BLUE RIBBON COMMISSION ON AMERICA'S NUCLEAR FUTURE

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MEETING

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WEDNESDAY,
SEPTEMBER 22, 2010

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The Commission convened at 8:30 a.m. in Ballrooms A, B and C of the Washington Marriott at 1221 22nd Street, Northwest, Washington, DC, Lee Hamilton and Brent Scowcroft, Co-Chairs, presiding.

MEMBERS PRESENT:
LEE HAMILTON, Chair
BRENT SCOWCROFT, Chair
MARK H. AYERS
VICKY A. BAILEY
ALBERT CARNESALE
SUSAN EISENHOWER

JONATHAN LASH
ALLISON MacFARLANE
RICHARD A. MESERVE
PER PETERSON
JOHN ROWE
PHIL SHARP

ALSO PRESENT:
TIM FRAZIER, Designated Federal Official
JOSEPH HEZIR, EOP Group
WARD SPROAT, former Director of DOE OCRWM
HENRY B. BARRON, Constellation Nuclear Energy Group
DONALD KETTL, University of Maryland

TODD LaPORTE, University of California, Berkeley

PUBLIC COMMENTERS:

TOM COCHRAN

MICHAEL HARDY

DARRELL LACY

ARJUN MAKHIJANI

ALFRED MEYER

IRENE NAVIS

BRIAN O'CONNELL

JUDY TREICHEL

C-O-N-T-E-N-T-S

P-R-O-C-E-E-D-I-N-G-S

(8:31 a.m.)

MR. FRAZIER: Okay, we're going to get - we're going to get started now. If the Commissioners could take their seats, please. Everyone else sit down. I'm going to turn it over to Congressman Hamilton. Sir?

CHAIR HAMILTON: Good morning to everyone. Before we begin the program, I recognize Mark Ayers for a statement. Mark?

MEMBER AYERS: Thank you, Mr. Chairman. First, let me say that it's both an honor and a privilege to serve on this Commission with such a distinguished group of national leaders and experts in the field of nuclear energy.

I also must recognize the vast number of talented and dedicated professionals that have offered comments and advice for the Commission. As you have so elegantly pointed out in describing the charge of our committee, we've been commissioned to address the

monumentally important and extremely complex issue of the future of nuclear power in America.

As President of the Building and Construction Trades Department, AFL-CIO, which represents 13 international and national construction unions and over two million workers, we are committed in our pledge to support nuclear power continuing in our country's future.

Now, since the Manhattan Project, hundreds of thousands of our members have been engaged in building and maintaining nuclear facilities, and tens of thousands more have been involved in various aspects of storage, disposal, and cleanup of nuclear waste.

In our view, together with our contractor counterparts, our unions and our joint labor management training funds produce the most skilled construction craft personnel in the world.

So as this Commission and the

Subcommittee address, for instance, whether or not this nation continues to build current types of nuclear reactors or move to advanced reactor types, it's important, at least in my humble opinion, that we keep in mind that, regardless of what is recommended, that the construction, operation, and decommissioning of current and future facilities, plus ensuring safe handling, transportation, storage, and disposal of waste will be carried out by the members of affiliated construction unions that we represent.

While we are committing to providing the most skilled workers to the nuclear industry, it is critically important to me as a building trades union leader that the safety and health of these workers are protected.

Much of this Commission's work has and will continue to focus on protecting the environment and surrounding communities, and rightfully so. However, as we consider these

issues, I would offer that policies and procedures enacted to protect the workers actually engaged in these processes will help us also protect the environment and the communities along the way.

We should consider the worker safety and health track record in the nuclear industry as we proceed. I'm not suggesting it's bad, nor do I have readily available the data to confirm that it's good, but I am suggesting it's an issue to be explored as part of this Commission's work.

As a labor leader, I strongly believe and urge this Commission to consider the workforce as we make recommendations on the future of America's nuclear industry.

To that end, I offer the Department's not-for-profit construction research and training organization, CPWR, the Center for Construction Research and Training, to work with the Commission staff and consultants on the issue of worker safety and

health. Mr. Chairman, thank you for the opportunity to make comments.

CHAIR HAMILTON: Thank you, Mark, for an excellent statement. We, of course, will take advantage of your offer. Susan wanted to make a comment.

MEMBER EISENHOWER: Yes, thank you, Mr. Chairman. Yesterday, I was very tempted to make a final intervention in the session that related to generational equity and other ethical issues but thought that perhaps after we broke up for the evening that this morning would be a better time to do it.

I would just like to say that for the American public who may be watching this by webcast that it's worth putting into perspective that the nuclear industry is here trying to solve the waste management issue.

Other forms of baseload electricity do not have a path forward in terms of dealing with their waste streams, and so I think it's important for the public to

understand that this is a great act of responsibility, I think, on the part of not only our nation's policymakers but to put into perspective that all baseload forms of electricity have very big waste issues.

The coal industry, for instance -- I should say coal plants -- put their waste right into the atmosphere. We're talking about sequestering this or to adopt methods that would, you know, ensure the future in very specific ways.

So let me say one other thing. I am very conscious of vocabulary, having written any number of books myself, and I would like -- I hope that we stop using the word "burden," because burden is loaded.

Burden sounds like we will never be able to move forward in any way that feels constructive or positive at all. I would like us to shift this whole paradigm and begin to talk about responsibility, and so those are my comments from yesterday.

I feel pretty strongly about this that unfortunately we have a tendency in this country to look at nuclear energy as being something really quite separate, but the track record of safety and commitment to safety in this industry is significant, and it certainly is part of a national quest to figure out how to manage the waste streams of all these baseload forms of electricity. Thank you.

CHAIR HAMILTON: Thank you very much, Mark and Susan. The topic of discussion this morning in the meeting of the Commission will be the governance of the nation's program for managing used fuel and high-level waste.

As we did yesterday, we will hear from each speaker for 15 minutes, and we'll then engage in a panel discussion, so I'd ask the Commissioners to only ask clarifying questions during the presentation.

Just to remind the speakers, the light system, keep your eye on that, if you would, please. The green light is on for most

of your 15-minute period. At the two-minute period the green light begins to blink.

At one minute remaining, you'll see a yellow light come on, and at the end of that final minute, there will be a soft buzzer. We will try to follow that very carefully, and if the speakers will keep their eye on the light panel, it will be helpful.

Our first speaker this morning is Joe Hezir of the EOP Group here in Washington. We thank you, sir, for coming, and you may proceed.

MR. HEZIR: Thank you, Chairman Hamilton, Chairman Scowcroft, and members of the Commission. I am very pleased to be here this morning. I am here in a personal capacity this morning, but I hope to give you some of the benefit of my experience.

I spent 18 years at the Office of Management and Budget working on environmental and energy matters, the last six of which I was the senior career person in charge of the

Department of Energy and oversight of Department of Energy programs.

I have since spent the last 18 years as a consultant in private industry working for a number of the utility companies in the nuclear industry, the Nuclear Energy Institute, as well as other companies in the nuclear fuel cycle, but I want to make it clear up front that the views I express here this morning are purely my own.

I really want to cover three topics this morning, and the first, which I will just touch on very quickly, is the current structural situation with the DOE management and budget as it affects nuclear waste management.

And I use the word "structural" very carefully, because while there have been very -- a lot of very talented and very capable people working in this program over the years, their ability to execute really has been limited not by their personal

capabilities or their professional capabilities but rather by structural limitations.

The second thing I want to cover is some of the major functional capabilities that I think that any future governance structure should have, and then third and lastly, I'll talk about -- a little bit about organizational considerations. Normally, one would talk about organization first and then talk about functions, but I decided to do it inside-out in order to really stress the point about the functional capabilities.

So I will go through this fairly quickly. I have a long presentation that's in your book, but I do want to highlight a couple of points here.

As I said, the Department of Energy has operated this program since its inception under a number of structural limitations, and I think probably in the management area I think the best critique of

DOE, and, again, and this comes from the Government Accountability Office, is that for two decades now the GAO has designated DOE contract as a high-risk management area for a variety of reasons.

In particular, the GAO has cited the National Nuclear Security Administration and the environmental management programs as particular areas of high-risk management, and I point that out because those two programs have very similar characteristics to nuclear waste management.

DOE also has some structural limitations on its ability to execute its budget for nuclear waste management, three in particular I wanted to highlight. The first is that operating -- in the DOE budget structure, operating and capital funds are commingled, and consequently it's very hard to execute a long-term capital expenditure program.

Secondly, capital costs are

incrementally funded, which makes it also very difficult, and then, thirdly, over the years, despite some attempts at various points in time, looking at both DOE, OMB, and the Appropriations Committees have been unable to agree upon or to adhere to any form of a multi-year budget-planning process, and so consequently the budget goes through annual volatility.

The bottom line point here is that lacking an effective capital budgeting process is not conducive to managing any type of a long-term or large-scale commercial-type enterprise.

So let me kind of shift now and talk a little bit about, well, what should a governance structure have in the way of functional capabilities, and I want to briefly touch upon six areas. These may not be the only six, but these are six that I would at least like to talk about, and I'll start with policy.

In the area of policy coordination, right now the program reports to the Secretary of Energy. I know that some of the organizational options that this Commission may consider may involve placing this function outside of DOE into a new organization, and I just want to point out to the Commission that it is very important that whatever organizational framework you decide upon, that two key things, I think, that are needed in the area of policy coordination is that this activity needs to have access to the Secretary of Energy, because the Secretary of Energy, at the end of the day, will always be the lead national policy spokesperson on energy policy matters.

Secondly, it's also very critical that this entity have some means of participation, at least on the Executive Branch side, in various White House and interagency policy councils.

This was one of the problems that

I observed when I was at OMB when we were working with the Synthetic Fuels Corporation, which was set up as a -- such an independent entity that there was a complete breakdown of coordination between that corporation and the White House policy apparatus.

Personnel management. There's really two objectives here. One is obviously being able to have a compensation package to attract and retain personnel, and this is probably most acute at the Senior Executive levels, which right now in the current federal career system is subject to pay compression. The federal system works much better at the lower and mid-level executive levels.

The other thing I think is also very important is the flexibility in hiring and firing, and I think both of these objectives will require some form of legislative direction that would provide some flexibility and some form of limited exemptions from federal civil service

requirements.

Legal services. This is probably an area that most people don't think about but which also can be very important to an effective, functioning organization. It is essential, at least in my judgment, that any governance structure have its own independent legal counsel.

And if it remains within the Department of Energy, it should be separate from the Department of Energy General Counsel office, and if it's outside the Department of Energy, it also should have the ability to have its own legal -- independent legal representation in any dispute resolution or litigation matters.

This has become an area where it can delay and can be a deterrent to effective legal representation, and I simply point out that TVA is a possible model here. TVA is a government corporation, does have its own independent legal services, and can represent

itself in litigation matters.

Contracting authority. This is also another critical area. Particularly depending upon the nature of the program that the Commission may ultimately recommend, it will be important that the program have the ability to execute large multi-year service contracts, and obviously, those contracts will need to be backed up by the financial resources of the Nuclear Waste Fund.

Some examples of the type of contracts that would probably need to have special authority would be any type of a service contract to provide long-term services, whether it be for used fuel storage, transportation, or processing.

Another type of contract would be EPC contracts for the construction of new facilities, facilities operation and maintenance contracts, and any type of sales contract, ultimately, if this entity ultimately is recycling used fuel and is

selling used fuel products.

This would require some exemptions from some of the current contracting rules. Right now, contracts are generally subject to the Anti-Deficiency Act, which means they're subject to appropriations, which means that it limits the ability for the program to enter into any kind of a binding multi-year type commitment. Consequently, in dealing with the private sector, those types of contracts are simply not bankable.

Finance. Again, without knowing the nature of the program that the Commission might recommend, I think it's important that the Commission consider that the restructured program have the ability to both borrow and lend.

It may be dealing in a variety of business transactions where it may either need to borrow money, either on a short-term or long-term basis, or to provide loans or loan guaranties to entities that would be carrying

out services on behalf of the program. Also, there could be the possibility of various forms of joint ventures.

As I mentioned earlier, with the contracting it's very important that having the right contractual structure the program can leverage third parties, who could then, based on these contracts, enter into third-party financing arrangements, and so in order to do this, though, the Nuclear Waste Policy Act borrowing authority would need to be amended to be more flexible and perhaps new loan or loan guaranty authority provided.

What I would recommend here is that whatever financial mechanisms be provided to the program, that they be backed solely by the revenues in the Nuclear Waste Fund and not necessarily by the full faith and credit of the U.S. government, so in terms of any type of bonding authority, for example, these would be revenue bonds and not necessarily general obligation bonds.

Then, finally, and I'll go into some of the more details here in a moment, in terms of budgeting, budgeting certainty is essential to an efficient and effective program, and in order to achieve this the program needs to have some flexibility from the annual appropriations process.

But it needs to be balanced in a way that there is some form of oversight in both the Executive Branch and in Congress. As I point out here, that would really require the restructuring of the Nuclear Waste Fund so that it can operate as a true trust fund. If you'll let me just digress here for a moment, a little bit of history and jargon. I wanted to explain how we sort of got to where we are with respect to the Nuclear Waste Fund and how it is, in my judgment, right now dysfunctional.

I'll start with 1974 with the Congressional Budget Act, which really set up the first congressional budget control

procedures. That led by five years the initial efforts by the Carter administration, which first recommended the program that ultimately was embodied in the Nuclear Waste Policy Act of 1982.

The Carter administration recommendations at that time called for the concept of a trust fund, and the idea was, very simply, that the Fund would be a unified fund that would both be able to receive the proceeds from fees and be able to make expenditures to carry out the program, and they would be managed within a single fund and that, in terms of its federal budget footprint, the Fund would be measured on the basis of the net cash flows into and out of the Fund.

There was a difference in Congress when it came time to authorize the program, and I just wanted to point out here that at the time of the -- in the legislative history leading up to the 1982 act, the Senate Energy

Committee at the time authorized the Fund as a trust fund, specifically designated it as a trust fund, and it exempted the Fund from appropriations and from the Congressional Budget Act.

The House established the program as a special fund subject to annual appropriations, and this was the form in which the final bill was enacted. Both houses did provide some very limited borrowing authority, but it was subject also to appropriations.

So what happened during the execution process? In 1985, about three years after the act was passed, Graham-Rudman came along, and it established a process called sequestration, which required automatic across-the-board spending reductions if deficit targets weren't met.

