. Hamilton. -- to allow us to come before.

Mr. Shimkus. Still having trouble.

Mr. Hamilton. Is that on now?

Mr. Shimkus. Yes.

Mr. Hamilton. Thank you. I ask unanimous consent of course that the full testimony be submitted.

Mr. Shimkus. Without objection, so ordered.

Mr. Hamilton. We are very grateful to you and appreciate the leadership this subcommittee and the full committee have shown over a period of years on a lot of our biggest challenges in the Nation. Certainly, the topic that we present to you today, managing nuclear spent fuel and high level nuclear waste.

It is a rare privilege for me to have the opportunity to work with General Scowcroft. By any measure, he is one of the great Americans, and a distinct privilege for me to be with him, but also with the other 13 members of the Commission appointed by Secretary Chu. They really were an outstanding group, talented and dedicated in every way, and their professionalism contributed to the unanimity of the report.

What I will do is take the first part of our testimony, and General Scowcroft will take the second part, and we will take up the full 10 minutes, perhaps a little more.

As has been stated here several times this morning already, the nuclear waste management program is at a real impasse, it has been in deep trouble for decades. One or two of you in this room are old enough to remember when Congressman Mo Udall stepped on the floor of the House of Representatives 30 or 40 years ago, I am not sure when, and said to us shame on us because we haven't solved the problem of what to do with nuclear waste. That was decades ago, and here we are and the process has about completely broken down. It has been decades going along this current path and it has led to controversy, litigation and protracted delay, and, most of all, not a solution.

This is a serious failure of the American government, and it has had real consequences which Chairman Emeritus Barton has already referred to. Our failure to come to grips with this problem has meant that we are slowing down for sure, damaging the prospects of a very important potential energy supply, nuclear energy. It has damaged our State-Federal relationships very sharply, and it has caused the public to lose confidence in the Federal Government's competence to solve the problem, and it has damaged America's standing in the world and its leadership. We cannot really claim to be a leader in nuclear power if we can't solve one of the fundamental problems that exist with nuclear power what do with the nuclear waste, and of course, we haven't solved that.

Likewise, the whole inability to solve the problem has been very costly. It has been costly to the ratepayers who have to continue to pay for nuclear waste management, a solution that has not yet been delivered. It has been costly to communities who have been unwilling hosts of long-term nuclear waste storage; it has certainly been costly to the American taxpayers, who face billions of dollars now every year in liabilities as a result of our failure to meet our responsibilities here.

And underlying all of this is really an obligation, an ethical obligation, if you will, to avoid burdening future generations with finding a safe, permanent solution for hazardous materials that they did not create, we created them. And we are about ready to hand over to them the problem we created without a solution unless we move forward promptly.

So there is a real urgency here, 65,000 metric ton inventory of spent nuclear fuel spread across the country, growing at the rate of about 2,000 metric tons per year, and I think all of us can agree that the status quo is not acceptable.

Now we have eight key elements of our recommendations, they are integrated, in other words, they are packaged in our point of view, all are necessary to establish a truly nuclear national nuclear waste management system. I will talk about three and General Scowcroft will talk about the others. I will try to be quite brief.

The first one, of course, is a new consent-based approach to siting future nuclear waste management facilities. You, in some of

your opening statements, referred to this. We have had, over a period of years, a top-down forced solution to the problem and it has not worked. In a sense, we are faced with a choice in this Nation, and the choice is we can continue along to fight the same battles we have been fighting for decades now, 30 or more years, with no conclusion, or we can step back and try to chart a new course, and that is what we are trying to recommend to you with this consent-based approach.

The top-down forced solution, trying to force a solution over the objections of State and local communities is not efficient, it takes longer, costs more, has lower odds of ultimate success. The approach we recommend is adaptive, it is staged, it is consent-based. It is based on a review of successful siting processes in the United States, the WIPP project in New Mexico, and of course, in several other countries around the world, Spain, Finland and Sweden among them. We believe this type of consent-based approach has the best chance of succeeding and building the confidence that is needed to get these controversial facilities through to completion.

The second recommendation we make is to say that a new organization has to be created here to handle the waste management program, and it has to be empowered with the authority to act, and it has to have the resources to succeed. The DOD has wrestled with this problem for a long time, for more than 50 years. That record has not inspired confidence, created a lot of criticism, we heard an awful lot of criticism during the 2 years in the way in which that program has been handled. The Commission has concluded, thus, that a new

institutional leadership is needed and we specifically recommend a congressionally-chartered Federal corporation. There are other organizational structures that the committee may want to consider, we looked at some of those, but we think this is best suited to provide the stability and the focus and the credibility that you need in order to put a waste product -- waste management system in place.

The new organization to succeed would have to get the waste program back on track, and it will need a substantial degree of implementing authority and a sure access to funding. Throughout, of course, there will have to be rigorous oversight by the Congress of this new organization and the appropriate government agencies.

The third point I want to make, the third of our recommendations is that access to the funds that the nuclear ratepayers are now paying, are now providing for the purpose of waste management must be available to this new organization so that it has the resources to move forward. The 1982 Nuclear Waste Policy Act, which has already been referred to, had a polluter-pay theme, or funding mechanism, to ensure that the full cost of disposing of commercial spent fuel would be paid by the utilities, or their ratepayers obviously, with no impact on taxpayers or the Federal budget.

For a variety of reasons, and for many reasons really, this fund has not worked as intended. A series of executive and congressional actions has made the annual fee revenues, which are approximately \$750 million a year, and the unspent \$25 billion balance in the fund effectively inaccessible to the waste program. Instead, the waste

program must compete today for funding, and is, therefore, subject to exactly the budget constraints and uncertainties that the fund was created to avoid. We think that situation has to be remedied right away to allow the program to succeed. And we make several recommendations as to how that should be done. For the balance of our testimony, I turn to General Scowcroft.

Mr. Shimkus. You are recognized, General Scowcroft.

**STATEMENT OF HON. BRENT SCOWCROFT**

General Scowcroft. Thank you very much. Mr. Chairman, may I just say that it is an honor for me to participate on an issue so deeply in the national interest, and it is a delight to work with my cochairman, former Congressman Lee Hamilton, whom I have known and worked with for decades.

The fourth element of our recommendations are prompt efforts to develop one or more geological disposal facilities. The conclusion that disposal is needed in deep geologic disposal is the scientifically-preferred approach has been reached by every expert panel that has looked at this issue, and by every other country that is pursuing a nuclear waste management program.

Moreover, all fuel processing or recycle options either are already available or under active development at this time still generate waste streams that require a permanent disposal solution. We believe permanent disposal will very likely also be needed to safely manage, at least some portions of the commercial spent fuel inventory.

The Commission recognizes the current law establishes Yucca Mountain in Nevada as the site for the first repository for spent fuel and high-level waste. Provided the licensed application submitted by DOE meets relevant requirements. Our Blue Ribbon Commission was not chartered as a siting commission; accordingly, we have not evaluated Yucca Mountain or any other particular location as a potential site

for the storage or disposal of spent nuclear fuel and high level waste. Nor have we taken a position on the administration's request to withdraw the license application. We simply note that regardless of what happens with Yucca Mountain, the U.S. inventory of spent nuclear fuel will soon exceed the amount that can be legally in place at this site until a second repository is in operation.

So under current law, the United States will need to find a new disposal site, even if Yucca Mountain goes forward. We believe the approach set forth here provides the best strategy for assuring continuing progress regardless of the fate of Yucca Mountain.

The fifth element of our recommendations are efforts to develop one or more consolidated storage facilities. And here, let me point out the difference between storage and disposal. Storage is a temporary condition, disposal is a permanent condition, although retrievability is a possible issue there.

Developing consolidated interim storage capacity would allow the Federal Government to begin the orderly transfer of spent fuel from reactor sites to safe and secure centralized facilities, independent of the schedule for opening and operating a permanent repository. The arguments in favor of consolidated storage are strongest for the so-called stranded spent fuel, that is, fuel from shutdown plant sites of which there are nine presently across the country.

Stranded fuel should be first in line for transfer to a consolidated facility so these plant sites can be completely decommissioned and put to other beneficial uses.

Looking beyond the issue of today's stranded fuel, the availability of consolidated storage would provide valuable flexibility in the nuclear waste management system that could achieve significant cost savings for both ratepayers and taxpayers when a significant additional number of plants are shut down in the future. It can provide emergency backup storage in the event spent fuel needs to be moved quickly from a reactor site and would provide an excellent platform for ongoing R&D to better understand how storage systems currently in use at commercial and DOE sites perform over time.

The sixth element of our recommendations are prompt efforts to prepare for the eventual large scale transport of spent nuclear fuel and high level waste to consolidated storage and disposal sites when such facilities become available.

The current system of standards and regulations governing the transport of spent fuel and other nuclear materials has functioned very well, and the safety record for past shipments of these types of materials is excellent. That being said, past experiences in the United States and abroad and extensive comments to this Commission indicate many people fear the transport of nuclear materials. Thus greater transport demands for nuclear materials are likely to raise new public concerns.

In order to deal with these concerns, while ensuring the highest level of transport safety, the Commission believes that State, Tribal and local officials should be extensively involved in transportation planning and should be given the resources necessary to discharge their

roles and obligations in this area. Given that transportation represents a crucial link in the overall storage and disposal system, it would be important to allow substantial lead time to assess and resolve transportation issues well in advance of when materials would be expected to actually begin shipping to a new facility. Historically some programs have treated transportation planning as an afterthought. No successful programs have done so.

The seventh recommendation we have is support for advances in nuclear energy technology and for workforce development. Advances in nuclear energy technology have the potential to deliver an array of benefits across a wide range of energy policy goals. The Commission believes these benefits, in light of the environmental and energy challenges the United States and the world will confront this century, justify public and private sector support for RD&D on advanced reactor and fuel cycle technology.

In the near term, opportunities exist to improve the safety and performance of existing water reactors and spent fuel and high level waste storage transportation and disposal system. In the longer term, the possibility exists to advance game-changing innovations that offer potentially large advantages over current technologies and systems.

Additionally, the Commission recommends increased support for ongoing work by the NRC to develop a regulatory framework for advanced nuclear energy systems. Such a framework can guide the design of new systems in lower barriers to commercial investment by increasing confidence that new systems can be successfully licensed.

The Commission also recommends expanded Federal joint labor management and university-based support for advanced science technology, engineering and mathematics training to develop the skill workforce needed to support an effective waste management program, as well as viable domestic nuclear energy. The stalemate we have faced over the years has paid enormous cost in the workforce and skills.

At the same time, the Department of Energy and the nuclear energy industry should work to ensure that valuable existing capabilities and assets, including the critical infrastructure on human expertise are maintained.

On our last recommendation, is an observation really, active U.S. leadership is essential in international efforts to address issues of safety nonproliferation and security. As more nations consider pursuing nuclear energy or expanding their nuclear programs, U.S. leadership is urgently needed on issues of safety, particularly in light of events at Fukushima, nonproliferation, security and counterterrorism issues.

Many countries, especially those just embarking on commercial nuclear power development, have relatively small programs and they lack the regulatory and oversight resources available to countries with more established programs. International assistance may be required to ensure they do not create disproportionate safety, physical security and proliferation risks.

In many cases, mitigating these risks will depend less on technological interventions than on the ability to strengthen

international institutions and safeguards while promoting multilateral coordination and cooperation.

From the U.S. perspective, two further points are particularly important, first, with so many players in the international and nuclear energy and policy arena, the United States will increasingly have to lead by engagement and by example. Second, the United States cannot exercise effective leadership on issues related to the back end of the fuel cycle so long as its own program is in disarray. Effective domestic policies are needed to support America's international agenda.

To conclude, the problem of nuclear waste may be unique in the sense there is wide agreement about the outlines of the solution, put very simply, we know what we have to do, we know we have to do it, and we even know how to do it. Experience in the United States and abroad has shown that suitable sites for deep geologic repository for nuclear waste can be identified and developed. The knowledge and experience we need are in hand, and the necessary funds have been and are being collected.

The core difficulty actually remains what it has always been, finding a way to site these inherently controversial activities -- facilities and to conduct the waste management program in a manner that allows all stakeholders, but most especially, host communities, States and tribes to conclude that their interests have been adequately protected and their well-being enhanced, not merely sacrificed and overridden by the larger interest of the country as a

whole.

We believe the conditions for progress are arguably more promising than they have been in some time, but we will only know if we start, which is what we urge the administration and the Congress to do without delay.

We thank you for allowing us to meet with you today. And we intend to submit a full version of our testimony for the record, and we look forward to your questions.

Mr. Shimkus. Thank you, I thank my colleagues for sitting patiently.

[The prepared statement of Mr. Hamilton and General Scowcroft follows:]

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Mr. Shimkus. I think it was very important. You both have earned the ability to speak for as long as you want, based upon your service to this country. So thank you. Now I would like to recognize myself for the first 5 minutes.

I did go through the report and the advisory committee charter and all the -- who actually told the Commission not to consider Yucca Mountain? Was it a statement by any one individual or --

Mr. Hamilton. We had a statement from Secretary Chu.

Mr. Shimkus. So it was Secretary Chu who said do not consider Yucca Mountain in the Blue Ribbon Commission report?

Mr. Hamilton. I will quote him precisely. "What I don't want the committee to be doing is just spending time and saying by looking at past history was Yucca Mountain a good decision or a bad decision, and whether it can be used as a future repository." He followed that up by saying to us, "This is not a citing commission." And then he reiterated that in a letter to us.

Mr. Shimkus. Great, thank you. I have a lot of questions so I am going to try to be pretty brief. The Commission did not evaluate and take a position on the technical suitability of Yucca Mountain; is that correct?

Mr. Hamilton. That is correct.

Mr. Shimkus. The Commission did not take a position regarding the request to withdraw the license application for Yucca Mountain; is that correct?

Mr. Hamilton. That is correct.