When the Graham-Rudman program was being implemented, OMB decided to split the Nuclear Waste Fund for purposes of sequestration, and it made the spending

portion of the Waste Fund subject to sequestration where obviously the revenue side or the receipt side of the Fund was not subject to sequestration. Then, the objective at that time was to keep as much of the spending under the control of sequestration as possible.

Then, in 1990, the Budget Enforcement Act came along as the successor to Graham-Rudman, and it established separate caps on what they called discretionary and mandatory spending, and it kept the splits that were carried over originally from Graham-Rudman, and so the Nuclear Waste Fund spending was considered discretionary, whereas the receipts that were going into the Fund were considered mandatory.

So, consequently, what started out as the concept of a unified trust fund ended up being subject to two completely different sets of budgetary rules, and that's why I said it leads to the current situation where the

Fund is dysfunctional.

I'm going to skip over this chart and really just talk for a moment, then, about options for restructuring the Fund, and, again, I won't go into details, but the idea would be to try and bring the two pieces of these back to create a holistic approach.

The other idea that's being -- that has been floated at various times has been the idea of moving the Fund off-budget, and there's different ways in which that could be done. So I see that I now have the red light, so I'm going to have to probably stop right here, or if I could just take one more minute and talk about pay-as-you-go, and then I'll leave it at that.

CHAIR HAMILTON: We will give you one more minute.

MR. HEZIR: Thank you, sir. To change the current structure of the Nuclear Waste Fund legislatively means that it would be subject to the pay-as-you-go requirement or

PAYGO, and that requirement says that any legislative change that affects mandatory spending or affects revenues requires an equal budget offset, and PAYGO is measured in different budget windows.

In particular PAYGO would apply to any change right now that would either change the way the $24 billion corpus in the Fund is spent, or it would apply to any change in the way that the one-mil fee is set or collected, and I simply point that out because PAYGO, while there may be a lot of different concepts for how the Fund could be restructured, PAYGO is a significant obstacle for how one might implement such a -- such a change.

So, with that I will stop here, and I'll leave the rest of my material for the record. Thank you very much.

CHAIR HAMILTON: Thank you very much, Mr. Hezir. Excellent presentation. He will be followed by Ward Sproat, who is the former head of DOE's Office of Civilian

Radioactive Waste Management. He oversaw the filing of the Yucca Mountain License Application with the Nuclear Regulatory Commission. Thank you for coming, Mr. Sproat, and you may proceed.

MR. SPROAT: Well, good morning, Co-Chairmen Hamilton and General Scowcroft and members of the Commission. It's an honor to be asked to appear before you this morning to talk about a subject that is near and dear to my heart, since it took three years of my professional career in running the Office of Civilian Radioactive Waste Management at DOE.

I just want to be clear that my comments this morning and my remarks are based on my two and a half years of experience running the nation's high-level radioactive waste program. They're my own, based on my own experience, and they don't reflect necessarily the comments or opinions of my current employer.

But having said that, you know,

the issue of governance of this program is one that's been looked at a number of times by a number of people in a number of commissions and studies, and I would refer the Commission, in the library on the Commission website is one particular report, DOE/RW-0546, which was issued in August of 2001, which specifically looked at various options for managing the program and funding it.

I highly recommend you take some time to read that. It can do a much better job than I can in terms of evaluating different alternatives for structure and funding and management structures for programs like this, so it's an excellent piece of reference material.

But my point that I'd like to make to the Commission this morning is regardless of what kind of governance structure is established, it really doesn't matter unless the enabling legislation that's put in place for moving this program forward addresses

several key issues that have hamstrung the ability of the Department, its leadership, and the country, really, to move forward on this program.

I've got four key issues that I want to talk about very briefly that this enabling legislation needs to address: number one, certainty of funding. Joe's presentation gave you some insights into why that's the case. I'll come back to that in a second.

Second is continuity of leadership. Having people come in as a political appointee for six months, a year, year and a half and leaving is not a recipe for success.

Third is insulation from policy changes, that is, policy changes over time, and let's face it. When we're talking about a nuclear waste program, we're talking about a multi-decade program.

Policies, administrations change over that period of time. If we really want

to get this done, we need to somehow find a way to insulate the program and its governance from those policy changes.

Fourth, address the issue of the existing liability for the existing standard contract spent nuclear fuel liability, and those are four key issues I want to talk about very briefly.

One is continuity of funding. Joe's presentation did a very good job at explaining some of the legislative beginnings of why that was an issue.

From the person's perspective of running the program, my ability to place contracts, long-term contracts for equipment, for waste canisters, for transportation, equipment were all impeded by the fact that I was very dependent on year-to-year appropriations.

And while I, as the program director, could put together a very detailed justification and budget and multi-year plan

to design and build and operate the repository, which we did, OMB said, "Geez, that's great, but your budget target for the next five years is this, this, this, this, and this."

Didn't matter, because OMB and the budget targets they gave the Department and then what the administration was able to do under the existing funding regime, and then regardless of what those -- what the administration asked for, the reality was that that would go to Congress. Usually in the House they would give us everything we asked for. In the Senate it would be something significantly less. They'd go to conference, and a deal was cut, and so it was -- in the last year of 2008, when we were trying to get the license application submitted, we actually received $200 million less than what we had asked for.

We still got the license application in, but the future of the program

and our ability to execute for the following years was severely adversely affected, so certainty of funding is issue number one that's got to be addressed.

Number two, continuity of leadership. So when I was nominated to take this position, because the position was a -- is a presidential-appointed, Senate-confirmed position, I was nominated in September of 2005. I didn't get confirmed until the end of May of 2006. That's nine months.

Now, fortunately, I was in a financial position that I was able to wait that out. I would say that most people in a position to run a program like this with the background and experience that's needed probably would not be willing to do that, and the reality was once I left, with the change in administrations, that program -- that spot was never filled.

So if you're going to try and run a program that exists over a multi-decade

timeframe, continuity of leadership is absolutely essential, and having the person, if it is one person running it, as a political appointee is probably not the right way of doing it. So that's point number two that needs to be addressed in the enabling legislation.

Third is insulation from changes in administration policy. You know, recognize that this process has a political -- has a strong political influence to it, regardless of how it's run, and that whether it's at the state level or the federal level, wherever we're going to eventually put spent nuclear fuel and high-level waste or where it currently exists, the state and federal politicians will have something they want to say about it and be able to influence it.

Somehow we've got to be able, that once decisions are made and a direction is set, that we are able to insulate the execution of the program from changes in

political leadership that will absolutely take place over the decades that this program is going to be in place. Recognize that's a reality.

So my recommendation is that the only time the program gets redirected is when there is a change in congressional direction mandated through legislation. When that happens, that's the right mechanism for the program to be redirected based on congressional direction and congressional legislation.

Fourth, the fourth area that needs to be addressed is this issue of spent fuel liability. I think, as you are well aware, the Department of Energy has standard contracts mandated by the Nuclear Waste Policy Act with all of the commercial nuclear plants in the country, and that contract requires DOE to take back fuel.

That was to start happening by a date certain in 1998 for the first plants,

oldest fuel first. That hasn't happened. The Department has been found in partial breach of the contracts by the federal courts.

Ideally -- we did a number of studies trying to understand what the potential future liability of the federal government, hence the taxpayer, is for that spent nuclear fuel liability. By 2020, that liability will be $20.5 billion -- that's with a "b". And that liability will continue to increase by a half a billion dollars a year, on average.

It will change year to year based on how we accept fuel and that plan, but the bottom line is however we redirect this program, there is this huge liability that's sitting out there that's going to need to be addressed somehow.

And as Joe talked about, some of the financing options that whatever the new authority, if there is a new authority that's given, people are going to know who's paying

for that $20.5 billion-plus that's sitting out there, so that needs to be addressed.

There are the four key issues. There are some others. Just quickly, the site-selection process. I watched part of yesterday afternoon's discussion on the web, so I know you got into this a little bit, and I'll be glad to give you a little more insight into that, but just recognize that technical arguments will always be overcome by political decisions.

It's just the reality, and Yucca Mountain is a great example of that. Private Spent Fuel Storage in Utah is a great example of that, and so I try to -- in my previous talks on this topic, I always try and make the point, recognize that the siting process, however it's done, is a technically informed political process. That's the reality, and I'd be glad to talk about that more in the question session if I get a chance.

Remember also, the timeframes

we're associated with with this process are over decades, so when we talk about stakeholder involvement, which is absolutely, positively critical on an ongoing, continuing basis, recognizing -- you have to recognize it is an ongoing basis.

It's going to be the stakeholders of today are not going to be the same stakeholders 15 years from now, and you're going to be able to need to address those stakeholders over those very long time periods.

So siting process needs to be defined. I highly recommend the siting process and the responsibility for it be kept separate from the nuclear waste disposal operations organization.

One of the things that DOE suffered from, in my opinion, was that we spent a lot of time trying to make the siting process work, putting the license application together, and then based on that, depending

whose view was considered, DOE's credibility as a operator and disposal organization was adversely impacted by the strong advocation of the technical arguments that we needed to do in order to justify the site and put the license application together.

So I'm highly recommending that however we go forward, take the organization that's got to accept the waste, dispose of it, and run the disposal operation and separate that from the organization that's got the responsibility to do the siting. It's a -- I think it would help a lot.

Obviously, within the -- within the overall legislative structure there are a number of other things that need to be addressed. One of the things I would also recommend is this Commission consider not only high-level waste and spent nuclear fuel but the low-level waste issues also.

I haven't met anybody in my experience that thinks the low-level waste

program in this country is working well, and as a matter of fact, the greater-than-Class-C low-level waste, we don't have a clue what we're going to do with it.

So, in terms of the big picture that this Commission, I think, is entitled and empowered to take a look at, seriously consider within the scope not just spent nuclear fuel and high-level waste but low-level waste, including greater-than-Class-C, and come up with an integrative proposed solution. I think that's very much needed.

The other authority that we're going to need to make sure that needs to get addressed in the enabling legislation is transportation authority. I'm sure you've seen the statistics.

There are 121 sites in 39 states that have high-level nuclear waste or spent nuclear fuel in the country. Every one of those sites when we looked at them requires either rail, barge, or roadway with roadway

modifications for heavy haul to get that material out of there to someplace else.

So what we ran into is that a hodgepodge of local issues, and, quite frankly, we did a lot of work with the local emergency planning authorities, and I think that worked fairly well, but what we also ran into were the ability of individual states to impede some of that.

For example, trying to build the rail line in Nevada to Yucca Mountain, the State of Nevada would not give us the water permits in order to do the drilling to characterize the earth underneath the rail bed.

So, here we were, as the federal government trying to install a railroad in the middle of the desert down to Yucca so we could bring the shipments in, and we couldn't get water permits to do drilling on the rail bed to characterize the rail bed. The enabling legislation needs to be able to talk about and

address the local permitting and legislative authority and the federal government's ability to override that if and when appropriate.

So, in summary, I do think that whatever the -- whatever the Commission decides on in terms of recommendations, it will absolutely need to be put into enabling legislation. I think there are a number of lessons learned from -- that we learned from trying to implement the Nuclear Waste Policy Act, but recognize we've got to send it somewhere.

The optimum solution is not leaving it at 121 sites. It's got to go somewhere, and also recognize wherever it goes, somebody's not going to be happy. I mean, somebody is not going to be happy. It's great to try and make everybody happy. It ain't going to happen.

So as I watched the conversation yesterday about stakeholder involvement, I think it's absolutely needed. I think it's

essential, but recognize if we come up with a solution that says everybody has to agree, and all the stakeholders have to buy in, be prepared to fail. Thank you very much.

CHAIR HAMILTON: Thank you very much, Mr. Sproat. The third speaker will be Brew Barron, President and CEO of Constellation Nuclear Energy Group. Mr. Barron, thank you very much for coming and joining us this morning. You may proceed.

MR. BARRON: Thank you, Chairmen Hamilton and Scowcroft, distinguished members. Thank you for the opportunity to speak with you today. My name is Henry B. Barron, but I go by the nickname Brew if you prefer that. I do.

I'm the President/Chief Executive Officer of Constellation Energy Nuclear Group, LLC. My company is a joint venture of Constellation Energy and the EDF Group. We own and operate five nuclear power reactors located in Maryland and New York. We employ

approximately 2,700 employees and have annual revenues of $1.5 billion.

The work of this Commission is very important, and the complexity of the issues that must be deliberated is very high. On May 25, 2010, Marvin Fertel of the Nuclear Energy Institute testified to you that, and I quote, "America's used nuclear fuel program should be transferred to an entity with a management and financing structure that is able to function in the presence of the inevitable political and policy changes that will occur over the coming decades."

Then last week MIT released a report titled "The MIT Study on the Future of Nuclear Fuel Cycle." In that study, an interdisciplinary group concluded, again quoting, "The failures and successes of U.S. and European programs suggest that a nuclear waste management organization should have the following characteristics: one, authority for site selection in partnership with state and

local government; two, management authority for the Nuclear Waste Funds; three, authority to negotiate with facility owners about spent nuclear fuel and waste removal; four, engagement with policy makers and regulators on fuel cycle choices that affect the nature of the radioactive waste streams; and, five, long-term continuity in management." I think there are some consistent themes that you're hearing today.

The study further concluded that, again, quote, "These characteristics are not recognizable in the U.S. program to date." Consistent with Mr. Fertel's view, the MIT study recommends that a new quasi-government management organization be established to implement the nation's waste management program.

I previously served as Chairman of the Used Nuclear Fuel Working Group under the -- under NEI. In that role, I spent a considerable amount of time monitoring and

evaluating the Department of Energy's progress in implementation of the Civilian Radioactive Waste Program, paying particular attention to changes that I and the group believe would significantly enhance the overall probability of success of the program. My conclusions and those of the group are the same as those of Mr. Fertel and the -- and the MIT study group.

Now, legislatively, George Voinovich introduced Senate Bill S-3322. Representative Fred Upton introduced very similar legislation in House Bill HR-5979. If enacted, these statutes would establish the United States Nuclear Fuel Management Corporation.

I believe this proposed legislation generally provides an excellent blueprint for accomplishing the objectives established in the -- established for that organization that has essential elements identified in the MIT study, advocated by NEI and the nuclear industry, and I believe

reflects a lot of the same comments you are hearing today.

Within the context of this proposed legislation, I'd like to focus on two key attributes, governance and financial management, first addressing governance. The proposed law establishes a nine-member Board of Directors for this government-owned corporation.

The role of the Board and its fiduciary responsibilities will be to represent the interests of the equity investors in the corporation, these investors -- investors being those who have previously contributed or will continue to contribute waste fees to the Nuclear Waste Fund.