Mr. Shimkus. The Commission did not evaluate the possibility of public acceptance of Yucca Mountain should the NRC complete and provide a positive safety evaluation; is that correct?

Mr. Hamilton. That is correct.

Mr. Shimkus. I want to underscore this, because you address a lot on this consent-based approach, right. It is all through the report.

Mr. Hamilton. Yeah.

Mr. Shimkus. It is hard to get to a final consent-based approach when we are stopped from funding the final scientific report. Don't you think a final scientific report might help educate the locals and develop a consent-based approach?

I am not trying to be tricky, but having scientific, the final report on a suitability of a site, wouldn't that be helpful to develop a consent-based approach?

Mr. Hamilton. Well, our -- we have to be very clear here as I think we have been that we are not taking -- have not taken a position on Yucca, did not study it, were not asked to study it.

Mr. Shimkus. But the question is --

Mr. Hamilton. Yes, having said that, obviously evaluating that experience can teach us a lot.

Mr. Shimkus. Yes, but just generally, if there is a scientific report due on a site, should that be finished in helping develop a consent-based approach of whether that site -- don't you think the local community would like to see the final scientific study?

Mr. Hamilton. Well, I suspect the answer to that question carries a lot of weight with regard to Yucca, and it is impossible really to divorce the question from that context.

Mr. Shimkus. Always a politician, you can't get away from -- I will just move on, you understand -- is it true that the Commission's recommendations could be implemented with Yucca Mountain's development?

Mr. Hamilton. Yes.

General Scowcroft. Yes.

Mr. Shimkus. Nothing in this report forecloses Yucca Mountain as a potential suitable site, correct?

General Scowcroft. Correct.

Mr. Shimkus. Now, let me go -- up on the chart there, I want to talk about this debate that you had in this report on locality. When I read the report, it was like kissing your sister, you know, I mean, there is really not a meat in some of these specific issues of how to solve some of these problems. So that is the State of Nevada. Hit the next slide. That is the Federal land. Hit the next slide. And that square is approximately the site in Finland of their disposal site. Now, based upon that, which in the local community in that square said, yes. Based upon that, who would be local?

General Scowcroft. Well, that is a very good question.

Mr. Shimkus. One that I came up with myself. Very good.

General Scowcroft. One of the problems is the definition of consent, and it is especially true in our Federal system. And while

Secretary -- Mr. Hamilton described the Spanish, the Finns and the Swedes as having solved this problem, they don't have exactly the same kind of jurisdictional issues that we have.

Mr. Shimkus. Let me go to finish this. My time is running out. So I would argue that the Federal Government is a local entity here, the Federal Government, we are the locals, we own the land.

General Scowcroft. We own the land.

Mr. Shimkus. Then go to the next. I think that is Nye County. They support Yucca Mountain. We have a commissioner back here, I saw him you probably know him, Gary Hollis, from Nye County. We have their report saying we support this.

Next slide, next slide, next. Okay, and then the counties are popping up, their names Esmerelda, Mineral, keep going, keep going. Okay, all these localities have endorsed the siting of Yucca Mountain, and I am sure they testified in front of you. There is a lot more, I will have time to go with the second panel. But I think it is safe to say that because one U.S. Senator doesn't want to site, that is not speaking for the locals, and I yield back the balance of my time.

Mr. Shimkus. I would like to recognize Mr. Green for 5 minutes.

Mr. Green. Thank you, Mr. Chairman, and we can spend a lot of time, and I think we will with the second panel on consent on the State and local community. I was out there and I met with all those County commissioners, a number of them and they are very supportive. It is a beautiful area but not a lot of people out there. I guess the people are in Las Vegas and Reno and Nevada. I guess from my experience when

I was in Sweden and looked at Sweden had built a prototype of a deep facility, much more advanced even their prototype. And we asked the folks there, is this where ultimately -- oh, no, this is our experimental facilities because that region and whatever they call them in Sweden stayed or local community would not have agreed to it if they thought it was a permanent site.

Now, maybe 20 years from now or whatever they may change that on the national government can make that, but consent is always tough, because that is why in the 1980s, I assume Congress just made the decision.

But let me get to some recommendations on your panel. And first of all, I want thank you for appearing before the committee and thank all the other commissioners for producing a really good report, I think. A couple issues I want to talk about. The report stated believes there is enough funding in the nuclear waste fund to take care of all the activities related to the siting, possibly two new waste disposal facilities not including Yucca Mountain, as well as one more interim facility.

Right now the nuclear waste fund contains about \$27 billion, which seems like enough money, but once you include funding for a new independent organization, which I think might be what we need to move off dead center and all the other logistical details surrounding the siting, could we face a problem at that nuclear waste fund would not have enough funding? And how did you come up with the conclusion that the current stream or waste fund dollars recover all the costs

associated with your recommendations?

Mr. Hamilton. Well, we were very sensitive, of course, to the whole question of the impact on the deficit and the Federal spending issue. And by the very nature of these recommendations, precise cost estimates really are not possible. We think that the costs are something that can be managed within current spending streams, if you would, within the Department of Energy and perhaps other places.

In other words, the waste management recommendations can be implemented with existing revenue streams that are already dedicated for that purpose, as nearly as we can estimate. But we do not have precise estimates. We call, for example, as you know, and several of you have cited for a new organization, that is going to cost some money. We didn't try to make estimates of that. And there are other things here that would require expenditures. So we don't have exact information of it.

It is impossible to estimate the cost of the nuclear waste program without knowing the specific sites that are going to be developed. And of course, we don't that at this point.

Mr. Green. Well, now, Lee, I only have a minute and a half left, did the Commission discuss anything what would happen if we didn't have it? My next question, I want to get to the legislative changes, because that is something our committee has jurisdiction on. You recommend some of the legislative changes allowed to proceed to the independent organization, can you explain any of those, or if you have a summary of those, can you provide them to the committee? I know its in the

report.

Mr. Hamilton. Yeah, we have a summary on the page, Roman numeral VIII of the executive summary. We have a chart on proposed legislative changes that I think can sum it up. What we say, broadly speaking, is there are six areas that you have to look at: A new facility siting process, consolidated interim storage facilities, broadening support the jurisdictions affected by transportation, establishing a new waste management organization, establishing access to dedicated funding, and promoting international engagements. So there is a lot for the Congress to do here and the specifics are pretty well spelled out within the report.

Mr. Green. My last question is and you heard my opening statement about reprocessing. It doesn't really reduce the footprint very much, but it also creates, and again, I was in France in 1998, and then just last year again and saw their reprocessing site there in Normandy expand substantially. That is almost an interim storage facility for them. Did the Commission talk at all about reprocessing as an option?

General Scowcroft. Well, we did look at reprocessing and we are in favor of research and development going forward, but no form of reprocessing eliminates the issue of waste. And so, you know, we use only about 1 percent of the energy value of the nuclear fuel we use now. Certainly we can do better I think, but we just recommend that R&D go forward to see if we cannot improve the whole nuclear fuel cycle to make it more effective, but whatever what happens, we don't see the possibility of eliminating the need for waste facilities.

Mr. Green. Thank you for letting me run over time, Mr. Chairman.

Mr. Shimkus. The gentleman's time has expired. The chair recognizes the chairman of Energy and Air Quality Committee, Mr. Whitfield for 5 minutes.

Mr. Whitfield. Thank you very much. I also want to thank you all for appearing here today, and also thank you for the hard work that you have put forward in coming up with some suggestions for the U.S. Congress. I must say to you, and certainly none of this is your fault, but I was reading the testimony of Mr. Schatz, who is the President Citizens Against Government Waste, and in his testimony, he says the Yucca Mountain project owes its ultimate demise to years of delays, manipulation and obstructionism by Senate majority leader Harry Reid, and the exigencies of election year politics.

I for one -- I am not really going to have much of a question, but I think the American people would be in an uproar of rage if they knew all the facts surrounding what has happened since 1983 when the Nuclear Waste Policy Act was signed by President Reagan. In 1987, DOE conducted studies of nine potential repository sites. Congress selected Yucca Mountain soon after that.

In 2002, following extensive evaluation of the site by DOE in its National Laboratories, the Secretary of Energy determined Yucca Mountain was suitable for repository development and recommended that the President approve the site. The President did approve the site, the Congress approved the site, and June 3rd, 2008, after additional scientific and engineering studies on development and design, DOE

submitted a license application to the Nuclear Regulatory Commission seeking construction authority for the repository. The NRC docketed the license application in September 2008 and directed the body to conduct a review within 4 years looking at all of this in preparation to issue a license to construct.

And before that 4 years was up, Secretary Chu filed a motion within NRC's construction authorization board to withdraw the license application, and then the board denied the DOE's motion to withdraw the application. And then Chairman Jaczko delayed and delayed and so the whole thing has fallen apart.

And Congressman Hamilton, you made the comment, this is a serious failure. I think it is one of the most significant failures of the American policy on an energy issue ever. You also said that it damaged the American standing in the world and I agree with that completely. And then when you look on top of that, that we spent \$15 billion on this site, the Department of Justice spent \$188 million in legal fees when some of the 104 nuclear power plants filed the lawsuits because the government could not meet its contractual obligation to take possession of the material, and now DOE is saying well, the ultimate liability legally may be 20 billion, but some of the people in the energy field, the nuclear energy field say the ultimate liability may be 50 billion.

So I think the American people have every right to be totally upset and irate about what has happened in this instance which clearly shows pure politics by the President, by the Secretary of Energy by

Mr. Jaczko, and by Senator Harry Reid.

And I hope, I agree with Chairman Shimkus, I hope, since you all were not asked to look at Yucca Mountain or render any opinion on Yucca Mountain, I hope that there is some way we can continue at Yucca Mountain myself, because it would be a vast waste of human resources, financial resources if we cannot do it. Having said that, I just want to thank you all for this report to the Secretary of Energy, it is quite comprehensive, but I, for one, feel it is a travesty that we find ourselves in this situation today and I yield back my 5 seconds.

Mr. Shimkus. The chair appreciates the gentleman's question. And now I would like to recognize my friend, Congressman Capps from California for 5 minutes.

Mrs. Capps. Thank you, Mr. Chairman, and I appreciate very much both of you being here today and your testimony, and also the work of the Commission, the work you have done to investigate these issues which are particularly relevant to my State of California, given the logistical challenges we face in the storage and transport of spent fuel, as well as more pressing seismic concerns, which really have yet to be fully addressed.

As you know, three of California's civilian power reactors are located directly on the Pacific Rim, Humboldt Bay, San Onofre, and in my Congressional district, Diablo Canyon. At present, Diablo Canyon and San Onofre, both of which reside in highly active seismic zones, are scheduled for decommissioning between 2022 and 2025. And both are currently storing high level radioactive waste on the site, both in

pools as well as dry cask. New seismic unknowns are also emerging, such as the discovery in 2008 of the shoreline fault less than a mile from the Diablo Canyon spent fuel storage casks. I would note that the current seismic analysis is still incomplete on that fault system.

Further, the NRC acknowledges the special seismic circumstances of California's nuclear reactors in this draft generic EIS for license renewal of nuclear plants. I know that you agree that placing radioactive waste in the presence of seismic forces is an issue we must treat with utmost care. So before I get to some questions on reprocessing, which I would like to do, I would want to ask you to share with us any general comments on the topic of storing spent fuel in dry casks as opposed to pools in seismically-active sites. For example, over the past couple of years the Commission has been active, what did you hear or learn about this issue if you would share, please?

General Scowcroft. We have looked at that issue, and we are examining it further in the light of the Fukushima --

Mrs. Capps. Yes.

General Scowcroft. -- which could be very valuable in analyzing some -- it is not clear for example on the Fukushima how much of the problem came from the earthquake and how much from the Tsunami, and you don't have the Tsunami problems that Japan has in California.

Mrs. Capps. No.

General Scowcroft. That is -- there has been research under dry cask and it is very positive, but for the first 5 years after the fuel is removed, it needs to be in wet storage, after that it can be put

in dry storage, and one of the things we would like to see is the temporary storage places to evaluate what happens under longer conditions of storage and security and earthquakes and so on, to that. But the reports that we got were that dry storage is a very promising way to go.

Mrs. Capps. Thank you.

Mr. Hamilton. Congresswoman Capps, you probably saw the article in The Wall Street Journal this morning about you Nuclear Regulatory Commission's actions with regard to earthquake damage in present nuclear reactors in this country, they are obviously worried about it and they are thinking of further requirements, apparently further studies. Fukushima happened as we were in process, and obviously it turned our thoughts as it did all persons interested in nuclear power to the question of safety. What we ended up recommending, because there is so many complications here was that the National Academy of Sciences conduct a thorough review of the lessons learned from Fukushima, I think they are going to do that, it may already be underway. There are others that can speak to that --

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[10:35 a.m.]

Mr. Hamilton. On the safety and security of these current storage arrangements, we simply didn't have the technical expertise or the time frankly to get into that in great detail.

Mrs. Capps. Thank you. Mr. Chairman, I know this is going to go over a little bit, but I would like to pose my question on reprocessing options, and if there is no time to answer verbally they can get back to me.

And just to the point of your saying there hasn't been time currently and more studies need to be done, one concern that many of my constituents have is over the relicensing process while these needs for further study continue, which poses a challenge because the licensing process is under way at least in Diablo Canyon. But I am also very concerned about the reprocessing situation in light of all these with the earthquake fault possibilities. And my understanding is that reprocessing options produce radioactive streams, waste streams, that would need to be disposed of, is that correct?

General Scowcroft. Yes, that is correct.

Mrs. Capps. So --

General Scowcroft. No kind of reprocessing at present that we know can eliminate the need for waste disposal.

Mrs. Capps. And does that underscore your statement to a

previous question that this is not going to eliminate the need for a permanent geologic repository?

Mr. Hamilton. That is correct. It is simply premature to make a judgment now based on the technical information that is available as to whether or not you proceed with recycling and reprocessing, so-called closing the nuclear fuel cycle.

Mrs. Capps. Would you be willing to estimate how much time and money it would take to redevelop and commercialize a processing technology that could fundamentally alter the waste management challenge we face? Do you see what posing those two challenges sort of simultaneously to -- this is all within a time frame. What kind of resources and time would it take to do this?

Mr. Hamilton. I just don't think we are competent to answer that question. Listen, that is the reason we recommend going forward with more research and development here. There are so many open-ended questions that need to be resolved, and that is one of them.

Mr. Shimkus. The gentlelady's time is expired.

In part of the report you have spent nuclear fuel, but you also have nuclear waste. And they do talk a lot about the Department of Defense waste in Hanford and all that stuff that was designed to go to Yucca Mountain, too. So there is other waste than just spent nuclear fuel that is to go to these depositories?

Mr. Hamilton. Yes.

Mr. Shimkus. Now I would like to recognize Congressman Barton for 5 minutes.

Mr. Barton. Thank you, Chairman. We have two hearings going on. We have the FDA Commissioner downstairs in the Health Subcommittee, so that is why some of us are yo-yoing back and forth. I want to pick your two gentlemen's brains on this consent-based approach that you talk about in your recommendations. Is there a technical evaluation of sites before you go through the consent-based process, or could anybody -- just take an extreme case, if New York City wanted to apply, could they apply without any technical evaluation of their site at all?

General Scowcroft. I think the notion is that there would, first of all, be a technical evaluation of what general areas are suitable so that we didn't go down this consent process with something that technologically was not accurate.

Mr. Barton. So you would put out some sort of a technical requirement list and if you felt like you met the technical requirements and got approval based on technical merit, whatever that was, then there would kick in this consent-based process?

General Scowcroft. Right. That is basically it. Although even that could be iterative. A community could come up and say we want to have a site, and then a quick evaluation could show that the terrain is not suitable.

Mr. Hamilton. We recommend that the EPA develop generic disposal standards and supporting regulatory requirements. Very early in the siting process that has to be done.

Mr. Barton. You are recommending the EPA do it --

Mr. Hamilton. That is right.

Mr. Barton. -- and not NRC? You just set your program back 10 years.

Mr. Hamilton. I think under current law EPA would have that responsibility. I stand to be corrected on that. That is my understanding of that. But anyway, the Federal Government should set the standards, whether it is EPA or DOE or somebody else.

Look, this consent-based process, I don't want to give the impression we think it is easy. It is a very complex process. You can't sit down and spell out in detail exactly what has to happen. This is going to be a matter of negotiations between the parties. There has to be flexibility, transparency, patience, consultation, all of these things in order to make it work. In practical terms what I think you are talking about here is encouraging communities to volunteer if they want some of these sites, and clearly some of them do. There are a lot of jobs created when you put these sites in place. And it would also involve the entity that has the responsibility for organizing this system of what you do with nuclear waste. They may want to approach a community and provide incentives for that community to put forward a proposal. You can't spell out how all that is going to go. It is going to be a very elaborate process, just as was followed in the New Mexico case where we have successfully sited a waste facility.

Mr. Barton. Well, I have a question here that the staff has provided that I want to ask. While your group has been conducting your study, your committee, the Department of Energy has been dismantling the waste disposal office in DOE. How do you go forward given what

the Department of Energy has done in their nuclear waste office cutback and their abandonment, at least at the secretarial level, of the Yucca project?

General Scowcroft. Well, we recommend creating a new entity, a Federal corporation, if you will, to take over those responsibilities for siting construction.

Mr. Barton. Do you fund it with the funds that are being collected now? Is that correct?

General Scowcroft. Yes.

Mr. Hamilton. But there is an important point here. I don't know how long it will take to create a new organization. You would know.

Mr. Barton. Longer than you think.

Mr. Hamilton. I suspect you are right. You are at least talking a year, maybe 2 years, maybe more. It is going to take some time. Now, we don't want everything to come to a dead stop while we are sitting around waiting for a new organization to be built. And the DOE is going to have to move forward with a number of the recommendations, I think, and begin a lot of the process that we identify in the report with regard to siting and with regard to transportation and all the rest of it so that we can keep this process moving. We don't want a dead stop here for 2 or 3 years while we wait to develop an organization.

Mr. Barton. My time is expired. Mr. Chairman, I have one more question. Do you gentlemen and the other commissioners of your Blue Ribbon Commission expect the Congress to act legislatively on your

recommendations in this Congress? In other words, put a bill on the President's desk in the next 10 months?

Mr. Hamilton. We don't anticipate that. We would be delighted if you did it, but we recognize the realities of it. Look, we recommend --

Mr. Barton. You should say you do expect it.

Mr. Hamilton. We recommend a new organization, but we recommend it only in very general terms. And the Congress would have to fill in a lot of the details on that. So it is going to take you time, and we would want you to take time to look at that. Do I personally expect that you would have it done in 2012? The answer is no.

General Scowcroft. But it is one of our priority recommendations.

Mr. Barton. It is an honest answer. Thank you, Mr. Chairman.

Mr. Shinkus. The gentleman's time is expired. The chair recognizes the gentlewoman from California, Ms. Matsui, for 5 minutes.

Ms. Matsui. Thank you, Mr. Chairman. And I want to thank both of you for being here today. Thank you for your service. Both of you have been called upon many times to deal with challenging issues, and this is certainly the latest of them. Commercial nuclear power's future I think depends a lot on what we are talking about today, what we do at the back end, particularly in light of Fukushima, which occurred almost a year ago, and that really brought to fore some of the problems inherent in nuclear power. And I am very concerned because I believe unless we take care of this back end we are going

to have difficulties moving forward, and I don't want to wait for another Fukushima again.

But at any rate, what I would like to kind of delve into, I really looked at your consent-based siting and I think that is a good way to go forward with. I think that is probably something we would have to really look at in a positive manner. I want to kind of drill down a little bit more because you mentioned that there are nine commercial shutdown nuclear power plant sites in the U.S. One of them is in my district, the Rancho Seco power plant, which is owned by my local utility, the Seco Municipal Utility District, which is a wonderful utility, one of the top utilities in the country. Now, the spent fuel is still stored at this site, so the question of how we move forward to find a safe place to dispose of this spent nuclear fuel is important to my district and to my constituents.

Now, as you report, sites at all of these places the spent fuel is monitored and well guarded, and they are, and is not thought to present immediate safety or security concerns. But the presence of this spent fuel at these sites is costly and really prevents the use of those sites for more economically productive uses that would benefit the communities.

So my question is, being very parochial about this, but I have to be because I think it is an example of what lies ahead, I would like to know whether the Commission regards a recommendation of taking the stranded fuel from shutdown reactors first as a must-do task regardless of the ultimate decisions that are made on permanent disposal and

reprocessing.

General Scowcroft. I think the short answer is yes.

Ms. Matsui. Okay. And you also, too, Mr. Hamilton.

Mr. Hamilton. Yes. We think the strongest case for consolidated storage facilities can be made with regard to the so-called stranded fuel. But we also think that that consolidated storage facility is necessary for a variety of reasons, safety is a big one, but it has advantages of flexibility, it creates a backup storage capability, it is a very excellent platform for research and development. There are a lot of reasons why it is important to move this spent fuel from these sites where it now is to consolidated storage. That is an important one, stranded fuel.

Ms. Matsui. All right. That is great to know. On this consent-based, on the siting aspect, we are also having to look at the transport related activities, too. I would imagine obviously where the sites are located would obviously sort of be a determinant to a certain degree what kind of transport activities would have to occur.

Do you foresee going through the same process with the transport related activities, and many communities would be along the way on the transport, transportation aspect, would you look at this being more of a consent-based way of looking at this as far as the transportation aspect of it also?

Mr. Hamilton. Well, in our original draft report we did not address the question fully of transportation. In the final report because of a lot of feedback we had on the draft report we elaborated

on transportation. We think it is a very big large issue. The record of transporting spent fuel in this country is very good. I don't think there has ever been a really serious accident. However, if you create consolidated storage facilities, several of them around the country, two or three, you are obviously going to increase the amount of transportation necessary to get to those storage facilities.

Ms. Matsui. Right.

Mr. Hamilton. All of us who have represented constituents know that they are uneasy about transportation of nuclear waste to the point that many communities are very -- many people are very fearful of it. So I think an enormous amount of work has to be done to educate people about the safety of the process. A lot of planning has to be done, a lot of preparation has to be done, before you get to the point of major transportation of this fuel. We have really got a psychological hurdle to get over, I believe.

Ms. Matsui. So in essence then, though, the siting and the transportation will have to be considered at the same time. There might be some wonderful sites, but the transportation aspects of it might be negative.

Mr. Hamilton. Absolutely, yes, indeed. It is a very important part of our recommendations. If you cannot assure people that you can transport this stuff safely you are going to lose the battle.

Ms. Matsui. Thank you very much.

Mr. Shimkus. The gentlelady's time is expired. I would just add, too, I think part of your report talked about the fund money going

to developing and build out transportation systems, which is also I think a very valuable part of what you have done.

Now the chair recognizes the gentleman from Louisiana, Mr. Cassidy, for 5 minutes.

Dr. Cassidy. Hi, gentlemen. I am privileged to be in front of the two of you. I am struck in your report that you are even pessimistic about the ability of a closed nuclear fuel cycle to make a difference right now, and you mention that there are concerns about the merits in commercial viability. You know more about this than I, which is why I am asking the questions and you are answering. But don't I know that European countries and perhaps Japan have already implemented closed fuel cycles and that in turn reduces waste by a quarter.

Now, first I will -- that said, why would you -- but your statement is that you are concerned about the commercial and scientific merits. So knowing that it is being done but knowing that you have this concern, how do you reconcile the two?

General Scowcroft. Well, I would say basically the notion is that recycling is done for a variety of reasons. And in talking with the experts on it no one was able to say that reprocessing in order to reduce the amount of waste at the present time was economically practical.

Dr. Cassidy. Now, I have read something by the CEO of AREVA, the French concern that does nuclear, they claim that now they reduce waste down to a quarter of what the waste would be with their reprocessing. Now, is that hyperbole or is that rooted in fact?

Mr. Hamilton. Well, what came through to us I think was that, in listening to the experts, and I think neither the General nor I qualify as experts here, is that there are just enormous uncertainties that exist about the merits and the commercial viability of different fuel cycles and the various options you would have, technological options. Given that fact, we didn't try to make a judgment there. We really weren't qualified to do that I think.

Is reprocessing-recycling a possibility in the future? Of course it is. And you are exactly right, several countries are using it and are reducing, not eliminating, nuclear waste. But I don't think our nuclear community, however defined, is quite ready to say this is the future.

Dr. Cassidy. That is also what I don't understand, Mr. Hamilton. Is it because of previous decisions made by, say, President Carter that we have not committed to reprocessing, or is there actually a technical barrier that our guys cannot embrace? I hate to think the French can do better engineering than we.

Mr. Hamilton. I do not know the answer as to why we are where we are with regard to recycling. I think I am correct in saying that, and maybe the panel that follows us will be better qualified to answer that question, I think I am correct in saying that the nuclear community at this point is not ready to say that this is the best way to proceed reprocessing. Other options have to be explored.

General Scowcroft. I think that is correct. And most countries who recycle, like France, don't do it to save money. And recycling

changes the nature of the waste stream. It also isolates certain materials like plutonium which then become a great security problem.

Dr. Cassidy. Now, let me ask you, if -- it does seem though if we are going to commit, as the President has committed, to building some new nuclear power plants, that one, it would be a logical time if we do have that technology to integrate the two. But secondly, if you have the potential to decrease your waste down to a fourth of what it would be, is it possible that we could use this fund set up to manage the waste to partly fund whatever Federal subsidies would be required, bond guarantees, et cetera, for the development, assuming that we could work out the issues of security for plutonium, et cetera?

General Scowcroft. Well, to be honest, we didn't get into that much detail about the allocation of funds. But we do recommend that recycling options as well as research on new reactor design continue, absolutely, without identifying the source.

Mr. Hamilton. I think the 1982 act makes it clear with this polluter-pays concept behind it, that that is to be the funding mechanism to ensure that all costs of disposing of commercial fuel will be paid.

Dr. Cassidy. So if there is an alternative mechanism that in the initial steps of disposal would decrease the volume significantly, theoretically at least, that would be within the kind of intent of the law?

Mr. Hamilton. That would be my understanding of the law. I don't have the language of the law in front of me, but that would be

my understanding.

Dr. Cassidy. Thank you both. I yield back.

Mr. Shimkus. The gentleman's time is expired. The chair now recognizes the gentleman from North Carolina, Mr. Butterfield, from North Carolina.

Mr. Butterfield. Thank you. Let me join Dr. Cassidy and others for their extraordinary service to our country. Thank you very much for coming back and thank you for your willingness to tackle this incredibly important issue. I also want to thank the other members of the Commission. All of you have worked so hard.

As many of you know, I reside and represent a good portion of the great State of North Carolina. My State has a robust nuclear portfolio with nearly 30 percent of our electricity provided at relatively low cost by nuclear energy. However, the issue of waste disposal has been a concern, to put it mildly, for many years. Even before I came to Congress I was concerned about this, if for no other reason than it is expensive. North Carolinians don't like to lose \$900 million of their money to what some people would call a worthless fund.

Therefore, I want to see this body and the regulators take steps to move beyond the tired, unsuccessful battles of the past to something productive and with real milestones. That said, I have several questions about the report and hope that you can help me clarify some of this.

I am intrigued by the idea of the consent-based approach to siting a facility. However, I am a little doubtful about it. My question

is, what case studies, case studies, did the Commission review in consent-based siting that have worked in the past, and what lessons might be gleaned from those experiences?

Either one of you may answer that.

Mr. Hamilton. Well, the successful example in this country is the New Mexico plant, WIPP. One of the members of our Commission was Senator Domenici, who had a lot to do with that and of course could speak to it in great detail. But we consider that an example of consent-based siting. Several of the other countries, Sweden, Finland, Spain, have basically followed a consent-based process that has been successful.