Consequently, at least half of this Board should consist of qualified individuals who directly represent regulated electric customers of nuclear owning utilities or nuclear power plant owners themselves.

Nuclear waste fees with a net

present value in excess of $30 billion have been invested for the purpose of disposing of used nuclear fuel from commercial power reactors. Assuming -- assuring that these funds are deployed for their intended purpose will be the primary responsibility of this Board.

Additionally, the proposed corporation's Board will have the responsibility to select and hire a Chief Executive, who will have the responsibility and authority to direct the day-to-day operations of the corporation.

The Board will delegate to this individual the authority necessary to carry out those duties, including the execution of contracts, pay the expenses of the corporation, and finance and implement capital projects the Board has approved.

No authority beyond that held by the Board of Directors would be acquired -- required to appoint or remove this Chief

Executive. This structure more efficiently, more effectively focuses on the ongoing operations of the corporation and helps insulate it from the U.S. political cycles.

Most importantly, the Board of Directors will be charged with resolving many of the issues that this Commission has been deliberating and tasked for making recommendations, the most significant change being that this Board will be tasked with making decisions rather than recommendations.

It will be accountable for deciding and then tasking management of the corporation to execute plans that fulfill the obligations of the corporation that it has to its shareholders.

As I am sure this Commission has observed through its deliberations, these are not trivial matters. They require ongoing evaluation in the light of future changes in energy policy, as well as technology development. This new corporate Board must be

equipped to execute that duty.

Solutions that are politically perfect or academically elegant are very interesting bookends to this discussion but fail to address the practical realities of used nuclear fuel management in this country. In this country, we value debate, as open debate leads to better solutions, but universal agreement on any given path forward is highly unlikely.

Additionally, nuclear waste management is not a simple technology, and today's technologies will improve in the future, but, again, waiting for the elegant solution to appear is not necessarily the most responsible approach for meeting the obligations of the corporation to its stakeholders.

The Board of this corporation must be prepared and empowered to set a path forward and follow it, making course directions as energy policy and technologies

evolve and change. Whether a selected path is direct disposal on one hand or recycling on the other, it'll be another 15 years at the earliest before either could be reasonably expected to be operational.

By that time, there will be approximately 100,000 metric tons of used nuclear fuel in inventory. Roughly 2,000 metric tons of used nuclear fuel is produced each year.

The Yucca Mountain project, as an example of geological -- of a geological disposal solution, predicted an acceptance rate of 3,000 metric tons per year. Simple math makes the rate of inventory reduction only 1,000 metric tons per year, or, in other words, a 100-year backlog.

The largest recycling operation in the world, the La Hague facility in France, has an annual capacity of 1,600 metric tons per year. It would take a facility 25 percent large than La Hague simply to stop the

inventory rise in this country, much less reduce that inventory.

Decisions to deploy available technologies or to wait for better solutions have impacts on the future. Beyond the tenure of this Commission, there must be a designated body with the accountability to assess these issues on an ongoing basis with the authority to make the decisions necessary to address them.

Part of that assessment will be gaining an understanding of the macroeconomics of the nuclear fuel cycle within the overall electric sector. Let's turn to some financial issues.

For example, I consider it unlikely that the current one-mil per kilowatt hour fee will remain adequate indefinitely if any real actions are taken to advance the disposition of used fuel.

The one-mil fee is roughly equivalent to $1 per ton of carbon in a coal-

based electric system or $2 per ton of carbon in a natural gas-based electric system. In the overall debate regarding the need for the pricing of carbon, floor and ceiling prices between $10 and $30 a ton are routinely discussed.

Carbon pricing, if it materializes, will clearly enhance the economics of nuclear power. Within that enhanced economic context, change in the nuclear waste fee schedule, if associated with real actions towards disposition of used nuclear fuel, are not unthinkable.

Sticking to the financial issues, I note that one focus and intent of the proposed legislation is to establish a financial accounting system that generally reflects the accounting for assets and liabilities in a manner similar to that utilized in the non-government sector.

On the asset side, the proposed statute establishes two financial accounts, an

operating account and a capital reserve account, both held by the U.S. Treasury. The operating account will receive the ongoing cash revenues from waste fees or other sources of revenues to the corporation.

Its use would not be subject to congressional appropriations. Under the authorities delegated to the management of the corporation by its Board of Directors, these funds would be used to pay the expenses of the business.

The capital reserve account would be created from the unexpended balance of the Nuclear Waste Fund, often referred to as the corpus, as an unfunded asset placed on the balance sheet of the corporation.

This asset, which will continue to accrue interest, would represent the value of the statutory obligation that the U.S. Treasury will continue to hold for the ultimate disposal of nuclear waste from commercial nuclear power reactors.

On the liability side, under generally accepted accounting principles the corporation would be expected to perform life cycle cost estimates of the ultimate cost of disposal of its current and project inventories.

They then must demonstrate that the assets ultimately available to fund those liabilities will be adequate at that time in the future when they are needed. This is a similar approach to assessing employee pension fund or nuclear facility decommissioning fund adequacy in a gap context.

This accounting is not only needed to demonstrate that the funds paid into the Nuclear Waste Fund will ultimately be available for their intended purpose but also to demonstrate that the cost of disposal of used nuclear fuel beyond that which has been paid in nuclear waste fees will not become an obligation on the U.S. tax payer.

The proposed legislation also

provides the corporation's Board with the authority to adjust the nuclear waste fee schedule. This authority is essential to the corporation's and its Board's ability to carry out its fiduciary obligation.

Moreover, when combined with the substantial assets on the balance sheet, the authority to adjust revenues from fees should establish a favorable credit assessment for the corporation. This credit assessment should be adequate to be able to raise the capital needed to fund the investments in facilities that may need -- that it may need without dependence, direct dependence on the corporation's capital reserve account.

The ability to carry out its operations independent of the actions of Congress is a critical component of the potential success of whatever organization is tasked with the responsibilities of the Civilian Radioactive Waste Program.

A perspective that is important to

keep in mind is that the Nuclear Waste Policy Act of 1982 established the principle that both the disposition of used nuclear fuel and the payment of expenses are shared obligations of commercial nuclear power plant operators. Consequently, the costs associated with movement of used fuel from any given site are to be shared by the operators through the established fee structure.

If a path were pursued where the disposition process included reprocessing or recycling of used fuel, the incremental cost of that path should be borne by all operators, not just those operators that are -- that are purchasing the recycled fuel. The financial management structure in the -- as proposed in the Voinovich and Upton legislation supports a continuation of that nearly 30-year-old principle.

In closing, I would like to repeat my observation regarding the importance of the work of this Commission, the complexity of the

issues that it must deliberate. As I'm sure you realized, management of used fuel is a very long-term endeavor.

Success will depend on establishing a governance structure that is sustainable and has the authority to go beyond making recommendations. That structure must provide for decision-making, as well as accountability for performance.

I very much appreciate the opportunity to be here today and provide these remarks. I look forward to answering your questions during the panel session.

CHAIR HAMILTON: Thank you very much, Mr. Barron. We are very pleased to have you appear. The fourth speaker is Dr. Don Kettl, the Dean of the School of Public Policy at the University of Maryland. Dr. Kettl, we're pleased to have you, and you may proceed.

DR. KETTL: Than you very much, Chairman Scowcroft and Chairman Hamilton and

members of the Commission. It's a great pleasure to appear here this morning, and I want to spend some time talking about the issues of trust and confidence and the issues of governance that go behind that.

To do that and to begin I want to begin with a story. About 18 years ago, I served on a task force to try to advise the Secretary of Energy, not on what to do with nuclear waste, but on how to try to make decisions that would generate some confidence and trust in the decisions about nuclear waste.

On a morning very much like this one, we were out in Las Vegas, and the major difference was in the process of having a public hearing we had massive numbers of demonstrators on the outside.

In the middle of a break that we had, though, a woman came up to me and said that, "My name is Cynthia of the Desert," she said, and given the atmosphere that we had and

given the way the conversation started, I told myself, "It's time to reach for the seat belts, because it's going to be a rough conversation now," but it turned out that it was anything but.

She said, "I live with my husband and my baby out in the desert, not too far from Yucca Mountain." She lived virtually in the shadow of Yucca, and she said, "The idea of my living out there at a time when the government's talking about putting massive amounts of nuclear waste was something," she said, "just terrified me, and so I started going and talking to the people at the Department of Energy."

She said, "Why are you doing this?" and they started to explain, and they started to explain how they were going to try to run the operation of Yucca, and she said she went from a position of being profoundly distrustful to saying, "These people, at least they're trying very hard.

"These people seem to know what they're talking about. They tried to explain the situation to me, and over time I began to understand some of the technical issues and why it was that they were doing what they were doing."

From that, came one of the most important observations at least I drew 18 years ago in that effort to try to understand the conditions for trust and confidence, which is that trust and confidence is not the product of either a structure or of any kind of basic policy, but it's the product of relationships.

Trust flows to people who behave in trustworthy ways, and people who don't behave in trustworthy ways don't generate trust, and, most importantly for the situation that we have right now, when we have a situation where trust is clearly broken, there is no kind of magic wand and creation of a new policy, a new program, or new agency that can

simply wipe away the results of generations of problems of discussions unlike the ones that Cynthia of the Desert had.

I want to make three basic points. One is to try to look a little bit more at the issue of trust as the product of behavior and not of structure; the second, that organizational structures, though, can help by creating the preconditions for trust; and then, third, to make the argument that in doing so no organizational forum necessarily is ideal.

So, to go back to the first point, trust is really the product of relationships and based on past behavior. If you were to try, hypothetically, to create a situation that was as difficult as possible on which to generate trust, it would be hard to do better than the issue of what to do with the long-term storage of nuclear waste.

If you take something that is inherently scary, that most people, frankly,

don't understand, and that, frankly, in the long haul nobody fully understands, you add to that the enormous technical uncertainty, because no one's exactly 100 percent sure or can predict with absolute confidence what the long-term technical issues are.

See what happened at Yucca Mountain, where the basic question was what to do about the issue of can we create a storage system that will last for 10,000 years, and the scientist said, "Probably," and the question was, "Are you sure?" and the answer was, "We can't be sure. We're pretty sure but not 100 percent sure."

And so you add that technical uncertainty, and add to that the fact that the situation, the solution has to last longer than the recorded history of life on earth, as one of the members of the audience when we were in Las Vegas reminded us.

We've only been writing history down for five or six thousand years, and the

half-lives of some of these elements is ten thousand years, so we have to try to devise a solution that in its very character has to convince people that it has to be able to last longer than any of our technical certainties or uncertainties, longer than we've been writing about history, and longer than any government on earth has ever existed.

So if you were to try to create a situation that was any more difficult, it would be hard to imagine anything that would be more so. Add to that the debates, the battles, the back-and-forth, the inevitable politics that surround all of this, and it would be hard to create a circumstance that in many ways is more difficult than the one that this Commission is wrestling with, but the reason has to do not with fundamentals of structure or even issues of policy but on patterns of behavior.

As Cynthia told us when we were in Las Vegas, the only way out of that is to

create the conditions of trust by creating behavior that reinforces the trust that people -- we want to have and they want to have in the process.

The second, the second point is that organizational structures and funding, while they can't provide a magic wand, can at least create the preconditions of trust, because what trust is the product of is strong leaders who can create a clear and convincing sense of what it is that they're doing, that contains a frank recognition of the scientific uncertainties, that engages citizens' concerns, doesn't recognize necessarily we're going to be able to engage citizens and get everybody to buy into the solution, but it has to frankly recognize the concerns that citizens have and then creates consistent messages that underlines the strategy that is not going to change from Congress to Congress, administration to administration, because that causes two senses.

One is that if you're on the losing side, the only sensible answer is to wait people out and fight the battle another time, which then creates further uncertainty on the part of citizens about there's no way anybody's ever going to be able to solve this problem.

In addition to that is the problem of predictable funding streams, because as we've heard already this morning, without a sense of the fact that we're going to be there and be able to make good on the promises that we make, it's going to be very hard to create the conditions of trust that are going to be required to solve this problem.

So the first point is that trust is the product of relationships. Some structures, as a second point, underline the fact, work better than others in creating the conditions for trust.

The third point, and this gets even more complicated and complex, I believe,

is that in pursuing this no one organizational forum is ideal, that there are proposals for government corporations, and we have a great deal of experience with government corporations.

In the most recent financial meltdown, in fact, we've had a great deal of experience with two government corporations, Fannie Mae and Freddie Mac, neither of which acquitted themselves especially well on precisely the reasons that they were set up.

They were set up to try to insulate themselves from policies, to operate in a kind of technical fashion to try to supply credit to the financial markets, and operated in the end in a way that neither created strong financial management or sufficient political accountability.

On the other hand, we know that some organizations do really well in dealing with questions that require high performance and high degrees of trust. Think about just

a list of things that I came up with.

One is the Coast Guard, the kind of Ghostbusters of the U.S. Government. When a problem comes up, who are you going to call? And the answer is the Coast Guard. When New Orleans was being flooded, we called the Coast Guard. When we had problems with the BP oil spill, we called the Coast Guard.

Coast Guard does what it does because it's figured out how to put, essentially, ten men out in a boat, not knowing what's going to be over the next wave, and creating both capacity but also leadership to be able to attack those problems in a trustworthy way.

We have the Navy Nuclear Power Program with a long and distinguished history where, when it comes to nuclear programs, few are trusted more than the Navy. Nuclear Regulatory Commission, in a most recent survey of the best places to work in the federal government, the Nuclear Regulatory Commission

went to the very top of the list.

Another one, the Federal Deposit Insurance Corporation. When other government corporations were melting down, the FDIC was seen as the bulwark of public confidence.

So what conclusions can we draw about that for the implications for government structure? And the answer is that what we have here is a traditional bureaucracy, the Coast Guard, independent regulatory commission, the NRC. We have a quasi-governmental corporation.

What can we conclude on the basis of this? It's that there is no one organizational forum that by its nature is inherently more likely to generate trust than another. The reason is at the core that first organizational choice is political choice and that all political choices have their life in the way in which organizations behave.

We can have all the policies that we want, but the only way we really know what

values we pursue is by the way that the organizations in charge of carrying them out behave. So it's not so much in the structure. It's in the behavior.

So what are the conclusions that I draw from this? A couple. First, that trust and confidence comes to those who behave in trustworthy ways, that the deeper -- this next point, that we have in history with a series of operations, behaviors, organizations that have a lack of trust, the harder it is to try to regain it. We have, in short, a kind of trust deficit right now in trying to deal with these issues.