Mr. Butterfield. General, anything you could add to that?

General Scowcroft. No.

Mr. Butterfield. Is it unlikely that a community, and one of my colleagues made reference to New York City, that might be an extreme example, but is it unlikely that a community might have 100 percent support for such a site? I think that is probably unlikely. How does the Commission think that we might measure the whole notion of consent?

General Scowcroft. That is one of the ambiguities in the term "consent-based," and you all have a lot of experience in how you determine consent. We think it has to be an iterative process. The chairman pointed out the differences between Nevada counties and Nevada State in terms of their attitude toward Yucca. So how do you determine consent? We have a section which discusses it in considerable length, but it is an imprecise process and we say it needs to be iterative.

Mr. Hamilton. At the end of the day the parties have to reach an agreement; that is, consent. And so if you want a test as to whether or not you can get consent, the test is can the parties reach an agreement voluntarily amongst themselves, the parties being this new organization, local, State, tribal communities. So that is the key. But as I tried to suggest, this process is going to be complex, it is not something you are going to be able to predict ahead of time. The parties are going to have to work it out. But we think it has to have the characteristics we have spelled out in the report. It has to be adaptive, it has to be flexible, transparent, there has to be a lot of consultation involved, and there has to be a lot of give and take back and forth. But the test of consent will be can you reach an agreement.

Mr. Butterfield. But you certainly mean more than 50 percent?

Mr. Hamilton. What is that?

Mr. Butterfield. You simply mean more than 50 percent or a simple majority of the affected?

Mr. Hamilton. I would think so. You are talking about a lot of different bodies here. You are talking about tribal governments, you are talking about State governments, local governments, county governments, city governments, there are all kinds of people, Federal Government, that can get into the act here and will because there is a lot at stake. And we don't suggest that process is going to come smoothly; it is going to take a lot of work and a lot of skill to negotiate these agreements.

Mr. Butterfield. Thank you, gentlemen. You have been very kind. I yield back.

Mr. Shimkus. The gentleman's time is expired. I now recognize the gentleman from New Hampshire, Mr. Bass, for 5 minutes.

Mr. Bass. Thank you, Mr. Chairman. And I thank you gentlemen for being here today. Thanks to the wonders of modern communication or the Internet, I would like to read you a brief paragraph from the Nashwood Telegraph, Monday, February 17, 1986. I was a sophomore State legislator at the time. It says, not in my backyard you won't. Nobody wants a nuclear waste disposal site next door. Nobody wants a nuclear waste disposal site in their neighborhood. Nobody wants a nuclear waste disposal site in their town. Nobody wants a nuclear waste disposal site in their area. Nobody wants a nuclear waste site in their State. Okay, that takes care of the United States. And then it goes on to discuss the fact that Hillsborough, New Hampshire, which is about 15 miles from my home, is not the right place to locate what is now Yucca Mountain.

Having qualified myself there, I say to you that you have in your testimony, quote, that we need an explicitly adaptive, staged and consent-based process. And I know you have addressed that question to Mr. Butterfield most recently and understand the problems associated with that. It is my view that 27 years -- 1986 -- 27, is that right, 26, 27 years later we are where we are today, and it would be a shame if we had to go back to 1986 again at the cost -- you know, the torture that we would go through as a Nation to get to where we were in 1986,

it would hardly be worth the cost, you know the benefit for that.

My question for you gentlemen is do you have recommendations in your report as to what the DOE should do now? I understand that this report process, and so forth, has cost \$5 million or \$4 million. Do you have any specific recommendations to the Department of Energy for the short term, for short-term action?

General Scowcroft. Well, if I could make a comment on your general notion. What we determined in our research is that the approach we use, which is a top-down approach, you do it, hasn't worked. And in New Mexico with the WIPP plant and in Sweden and in Finland and approaching in Canada, the approach of consent, come to an agreement on it, show the advantages, make it worthwhile, is showing promise, and that is why we are recommending that approach to it.

Mr. Bass. But I think you also recognize the fact that these nations have different governmental structures and cultures, and so forth, that make it easier for that.

General Scowcroft. No question about that.

Mr. Bass. And I can tell you from personal experience that this is 1986. By 19 -- let's see, where are we in the presidential cycle? We are the first in the Nation primary. Every single candidate that came to New Hampshire had to vow on a Bible that they would never support a nuclear waste site in New Hampshire, otherwise they wouldn't get a single vote. I am just giving you the historical context here. That is the way our system is and that is how it works.

Mr. Hamilton. We spell out in the 13th chapter of the report the

actions that the DOE needs to take right now and in the future. I can read that to you but I don't think it is necessary to do it. We gave a lot of thought to your question as to what do you do now and what does the DOE have to do, what does the Congress have to do, and we tried to spell that out in one of the chapters of the report. That is not, incidentally, in the executive summary.

Mr. Bass. Thank you. I would conclude by saying that I was taken by Chairman Shimkus' slide showing the level of consent, if you will, that exists today in the region. Knowing what this country has gone through to get where it is today not to consider this site and move forward on it I think is a terrible mistake. And I yield back.

Mr. Shimkus. The gentleman yields back his time. Just for clarification to people who are watching us here, the rules of the committee say that if you are a member of a subcommittee then you get to ask questions first. We are joined by Mr. Inslee. He is going to patiently wait until his time to come. So I would now recognize Mrs. McMorris Rodgers. Are you ready?

Mrs. McMorris Rodgers. No.

Mr. Shimkus. Then I will turn to Mr. Harper for 5 minutes.

Mr. Harper. Thank you, Mr. Chairman. As I have listened to your testimony in going through this process, you know, and I guess your Commission work was what, about a 2-year --

General Scowcroft. 2 years.

Mr. Harper. 2 years. And aren't you glad it is over?

General Scowcroft. Yes.

Mr. Harper. But we certainly thank you for investing that amount of time in what is a very emotional subject. Of course I have to say the idea of forming anything new up here is anything less than inspiring. And so to think about forming some type of new agency or organization I am not sure that we can endure perhaps another dysfunctional group, but perhaps this is where you have landed.

I would like to just read to you something that was put out by, that was said by the Nuclear Energy Institute, Edison Electric Institute, American Public Power Association, National Rural Electric Cooperative Association, the National Association of Regulatory Utility Commissioners, and the Nuclear Waste Strategy Coalition, what they said last week about Yucca Mountain. We continue to believe that the Nuclear Regulatory Commission's review of the DOE's license application for the proposed Yucca Mountain in Nevada repository should be completed to determine whether it is a suitable site. You know, your report says that we need a geologic repository.

Do you agree or disagree with those groups that we ought to take advantage of these billions of dollars that have been spent so far on Yucca Mountain and find out if it is indeed a suitable or unsuitable repository.

Mr. Hamilton. We --

Mr. Harper. Do you want me to just move to the next question?

Mr. Hamilton. Look, a commission was formed. We operated under a mandate and under rules, we followed those rules and the rules were we were not going to get into Yucca.

Mr. Harper. And certainly -- but your duties are over, so I am asking the question. We have the beautiful report right here. So the question is should we with all the money, the billions of dollars that have been spent, should we not at least -- does it not make sense to find out if it is indeed suitable or not?

Mr. Hamilton. Let me respond this way, and this is not really a direct answer to your question, but I think it is a fair response. There has been a feeling here for 30 years or more that once the next election comes the results of that election will be so decisive that Yucca Mountain will be resolved one way or the other. It hasn't happened. It has not happened. Now, it may happen the next election. I don't think it is likely, but it could happen. And that is a possibility.

Our view, however, is that we have now had 30, 40 years experience, and as a country we have not been able to reach a solution to the problem. You can blame whomever you want to. I suspect there is plenty of blame to go along, and we have heard some specific names just today. But the fact is that the process we are now following has not worked for whatever reason, and it continues to roll up huge costs for the American taxpayer. Liabilities explode into the future, and there are all kinds of damages to the American national interest.

Okay. We have to find a way forward. We have got to find a way forward to solve this problem. It could be the next election will solve it. I don't think it will, but it could be. It hasn't in the past. So we are operating on the assumption and the Commission that we had

to try a new way forward and that is what we did.

Mr. Harper. You put a lot of emphasis on the consent-based process --

Mr. Hamilton. Yes.

Mr. Harper. -- on how to do, how someone should move forward on this. But it appears, certainly looking at the map that the chairman pulled up of local consent that is there, it met what appears to be that criteria, but yet someone else was able to intervene, whether that is the Senate majority leader or someone else. How do we get to the point of where we can actually make a decision on this? And I have to say Yucca Mountain has met that criteria yet it has been rejected. So my confidence level is not real strong, and my time is up, but it appears to me that we should complete this licensing process, get back on track and let's find out if indeed it is a suitable process.

I thank you both for your time. I yield back, Mr. Chairman.

Mr. Shimkus. The gentleman yields back his time. The chair now recognizes the gentleman from Colorado, Mr. Gardner, for 5 minutes.

Mr. Gardner. I thank the chairman for the time. And thank you to the panel for being here and sharing with us your work, and certainly appreciate the work that you did. A couple of questions, and it has been touched on here a couple of times today already, and so I just want to maybe go into them a little bit further. So when you are looking for the most cost effective approach for new strategies that you discussed in the report, did you compare that to the time and cost to continue work to gain regulatory and public acceptance of Yucca

Mountain?

General Scowcroft. No, we did not because we did not consider Yucca Mountain or any other site. We discussed a process. And going forward theoretically if our approach is accepted Yucca Mountain, Nevada can come forward and be evaluated on a consent basis like everybody else.

Mr. Gardner. But obviously the money we have already put into Yucca Mountain is significant?

General Scowcroft. Oh, no question about that, no question about that.

Mr. Gardner. Your testimony states that finding sites where all affected units of government, including the host State or tribe, regional and local authorities and host community, are willing to support or at least accept a facility has proved exceptionally difficult. That is a quote from the report. So how do we ensure that a unit of government remains supportive of or committed to accepting a repository?

Mr. Hamilton. I don't think there are any guarantees here. Look, this process of siting, forget Yucca Mountain for a while, this process of siting is going to be a very difficult process. What we believe is that the Federal Government or any entity cannot force the decision down the throats of a local community, and that is exactly what the Congress has done.

Mr. Gardner. I mean, I have --

Mr. Hamilton. That won't work in our view.

Mr. Gardner. I have 15 metric tons of nuclear waste in my district.

Mr. Hamilton. How much?

Mr. Gardner. Fifteen metric tons, which is stored for Fort St. Vrain, which is being managed by the Department of Energy in Colorado. If we were to go forward with Yucca Mountain, if we were to go forward with the repository, it would be a safer place for that than stuck at St. Vrain.

Mr. Hamilton. Well, I don't know the conditions there obviously.

Mr. Gardner. But in general isn't it better to have a repository than leaving it scattered across the country?

Mr. Hamilton. We believe it is better to have consolidated storage facilities and a repository in place.

Mr. Gardner. So we are more safe with a Yucca Mountain type facility than we are without it?

Mr. Hamilton. We are more safe with consolidated storage and a sound repository.

Mr. Gardner. And so how do we keep a party from later then refusing or somebody who is unable to perform under the agreement? Is there anything we can do under this analysis?

Mr. Hamilton. Sure. First of all, you can ask communities to volunteer.

Mr. Gardner. And if the community volunteers --

Mr. Hamilton. And if you don't get it then you may have to offer some incentives to get the communities to accept the waste. There are

a lot of advantages to accepting waste. You create a lot of jobs in a community. That is the New Mexico experience. So there are techniques that can be used to persuade, if you would, among them the ones that I mentioned.

Mr. Gardner. And that leads I guess to another question. I have got ICBM sites in my district. And we are happy to have them part of our national defense. Jobs are created because of them. But what if we decided in Colorado that we no longer wanted those ICBMs there, would we have a choice, should we have a choice?

General Scowcroft. You know, I don't think that is really a question for the Commission as it is a question for you all. I mean, you are the custodians of the Federal system under which we live. I would point out that next door in New Mexico the WIPP plant has been extremely successful and the local communities are leasing land because they hope to expand their role. So it is not impossible to do because they have found it very worthwhile to have a disposal site in their district.

Mr. Gardner. And I guess I would follow up with the findings of your report. What assurance or commitments do you have, conversations you have had with the administration that they will act on your recommendation?

General Scowcroft. We have had none.

Mr. Gardner. Okay. So this is a report that may just go into the Ethernet?

General Scowcroft. We were asked to produce a report and we have

done the best that we are able to do.

Mr. Gardner. So have you consulted with Secretary Chu about the potential next steps by the agency?

General Scowcroft. Oh, yes.

Mr. Hamilton. We have reported to the Secretary our findings. We have discussed them at some length with him and his advisors. We have reported to the White House staff.

Mr. Gardner. And what should we expect as a result of those reports?

Mr. Hamilton. Well, they can speak for themselves. I believe they recognize, first of all, that we have a very difficult problem that needs to be solved, that we haven't found a way to solve it. And they take seriously our recommendations. I can't cite a single person within the administration who says I endorse all of your recommendations. Are they receptive to it? Yes. Have they asked a lot of questions about it? You bet they have. And that is the appropriate role for them and for you.

Mr. Gardner. Have they given you a timeline?

Mr. Shimkus. The gentleman's time is expired.

Mr. Hamilton. Yeah, we spell out a timeline in the report. We say for a consolidated storage facility 10 to 15 years, I believe, and for a repository 15 to 20. Those are guesses. But the point is that it is long term. This is not a problem that is going to be resolved in the next year or two.

Mr. Shimkus. The gentleman's time is expired. The chair now

recognizes the gentleman from Washington State, Mr. Inslee, for 5 minutes.