That trust is generated by people who not only behave in trustworthy ways but who serve as effective leaders in their organizations to create a culture of engaging people to be able to solve the problems in ways that create confidence around their decisions.

That we are here. We're going to

be here. We're going to be here tomorrow. We're going to continue to behave in trustworthy ways. If you put your trust in us today, we're not going to change tomorrow. Ultimately, it's supported by stable resources so that there's a sense on the public that we're going to make good on the promises that we make.

As hard as it is to try to deal with this problem, and of all the issues that we face in American society, in fact, in the world society, it's hard to imagine a problem more difficult than this one. It's hard to imagine any problem that has to be solved that has to last longer than this one.

We can try to think about issues about what to do with the future of Congress or about problems of healthcare, but none of them are going to have to work with any kind of confidence-based way for 10,000 years.

So what we need to do is to recognize that at the core we're making a deal

with ourselves. We're making a promise not only to ourselves as a country but, more broadly, to us all as citizens, and we have to try to understand that it's acting in trustworthy ways and assuming that obligation that is the basis of the trust.

This was, in fact, the lesson that Cynthia of the Desert taught us, I think. It was remarkable, and what I wished and what I was most disappointed about was that this was a kind of side conversation I had, and I wished that I could take the conversation that I had with her and put it in a bottle so that I could take it and show people and have them sort of sip on a bit of the wisdom that she shared with us, because the basic lesson that Cynthia of the Desert shared with us in Las Vegas was that here was a very hard problem with an organization that frankly had had decades' worth of difficulties in trying to generate trust, that was not trusted at all in Nevada, that the demonstrators outside

reminded us constantly that this is an organization we don't trust at all. No matter what, we wanted it to go away.

Here was one person, one citizen of the United States, though, who started with the premise that, "I'm not sure I like this at all," but began in a relationship with officials for the Department of Energy who generated trust in her by behaving in a trustworthy way.

In a sense, it's a matter of taking that relationship, repeating it often enough, and building a structure around it to ensure that there's confidence that once those relationships are built, we'll be able to sustain it for the long haul.

So, in the end, the basic conclusions are, I think, that trust right now is broken, that we have a serious and severe trust deficit, that trust, though, is not the product of structure but is the product of relationships, that some organizational forums

are more likely than others to create the preconditions for trust and to generate the trust that we need, that no organizational forum for doing that is ideal.

But in the end, this is a relationship that is political in the very most fundamental sense of the word, because it embodies our values, and that in the end it's a product of our making a deal with us not as a government, not even with citizens, but in the long-term for society that is the key toward trying to deal with this most fundamental of all scientific and technical questions.

Thanks so much for the opportunity to have a chance to talk with you this morning.

CHAIR HAMILTON: Thank you very much, Dr. Kettl. It's a pleasure to have you. Now we hear from Dr. Todd LaPorte, professor of political science at the University of California, Berkeley. Dr. LaPorte, thank you

for joining us, and you may proceed.

DR. LAPORTE: Chairmen Scowcroft and Hamilton, you're seeing a -- and Commissioners -- an example of intergenerational equity. I'm doing the old-fashioned way, having been completely flummoxed by the other kind.

Today I want to -- and I appreciate your invitation and perhaps your patience as you listen to me reflect on the governance questions that you're taking up now.

I'm going to be using a different dialect than most of you have been hearing except with Don Kettl, and that's over four different organizational studies and a long interest in organizations that operate hazardous systems really very well.

In some ways, they keep defeating Murphy year after year in very complicated organizational settings, and what I want to do today is to reflect a little bit about what

the challenge is, a kind of analytical challenge. I'll be adding some detail to what Don Kettl presented, and I want to start by thinking about governance for the guarded nuclear systems with sort of the background of two ideas.

We're returning to this issue because of the need for greater energy interdependence. At the same time, it's connected to the reduction of carbon emissions, and so there's a -- it's -- there are sort of two aspects going here that you begin to wonder what's the scale of the system we're talking about here.

One of the things I've been struck about is that if you think of governance here as -- which, as you discovered, has very -- has sort of different kind of meaning, let me tell you what I mean by governance, imagining your charge here, and something about the properties of the system of handling nuclear materials that make it particularly

challenging.

You might say that governance can be an authoritative, orderly -- organizing to develop, deploy, operate, and, if need be, rescue widely disbursed systems for reliable safe management of very hazardous materials. One of the things I was struck by is how large the system actually is likely to become.

Let's suppose that what we're talking about here is a system that has twice the size of our present system or more than 200 nuclear power stations. With the backlog we heard Brew talk about, we're talking about a really large industrial system here in the future if we're going to take the notion of interdependent -- of energy independence and carbon emissions seriously.

So if that's the case, what are the properties of -- this is what I want to begin -- what are the properties of the system from a management or from a government -- governance point of view? You've heard some

of them, and I'll go through these pretty quickly.

We have -- think about the governance not just with nuclear waste but of the rest of the system, too. I don't think the outside world separates them very much, and I think you should at least imagine we have a system where every place we have a nuclear power activity will be a 100-year footprint. It's fixed.

There will be a network of transportation transactions. We've already heard a little bit about the scale of that with over 200 sites for the -- you can almost say the production of nuclear materials, and there's transaction in getting it to the holes in the ground for the repository systems themselves.

Then you have, essentially, expectations to operate really, really effectively for over 100 years above ground and probably 1,000 below ground. I mean, when

you get past 1,000, it's sort of almost meaningless in terms of the social aspects of it. It's essentially a social forever with regard to our capacity to think ahead as far as the governance systems that you're considering will essentially need to.

If you then ask the question, "How can we consider the" -- the first step in governance, in the governance challenge, let us suppose the U.S. will continue to use the market system as a major mode of social discipline.

If you ask that question and say, "Okay, what is it about the market system from a governance point of view that's" -- make sure we've got the right one -- okay, I've been flummoxed already. Here we go.

The market system works well -- best when you have rapid feedback to the discovery of failure, when the consequences of failure are relatively small and reversible, and as you can -- you can imagine, now, think

about the properties of nuclear systems. Much of it you can't tell you've failed for many, many years.

Even nuclear power stations have a long lag toward the discovery of failure. Nuclear waste repositories is really long, and so you've got a situation where you've got a lag in feedback, very costly if you make a failure, and almost irreversible in terms of the consequences of what you've done.

The implication here is that the more you move in the direction of over here on the properties of nuclear operations, the requirements for regulations just skyrockets, because you have simply lost your capacity for the market system to be a source of confident social discipline.

What that means in governance terms is that you've got a system where you want -- it's a complicated industrial system that the demands are for very reliable operations across the whole system, not just

any pieces of it.

You want -- you want steadfastness or commitment through time through generations, one generation after another. I'll call it institutional constancy.

You have a requirement to do all of this with institutions that continually demonstrate to the public they are worthy of the public's trust for generation after generation after generation. You can -- generations can be 20 years. It can be management generations or political ones.

I'm suggesting that as you consider the various proposals for governance and institutional design you imagine that each of these are vetted against the requirements to produce these sorts of outcomes in the institutions that carry them out, not just the government ones but the contractors, too. They're -- the contractors are as important a player in this as the government institutions that you have primarily had as your -- as your

focus.

What I want to do now is to say, "What does it mean to try to do these three sorts of things?" It turns out that if you put together the whole list of factors that are associated with this, there's about 25 of them. We can't talk about that.

What I want to do is to take each of them and just show you a little sample of what the properties of the organizational activities are themselves. You've been talking about so far the financial and sort of macro governance aspects in your conversation so far, and what I'm about to say may have had some resonance in your conversations last -- yesterday. I wasn't able to be here for them.

Let us suppose you want to get really, really reliable organizations, defeating Murphy. Another way of putting it is the next error is your -- if you believe your next error is your last trial, what happens in an organization? There are two

that are in your -- I think I passed these around.

So what I want to do with this is just to simply give you a taste of what it is that we're imagining here. You've got sets of internal processes that when they're there, you continue to essentially be really reliable in what you do, and these are based on a number of -- about ten years of research.

The one I'm going to just -- because of the time frame, I'm going to -- I'm going to just point to one or two properties that turn out to be kind of surprising. One of them is for internal processes, processes that reward the discovery and reporting of one's own error.

Now, think about most organizational settings. That's very rare, but these sorts of settings, the implication is for the institutions involved that's what's becoming required.

In the external -- in terms of

external relationships where you have essentially a very strong -- and I somewhat academically call it a very strong superordinate institutional visibility in the parent organization like General -- I mean, Admiral Rickover, who insisted in the Navy that his people would operate very reliably.

I'm going to skip along now, because I want to spend a bit of time on the institutional constancy, but let me just go to the next -- the next one that Don Kettl was beginning to talk about. I must say I relished his story of Cynthia of the Desert.

I was there, too, and it was like sort of almost a throwback. I'm from Berkeley. It was almost a throwback to the time when we had lots of Cynthias of the Desert wandering around often in the midst of tear gas.

What I want to do here is to -- is to suggest that in this regard, you've heard a lot about public trust and confidence over

the last sessions. I want to not so much talk about the external relationships here, the top ones. Those are all sort of familiar to you, but what happens --

What happens when transparency is effective? What it means is that people who are -- who are you engaging, the Cynthias and the rest of us, discover not only who they are but what's inside the organization. The more transparent, you discover --

Let me ask you a question. When you really get to know an organization, what's the consequences? It's not usually that you come away saying, "This is a really cool organization." It's, "Oh, Jesus, is it really like this?"

Think about what it means to be transparent, and what would you want to find out if you -- when you saw the patterns of organization? What would you want to see that would say, "That organization is trustworthy, worthy of my trust"?

Well, that's what I have in the -- some of these in the lower internal organizational characteristics, and one of the things that we would want to see, and I ask you would you see as a consequence of the governance regimes that you're considering, this one right here, processes of self-assessment that permits the agency -- in this case the operator -- to get ahead of the problem before it's discovered by an outsider.

If you think about that, that's a hard process to sustain in organizations, because it produces internal criticism. Usually that's punished so that if you're an outsider, you want to see organizations doing exactly that. You'd say, "Okay, they're doing that. I know we can trust them not to fool me so much."

There are some -- there are a lot of other ones here, but I want you to have the sense of when you're really good at being transparent, they discovery who you really

are. You want to know then now -- what will they be discovering, and in the governance regimes that you're thinking of, what will they produce inside as the many years now go on?

I feel a sense of -- I guess it's empathic fear for you all because of the steepness of the climb that you are taking as I talk, and I want to end with or go to the one that you began to touch on rather considerably this last couple of times, and that is what if you need to do this for a really long time, generations, and what are the characteristics of the institutions that can signal to others that they're steadfast in their commitment to doing the things you agreed to do in the -- in the present?

This is a -- in a way, I would frame it in my own head the most dramatic aspect of this is Congress has to constrain its own future. That's essentially -- we've never done that, but to be -- they are the

major player.

You have all seen Mark Sullivan's letter to his constituency in Wyoming, remarkable, and I have copies of some of its -- - that essentially captures in this country the problem of institutional constancy, and what I've done is to suggest some of the properties of institutions when they have it, people outside will say, "They will -- they will keep their promises to me," the public, or in the case of siting, the communities that have signed up to be the primary risk takers of that.

My time is out. I just -- I want to get -- I wanted to get to this, because I think that's the most important and most difficult challenge that commissions of this order have to address. We can talk about them in more detail later.

CHAIR HAMILTON: Well, thank you very much, Dr. LaPorte, for your presentation. We'll now proceed to a panel discussion. The

participants are already lined up, and I'll open the floor for questions from the Commissioners. Are there any questions? John, you'll lead off.

MEMBER ROWE: I think that I heard Ward Sproat say that he thought a new federal corporation or federal structure should run the waste facilities but not have the responsibility for the siting and scientific work, whereas the MIT study seems to suggest, and I thought I heard Mr. Barron suggest, that this new entity be responsible for both.

And I wonder if those two and any other members of the panel might like to flesh that out, because it seems to me that the coordination of a scientific process and a public process, if coordination and scientific are not non-sequiturs, is a very different kind of activity from the building and operation of facilities. I'd be interested in the opinion of any of the panel members on this.

MR. SPROAT: If I could -- if I could address that point, the current model that we have is OCRWM at DOE had the responsibility for both siting the repository, doing the license application, and then, upon receipt of the license, moving forward with the construction and operation phase, two different missions which required significantly different competencies within the organization. That's one point.

What I found was that over the life of the program to date and through the licensing period, very heavily dependent on National Laboratories, outside contractors who had a lot of experience in geology and other advanced sciences, very appropriate, a very focused and critical set of skills needed for repository characterization, siting, licensing.

Completely different competencies are needed for construction and operations, so from an organizational competency standpoint,

they're different, but the primary driver of my observation or my recommendation that we consider separating those two missions into two different organizations is that I do believe that the --

If, in fact, the trust model was broken on Yucca between DOE and its stakeholders, it was primarily because it was being asked to do a process, a siting process which, as I said before, is a technically informed political process.

So it was seen as politically driven by the stakeholders, which put the trust -- which put the ability of the stakeholders to trust the DOE organization into question, my point being is that if that was done by somebody else and put aside, the organization that has the responsibility to build and operate the repository and make it work well won't be burdened by that issue of public trust associated with the siting process.

MR. BARRON: I respect Ward's view. He sat in that seat for what seemed like an eternity, I'm sure, to him, but I believe that if we subdivide the account abilities for essentially getting the job done, and that takes it all the way from siting through construction and operation, I think we're subdividing our ability to be successful.

If the same decision-making body, if that no longer becomes the United States Congress, the same decision-making body I think has to be looking out at all aspects of the project from community outreach and siting to the technological work associated with designing the processes, constructing the facilities, and then ultimately operating them.

And then within the context of what Don said earlier, it's about trust, and if we subdivide who is doing what component of it, I believe it might be easier to lose trust than if it is all in one organization, and

that organization is tasked with all those accountabilities.

CHAIR HAMILTON: It'll be helpful to the Chair if members of the panel who want to respond to a question would just put their lights on, and then I'll call you. I have Allison and Per and Phil. Allison?

MEMBER MACFARLANE: Great. Thank you very much, all of the panelists this morning. Warren, I want to go back to you. As promised, I was going to ask you more questions.

So I found your presentation fascinating, and I want to push you to help us think through some of the potential solutions, and so what kind of organizations, plural, now that you think that you need two, do you think would be appropriate?

You know, should it -- should some of this responsibility remain within the DOE? Should it be a separate agency? Should it be -- should we just throw this to the industry?