Mr. Inslee. Thank you, gentlemen, for your long public service. This is another step in that. We really do appreciate it. But coming from the State of Washington I have to say that I really am alarmed by the failure of public process and something that I just think is a disregard of the law in this instance that led to this Commission. And that is a serious issue. And that is serious language to use, but I think it fits this circumstance. We have seen NRC Chairman Jaczko order his Commission to shut down review of the Yucca application leading to further delays. And it is very, very troubling to me to see this very talented and dedicated Commission really directed from the start not to consider Yucca, which I believe to be the law of the United States of America. And you are not responsible for that, I want to make that very clear, as to where responsibility lies for this. But we have spent over \$12 billion and 30 years moving forward in Yucca, and now we are at this point where we have a commission that I liken to sort of the group that is scouting the best NBA -- since Representative Hamilton is one of our great all-star basketball teams I will just use that metaphor. It is kind of like asking you to scout for the NBA and told whatever you do don't consider that Michael Jordan young guy. And I think that is the situation that we were in. And you can't just do a good scouting job and not take a look at that young number 23. And this really hits home in my State. We are home to the Hanford site, nine former nuclear reactors, we were a stalwart in the

Cold War, and now we still have that residue in my home State and close to the Columbia River -- 53 million gallons of radioactive and chemical waste and 177 underground tanks at one time. We have been preparing and planning for Yucca for disposal since 2002. I have got thousands of my State people getting this ready to ship to Yucca and it is going to be all dressed up and no place to go. And I have been working on this since the mid-1980s to not see my State become a de facto interim storage in substandard conditions. So this is of great concern to me. And I am really concerned that if we do require, quote, a consensus it basically is going to require my State to become a de facto repository for these wastes through my grandchildren's, and I get a new one this week I hope, her lifetime. And I think that is the route we are on if we don't follow the law.

So I guess the first question I have, and I just want to make clear, does anything in this report suggest in any way that Yucca would not be suitable to consider for scientific reasons?

Mr. Hamilton. No.

General Scowcroft. No.

Mr. Inslee. I appreciate that. And by the way, I appreciate your personal service. I think you have articulated the position of the Commission well and the limitations of your decision. This is kind of a difficult situation for you, and you have been in difficult situations before. But I guess looking to the future if we are unable to reach the consensus that you have suggested perhaps we should look for, does it effectively make the current situation in the places that

now house the waste the de facto permanent storage sites, permanent in the foreseeable future? Isn't that a fair statement? If you share the view that I have that that consensus is going to be harder to find, then an obligation to follow the law which we have in place, doesn't it make these places de facto permanent sites?

Mr. Hamilton. We visited Hanford. Those people were very gracious to us. And we had a hearing there. And I think all of the frustrations which you have expressed came out to us very strongly. And I don't criticize them in the least for thinking that they could become a permanent site because they have had it so long and the risks, as you have said, to the Columbia River and elsewhere are real. The frustrations in our inability to resolve this problem are huge. There isn't any doubt about that. And there are a lot of people who have very, very legitimate complaints. We listened to miles and miles of testimony expressing the frustrations people have with the way the Federal Government has handled the waste problem. And that is one reason we recommend a new organization, because we think the DOE can't do it, it has lost credibility on it. So the frustrations are there.

The question is, however, what do you do, how do you get out of the box? It is the law, you are correct, that Yucca Mountain is the repository. The only problem is we can't enforce the law. That has not been a solution. It may be the law but we can't enforce it. Okay. Is that a good thing? No, it is not a good thing. It is always good if you follow the law. But you can't. And you haven't been able to for 40 years. Now, you can sit around and hope that it is all going

to be resolved if the next election breaks right. And that has been exactly the hope for 40 years and it hasn't worked.

Now, we got a problem, we got a problem in this country that is very, very difficult to solve. We don't know if we got the answers here. We think we have got a good approach. And we think it is the only path on the table, if you would, to get us out of the box. And if you stand around and insist on Yucca, Yucca, Yucca, which people have been insisting on for a long, long time, but have not been able to pull it off, we think the result of that is an impasse, a failure to solve the problem. Where do you go? You can go for another 40 years and not solve the problem. We are trying to indicate a path forward. That is what we are trying to do.

Mr. Shimkus. The gentleman's time is expired. The chair now recognizes the other Member from the great State of Washington. Cathy McMorris Rodgers is recognized for 5 minutes.

Mrs. McMorris Rodgers. Thank you very much, Mr. Chairman. And I too just want to say thanks for your work and thanks for being here. Like so many, I have been in and out. And I kind of want to -- you know, coming from Washington State, we pay close attention to Hanford. And the part of the report that really suggests that a site like Hanford could become a de facto repository I think is what raises the greatest concern. And I would just -- I would like to start by just asking what would you, what do you see is the future of Hanford then and what role do you see Hanford playing moving forward?

Mr. Hamilton. Look, I think you have got to give those people

in Hanford some hope. It is exactly as Mr. Inslee said, they are so frustrated now because no progress has been made on this. The problem is getting worse and they have every right to be discouraged, frustrated and mad. What hope do we give them? The hope is that if you adopt our resolutions they will have the hope, a real one, of establishing a consolidated storage disposal -- consolidated storage entity within 10 or 15 years, say. That is a rough guess. Now, that is something they haven't had. And it gets them out of the feeling that they are going to be permanently dealing with this stuff. We think the process we have set forward gives them real hope, a genuine hope, which they don't have today under present law.

Mrs. McMorris Rodgers. I guess what that approach ignores is that the consent decree that has already been agreed upon with the Federal Government and a lot of concerns that have been raised about the location of Hanford next to the Columbia River and an agreement that was put in place that said we were going to move that waste off site and the importance of moving that waste off site, and so that is what we would concede to be the concern. And I am not sure that the fears and the anger will go away by simply just saying, okay, in 15 years --

Mr. Hamilton. Well, you are exactly right about that. Those fears -- you can't wave a magic wand here, you can't undo the sins of the past, they are done, they are in place. All you can try to do is correct the problem. And that is what we are trying to do. Now, if you got a solution, and I am not pointing this to you directly, a better

way to solve this problem, we are certainly open to it.

Mr. Shimkus. If the gentlelady would yield, I would suggest a solution would be for the administration to follow the law as written. With due respect to my colleagues, we understand that there is a 1982 Waste Policy Act, we have 1987 amendments to that, we have votes. You want to talk about consent, Mr. Hamilton. Consent was decided here in Congress by numerous votes, whether that is the vote to fund the science study, which we had 297 Members of the House. We throw out the word Congress as -- you know, Congress consists of two Chambers. The House has historically consistently spoken in support of Yucca Mountain.

Mr. Hamilton. That is right.

Mr. Shimkus. And what is interesting on the legislation to address the Nevada veto, that was a 306 to 117 vote. And do you know what the United States Senate did? They voice voted it, they voice voted it. So my question -- and we are going to hear in the next panel some comments about it. This isn't a failure of the science or the studies. And I would reject the premise that we have failed. My stated position is this President and this majority leader have failed to comply with the law, and that is why unfortunately they have asked you to spend a lot of good time, effort and energy covering their rear ends on this, and that is unfortunate.

I yield back to my friend.

Mrs. McMorris Rodgers. Thank you very much, Mr. Chairman. And I would just say I am hopeful that the courts are actually going to

rule in favor of the enforcing the law and that the administration's efforts to terminate Yucca will actually be stopped and that they will require that the Yucca application proceed. So we will wait for that day. Thank you very much.

Mr. Shimkus. The gentlelady yields back her time. And the chair now recognizes the gentleman from Illinois, Mr. Kinzinger, for 5 minutes.

Mr. Kinzinger. Thank you, Mr. Chairman. And thank you all very much for your work on these issues and for coming in front of us today. I am glad we are talking about this. This is very important. It may not be on the national radar and the front page of the newspaper every day, but it is extremely important I think to the future of energy in this country.

Actually, Illinois' 11th district that I represent is the largest nuclear district in the country. We have three plants, six reactors, and we have a home of where there was originally going to be nuclear recycling in Morris, Illinois, which is now a spent fuel storage pool. So we have four areas where fuel is stored in my district. Given as how we have paid \$15 billion into this fund, including many of the rate payers in my district, it has been now over a quarter of a century. So when I go back home to tell the people in my district that the Federal Government is responsible for the waste, how long should I tell them that it is going to take to create a corporation to build community consensus -- I don't have -- there you go. Can you hear me now? It is red. Maybe I will move.

Mr. Green. You are welcome to come to one of these mics on our side.

Mr. Shimkus. That is the bipartisan nature of this subcommittee.

Mr. Kinzinger. I am back. Okay. Great. So as I was saying, when we talk about building the corporation, building community consensus, constructing interim sites, what kind of a time scale are we talking about? I mean, the fear is we are talking another quarter century. And so as you continue to have waste build up on-site it is a serious issue. So what are your all's inputs in what you think this is going to take from a time perspective?

Mr. Hamilton. Well, creating a new organization will take legislative action. And we talked about that a little earlier today here I think with Chairman Barton. Neither he nor I think it can be done in 2012, and it is likely to be at least a 2-year and maybe 3 or 4-year project to create a new organization. Now, that doesn't mean you don't do anything between now and the time the organization is created. I think there are a lot of things that the DOE, and these are spelled out in detail in the report, can do now to begin to prepare for establishing a repository and a storage facility. Specifically in the report we take a guess and we say that in order to establish a storage facility you are talking 10 to 15 years and 15 to 20 years on a repository, so you are talking about a long length of time. There isn't any doubt about it.

Mr. Kinzinger. The next question I had, in reading through the report I was disappointed with the Commission's timeline for developing

advanced reactors to recycle used fuel. I understand the report is based on a consensus and members had differing opinions on whether to recycle nuclear waste, but I would like to know would a demonstration project if we were able to get one off the ground and online, would that shorten the time estimate? Is that something you could see as being positive in bringing that technology closer?

General Scowcroft. Well, we had a panel, a subcommittee, look at this and they consulted the nuclear experts, if you will. And what we are doing is reflecting the best thought that our own nuclear scientists have presented. So what we say is we support a vigorous R&D program both in reactor development and in recycling, reprocessing spent fuel. But farther than that we wouldn't go because that is not fundamentally what we were asked to do.

Mr. Hamilton. We want to keep options open in the future. And we believe a lot of advances in nuclear energy technology have the potential to deliver a lot of benefits. We don't rule out R&D on recycling and reprocessing. This could be the answer. We think it is premature now to say that it is the answer, but it could be. And we certainly want to proceed with research and development on it.

Mr. Kinzinger. Thank you. And I thank you gentlemen and would echo the chairman's comments of earlier. I would love to see the law of the land become the enforced law of the land and would love to see Yucca Mountain opened up. But with that said, I appreciate your time and I yield back to the chairman.

Mr. Shimkus. The gentleman yields back his time. We would like

to thank you for coming 2 hours. If you probably knew you had to do this when you accepted the Blue Ribbon Commission mission, you may have said no. But again, with all sincerity it does for me personally to say if I am able to live long, to stay active, to stay vibrant, you guys are a credit to our country, and we do appreciate your time. We will dismiss this panel so you can get out of here before anyone else shows. And ask the second panel to come join us.

Thank you very much.

RPTS DEAN

DCMN ROSEN

[11:38 a.m.]

Mr. Shimkus. We would like to thank our second panel for joining us and sitting through the first panel. I think we found that very informative and educational and I think that will add to the second one.

What I would like to do is you all have 5 minutes for your opening statement. We know your formal record is submitted for the record, and I am going to do a basic introduction, and then we will move right through once I formally introduce you all here. First, we have Mr. Lake Barrett, is President of L. Barrett Consulting, he is the former deputy director of the Civil Radioactive Waste Management of the U.S. Department of Energy formerly.

Dr. D. Warner North is the president of NorthWorks, Incorporated, catchy name. A consulting professor in Stanford's department of management and science engineering. Dr. North is a former member of the U.S. Nuclear Waste technical review board and a member of the board of radioactive waste management at the National Research Council. Welcome.

Mr. Martin G. Malsch is a partner of Egan, Fitzpatrick, Malsch and Lawrence. Previously Mr. Malsch served as Nuclear Regulatory Commission's acting general counsel, deputy general counsel and inspector general. He represents the State of Nevada in litigation

relating to Yucca Mountain testifying on his on behalf, welcome.

Dr. Edwin Lyman, is that pronounced right?

Mr. Lyman. Yes.

Mr. Shimkus. Is a senior staff scientist for The Union of Concerned Scientists, Dr. Lyman's research focuses on the prevention of nuclear proliferation and nuclear terrorism. We have Mr. Thomas A. Schatz is the president of Citizens Against Government Waste. And Mr. David A. Wright is the chairman of the board and the president of National Association of Regulatory Utility Commissioners, he is also the vice chairman of the South Carolina Public Service Commission. Gentlemen, welcome and with that, we would like to start with Mr. Barrett, you have the time for 5 minutes for your opening statement.

STATEMENTS OF LAKE H. BARRETT, PRESIDENT, L. BARRETT CONSULTING; DR. D. WARNER NORTH, PRESIDENT AND PRINCIPAL SCIENTIST, NORTHWORKS, INC.; MARTIN G. MALSCH, PARTNER, EGAN, FITZPATRICK, MALSCH & LAWRENCE; DR. EDWIN LYMAN, SENIOR STAFF SCIENTIST, UNION FOR CONCERNED SCIENTISTS; THOMAS A. SCHATZ, PRESIDENT, CITIZENS AGAINST GOVERNMENT WASTE; AND HON. DAVID A. WRIGHT, PRESIDENT, NATIONAL ASSOCIATION OF REGULATORY UTILITY COMMISSIONERS

STATEMENT OF LAKE H. BARRETT

Mr. Barrett. Thank you, Chairman Shimkus, Ranking Member Green, and other members of the committee. Thanks for the opportunity to provide my personal views regarding the Blue Ribbon Commission's recommendations. The Nuclear Waste Policy Act established a scientific regulatory and political administrative process for safely disposing of our Nation's spent nuclear fuel and high level radioactive waste. And this process lawfully selected Yucca Mountain as the Nation's first repository site as the BRC properly states on page 12 of their report.

Unfortunately, this administration has succumbed to politics and have reversed much of the process that has been made over last 25 years. Although this Commission was created partially as a cover for the administration's actions, it has produced a very thoughtful report with excellent useful recommendations that should be implemented regardless

of the future of Yucca Mountain.

It is not the fault of the BRC that they were not allowed to examine the obvious and lawful Yucca Mountain geologic repository disposal solution. Despite such a politically imposed shortcoming, they produced a well-reasoned report with excellent conclusions. I strongly urge the administration and Congress to act promptly to incorporate the BRC recommendations into our existing national program and get our Nation's nuclear waste disposal program moving forward again.

I strongly agree with the BRC's finding that a solution to the Nation's spent fuel management needs is urgently needed and the substantial cost of inaction is mounting every day. The BRC properly concludes that a national geologic repository is the foundation of any national spent fuel program. Although they were not allowed to say it, that site exists today at Yucca Mountain. They clearly confirm there is no new technological silver bullet that can replace the need for a geologic repository like a Yucca Mountain. Although they were prevented from considering Yucca Mountain, I believe most of their recommendations are applicable to Yucca Mountain.

Clearly, everyone wishes that a consensus agreement could have been established between the Department of Energy and the State of Nevada. Clearly that was my personal goal when I directed the program. Unfortunately, political positions in those times prevented any meaningful negotiations to resolve Nevada's issues. One step in the right direction today would be to finish the Yucca Mountain NRC

licensing process in an open and transparent manner to independently resolve all of Nevada's safety and environmental concerns. I am personally very confident that the site will be safe for well over a million years.

Completing the nearly finished NRC licensing process would hopefully make safety evident to all Nevadans such a politically-driven, fear-mongering sound bites would be seen for what they are, and a meaningful negotiation could be begin. Such a negotiation would lead to the necessary changes, assurances, and substantial benefits that Nevada deserves from the Federal Government for acting in the national interest. Such a binding agreement would be of great value and be of mutual benefit to all Nevadans and the rest of Nation as well.

The BRC report properly highlights the need for Federal action to remove spent fuel which is stranded at shut-down nuclear reactors. To achieve this important goal in a timely, effective manner the BRC correctly recommends a partnership, consensus-based, consolidated interim storage facility. In my view, that process should start immediately. It is not a technical problem, it is a problem of our collective failure to act in our mutual national interest with respect to the host State.

DOE has the authority, under existing law and capability with its commercial contractors to act now on many of the BRC recommendations, such as working to develop consensus hosting partnerships. It is also a factor DOE's commercial contractors made significant progress in

developing over 10 State and local hosting expressions of interest for the past global nuclear energy partnership facilities. Although that program no longer exists, the volunteer hosting partnership concept fits perfectly with the BRC recommendations and our national needs today.

DOE should now task their existing commercial nuclear contract support teams to engage with potentially interested communities and States to explore mutually beneficial hosting partnerships arrangements. This simple but important first step will begin the process of developing what I envision as a volunteer, integrated used nuclear fuel management R&D center, and possibly a volunteer host for the needed second geological repository.

I believe this Nation stands at a critical ethical crossroad on nuclear waste management. We owe our grandchildren a protected disposal solution for used nuclear fuel in high level radioactive waste that our generation has made. In my view, it is irresponsible to just continue kicking the problem down the road to the next generation just because someone has localized political pressure during a primary campaign. Solutions are at hand, and the Blue Ribbon Commission, despite its politically imposed restrictions, has provided useful actionable recommendations, that can greatly enhance and preserve what has already been achieved. Let us not waste this opportunity. Thank you.

Mr. Shimkus. Thank you, Mr. Barrett.

[The prepared statement of Mr. Barrett follows:]

\*\*\*\*\* INSERT 3-1 \*\*\*\*\*

Mr. Shimkus. Now I would like to recognize Dr. North for 5 minutes.

**STATEMENT OF D. WARNER NORTH**

Mr. North. Thank you for this opportunity.

Mr. Shimkus. Dr. North, I think you need to press the little button there.

Mr. North. Thank you, Mr. Chairman, now it is on. Ranking Member Green and other members of the subcommittee, I strongly endorse the BRC final report and its recommendations, the Commission and its staff have produced an excellent document within its scope. BRC states that national policy has, "been troubled for decades and has now all but broken down."

I would have preferred more clarity at the outset in this report as to where responsibility for this impasse lies. DOE, NRC and the Nuclear Waste Technical Review Boards worked diligently and commendably to implement the Nuclear Waste Policy Act. The impasse comes from the law established by Congress, inconsistency and national leadership, and opposition by State political leaders, especially Nevada. The impasse did not come from people like Lake Barrett and many others who have devoted many years of their professional careers to implementing the existing law in the work on Yucca Mountain.

Much of BRC's guidance is consistent with findings and recommendations of earlier reports. There are no major breakthroughs

in understanding or from new technology. The Nation needs geological disposal, it is the only long-term solution. There is international consensus on how to do it. Many other nations are making progress. Our progress has stopped, our country has a liability of \$50 billion, 30 billion from ratepayers in the nuclear waste fund. And my figure is from the 2011 financial report to the United States Government, plus 20 billion in legal penalties for failure to fulfill contracts. This number should not continue to grow.

The new consent-based approach BRC recommends is not a new idea but one that has been around for decades. It would be new for the U.S. Federal Government, a change from existing law.

Siting success is defined by BRC as a legally binding agreement among the parties. This is formalizing what was described in the Republican presidential candidates' debate in Las Vegas as a pretty good deal. New Mexico negotiated a pretty good deal with the Federal Government on WIPP, more pretty good deals could restore U.S. progress. Deal-making is a societal or political matter, not overcoming technical challenges. Perhaps there will be some benefit to looking at flexible and significant incentives. The technical community should be assuring safety and minimizing cost, but this is not something where we can help a lot.

Many State governments have opposed the siting of a nuclear waste facility in their State. Nevada established an organization to oppose such a facility, the Nevada Nuclear Waste Project Office in 1985. According to the Web site, the mission remains the same, not improved

scientific understanding and support for wise decision-making but opposition. In contrast, local government entities near Yucca Mountain such as Nye County have expressed support for the facility. The presentation of the map I thought was most appropriate.

Can the Federal Government go from opposition to pretty good deal with one or several States? During my service on a nuclear waste technical review board 20 years ago, DOE had a program in place that developed the system planning for packaging and transporting spent fuel which TRB reviewed and encouraged, but Congress cut the appropriations forcing this work to be deferred. A lead time on the order of a decade is needed before waste transport begins. For WIPP timely and effective advance planning for the transport of waste was done by DOE in cooperation with State and local agencies.

DOE and the administration should carry out the steps in chapter 13, Congress should take steps needed to implement the recommendations, but more discussion and debate will be needed. DOE should designate a senior official as BRC has recommended. This senior official should be supported by staff and consultants at the same level of excellence as the staff and consultants who participated in the preparation of the BRC final report. Thank you.

Mr. Shimkus. Thank you, sir.

[The prepared statement of Mr. North follows:]

\*\*\*\*\* INSERT 3-2 \*\*\*\*\*

Mr. Shimkus. I would like to recognize Mr. Malsch for 5 minutes.

**STATEMENT OF MARTIN G. MALSCH**

Mr. Malsch. Thank you, Mr. Chairman, Ranking Minority Member Green and other members of the subcommittee. I appreciate the opportunity to provide testimony today regarding the Recommendations of the Blue Ribbon Commission on America's Nuclear Future released just last week. My name is Marty Malsch, I am a partner in the law firm Egan, Fitzpatrick, Malsch & Lawrence which specializes in nuclear energy and nuclear waste matters. As the chairman has indicated, I do represent the State of Nevada on Yucca Mountain matters. My testimony today represents my own views and they do not necessarily represent the view of the State of Nevada.

In accordance with the committee's rules, I will proceed to offer a brief oral summary and would like to have my full testimony included in the record.

Mr. Shimkus. Without objection, so ordered.

Mr. Malsch. The BRC studied the history of successful and unsuccessful attempts around the world to develop geologic repositories for radioactive waste. Its recommendations based on this study and other factors are thoughtful and well supported. We owe a debt of gratitude to the BRC members and the BRC staff for their willingness to serve, their dedication to the task, their openness to diversion of ideas and opinions and their careful analysis of problems

and feasible solutions to the nuclear waste management issues confronting America today.

While I generally support all of the BRC's recommendations, I would like to focus my testimony today on four especially important and closely connected ones. First, I agree there should be prompt efforts to develop one or more geologic disposal facilities, although not in the sense that we need to select and license a repository in the near term. We are not facing any disposal crisis because vitrified high level waste and spent nuclear fuel can be stored safely for a long time, but in many of the Nuclear Waste Policy Act organizing and staffing a new waste management organization, and implementing a new consent based site selection process as the BRC has recommended will take considerable time. We should start the process promptly especially the process to make necessary legislative changes.

Second, the BRC recommended an adaptive stage facility licensing and development process whereby project managers are able to reevaluate earlier decisions and redesign or change course where new information warrants. This recommendation addresses, I believe, what is one of the key lessons from the past that premature commitments to one site should be avoided. There should be multiple opportunities to assess the quality of the technical program and the safety case supporting the decision-making process and to pull the plug when warranted.

Third, I support the BRC's recommendations that there should be a new organization devoted solely to implementing the waste management program. DOE has not performed well here and a new organizational

approach is clearly needed.

Fourth and most important, the BRC recommended a new consent-based approach to future siting waste management facilities. I believe that a consent-based site selection process is not just good government, it is a frank concession to reality and one of the key lessons that must be learned from history.

We should not assume that the objections of a host State or local government or Indian tribe will melt away and that they will be ready to deal if the NRC grants a license or construction authorization. Nor should we assume that the preemptive powers of the Federal Government are so great and that State and local rights and preferences are so undeserving of respect that a site can always be thrust upon an unwilling host state government or tribe. This means must be found to elicit the cooperation, or at least the acquiescence of the host State government or tribe.

I agree with the BRC that a successful site selection decision will most likely result from the negotiations between the implementing organizations and the potentially affected governments and that it will be desirable for these negotiations to result in some form of legally enforceable agreement. I also recognize that a State, local or tribal government's ability to veto a repository project cannot last indefinitely. Otherwise, the uncertainty of whether a project could ever successful would be so great that any significant investment and it would be imprudent. Ending the veto can be matter of subject negotiation between the waste management organization and the

governmental entity.

The BRC report includes a brief summary of the U.S. experience in developing geological repositories and draws some conclusions based on this experience. My written testimony adds some details about this experience focusing on Lyons, Kansas, and Yucca Mountain, Nevada. I believe these are worth considering because they add substantial context and support for the BRC's recommendations and conclusions.

In conclusion, almost everything that could go wrong with a geologic repository program in the United States has now gone wrong. It would be unfortunate if the nuclear power program in this country floundered because of because of poorly chosen policies for managing spent fuel and high level radioactive waste. And the citizens living near DOE legacy sites deserved a better program than the one they got. The BRC has now offered and recommended a path forward. We have ample time to consider the BRC's recommendations and get things right. Thank you for your consideration of my testimony.

Mr. Shimkus. Thank you, sir.

[The prepared statement of Mr. Malsch follows:]

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Mr. Shimkus. Now I would like to recognize Mr. -- Dr. Edwin Lyman, sir recognized for 5 minutes.

#### STATEMENT OF EDWIN LYMAN

Mr. Lyman. Thank you. On behalf of the Union of Concerned Scientists, I appreciate the opportunity to present our views on the recommendations on the Blue Ribbon Commission. I would like to thank Chairman Shimkus and Ranking Member Green and other members for hearing us out.

The Union of Concerned Scientists is neither pro nor anti nuclear power, but we have served as a safety and security nuclear watchdog for over 40 years. We are deeply concerned about global climate and we have never ruled out an expansion of nuclear power to cope with those problems provided that it meets high standards of safety and security. However, the Fukushima Daiichi accident has revealed significant vulnerabilities in nuclear safety that really need to be addressed if nuclear is going to be a serious option in the future and the management disposal of the nuclear waste is clearly a major factor in that.

Before proceeding, I would like to point out that UCS has never had a position for or against Yucca Mountain or any other site, we simply don't have the geological expertise to be able to assess a site's ability independently. We commend the Commission staff of the BRC for an excellent report and think they have addressed very well a very challenging set of issues. We reviewed all eight recommendations, and

agree with most of them, but our greatest area of agreement concerns, the absence of a recommendation. We were pleased to see that the Commission did not call for an immediate change in U.S. long-standing policy not to reprocess spent nuclear fuel. So we do concur with BRC on that.

UCS has long opposed reprocessing primarily because it produces Plutonium and other weapons-useable materials that greatly increase the risk of nuclear terrorism, nuclear proliferation, and at the same time, do not provide any benefits for waste management. Now we heard earlier about figures provided by AREVA that claim they can reduce the volume of nuclear waste for final disposal through reprocessing. I reviewed those numbers and I can say the factor of 4, which we heard earlier this morning is not technically valid and I would be happy to provide more details on that.

We also believe if the BRC had endorsed reprocessing, it would have sent the wrong message to the rest of the world, undermining efforts to control the growth of separated Plutonium. For instance, in Japan today, they are currently reconsidering the start up of a large reprocessing plant at Rokkashomura, which has been idle because of the technical problems and the ramifications of Fukushima. Japan already has 45 metric tons of Plutonium, of which 10 tons are in Japan that is on the order of a thousand Nagasaki-type weapons, Japan just simply doesn't need any more Plutonium. And we are just glad that the BRC did not give the signal that would have given coverage to Japan for restarting that facility.

On the recommendation for creating a new entity independent from Department of Energy, we agree with that, but we believe that it is very important to limit that entity to the constraints called for in the report with, based on transports storage and direct disposal, spent fuel and high level waste with only limited research and development to support those activities.