How should we deal with this, and then how do you think we need to insulate ourselves from the policy changes that you -- that you talked about, and then how should we deal with the liability?

MR. SPROAT: That's --

MEMBER MACFARLANE: And answer in two minutes, please.

MR. SPROAT: That is quite an agenda. First of all, in terms of the organization itself, the point I tried to make is that there are -- and several of the other speakers I think would agree with this. The organizational structure itself is not as important as what the organization is able to do and how it is funded and how it is set up through its enabling legislation.

So I made reference in my remarks to this previous DOE report that was issued in August of 2001, very -- could do a much better job than I could do about pros and cons of different federal government organizational

models and what they're good for, what they -- what their advantages are, different funding mechanisms.

I highly recommend that, but in terms of the ability of the organization to insulate itself from the policy issues, the reality of the way the government works, at least by my observation living in it for two and a half years, is that the administration sets the policy for the government. The Secretary of Energy has -- is the President's implementing instrument for that policy in his area of responsibility.

So if the program reports to the Secretary of Energy, which it currently does, then the program will be directed and will be influenced by that policy and possibly, possibly for the siting issue, given it's -- and the siting process, given that it's a, I believe, it's a technically informed political process, that may very well make sense.

But for the operations side to get

it done, to go out and figure out how to go to these 121 sites and figure out how to transport it back to a central repository or several central interim locations, I think that part of the operation needs to be divorced from that potential of policy change and should be only influenced by legislative fiat through the Congress.

How we set that up, there are different models in that report that show how that could be done with the appropriate levels of oversight from a Board of Directors, how that Board of Directors gets selected. Presidential-appointed, Senate-confirmed is one option, but there are -- there are several options in that report that would be very helpful.

Regarding the liability, I have -- it's a conundrum that is difficult to come up with an immediate solution. I think in any kind of a large -- when you've got a large potential for a large actual liability and

continuing growing liability, there's always a -- I personally believe that settlement is the right way of going.

A number of companies, small number of companies, have settled on their claims with the federal government associated with the non-performance on the spent contract. Others have not, but coming to some settlement of that liability, I think, really is important.

Trying to get the federal government, Department of Justice, specifically, to work with the industry to come with some -- to some resolution and settlement of that I think is very important.

MEMBER MACFARLANE: Great. Maybe Mr. Barron can also address the liability issue.

MR. BARRON: I think simply the easiest way to resolve the reliability issue is to at least set up interim storage locations and begin to perform, begin to

remove fuel from the site at a rate that approaches the acceptance rate that was designed for -- designed for Yucca Mountain.

The damages that have occurred and will occur between now and the point at which that happens are the results of the performance of prior administration, and they did not -- the Court has held they -- that they are in partial breach of the contracts, and they're liable for those damages.

I think trying to figure out how someone is going to pay for a future amount is the secondary question where the primary question is how are we going to avoid the damages? Let's get on with doing something that creates performance under the contracts and allow that to be the mechanism that caps the liability, as opposed to just letting it go and trying to figure out who's going to pay for it.

CHAIR HAMILTON: Okay. I have Per, Phil, Richard, Jonathan, Susan. Per?

MEMBER PETERSON: Thank you. I'd also like to express my appreciation for the very helpful information that all of the panelists have provided. My questions are going to relate to the structure of a independent organization that might be created to manage the storage, transport, and disposal activities for used fuel and high-level waste.

I guess that these are activities which are natural monopolies, that is, there's not a logic to duplicating all of that infrastructure to create competition, and what we've discovered is that the federal government has not been particularly effective in doing this kind of work, which is one of the reasons why we've heard these proposals about developing some type of federal corporation that might execute these things.

My questions relate to the structure of that potential organization. The first is a very quick and specific one to Joe, which is there's sort of a long laundry list

of important capabilities that that type of corporation would need to have in order to function properly that you listed, legal services, executive compensation, et cetera. My question would be does --

The current Voinovich bill actually includes many details that have been thought out. Is it complete, and if not, might you be able to submit some written recommendations as to additional things that might be included so that we make sure that you don't leave out something like legal services that, in the end, would make it difficult for that entity to function properly?

MR. HEZIR: Sure. I would just say that the -- I think that the Voinovich bill does provide a very good starting point for looking at it, and while I think it addresses many of the issues I raised, I would have to go back and just double-check to make sure there's none missing there, but I think it

does give you a pretty good blueprint.

MEMBER PETERSON: Okay. That's important, because, frankly, this is outside my expertise as a nuclear engineering professor, but I would want to make sure that that entity would have all of the necessary capabilities, and, therefore, if we start from some starting point such as the Voinovich bill.

The next -- the next element is that when one sets up a natural monopoly, of course, one regulates it, and then you can either structure it to be non-profit or profit-making.

My question is among those two different options, of course, if it's a profit-making entity, then that provides an opportunity to generate some source of revenue that could be used as one of the incentives that's needed among a number of incentives to encourage local communities and states to actually sign on and participate.

So I'd be curious about the tradeoffs between a profit-making, regulated utility type of structure that would have some sort of external oversight like a public utility commission to assess its performance in terms of setting fees and prudence versus something that would simply be a non-profit implementing type of organization.

Then the other element of incentives that might prove to be important would be how one invests the funds that are currently being placed in federal Treasuries for the Nuclear Waste Fund and whether or not at least some fraction of those funds might be better invested the way decommissioning funds might be but those investments direct -- investments directed into those states and local communities that have assumed responsibilities for managing centralized storage or disposal facilities. Perhaps, Joe, you can probably comment on that and then others, as well.

MR. HEZIR: I'll start off, and I think that, well, first of all, to kind of put it into context, remember here we're talking about a waste management enterprise that by statute is now set up as a government monopoly. We only have one service provider, but having a corporate structure I think does provide some opportunities to create the kinds of incentives that you've described.

I mean, I think, for example, having a Board of Directors that has representatives from -- that represent the utilities and consumer groups would provide some incentive on the management of the organization to be efficient in how they carry out their responsibilities and thus keep the fee down.

I think also in my presentation I did talk about, in the section on finance, that this entity should have the capability to enter into various types of joint ventures and also be willing -- be able to both borrow and

lend or provide loan guaranties.

So one could think with those kinds of functions one could set up a variety of business-type transactions with either a host community or with various companies that were providing services to have some form of not only risk-sharing but also rewards-sharing, and those would obviously --

Again, if it were in a -- if we had a waste fund that was a true trust fund, the benefits of that or at least the organization's share of those benefits would flow back into that fund and would provide additional resources.

So I think -- I think your ideas, I think, are very good, and I think that having a flexible structure with some broad authorities and some flexibility could actually, you know, bring that about, because there's probably --

I think the one thing, I think, that is true is that we probably could not at

this table today think of all the various types of ideas that could emerge, but if you provide this entity with the right tools, then I think that there will be opportunities that will arise over time.

CHAIR HAMILTON: Phil?

MEMBER SHARP: Yes. Well, thank you very much. I think for one we found the solution this morning. That's call in the Coast Guard, and I must say it was refreshing to have a discussion in this country where some people in organizations in the government were identified as competent and effective and important, and I think we ought to celebrate that for 20 seconds, given what's going on in America.

MEMBER MESERVE: And it's the NRC.

MEMBER SHARP: And it's the Nuclear Regulatory Commission. Certainly, when he was Chairman, that was the case. Unfortunately, Rickover is dead, authoritarian that he was, slightly in conflict with our democratic

discussion yesterday, but let me -- which shows you the complexity of this thing. You can choose things, but let me go on --

John Rowe raised a very important question about the functions, what functions would we put in this entity that might well be highly independent from the political process, and we actually have, I think, a third point of view, which was yesterday, if I understood, although I have not yet and I will read the details of the MIT study, but it is that, you know, you would actually add in there selection of the new cycle, fuel cycle and all these kinds of things.

It strikes me one of the most important questions that we have if we're going to recommend something like this is to be clear on the functions, and obviously we have some work to do squaring what we've heard.

The second thing is much of the talk now has been so far on the side of how do

we get this independent of what we view as the political interference out of Congress or Presidents or the system, but at the same time there's always the final issue, well, how do we keep some accountability for this new entity?

It's going to have billions of dollars. It's going to make big decisions. It's going to have big impacts from the point of view of industry, of local communities and others, and my suspicion is that none of the -- it will not function perfectly, either.

So the question goes to Mr. Hezir. He mentions in the process congressional and administrative oversight, and I just wondered if you would not articulate in what specific ways that was, and a follow-on is to Brew in terms of -- I haven't read Senator Voinovich's legislation yet, and I'll certainly get up to speed on it, but is how the Board of Directors is selected.

At what elements does the Congress

and the President have an appropriate role? They're going to authorize this under law to begin with, but there's an ongoing issue of how you exercise oversight and when is it appropriate to become engaged.

MR. HEZIR: It's a very good question for which there is not a very simple answer. Clearly, if the -- if the new entity is a corporate-type structure with a Board of Directors, then having the appropriate types of representatives on that Board is one way of having this oversight.

I think that there's probably two things I think the Commission could consider, and I think that if we look at the financial side first, what I recommend and I think other -- and I think that Ward would agree with is that we both recommended that the financial transactions be removed from the annual appropriations process.

That does raise a question, then, of what oversight and accountability would

exist, because one of the reasons it was put under annual appropriations was that at the time that the legislation was being developed, the nuclear utilities were concerned about the very question you raised, and they thought annual appropriations would provide that accountability, and --

MEMBER SHARP: It goes to show you in politics very often what you seek and what you get --

MR. HEZIR: Right.

MEMBER SHARP: You make a big mistake from your own interest, but go ahead.

MR. HEZIR: So I think that one way to kind of strike a balance there, and, again, I'll use an analogy here, is that you would have exemption from an annual oversight process, but there would be some mechanism for Congress to review and approve a multi-year financial plan or to reauthorize spending over so many periods of time.

One example, and, again, this is

in the Department of Energy, is the Bonneville Power Administration. It has the authority to borrow funds from the Treasury to execute its capital programs, and usually the Congress will authorize that funding in lumps of money so that it's not annually done, but perhaps every three to five years Bonneville has to go back to Congress for a reauthorization of funding, and it provides an opportunity to review a multi-year plan.

TVA has something not quite analogous. They have a cap on its borrowing, and so if they operate within that cap, they have flexibility, but if they were to engage in a very large new capital program where they would need to borrow more money, they would have to go back to Congress for an authorization for that, but, again, neither one has to go through an annual appropriations cycle.

On the -- on the policy side, I would -- I would take a little bit of a

difference with my colleagues here about the need to completely insulate this from policy control, because, again, having worked on the Executive branch side, there is some merit to having the ability for a President and an administration to have some policy oversight over what activities this organization is going to be conducting.

Again, the example that I cited in my presentation was the Synthetic Fuels Corporation. It was completely insulated from the executive branch, and it was given a legislative mandate to produce a certain amount of synthetic fuels in a particular point in time.

Then what happened was there was a change of administrations and a drastic change in the market where, instead of expecting prices of oil to double, you know, they went down by 50 percent, and it was impossible at that point for the President to, in effect, change course, absent going back to Congress

and abolishing the corporation, which eventually happened.

So I think there needs to be some kind of a policy review. One, again, one example -- and I'm not very familiar with it. I'm sure General Scowcroft can speak to it -- is the Quadrennial Defense Policy Review, where you would have every so often a periodic major policy review in the administration as an opportunity to kind of revisit what this entity is doing, and that way it would provide some policy oversight and direction but not on a day-to-day or year-to-year type of a basis.

DR. KETTL: If I could raise just a couple of cautions on this, these are incredibly hairy problems, but there are a couple things we need to be very careful about. One is that our experience about the management of nuclear waste storage is close to zero, because we've been hung up so much on the problem simply of trying to deal with siting.

What I worry about is that we try to draw conclusions about the operation of the storage facility from our difficulty trying to solve the siting problem, and what we don't want to do is to draw conclusions about the siting issue for the management of the operation of the --

MEMBER SHARP: If I could interrupt you, I think part of that confusion comes about because DOE does manage the DOE sites. It may not -- it may or may not be under his office, but the point is --

DR. KETTL: That's absolutely right.

MEMBER SHARP: That gets all confused.

DR. KETTL: And I think in the long haul separating the two makes a lot of sense, but it gets to my second point, which is that it would be also -- I also want to raise a caution about the fact that for many, many, many people, once you get outside this room,

the government's the government.

One of the most fascinating conversations you can have is with a state legislator who talks about the number of citizens who call in complaining about problems with Social Security, and they want their state legislators to clear up the Social Security problems.

We're not very good at trying to sort out exactly who's in charge of doing what, and the finer we try to slice the organizational form question, the more we risk getting away from the core kinds of issues on top of that, which gets to the --

I want to make two other quick points on that. One is that, so getting back to your question on the Coast Guard, the BP question was actually an area of incredible scientific uncertainty.

We just didn't even know how much oil was coming out of the bottom of the Gulf, and the model there of trying to figure out

how to engage tremendous scientific uncertainty to devise a solution that was trustworthy is, I think, important, because it suggested that in the end the organizational form is probably less important than the way in which the people in it actually behave.

The last point, again, one more caution, is that I think it's tremendously important not to try to insulate the system from politics, running the risk of problems of accountability that blow up later, that then create an incredible whiplash, that make everything worse in the long haul.

If you look at what's about to happen as a result of the financial regulation, you could make an argument -- and I'm not sure whether I buy this, but just an argument by way of metaphor that's worth keeping in mind for this, you can make an argument that we just didn't do a very good job of regulating the financial industry during the 1980s and during the 1990s and

during the 2000s, and, in fact, we had a lot of quasi-independent organizations that we turned loose that then created lots of financial mischief, because they were unaccountable.

So then we ended up having to crack down, and the public reaction to that in the form of the Tea Party and elsewhere is just, "What in the world are we doing?" and the public is not separating very clearly who created TARP, from who it is administered.

There are a lot of political implications that are -- that come rooting into that, and there are tremendous political warnings about the risk of trying to insulate a process from politics that's inherently political, not overseeing it very well, and then reaping the whirlwind of what comes out of that, that in the end creates even more difficulty in the longer haul.

It's more important to get back to first questions and trying to make very sure

we're not trying to solve the wrong problem by simply resorting to organizational forms, because in the end this is -- we need to create a solution that is not going to be whiplashed by political changes in the short-term, but we can't make what's inherently a political problem non-political.

CHAIR HAMILTON: Mr. Barron and Mr. Sproat want to respond, also. I'm not sure whose light came on first, but --

MR. BARRON: Thank you.

CHAIR HAMILTON: Mr. Barron, yes, all right.