We did disagree with the BRC on the urgent need for centralized interim storage. We still are not persuaded that there is a good reason to cite our new centralized interim storage facilities, either for operating or for shutdown reactors. And we are concerned that an effort could to distract from the goal of citing a geological repository. Simply too many moving parts, too many potential sites being considered, too much incentive money that would have to go around we think could really interfere with the goal of finding a repository which we think we agree as a fundamental requirement.

We do think that spent fuel can be stored safely and securely for probably 100 years at reactor sites provided that the NRC upgrade its safety and security practices.

In particular, we are continually concerned about the long-term storage of spent fuel in wet pools under densely-packed conditions. We believe that poses a greater threat of large radiological release, and we encourage the thinning out of those pools by transferring spent fuel into dry casks. Dry casks are safer but do need to be protected especially against sabotage, and we also call for increased protection against sabotage in dry cask facilities.

Finally with regard to research and development, we believe a limited program of R&D on nuclear energy continues to be appropriate, but we think it needs to be focused, needs peer review, and that the merits of those programs need to be under constant observation so we don't waste taxpayer money on options like reprocessing that have not shown to be successful in the past. I thank you and would be happy to take your questions.

Mr. Shimkus. Thank you, Dr. Lyman.

[The prepared statement of Mr. Lyman follows:]

\*\*\*\*\* INSERT 3-4 \*\*\*\*\*

Mr. Shimkus. Now I would like to recognize Mr. Shatz for 5 minutes.

#### STATEMENT OF THOMAS A. SCHATZ

Mr. Schatz. Thank you, Mr. Chairman, Ranking Member Green, other members of the subcommittee. My name is Tom Schatz, I am president of Citizens Against Government Waste. The organization was founded in 1984 by the late industrialist, J. Peter Grace and nationally-syndicated columnist Jack Anderson to build support through the implementation of the recommendations of the Grace Commission, which was established by President Reagan. CAGW was, as I said, founded in 1984, that was a year after President Reagan signed into law the Nuclear Waste Policy Act of 1983. And yet, we have certainly seen a lot of wasteful expenditures over the years, but the fact that we spent all this money and come up with zero in terms of anything being sent to Yucca Mountain is certainly one of the largest examples of wasteful spending we have ever seen. Usually we are looking at examples of ear marking a few million here and there, but we are talking about tens of billions of dollars that have been spent, and based on some of the estimates, possibly \$100 billion, and now we have a Commission coming in and saying let's pull the plug on all of this and start over.

So we understand and appreciate the outrage that has been expressed by some of the members here today. And while we are usually

pretty expressive about our concerns on this, maybe we understated some of the comments in our testimony.

Yucca Mountain has been certified, nuclear waste fund has assessed ratepayers between 750- and \$780 million each year since 1983. As everybody has mentioned, \$15 billion spent to evaluate sites to get Yucca Mountain going. We have 65,000 metric tons, and not one spent fuel rod has been sent to Yucca Mountain or anywhere else for permanent storage.

And the fuel languishes at 75 sites in 33 States so it is a little difficult to hear people say we don't have a problem, we can just leave it there. Clearly that is not only a problem, it is also against the law, because all of those facilities went into operation understanding that the fuel would be sent to a permanent repository.

The White House, unfortunately, made good on President Obama's campaign promise to close Yucca Mountain, no funding in the fiscal year 2011 budget, but the determination to close this facility was not based on science or technology. The administration stated the decision was predicated upon a proposed change of department policy for managing spent nuclear fuel, but they didn't come up with an alternative plan except to call on some very distinguished gentlemen to create a commission and issue a report that took 2 years, cost \$5 million at a time when another \$2 billion in liability was assessed against the Department of Energy.

The fact that the Commission couldn't review the suitability of Yucca or evaluate any site certainly creates another problem because

we are back starting over based on their recommendations with the new organization. Perhaps this new corporation will be as effective as maybe Fannie Mae and Freddie Mac or some other Federal corporation that's done such a great job with our tax dollars over the years.

And we had consent, as the chairman's chart showed, the local community said yes, the State of Nevada itself in 1975, the legislature said yes. So if we had a "consent-based agreement," what is to stop that same community 10 years later from saying, no, we don't it want in the middle of construction? This is a national issue. There is local consent, and as many have mentioned, there are a handful of people that are getting in the way of moving this forward.

It seems that even the commissioners admitted that indirectly, that Yucca should have moved forward, at least the licensing should have moved forward because if we don't do that, we are going sit here for another 10, 20, 30 years trying to figure out where to put all of this nuclear waste.

Utility industry estimates it is a \$50 billion liability, DOE says 20 billion, but the Department of Energy estimate is based on a promise that Yucca would accept fuel in the next 8 years. Clearly that estimate is now quite low.

There's also a report sitting out there that has not been released, the safely evaluation report volume 3 the science-based and technology committee has it, I think taxpayers should see it. Because this will also establish the science on this issue and hopefully move some of the politics out of the way.

The BRC noted that this generation has an ethical obligation avoid burdening future generations with the entire task of funding a permanent solution for hazardous materials. We agree, that burden should not be passed on to the next generation along with a lot of other burdens that are going to be passed on to the next generation based on Congress's failure to act on other good ideas to cut spending. Thank you, Mr. Chairman.

Mr. Shimkus. Thank you, Mr. Schatz.

[The prepared statement of Mr. Schatz follows:]

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Mr. Shimkus. And now I would like to recognize Mr. Wright for 5 minutes, sir.

**STATEMENT OF HON. DAVID A. WRIGHT**

Mr. Wright. Thank you. Good afternoon, Chairman, Ranking Member Green.

Mr. Shimkus. Your microphone.

Mr. Wright. It is on, I believe, I will pull it closer. My name is David Wright, and I am a commissioner with the South Carolina Public Service Commission, and I serve as president of the National Association of Regulatory Utility Commissioners on whose behalf I am speaking today. NARUC and State utility commissions in 40 States served by nuclear generated electricity have been involved in the troubled history of nuclear waste disposal since 1983. That is when the utilities, which own the fuel, were required by the Nuclear Waste Policy Act, to enter into contracts with DOE. Those contracts called for payments of fees for nuclear-generated electricity to the Treasury for deposit into the nuclear waste fund to pay for the cost of disposal of used fuel beginning in 1998.

Disposal has not happened, but the fee payments continue to be made. Or as a former Florida utility commissioner summarized the status in 1991, the government has our money, we have their waste. It is now 20-plus years later, and we still have the government's waste.

Utilities passed the cost of the fees to their customers through

their electric bill. In addition, and because of the government's failure to open Yucca, customers, through their rates, have had to pay additional amounts to cover the cost of reracking utility spent fuel pools to accommodate more spent fuel. And have had to pay for onsite dry cask storage as well as the increased security required there.

Moreover, all taxpayers, through the judgment fund, have had to pay damages for the lawsuits brought to date as well as those to come. In 2009, the administration pronounced Yucca Mountain not a workable option, and that it intended to terminate the repository development there, a position contrary to the law of the land. In March 2010, DOE asked the NRC's Atomic Safety Licensing Board for permission to withdraw the application with prejudice. In June, the ASLB rejected the request. The decision was appealed to the NRC. While the NRC was disposing of the license matter the President directed that the Secretary of Energy appoint the Blue Ribbon Commission on America's nuclear future to consider and recommended a new strategy, a strategy that soon became evident would be a post-Yucca strategy.

In 2010, NARUC and several other parties petitioned the Court of Appeals under the NWPA, to challenge DOE's authority to withdraw the Yucca Mountain license application, but the case dismissed because there had been no final agency action by the NRC on the appeal of the board's decision rejecting DOE's request. The NWPA mandates that once the Yucca Mountain license was submitted. The NRC had only 3 years to complete the review proceedings, those 3 years have expired. Currently, the NRC faces a mandamus action to force it to complete the

required review in the U.S. Court of Appeals for the District of Columbia circuit. NARUC is one of several petitioners in that suit. Our reply briefs were filed last Friday.

Notwithstanding, our pro Yucca position, NARUC was closely involved in the work of the BRC, we wrote letters, gave testimony, provided comments to the subcommittee and attended the public meetings. As for the recommendations, we have the following points: 1, reform with nuclear waste fund is, essential; 2, regardless of Yucca Mountain, we will need another new repository. The lessons of Yucca and others suggest the consent-based siting approach may get better reports but will require patients; 3, we have long favored consolidated and home storage on a parallel track with Yucca, but find the report vague as to quantity, duration and cost as well as what the effect will be on the fee if the nuclear waste fund is to be used to pay for storage; 4, we agree with the concept and benefits of a new Federal corporation that can focus solely on the waste management mission; 5, transportation planning and coordination with States and others cannot begin soon enough.

There are two areas where we disagree with the Commission report. A, the report says, "Overall we are confident that our waste management recommendations can be implemented using revenue streams already dedicated for this purpose." There are no cost estimates to substantiate that belief, which likely also assumes the \$26.7 billion under the nuclear waste fund is assured; B, the report further says, "We know what we have to do, we know we have to do it, and we even know

how to do it." While we may wish that were true, our assessment is that there were too many people who are content to pass the problem along to future generations and leave the waste where it is. Continuing to kick the dry cask down the road should not be an option.

So yet another study calls for prompt action, yet despite on paper a financing plan, implementation relies on leadership from the administration and the Congress. NARUC stands ready to assist on behalf of ratepayers who may not even realize it, but they are already paying for safe waste disposition. Thank you for listening.

[The prepared statement of Mr. Wright follows:]

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Mr. Shimkus. Thank you. Now I would like to recognize myself for the first 5 minutes of questions. And just to follow up, Mr. Wright, I would cut the Blue Ribbon Commission a little slack because I think they do know what they need to do, long-term geological repository; they do know how to do it because Yucca Mountain is there to do it. So I think in them saying that, that -- I mean, that they were very careful if you read the whole document in saying, no, we are not supposed to, but we are not limiting it and stuff like that.

So let me first start with Dr. Lyman just as an aside, I appreciate your testimony. I have had some good battles with your organization on climate. But your position on nuclear power and carbon dioxide emissions, it is very clear, if we are going to go in that route, if electricity generation is boasting 30 percent or 27 percent in 30 years and you keep the same ratio of 20 percent electricity generation, that would be 37 nuclear power plants, that just exacerbates the problem we have with nuclear waste. Whether we go in that direction I don't know because of natural gas and things. But I did appreciate your testimony. I wanted to give Mr. Barrett and Dr. North a chance to comment on comments from the first panel.

Mr. Barrett, do you have anything you want to publicly say about our 2 esteemed members of the commission who were before us?

Mr. Barrett. I believe they are great public servants to America and have done many great things and they deserve a lot of praise for a job well done. I am very unhappy and disappointed that they were constrained so due to the political actions of this administration.

Mr. Shimkus. I like both, and I want to key on because you could tell, I got frustrated at the end when they kept stating how we have failed to act. And we have known a long time in this process, it does take a long time. We are right at the cusp of really doing that. And now I think the frustration -- Dr. North, in your testimony, you hit the nail on the head and you have said we have had long working public servants over decades to get here now because of the fault of who? The politicians were not there.

Mr. North. I have to say as once his critic when I was on the TRB, there has been a lot of oversight and criticism and get it right on DOE from lots of places, including the Nevada Waste Project Office. On TRB meetings, I was amazed how much they would come in and try to help pointing out technical problems on Yucca so that we could find solutions to them. So there has been a huge investment here by the technical community, but the issues I thought former Congressman Hamilton spoke to about the difficulty of electoral politics in the United States and getting a large enough majority in the Congress to override the present majority leader in the Senate, is that politically realistic? We might hope and pray for it, but it seems to me that what the presidential candidates have been saying, we need a pretty good deal, maybe a good place to back up to and think about what might be done, either in Nevada or in other sites.

For example, the State of Washington, the basalt rock was considered as a potential host site when DOE was looking at five sites and picking three, and I was brought in to be a consultant on the

methodology they were using to make the choice. Or New Hampshire, we were looking at granite as the rock for the second repository program. On the eve of a presidential primary, the second repository program went away. It seems to me these are failures in leadership rather than failures in the technical community. And if States wish to submit a bid because they think it will be a pretty good deal, we definitely need to talk. New Mexico is talking, maybe other States will be attracted to this, maybe even Nevada.

Mr. Shimkus. My time is short. Let me go -- how many of you would agree that the nuclear waste fund mechanism should be fixed so that managers of it can have access to the money paid into it, yes or no. Mr. Barrett?

Mr. Barrett. Yes.

Mr. Shimkus. Dr. North?

Mr. North. Yes.

Mr. Shimkus. Mr. Malsch?

Mr. Malsch. Yes.

Mr. Shimkus. Dr. Lyman.

Mr. Lyman. Yes.

Mr. Schatz. Yes.

Mr. Shimkus. Very good. My time has expired. I now would like to turn to my ranking member, Mr. Green for 5 minutes.

Mr. Green. I have a number of questions, but first, let me say politics in Washington, we are shocked that is being done. We have a President who campaigned in Nevada saying he was going to shut down

Yucca, we have the majority leader in the Senate saying that. We know what happens in New Hampshire, it is an early State, that is why we have Iowa with corn subsidies, ethanol, which coming from my part of the country, I am not a big ethanol person, as our chairman knows, so that is the dilemma we are in. And the Blue Ribbon Commission gave us somewhat of a way we can get out of it.

I have been to Yucca Mountain, I think some day, Senator Reid will not be there anymore than any of us will be here and that will be a possibility. But between now and then, we need to get serious about doing particularly interim storage facilities so we take it out of our site base that we are doing. It is not just in the United States.

I was surprised last year because of what happened in Japan, Germany are now shutting down their nuclear power plants. So I guess they will buy more gas from Russia, or maybe they will frack it because there are some places in Eastern Europe that have shale.

So politics is part of our governance, and we have to deal with it and sometimes we have to survive. And that will change, and that is what elections are about.