MR. BARRON: Just very quickly, the one function we have not talked about that I want to mention is about nuclear safety. This organization will be responsible for meeting nuclear safety standards but not for establishing them. Within a lot of the DOE site work, not within OCRWM but within the site work, DOE is both the regulator and the complier.

I think it's very important that the independent agency that Dick Meserve once chaired maintain accountability for defining what is safe, what is adequate security, and sets the standards. This organization that's proposed would be accountable for meeting those standards.

MR. SPROAT: Just to make one quick point to close -- to follow up on Joe's comment about how should policy affect or influence the process, my only point is we need to be clear about which process policy should influence and which it shouldn't.

My recommendation is the siting process and site selection process, as I said before, being a technically informed political process, absolutely needs to be open to influence from administration policy, and -- it's a political process.

However, once the site is selected, that's done. It's now, "Go operate it and operate it well." I'm advocating that

process be insulated from a change of administration, policy-changing dynamic.

MEMBER SHARP: Mr. Chairman, if I could just make two comments, one on that, my only problem with that, which I fundamentally actually agree with, is that, however, the ongoing operation is going to be the political issue.

If we were going forward in Nevada with this, it may be important to Nevada citizens to be able to get through to political leaders to say, "You know, in their operation they're suddenly not doing what they said they would do, which was listen to us, hear from us, and keep the process open."

They had begun to insulate themselves from the outside world, as most institutions do. So, there has to remain some capacity, but I think that it doesn't have to be --

MR. SPROAT: And in that case, WIPP, I think, is very good model to follow in

terms of the advisory council and community involvement. It is set up in a way --

MEMBER SHARP: Right.

MR. SPROAT: -- in community involvement and its oversight and oversight of its operations, and that's what I would recommend, something like that.

MEMBER SHARP: I do think we've actually learned a lot, even in Nevada and in Hanford and these other places about community relations. It is years, light-years ahead where it was 20 years ago. I just want to make one comment, because we want to ask them questions, but the Board of Directors of this institution is separate.

It sounds as if the Voinovich thing is a stakeholder Board in which you try to have representatives from different stakeholders on that, and that may be a smart political way to go, but it's like Don Kettl said on these other institutions. There is no perfect example.

We just had a great deal of new experience in the electric utility industry with the independent ISOs, the independent -- what are the darn things called? -- kind of thing, and some states went with or some regions went with stakeholder boards, which became absolutely paralyzed, because they were so politically engaged with each other. Now, they may have had different kind of reasons to be so politically engaged, where on others they made the decision, "No, this board has to be genuinely independent."

Most corporate boards have a high degree of independence from wherever these people come from and in theory have a very explicit responsibility only to the fiduciary responsibility of those stockholders and not to whom I represented back here, which is what a stakeholder Board tends to get in.

So it's just, again, I don't think there is an answer to it functioning well. I just would not jump to the conclusion that a

stakeholder board necessarily somehow advances your capacity to decide.

MR. BARRON: The legislation as it is currently crafted is very much intended to more represent a shareholder board, again, with a majority of those representing those who are actually funding the operation of the corporation, as well as using the services of the corporation to meet its liabilities to dispose of fuel.

MEMBER SHARP: Well, I can understand that. Excuse me, Per. The issue I think that that might raise politically over time is as you articulate it, as people become suspicious of what the corporation is doing -- I assume some people will be, not everybody -- then they will have this, you know, saying, "Well, we know what they are doing. They are only serving the interests, the financial interests of the other." Now, that allegation may be unfair and unclear, but it is one of the risks inherent in this.

CHAIR HAMILTON: Yes, sir, Dr. LaPorte.

DR. LAPORTE: Yes, I'd like to pick up this point. Ask yourselves the question. You're in the community where this sort of thing is going on, and the first set of board members that you knew and trusted are retiring, and now that you're in the fourth -- you're out about 50 years or less, a little bit less.

Ask yourself the question how would you think about assuring the next set of representatives that they know enough about what the rather complex technical aspects and institutional histories are with regard to this site and the transportation thing so that the next generation has as much confidence in the new board as the last one?

That's a problem that comes up only when time's arrow stretches as long as this one does, and we really don't know how to answer that question. There's just too many

examples of distortion of representation either through targeting of special interest -- -

I mean, you know all the stories. It's not a -- it's not really a new idea, but it's a continual process or continual phenomenon, okay. In the -- in the -- one could imagine anticipating this occurring at the beginning and asking yourself the question, and I don't know how to answer this, because I think this is a novel question.

There are situations in institutions that you begin to see they're doing things that begin to elicit distrust. That can be exactly the sort of things you were talking about.

You could imagine an activity in that organization where they try to compensate for certain changes that lead to distrust, which is the deficit of trust, to getting a surplus of trust doing other things that balance this off.

That kind of a conversation, I don't -- I've never heard of a conversation like that to go on in a situation like this, but yet that's the phenomenon that's likely to occur.

I would put this as sort of a -- I don't know what, sort of a design challenge to you all as you see, is there a way of crafting whatever it is you need to craft to anticipate this sort of thing as an important element of the sort of constitution of whatever this organization is that you're describing.

CHAIR HAMILTON: Okay, I have three Commissioners, Dick next, then Jonathan, and then Susan. Dick?

MEMBER MESERVE: Thank you. Thank you very much. It's been pleasant to be here this morning to have nice things said about the NRC. I guess my experience isn't always along those lines.

I have a question I'd like to direct in particular to Brew and Ward that

goes somewhat beyond your testimony. Several people who have testified before the Commission have talked about a future in which we might undertake reprocessing or recycling as being part of a back end of the fuel cycle activity.

We've also heard some testimony that if that is ever undertaken, we ought to make sure that it is -- the responsibility for undertaking that is completely insulated from the disposition of used fuel and particularly that the Nuclear Waste Fund should be protected from being diverted for purposes other than an ultimate disposal facility.

This does relate to the issue of the functions of this entity that you both described, and I wonder if you have some views or perspectives on the issue of what the relationship of that entity should be with any future reprocessing or recycling activities.

MR. BARRON: There have been several studies done around the economics of

recycling fuel. You wouldn't -- I don't believe that you would recycle fuel purely for that purpose.

The reason you would want to recycle fuel is to -- is to change the waste form, get the waste form into one which you could feel is going to be stable for 10,000 years without having to put it in additional containers and casks, maybe, inside of a mountain.

It's a way to a technical end, and within that context the fact that it is producing usable fuel, which does have a market value, is a way to offset the cost of getting to that different waste form, if my logic makes sense to you.

So within that context, were there the desire, the intention to go to a different waste form than direct disposal and the removal of fissile material and it's recycled back into the reactors, was a part of that, then that would fall within the context of the

fees that are paid by the -- by the utility operators, but the charge of that Board of Directors would be to make sure that within that context those fees are being used appropriately for their -- for their intended purpose.

The notion that the fees would be used to just rob the cookie jar, if you will, which I think has already been robbed, but were there anything left in the cookie jar, the extent to which an accountable, responsible Board of Directors would elect to go off and spend those funds that are intended for the ultimate disposal of used fuel in a manner that doesn't lead to the ultimate disposal of used fuel just does not reconcile with me.

So I would -- to answer your question simply, were that the path taken forward, I would see that as an integrated part of the path and the use of the waste fees as they're being paid by the utilities.

CHAIR HAMILTON: Mr. Sproat?

MR. SPROAT: I would like to make a -- I got this question asked of me a number of times while I was in my position at DOE, and I just want to make sure the Commission understands the relationship between recycling and the disposal options for spent nuclear fuel and high-level waste. They're not related.

Regardless of whether or not the country finds that there is a business case or a other rationale for moving forward with reprocessing of spent commercial nuclear fuel, we will still have a high-level waste issue in the country.

There are a number of waste forms from the defense programs and from naval nuclear reactors where recycling -- you can't recycle, or even if you can, it doesn't make any economic sense whatsoever.

So we have a large backlog of inventory where the recycling issue is not

applicable. It has to be disposed of anyway. So that's point number one I want to make sure all the Commissioners understand.

Secondly, if recycling does go forward, if there is a business case eventually for doing it, when we took a look at this at DOE, a couple things emerged. First of all is that if it was to start, we would not make all of the existing spent, commercial spent nuclear fuel inventory available for recycling, because the older fuel as it's decayed has much less energy content in it.

It just -- we would probably end up recycling the newer fuel first, and the older fuel that's been sitting around for 20 years, 30 years, 40 years, we wouldn't touch. It would be disposed of directly anyway, so now you're talking about a relatively small part of the current inventory and future discharges.

But the other thing is that the

waste form coming out of the recycling process, much higher volumes of low-level waste, so while the volume of high-level waste can be reduced, the volume of low-level waste is substantially increased, and as I mentioned in my remarks, we don't have a solution in the country for ultimate low-level waste disposition, so it's not a solution at all.

MEMBER MESERVE: Let me make clear I was -- I understand the technical issue here. I guess I was trying to ask the question of the relationship of whatever entity that were created to deal with the used fuel what connection it would have with the -- with any recycling or reprocessing option.

I understand Brew to say that there has to be some connection, and your testimony, Ward, would be along the lines that, no, keep them completely separate.

MR. SPROAT: I would recommend keeping them completely separate other than, obviously, whoever owns spent nuclear fuel,

which now is the utilities, when the government picks up the fuel per the standard contract, the government takes title and possession of that fuel.

So the economic value of that spent fuel as a feed stock for a future reprocessing process has economic value, and who reaps the rewards of that economic value would be something that would have to be determined of how that would work given whatever entity was put in place to do that reprocessing.

I highly recommend, though, that is a separate issue, separate entity, and not to be confused with what we're talking about here.

CHAIR HAMILTON: Mr. Hezir.

MR. HEZIR: If I can just add to these two comments, I can't speak to the merits of recycling or not, but I would just offer two observations. I think, first, to pick up on the point that Brew made, I would

think that this entity would want to be able to look at the totality of the fuel cycle and look at ways of optimizing, and I use the example of solid waste.

I think if we look at solid waste today, recycling of aluminum is a economic proposition. Recycling of paper and glass is not, but nonetheless, because of the disposal impacts, as Brew said, to use the analogy, there is some merit in changing the waste form.

So while this entity -- and, again, it at least should be able to have the ability to look at those tradeoffs. Now, whether you might want to place some limits on what it could do in the way of implementation, that's another question.

And I think that may be the way to address this, at least to allow these studies to continue and to perhaps come back at some future date and make a decision on that. Even if you look at what the, you know, the MIT

report suggested, that in the meantime there may be some further advances in the research and development area that may change the value proposition.

MEMBER MESERVE: If I could just ask one quick question, it's on a somewhat different point. Joe, you in your discussion had described an entity that's sort of inside the tent in some very important respects and outside it in others that, you know, in close connection to the Secretary of Energy and interagency processes on the one hand but independent in terms of legal and a lot of the financial elements. I wondered if there were any model that you have for such an entity that has all the characteristics that you described.

MR. HEZIR: Yes, the part of the presentation that I didn't get to is that if you look at that grouping of functions, I think they probably work best outside the tent, and so the model, I think, that one

might look at would be either the current Tennessee Valley Authority or the proposed corporation that's in the Voinovich Bill.

I think the functions could work inside the tent if it were a semi-autonomous organization within the department, and probably the best analogy there would be the Bonneville Power Administration. The NNSA or the National Nuclear Security Administration is another model, but it does not have the capabilities that I described, but Bonneville does move more in the direction that I described.

MEMBER MESERVE: Is there any one that has all of the functions that you described?

MR. HEZIR: I don't think so, because I think one of the things that I found in doing some of the research in this area is each one is unique, and there's a unique combination, and there is no -- there is no standardized definitions. Even if you -- even

if one were to say government corporation, there is no standardized definition of what a government corporation means.

CHAIR HAMILTON: We're beginning to face some time constraints. We have about ten minutes to go, and we have four Commissioners who want to ask questions. Jonathan, Susan, Vicky, and John. Jonathan?

MEMBER LASH: Thank you, Mr. Chairman. I will try to be crisp. This question is first to Dr. Kettl but I think also to Mr. Sproat.

We've had a list of agencies that are at least a model of some kind of success, the Coast Guard, the FDIC, NRC, TVA, and I might add CDC to that list, and as you were making that list I was thinking what stand out as explanations for the effectiveness, and it seems to me one aspect is the clarity of the mission.

The Coast Guard has one clear mission. The FDIC, we know what it's supposed

to do, and associated with the clarity of the mission is the strength and appropriateness of the culture.

So I have never heard anyone explain NRC's culture as not including technical excellence, the admiration of the world in terms of technical excellence and modeling capability and so forth, but being excellent at one thing doesn't mean being excellent at everything.

TVA was fabulously successful at bringing power to a huge underserved population, not so good at assuring that it did so in an environmentally sound way. For each of these agencies I think we could make similar explanations.

So how do we construct an entity that has the broad responsibilities that you've been describing for choosing an approach, identifying a site, and managing it that has the culture of both technical excellence and public credibility and

engagement?

DR. KETTL: Let me start first by underlining the importance of the last piece that you said, because it's the ability to create an internal organizational culture that engages the public in a way that the public believes and trusts that's crucial -- but maybe disagree with the initial premise on the clarity of mission, because if there is anything that the Coast Guard is not, it's an organization with a very clear sense.

In fact, it got the job of trying to do something with New Orleans, because nobody else knew how to do anything about it. And after FEMA had failed. It got the job of trying to deal with BP after the organization, the Minerals Management Service, that was in charge of the regulatory piece, had failed, and it got it because nobody else knew how to do it.

MEMBER LASH: Wasn't that crisis management?

DR. KETTL: It was crisis management, but it was its skill at being able to consistently succeed at crisis management that succeeded in making sure that it continued to get the jobs, and it's a very interesting internal story about how its own evolutionary culture got itself in the position of being able to deal with that.

So it's the Ghostbusters of the federal government, because it has figured out how to do what other people don't know how, and it's because it doesn't focus single-mindedly on mission.

In fact, one of the principal reasons why FEMA failed in New Orleans is that it proved incapable of adapting fast enough to the new mission that it faced, because it was constrained by the way in which it came into the problem. So I think that has important implications for this case, I think, because it is exactly the issue of culture and strong leadership with a focus on results.

If you get an organization with a strong leader who says, "We're going to focus on getting this job done. We're going to understand that getting the job done means engaging the public but also engaging the best science we can get and finding a way of weaving those together in a way that's mutually supportive, and we're going to make sure that in the end we produce results," and that's in the end what each of these, I think, has in common.

To try to insist on clarity of mission is in many ways for most of these organizations that face either lots of uncertainty or lots of dynamic change a way of hamstringing it in being able to adapt effectively to the issues that it faces.

MR. SPROAT: I would just -- I would just like to add, and I recommend to the Commission, don't try and over-engineer this. What I mean by that is you are not -- with what you're going to do with your

recommendations, you're not going to be able to dictate or direct or have a direct influence on the culture and the performance expectations within whatever organization is put together.

We have numerous examples of organizations -- I'll just speak in the nuclear industry, because that's what I'm familiar with -- where we've had organizations. The organizational corporate structure never changed, but we had --

We have organizations where their performance in the nuclear fleet operations area was abysmal, and within three years they became industry leaders, and the corporate structure never changed. The people changed, and the focus of the people that led the organization changed, and the oversight of that organization focused on high performance expectations.

So don't try to -- don't -- I personally would recommend don't worry about

trying to over-engineer whatever recommendations come out of the Commission to assure that the organization has got the right culture. That's the job of the people who end up trying to run it.

CHAIR HAMILTON: Susan?

MEMBER EISENHOWER: Yes, thank you. Boy, I thought this was a terrific set of presentations this morning and extremely helpful. Mr. Hezir, in your presentation you named three options for an enhanced function authority, and then a few slides later, I think you talked about PAYGO and the obstacles that it would bring to establishing or re-establishing a unified trust fund.

Could you say something, help us a little bit here with the interrelationship between these three options, and would any one of these three options make it easier to overcome these obstacles? Maybe this is a highly political question. I don't know, but I think this financial piece is pretty

important.

MR. HEZIR: I have two observations. First of all, one of the things that was implicit in what I said about PAYGO is that PAYGO only applies to legislative changes, so obviously if there are -- if there is a set of changes that can be implemented administratively, PAYGO would never even be triggered, although those would be hard to fathom what they might be, given what we currently have and probably the need to amend the Nuclear Waste Policy Act.

I would say, though, in terms of the PAYGO obstacles, it's there, regardless. I think in order to make a more compelling case to the Congress, I think something like a new structure would probably help to provide a stronger justification for overcoming the barriers that would be posed by PAYGO.

CHAIR HAMILTON: Vicky?

MEMBER BAILEY: Thank you. I, too, was quite interested and very impressed with

all of the presentations, and I will direct this to the panel, but I'll actually start with something that Ward Sproat said just a few minutes ago and the idea that we would get too involved in the culture and trying to dictate too much as to what this entity would do.

I guess I have to back up and say that's not so much my concern. My concern is that my responsibility on this Commission is to try and put forth recommendations that I feel will enhance trust and confidence and will provide for transparency, efficiency, and all of that.

So, if you understand where I'm going, I'm saying I understand what you're saying, but I have to ask these questions in order to make sure that what I am going to maybe advocate or recommend are things that I think will actually promote trust and confidence, so therefore my questions go to public involvement.

I've not heard too much about that, a little bit there a few minutes ago from the Dean, but, you know, there are different kinds of publics. We've got state commissions. You've got governments.

You've got -- and, you know, I don't see how politics is ever not involved, and I'm not -- I mean, I can go to church, and I have politics, so I'm saying that's not a bad thing, okay. Okay, the Lord is with me there, but, you know, maybe not here. Let's keep religion and government separate. Right. Okay.

But the fed-corp, it's, you know, it sounds good, sounds good for managing money and management and all of that, but I'm not sure that I'm achieving anything, and I need you to talk to me about that. Am I achieving anything from the standpoint of efficiency of the time it takes to make decisions? Am I achieving anything?

You know, to me it could be so

self-absorbed and such a stakeholder process that I've complicated it even more. I'm not sure I'm achieving something, and please don't take from my comments that I am not for this idea. I'm just trying to probe a little bit further here.

You know, the other issue, I'm trying to understand, obviously, DOE is involved in some legal procedures as it relates to the actual taking title of spent nuclear fuel, and my questions go out -- you know, as a member of the subcommittee I've visited different communities.

I'm concerned about those communities and what I've been hearing, and to the extent of, you know, how would this help me deal with the current orphan sites and the different queues and how things actually get taken and disposed of, so if I could hear a little conversation on that.

MR. SPROAT: If I could start on your first question regarding community

involvement and stakeholder participation, when I got involved with the program, I spent a week a month, during my two and a half years, in Nevada, so I got a very good understanding of the communities at the county level, at the community level.

We actually held once a quarter a informal meeting, day-long, where the counties and their consultants and representatives could come in, and we just talked, whatever they wanted to cover.

I learned a lot. They learned a lot, and over time I think they would tell you their level of understanding and trust at least didn't get worse. It may have gotten a little bit better, but one of the --

As a result of that, which I found extremely useful, I wanted to establish some sort of formal advisory committee for the Yucca Mountain project, you know, with a formal charter to do that, because I found the informal process extremely helpful, but I felt

a formal process would be more helpful in terms of legitimizing the process we had.

And I immediately ran into -- there's a -- there's the Federal Advisory Commission Act, which I think was under which this Commission was formed. It just became -- it just seemed like it was more of a stumbling block and more difficult to make that happen.

So whatever recommendations the Committee comes up with regarding this, I would highly recommend, number one, that there is some sort of formal community oversight/participatory board that's involved absolutely, positively, but at the same time allow whoever is running the program the ability to work on an informal level with the people who are most directly affected by the project, because I found that extremely helpful.

CHAIR HAMILTON: Mr. Barron.

MR. BARRON: Yes, I think for clarification we've talked a lot about

politics. Within my remarks, they were really completely focused on federal political cycles within the U.S. and what happens at the federal level that has had the impact in a number of cases to try and trump what is important at the local level.

This is about local politics. It's about local community outreach. It's about the need for local community input into whatever is happening within that community, and the problem we've had in a number of times in the past is that whether it's Congress or an administration gets involved at a federal level, that becomes more important than what is happening at the local level, and the intent here is to isolate what's going on from federal political cycles.

Every new Secretary of Energy has got a new approach they want to take with the -- with the waste program and to get us past the federal cycles and get it back to implementing projects at the local level with

a clear accountability for support of the local community.

CHAIR HAMILTON: Dr. Kettl, and then we'll go to the final question from John. Dr. Kettl.

DR. KETTL: I'm mindful of the fact that time is short, but in trying to get to the first question that you raised about public involvement, I do think that going back and looking at the Coast Guard's involvement with the whole range of constituencies on the BP case is incredibly instructive, a case of enormous technical uncertainty, of very complex public-private interactions, highly charged politics.

The Coast Guard's basic policy on who to talk to was anybody they needed to talk to and anybody who wanted to talk to them. That process engaged the constituencies, built support, and one of the things that you could sense palpably as they went through that process is the air going out of the tension in

that.

Part of it had to do with the fact that they were making technical progress, but the engagement process itself enormously supported their ability to be able to solve the technical problems in the case, and their strategy on trying to figure out how to work the public engagement process is incredibly instructive for your work here, as well, I think.

CHAIR HAMILTON: Final question, John.

MEMBER ROWE: Yes, just a short comment. We have heard much ill of the DOE management of the process to date. I think on the whole that is convincing, although probably unfair to a lot of very fine individuals within DOE.

But I have to comment that in all of that we've heard almost nothing but compliments for Ward Sproat's integrity in his administration of his job. I just think it

only fair that we not let him leave this without some reflection of the fact that he seems to have earned honor in an unhonorable plan.

MR. SPROAT: Thank you, John.

CHAIR HAMILTON: Okay. Well, as you can tell from the questions and the interest of the Commissioners, you've sparked a lot of interest and given us much to think about.

We appreciate very, very much your contributions to the Commission's tasks. We stand now in recess for ten minutes. Thank you very much, gentlemen.

(Whereupon, the above-entitled matter went off the record at 10:56 a.m. and resumed at 11:11 am.)

MR. FRAZIER: Congressman, General, I don't know -- General Scowcroft?

CHAIR SCOWCROFT: Yes. Well, let's get started now. After our panel discussion this morning, we would now turn to

a discussion of the schedule for the full Commission meetings for the next several months.

We plan to hold our next meeting on November 15 and 16 in Washington, and at that meeting we will hear from representatives of other nations so we can learn more about their policies regarding the back-end of the fuel cycle. We will also hear from a series of speakers who could tell us more about how nuclear waste policy came to take its current form.

In January of next year, we will arrange visits to Southeastern New Mexico to visit the Waste Isolation Pilot Plant and to Georgia and South Carolina to learn more about the Vogtle Nuclear Power Plant and the Savannah River Site.

As we have said before, we believe it's important for the Commission to hear from communities that have a large stake in solving the waste problems, and, of course, we started

with that at Hanford. We look forward to these visits.

With that, we will now open the floor for comments or matters the Commissioners wish to discuss. Are there any? Yes, Per?

MEMBER PETERSON: Thank you. I would like to again emphasize the fact that I believe that the information that we heard today, and also, although I was not able to be here, the information yesterday is very important and helpful in thinking about the nature of the new institution or entity that we would potentially want to develop to take on the mission of managing the used fuel and high-level waste that the country has.

I do think that we need to think about some important high-level elements of what this entity would be charged with, and so I'd just like to make sure that those are on -- that we're aware of them.

One set of questions is the set of

functions that it should perform or should be authorized to perform, and some of the discussion will relate to the question of whether that might include advanced fuel cycle activities such as reprocessing.

In thinking about that question, I do think we want to consider the question of whether or not those types of activities would be considered to be natural monopolies, because that really would relate to whether they should be treated as monopoly activities or treated as something that should be perhaps done competitively driven by price signals.

Then the other question is a higher level philosophical question, which is really who should own this corporation. Now, we're thinking about the idea that it would be desirable to have volunteer communities or volunteer process to have communities step forward potentially to host these types of facilities.

It might be that indeed those

communities and those states that would take on these responsibilities should also be the owners of the activity, and this would then relate to the question of really who should be responsible for appointing people who would be directors on this sort of corporation.

So I think that this is also an important set of questions, because are utilities that generate used fuel customers for this corporation or are they owners for this corporation is another high-level question that merits some thinking about, because if ownership is transferred to the communities and states that are taking on these responsibilities, that might actually provide a greater level of trust and confidence that the activities will be conducted in a way that benefits and takes into account the interests of all of the different people.

These are high-level questions, but I think they merit our consideration.

Thank you.

CHAIR SCOWCROFT: Yes, John?

MEMBER ROWE: As I listened yesterday to a very large number of people say that democracy implies the need to get the consent of all the differing communities concerned in the siting of waste, I was both impressed by the profoundness of what they were saying and troubled by the implications, because, after all, we have this waste problem to solve. Whether everyone consents to solve it or not, they will be much worse off if we fail.

It occurred to me as I listened to the structure of the federal corporation discussion that it's possible that one way to sort of bridge that problem might be to authorize and empower the federal corporation to proceed only with consent, leaving, of course, in the Congress its ultimate sovereignty if the federal corporation can't proceed in a consensual way or within the

amount of money given to it.

It may be that the federal corporation would have instant credibility to some degree if its powers were confined to a consensual process and yet not having the government abandon the ultimate responsibility to deal with this if consent doesn't work. I'm not at all sure that's a great step forward, but it struck me as a possible bridging mechanism.

CHAIR SCOWCROFT: Thank you, John. Others? Yes, Jon?

MEMBER LASH: John, I wanted to jump in and follow up on what you just said, because I do think that is a key issue for us and that we've heard both in terms of the experience of communities and interests in the United States and also those outside of the United States the profound difference between a consent-based process and one that allows comment but isn't consent-based.

I found myself thinking often as

we listened to testimony how different it would be if these were people who assumed that future activities would be consent-based and that they could trust the system not to overrun them.

But if we -- if we do ultimately agree on the kind of concept that you've suggested, we still have a great deal to work out in terms of what constitutes consent, by whom, and how often it has to occur, and those are issues that I hope we'll have time to look into as a Commission so that we can define a feasible and workable consent-based system.

CHAIR SCOWCROFT: Thank you. Al?

MEMBER CARNESALE: Yes, I just want to make an observation that we may be learning too much from the Yucca Mountain experience, and we should be careful here. Imagine that we had had a site that everybody agreed upon, and it was going along fine and we put waste in there, and it turned out it was technically unsound and dangerous.

Then the lesson we would have learned was what matters most is technology and science, and what matters not necessarily least but not nearly as much is that everybody agrees that that would be a good place for it to go. You paid them enough money, and they wanted to have it there.

We're going to have to find some right balance here. Acceptability is important if you can't put it there without acceptability. Democracy does not mean that everybody agrees. Very few votes in Congress are unanimous on anything of importance.

When it's politically expedient, they're unanimous, so I think we have to be very, very cautious here as to not take this pendulum and suddenly switch it to the other end and come up with a process that either might put the site in what turns out to be the wrong place but we didn't -- we won't -- no one here will pay the price for that. That will come later -- or select a process that

simply doesn't converge.

It would be like insisting that in Congress we're not going to pass any laws unless there is a unanimous vote, in which case we would have no laws of any utility, so mine is simply a word of caution.

I am a firm believer in democracy. I don't think I have to establish my credentials on that side, but democracy is not the same as lowest common denominator.

MEMBER LASH: Chair, may I ask a follow-up question to Al?

CHAIR SCOWCROFT: Yes.

MEMBER LASH: Point well taken. I understood Ward Sproat in telling us that the objective should be a technically informed political process to be trying to accommodate the fact that there are some technical truths that no matter what we want to believe will always continue to be true. This shouldn't be a magical thinking process.

Consent is not the same as

consensus, and if we understand that we're not looking for everybody to agree, but we are looking for a technically sound solution that communities are willing ultimately to accept because they see the advantages, I don't see how we move forward without that.

MEMBER CARNESALE: I agree with that. A political process is certainly what it will be. I'm saying that it is not -- technically informed is not sufficient to describe it that way, right, technically informed. "Well, we know this is a bad place, but it's the one where we were able to get most people to agree," is a technically informed bad decision.

So I do think it's a bit more complicated than that. I certainly am not advocating that you simply take the best site and you put it there. I'm disturbed by what I hear over the last day and a half that, "I know how to avoid that problem," and that is go to the other extreme.

By the way, I doubt that we would put it in a place where it really would be dangerous. I think what's far more likely is it would be the Red Ribbon Commission 20 years from now trying to figure out, "How do we solve this problem that we don't have a place to put the waste?" simply that the process would not converge.