Mr. Malsch, one of my concerns is consent-based process necessary and how it could help with the potential approval of some type of Yucca Mountain-type facility in the future. After spending time in Nevada in talking with New Mexico Members of Congress, even though the southern part of New Mexico likes what is going on now and would like to expand it, nobody thinks that the New Mexico legislature will approve it. And so if we are considering consent-based on some legislative body, we

will be back where we are in Nevada with everybody who runs for office in Nevada, Republican or Democrat, says I am against Yucca, so you will see the same thing, not in my backyard. In fact, Congressman Bass talked about it in New Hampshire.

If we base it only on consent, we will not get there, that is where, I think, the frustration was in the 1980s when Congress made that decision for Nevada, because they couldn't get anyone else to settle on it.

I don't want to rehash the history, but in your testimony you offer a few key lessons on efforts to site repositories in Kansas and Nevada that we could apply to move forward to a new strategy. First, you suggest the Federal Government not commit to repository until the appropriate scientific investigation is complete. That seems a no-brainer that we should do that. Can you explain how the Federal Government failed to heed this lesson in both Kansas and Nevada and how, if we change, the likelihood of success?

Mr. Malsch. Well, certainly in Kansas, the AEC pressed forward in the face of -- with only very incomplete investigations and didn't pay sufficient attentions to the advice of experts in Kansas, including the Kansas geologist. And ultimately the project failed.

In the case of Yucca Mountain, the Congress decided that Yucca would be the only site to be studied and characterized in the face of incomplete information, and information was even incomplete when the President recommended the site to the Congress because it took another 6 years even to complete the license application after the site

recommendation was made.

I think I agree with the Blue Ribbon Commission that there has to be an iterative process in which decisions are made on an iterative step-wise basis consistent with the level of information available. It would be one thing for a State or community or tribe to agree, for example, to have a site investigated; quite another to agree prior to the completion of the investigations with repository or even for that matter, centralized storage facilities. You have to go step by step, you can't ask too much in the earlier stage. I think, really, that premature commitments in Lyons, Kansas and Yucca greatly eroded the credibility of the program, and I would hate to see that repeated again.

Mr. Green. I am going run out of time. There is a history of Congress overriding States' decisions, and obviously the Yucca Mountain is one of them, but the 2005 energy bill that we passed on siting at that time, we needed importation of L&G, and a great many States would not allow those facilities to be built, obviously Texas and Louisiana we build them everyday. We took away that permission and Federalized that permitting process, because our country in 2005 needed natural gas. Now some of those plants are actually retooling to export it.

So there are times where the Congress makes a decision for the country and doesn't necessarily get the consent of the local States, but we have to have a process that gives them time, but I think there is a National imperative we have to have some place to put nuclear waste instead of storing it where we have it now. Thank you.

Mr. Shimkus. I agree, I think that is the debate on eminent domain, local people have -- that someone has to make some decision sometimes. I would now recognize my colleague from Ohio, Mr. Latta, for 5 minutes.

Mr. Latta. Well, thank you, Mr. Chairman, and thank you gentlemen for being here this afternoon and this morning. If I could start with Mr. Wright. There were some suggestions made to the Commission that instead of using geologic repositories or central interim storage facilities, that they should be -- maybe the waste should be held on site and hardened on site storage. Do you have any comments on that?

Mr. Wright. Well, I don't think that is a good idea. You know, when you talk about harden on site storage, that is not what was mandated by the Nuclear Waste Policy Act nor is that what the contracts that all the utilities which own the fuel are compelled to enter with DOE.

There are technical and operational factors that should be considered, and this little added benefit to the cost. And it is probably well intended the process, but it is a little -- I don't know, it begs the question and then what, and you miss the opportunities, I think, to take advantage of consolidation of fuel and the associated economies of scale that come with that.

Mr. Latta. Thank you. Mr. Barrett, what should we expect to see out of DOE next if this administration is going to take the Commission's recommendation seriously?

Mr. Barrett. I hope Secretary Chu directs the staff to move

forward on things that the BRC has recommended, start the consensus process, let's see if it is going to work, let's see if they bring in a consensus site. We know the issue is not with the locals. We know the issue rests in the State capital. Santa Fe has not spoken to New Mexico yet. Let's find out, will they speak in a reasonable condition. So let's start the consolidated storage process. Let's move forward, they can do it under existing law, and I hope the Secretary does it very soon.

Mr. Shimkus. Would the gentleman yield for one second?

WIPP is not high level waste. We have to make that clear, we are making them synonymous, and they are not.

Mr. Barrett. That is absolutely true. WIPP is only defense true waste, is not high level waste at all, but the people in the southeast of New Mexico have aspirations to do that.

Mr. Latta. Let me ask the other panelists, what should the DOE action be that would demonstrate concrete and rapid action take up on these recommendations? Anyone?

Mr. North. I think in the near-term, they can provide the staff support for discussion on these issues and we will need a good deal of such discussion. But until the money is made available to go forward, for example, the planning of the packaging and the transportation will be very difficult. The problem here is that spent fuel is stored in dry casks and can be moved only in very special transporting casks.

Some of these casks can be designed in such a way to serve multiple

purposes, but they are very expensive, they are very heavy and if you have an accident involving them, you really want the State and local authorities to know how to handle that. So for WIPP with a much easier transportation problem for transuranic waste, this was done over the period of a decade with a lot of funding and a lot of cooperation between the parties. The process was put on hold for transporting and packaging spent nuclear fuel. It needs to be restarted and in my judgment it will take at least a decade to get it to where we need it for doing the transport wherever it is going to go, an interim storage facility or a geologic repository.

Mr. Latta. Anyone else?

Mr. Malsch. I would like to add to what Dr. North just said that the Commission has recommended a number of actions, that could be implemented administratively without legislation to deal with the unfortunate status and use of the nuclear waste line. I think those things should be considered promptly.

Mr. Latta. Well, let me ask this to the panelists again that, I have sat through a lot of hearings in here with NRC and DOE. With the administration's track record right now, do you think there will be any stalling or delaying to get this thing done? Anyone?

Mr. Barrett. I hope not. There is a big responsibility that they have when they swore their oaths of office to uphold the law. I hope that Secretary Chu now that he has the results from the BRC which doesn't show any new path forward that we ever thought of before, and we have always thought about consultation cooperation agreements that

he would resume licensing and move forward.

Mr. Latta. Mr. Wright, and I know, Mr. Chairman, my time has expired, but he was going to answer, Mr. Wright.

Mr. Wright. If it is appropriate. You know, it is going to take leadership on a number of levels, all across this country to get moving, but I think that we need to -- we have got to move forward with things as simple as providing funds just for the completion of the license app, that is a simple thing to do. But we also need to take what is in the BRC and look at what we can all agree on and move forward on, rather than wait for some giant legislative package to come through, because I think the bigger the package, it probably is going to move very, very slow. So I think we need to be a little bit specific in what everybody can agree on and move forward.

Mr. Latta. Thank you. Mr. Chairman, my time has expired and I yield back.

Mr. Shimkus. The chair recognizes the gentleman from Louisiana for 5 minutes.

Dr. Cassidy. Mr. Malsch, you may have addressed this earlier, I was in a committee hearing earlier, but Chairman Shimkus put a thing up there, he asked what is local; and he showed how all these surrounding counties in Nevada actually favor this project. But obviously, Senator Reid does not and he has effectively used his power to kill it.

RPTS MERCHANT

DCMN BURRELL

[12:37 p.m.]

Dr. Cassidy. So let me just ask you what is local? Is it the people that live next door, in the next county, in the next two counties, or is it the Senator that represents.

Mr. Malsch. Well, I think that -- I mean, it obviously includes the people that live and work closest to the facility, but it also includes the people, as I have stated, as a whole, because the facility can impact the State as a whole, not only in terms of its own operations but in terms of the transportation that is necessary.

Dr. Cassidy. That is true of the entire country, correct?

Mr. Malsch. That is true of the entire country.

Dr. Cassidy. And if you bring this in from Georgia and you were to bring it all the way across, assuming it is I-10, you are going to affect my State, Louisiana. So again, theoretically somebody in India is affected. So do we have a workable definition of local more workable than anyone that may potentially be affected?

Mr. Malsch. Well, I think the Commission recommended a negotiation process and an iterative consent-based process that involves the State, local governments and Indian tribes. I think the relationships among those is going to vary.

Dr. Cassidy. Now, at some point though, one of my favorite quotes, I don't mean to interrupt, I only have 3 or 4 minutes left,

is a Samuel Johnson quote, no one likes change even from worse to better. Now, I can see it easy for some well funded group to whip up emotional opposition, particularly when there are reports that are not being released that may show the safety of this project. So I am a little bit kind of concerned that as long as there is somebody well funded who wants to show pictures of mutant animals that we won't have -- so going back to my definition, what is local? If it is not the country surrounding and the county surrounding the counties which surround, indeed what is local?

Mr. Malsch. Well, I think that has to be worked out on a facility-by-facility basis, but I think you have to include both the local governments, Indian tribes and the State just as a practical matter. As the Commission said here this morning, this is not going to be easy, it is going to be very difficult, but I really do see it as the only reasonable path forward.

Dr. Cassidy. Is it a path or is it a dead end? I am asking that not rhetorically, but I mean, because you obviously are an attorney representing the State of Nevada, you got a position, I understand that. At the same time knowing the emotional aspect of this, it just seems almost like almost it can't happen as long as you define local so broadly.

Mr. Malsch. Well, I really think we should not be so discouraged. I mean, it has worked reasonably well in the case of one geologic disposal facility in New Mexico. It worked and is apparently working in several foreign countries.

Dr. Cassidy. And I gather from the earlier testimony that it worked there because they have a different structure so the central government was better able to impose its will upon a state government; is that correct or incorrect?

Mr. Malsch. I am sorry, are you talking about foreign countries?

Dr. Cassidy. Yeah. In Spain, for example, the federal government can make a decision the province could not object sort of thing. Is that correct? I don't know that. I am just asking.

Mr. Malsch. I am not sure that is correct. I would have to go back and read the report.

Dr. Cassidy. Let me go back to -- thank you -- Mr. Wright. I have read Dr. Lyman's testimony so I am familiar with that. Going back to the reprocessing question which we had earlier, again, if you read AREVA, which I gather Dr. Lyman objects to theirs, but I am sure it would be vice versa. But you also said that you are not sure that the reprocessing is ready for prime time. I ask this not as an advocate but as someone who is curious. Why would you not say it is not ready? Do you not believe AREVA, but you do believe Dr. Lyman, or you see where I am going with that?

Mr. Wright. I guess to be really clear about it, I mean, the technology, it depends on what you are going to be picking, what technology you are looking at. You know, are you looking at some new generation of technology. So until we kind of determine which way we want to go there I believe that is what we mean. I don't think -- we haven't been -- we haven't picked one yet or even several to choose

from. You know, they are doing -- we used to have the technology and now France has it.

Dr. Cassidy. But at the French I understand there AREVA has even proposed as a private entity to set up a reprocessing plant, which obviously logically would be right next to a regular nuclear power plant, if you will. They seem to feel like they have it. And I know that Dr. Lyman objects to this but they claim that they are reducing the amount of waste.

Mr. Wright. Well, there is no question it would probably reduce the amount of waste and probably what would be left if you did it in a way that you took care of the proliferation issues, the half lives would be less, you have less waste. I mean, that is just common sense that would tell you that would probably be the case. How much that reduces I don't know. But DOE was looking and exploring something a number of years ago with the GNEP program. And they went around to places, including one in South Carolina, around Akin, where we had a big meeting, a willing host site. But it was a willing host site for the fabrication of the fuel and also for a reactor, and then as long as it was an approved pathway out to a geological repository with the waste that was left. Because no matter what you do in a commercial back end of the cycle you are going to have waste. That stands alone from the defense waste which is not a candidate for reprocessing. And we are going to have defense waste no matter what. We got to put that somewhere.

Dr. Cassidy. Thank you. I yield back.

Mr. Shimkus. Dr. North, I was curious, you were looking at this book and it looked like you wanted to comment.

Mr. North. Yes. I was going to say the National Academy of Sciences did an exhaustive study on separation and reprocessing in 1996. My committee, the 2001 National Academy Report, looked at this issue, and we had access to the same staff who had done the investigations earlier. So the BRC cited in an end note our committee's report in this area. The problem is the geologists became too good at finding high grade uranium ore. So using plutonium and mixed fuel is too expensive. It is an economic issue. But several hundred to let's say 1,000 years from now we may have depleted all the high grade uranium ore. And at that point being able to retrieve spent nuclear fuel and reprocess it then may be economically very important. And the fission products will have died way down and so less radioactivity, it will be easier to do it.

So I think there is a very strong argument for retrievability. Even if reprocessing isn't economic now, it may become so in the future. And ask the French and the British and maybe the Japanese about the economics of their present process and I think they will tell you that it is a problem.

Mr. Shimkus. Thank you. That is very, very helpful. We are going to end here. Instead of just placing this in the record I just want to reiterate a couple things. On the House vote to override the Nevada disapproval on May 2002 that vote was 306 to 117. As I said before, the override was a voice vote in the U.S. Senate, which I found

amazing. I also want to put the report language out of the House, just highlighting Congress is both of us but there is two chambers. In the report language for the House to pay for the BRC study, I quote, therefore, the committee makes the \$5 million for the Blue Ribbon Commission available provided that Yucca Mountain is considered in the review. That was pulled out by the Senate. We are just again addressing the facts. Finally, we did have an appropriation vote to fund the scientific study co-authored by my colleague from Washington State. That vote on the floor was 306 to 117.

The House has spoken numerous times that it is the will of the House that we move forward on Yucca Mountain, and we hope that we can get there some day in the near future. With that, I do appreciate your time, I look forward to working with you in the future, and with that I will adjourn the hearing.

[Whereupon, at 12:45 p.m., the subcommittee was adjourned.]