CHAIR HAMILTON: Brent, I think it's probably time to begin to think about our report, and one of the questions that comes up is who is the audience, and I think members of the Commission here need to begin to think about that.

I think we have to write a report that is -- that addresses several audiences. One is the technical professional audience, and in that respect the report has to be sound in its science and acceptable to the professional community, whatever those terms might mean.

Secondly, it's important to keep

in mind that we have to address this report to the policy-makers, whoever they may be in the executive and the legislative branches. Almost certainly we will have some recommendations that will require legislative action and maybe several that will require executive action.

That means that the report has to be persuasive. At some point, the Commissioners and certainly Brent and I will be required to go before congressional committees to talk about the recommendations of the report, and, of course, Brent and I will need a lot of help from those of you who have a depth of understanding of a lot of these issues.

A third -- a third audience, not unimportant, is the public, and when you try to put these audiences together, you've got a formidable task of writing. It is my view that you cannot make a report too clear or too simple, and I am impressed with the witnesses

that we have, their depth of understanding, the analytical capabilities they've brought to these problems, and really the very large number of excellent recommendations that we make.

We're going to have to think in terms of how to sort through all of this and make a report that is in the end addresses each of these audiences and maybe some I haven't identified but does it in a very clear, direct way. That's one point I want Commissioners to begin to think about, the audiences and how you address them.

The second point I ask of the Commissioners is that you begin to think about what subjects need to be covered and what subjects need to be not covered. Maybe the latter is as tough as the former.

I would suggest for you that we have heard an awful lot about process, and I think all of us have been impressed how important process is. In a sense, how we

reach a decision in this management of the fuel cycle is as important as the decision itself. At least, that's the way I understand a lot of the testimony we've had.

It's certainly true that how we carry out the decision is as important as the decision itself, so both the process and the implementation have to be addressed. So, obviously, a major part of the report I think has to be addressed to process questions.

Another -- I don't tend to -- mean to be all-inclusive here, but some thoughts come to my mind. We certainly have to address the question of governance. That came up frequently this morning, and then we have specific things to cover like disposal and transportation, storage, the fuel cycle development, and all the rest.

So I invite the Commissioners at this point to begin to think about not just the content of the report, obviously important, but also the audiences that we

address it to and the style of it.

I've had enough experience with reports, and some of you have, as well, that go to difficult topics that it's very, very easy to get deeply immersed in a lot of the detail, but at the end of the day you want a report that has impact, and in this town impact is better achieved, I think, if you don't have too much complexity.

So the challenge, in a sense, is to take a subject that so far as I can see is inherently very, very complicated and try to figure out how to write a report that will have impact.

Just some very general observations there, Brent, because I think we're at a point now in the deliberation of the Commission when we have to begin to think about these things, and we've got time to do it, obviously, but we've also got a formidable challenge to meet the requirements.

CHAIR SCOWCROFT: Well, I agree

completely, and I think those are useful admonitions, especially the two about we can't make it too clear or too simple. I think we can make it too simple, and that's part of our real problem.

This is inherently complex, and how you make it complex and still -- how you deal with the complexities and still make it understandable and readable is going to be a major task for us. Allison?

MEMBER MACFARLANE: Thanks. Let me give a couple of reactions to what's been said so far in the discussion between Per and Jonathan and Al. I'd just like to add that I think that it's not too complex an issue to add some basic criteria, technical criteria, to a siting decision, and there are examples out there already. We don't have to reinvent the wheel on this.

But I think Al gives us -- makes a good point that I think we may want to think carefully that if we design a process, we may

want to think about -- which has not really been done before, and that's maybe part of the reason why we're sitting at this table.

But we might think about also what happens if the process that we design fails? What's the Plan B? And think about what that might look like, or maybe that's too hard, I don't know, but something to consider.

So that's my first point, and the second point is that we've been meeting since the end of March and, you know, since basically the beginning of summer on a much more regular basis, and I think it's a good time to pause and take our temperature, so to speak, and say, you know, "Are we doing a good job, and what can we do better? You know, are we being effective?"

And, you know, that's sort of a very broad way of looking at it, but one more specific suggestion I'd like to make is that we've been getting a lot of information, and it's not just information that we've been

getting from the formal witnesses.

We've been getting a lot of public, oral public testimony. We've been getting a lot of written public testimony. I especially feel that we shouldn't let that public testimony get lost, and so I think maybe our staff can help us collate some of that information so that we can incorporate it into our deliberations and into our understandings. I don't want this to be the usual exercise of, you know, public comment and the agency, you know, just lists the public comments at the end of their report and maybe, you know, makes a few responses but ignores the vast majority of them. I think we need to go beyond that.

CHAIR SCOWCROFT: Thank you, Allison. Susan?

MEMBER EISENHOWER: Yes, I just wanted to go back to what Chairman Hamilton said and some of the other comments that were made about who our audience is for this report

and how do we produce a report that acknowledges the complexity of the issue but still helps us move the ball forward.

I think who the audience is and how we should approach this is implied by who has been selected by the White House and the Department of Energy to sit on this Commission. We have a wide array of people here on this Commission that represent different parts of the public policy space, and I think this suggests that whoever appointed us, and that would be the Secretary, of course, is really looking for broad strategy.

A broad strategy can be written in a hard-hitting way, and it's got to be backed up intellectually by technical and political realities, but that doesn't mean we have to write a report that, you know, covers absolutely every one of those details.

We have to come up with some very specific, possibly rather simple

recommendations that are feasible based on the testimony we've heard since we have begun and the testimony we'll hear before it's all over. So I actually have a high degree of confidence that we can meet your objectives, Chairman Hamilton, if we remember that people are looking to us for a strategic direction.

By the way, this is not -- this is an extremely important subject, since to do something or not do something are very, very big questions in certain technical and political areas, so much so that it has tied up the system in knots, because we have, you know, reached an impasse here.

So I think if we remember that we are a Commission tasked with a strategy for going forward, this will help us know what to put into the report and what not to, all based, of course, on solid technical and political realities. Thank you.

CHAIR SCOWCROFT: Thank you, Susan. Are there other comments? If not, we will

turn now to oral statements from the public. We have eight people who have asked to speak.

We will allot four minutes each, and for the speakers we have a little light system. At three minutes, the orange light will come on and at four minutes the red light, at which time we will ask you to cease.

The first speaker is Brian O'Connell, the National Assessment of Regulated Utilities Commission. Brian? Thank you for coming. You may proceed.

MR. O'CONNELL: Thank you very much. I appreciate the opportunity to make a few comments. I did provide for the record a letter or a statement on governance, and I found this morning's session very stimulating.

When our witness, Commissioner Greg White, spoke to you on May 25, he made the point that the Nuclear Waste Fund is a mess, and he got some very positive feedback that you all recognize that, and that came through in the subsequent presentations.

The document that Ward Sproat referred to on organizing and managing the program had two parts. He spoke mostly to the organizing, but the financing also had some very good recommendations, and they were largely ignored by Congress, primarily because the system seems to weigh against further reform, because the Congress got to spend that money, anyhow, and left a series of IOUs, and that certainly needs to be fixed.

On organization, since de facto the OCRWM has been disbanded, we're going to be talking about a new organization, whether it's in or out of the tent in government or not. We think that the Fed-Corp Bill that Senator Voinovich produced has got some very good features to recommend.

One that we're very concerned with, though, is this -- I think the language is transfer as an unfunded asset of the corpus of the Fund. That means that the $25 billion supposedly in the Fund does not convey.

So it would be a strong recommendation that we would make that you be quite specific in terms of keeping things simple is that that money needs to come back to this program, whoever manages it.

There were some points raised about whether -- Joe Hezir made some excellent dissecting of the bill, and as I read the bill, it is a federal agency. It has got compliance with certain provisions of law and not others. For example, NEPA does apply. For example, Price Anderson does apply, so there's a lot of detail there.

I guess the only concern I have with the bill, besides the uncertainty of the financing, is the transition of who will stand up this new organization and guide it through its initial phases. It doesn't simply appear because it's in legislation. There needs to be a transition element to it. So I appreciate the opportunity to make some additional comments and thank you very much.

CHAIR SCOWCROFT: Thank you. Are there any questions? The next speaker we have is Tom Cochran from the Natural Resources Defense Council. Mr. Cochran?

MR. COCHRAN: Thank you, General. Yesterday you heard a presentation, Ernie Moniz and Charles Forsberg, on the MIT fuel cycle study, which was a nuclear industry-funded study, and I wanted to give some critique of that study.

They began with a presentation of historical constant dollar minerals costs including uranium but about 12 minerals that it shows over a period of 100 years that the constant dollar cost of mineral extraction doesn't increase.

They mentioned that they had an economic model that showed there would be a modest increase if you had a major increase of use of nuclear power, a modest increase in the cost of uranium, 50 percent over 100 years.

What they -- that's consistent, by

the way, with another study, and that analysis is unavailable, because the report is not available and won't be available for two more months and, in fact, hasn't been completely written.

That uranium analysis is consistent with the analysis by Clifford Singer and his co-author -- Clifford's at University of Illinois -- that there would be only a modest increase in uranium cost with major increase in demand of uranium.

So there are three, I think, more or less independent studies that come to the same conclusion that the cost of uranium is not going to increase significantly over the next -- the remainder of this century.

What they did not include, though, was the other factor that affects the cost of light water reactive fuel, namely the enrichment cost, which in constant dollars has gone down in the last 40 years and is likely to go down in the next 100 years, because

there is a huge availability of improvements and efficiency of spinning centrifuges and going to laser enrichment and so forth.

The take-home message from all of that is the cost of nuclear fuel for light water reactors on the once-through fuel cycle for the next 100 years will be what it is today. It isn't going to change significantly.

What they did not mention, though, was the projections or the historical growth in constant dollars of reprocessing costs. AEC was indicating in 1968 that reprocessing would cost $34 a kilogram, and by today it would be down to $22 a kilogram. In fact, it's several thousand dollars a kilogram. It's gone up by an order of magnitude.

MOX fabrication in real terms has gone up by an order of magnitude. The cost of building nuclear power plants, AEC estimated in 1970 $150 -- in `68 $150 a kilogram -- I mean, $150 a kilowatt for a cost of a new

nuclear plant.

It's gone up by at least a factor of five, and therefore the cost of advanced fast reactors relative to light water reactors has also in real terms gone up by more than a factor of five, because the cost differential has gone up by more than 20 percent to something like 50 percent or more.

The bottom line is these advanced fuel cycles are no longer economically attractive. There is no foreseeable way to make them attractive, and all you can do is, as Ernie did yesterday, was wave his hands and say, "There's a lot of uncertainty here, and we don't know what's going to happen, and we think we ought to do a billion dollars a year worth of R&D to see what we -- what we can find out."

My view is you're wasting money doing R&D on advanced fuel cycles. You've got one that's good for another 100 years, and you're investing as the Department of Energy's

Nuclear Energy -- Office of Nuclear Energy.

Historically, they've boxed themselves in where their mission is really only to look at the back end of the fuel cycle. They don't look at the front end of the fuel cycle anymore, and they don't look at -- they don't get involved themselves heavily in developing -- lowering the cost of new nuclear plants.

So I think the message, the take-home message and the message this committee ought to impart is that in terms of R&D, it ought to be focused on reducing the capital cost of nuclear power plants, not on spending money developing advanced fuel cycles and the back-end of the fuel cycle.

Now, one last -- yes, sir -- one last thought. They did not talk about proliferation. If you're concerned about proliferation as it relates to civil nuclear power, it comes not just from the availability of the material but from the availability of

the R&D programs on these advanced fuel cycles.

At Oak Ridge, we have now four facilities with hot cells. In one hot cell in one of those facilities, the Advanced Fuel Cycle Initiative conducted the entire demonstration of taking spent fuel and turning it into a MOX pellet.

That's in one hot cell with one set of manipulators with a cadre of people who are experts in actinide chemistry and plutonium chemistry and metallurgy. So if you want to address the proliferation issue, you need to look at the R&D program and not just the availability of materials.

I point out just for Per Peterson's sake when Alan Hanson came before your committee and argued about the fact that La Hague reduces the proliferation risk through reprocessing, he failed to mention that La Hague was, in fact, a weapons facility for separating plutonium for the French

weapons program, and it was only later that they tacked on the civil separations capability and ran them alongside. Thank you.

CHAIR SCOWCROFT: Thank you, Mr. Cochran. Any questions? Thank you.

The next comments will be by Irene Navis of Clark County, Nevada. Thank you for coming.

MS. NAVIS: Thank you for having us again. Thank you, Mr. Chairman and Commission members. I'd like to thank you first of all for the July 7 meeting where you allowed John Gervers to speak on Clark County's behalf. I'm sorry I was out of the country that day and couldn't attend the meeting, but I appreciate you having us on that panel.

I also wanted to let you know that the speaker that you had yesterday, Claudio Pescatore from OECD, his study that he, I'm sure, discussed with you about value-added and stakeholder involvement, Clark County was a participant in that study, and we appreciate

all of his efforts in that regard and hope that you'll be able to review that study, as well.

I want to thank you for today's panel in particular, including Ward Sproat. We had an excellent working experience with Mr. Sproat, and he did, in fact, increase the credibility and stakeholder involvement during his tenure, and it was a very valuable experience for us.

I think one of the key things that you've been hearing about today is trust and relationships and the interplay of governance in those two aspects, and I think that those really are the keys to a successful program, so I hope that your report spends a lot of focus in that area.

Clark County has a study on stakeholder and trust issues that we will provide to the Commission for your -- for your information. We will also provide you with socioeconomic studies and any transportation

studies that are relevant to tomorrow's discussion, as well, and we want to just make one key point today about the enabling legislation that you may be considering.

We hope that the enabling legislation provides clear direction and allows also for some flexibility to accommodate changing conditions and that it does not tie the hands, unduly tie the hands of those responsible and accountable and at the same time does not set the bar too low in terms of accountability and performance by all governing bodies and stakeholders. I think that's one of the problems that we've seen with the Nuclear Waste Policy Act.

In terms of organization and government -- governance, the point we want to make is that stability and long-term commitment and clarity of mission and goals are the keys there.

I think part of DOE's problem with the nuclear waste program to date is that

they've at times had an appearance of a conflicting mission or conflict of interest and perhaps undue advocacy at times for their programs that have impacted their ability to meet their obligations and has contributed to the erosion -- excuse me -- of trust and stakeholder involvement in their process, and I look forward to the transportation discussion tomorrow and hearing more about these issues. Thank you.

CHAIR SCOWCROFT: Thank you very much. Questions? Our next commenter is Arjun Makhijani from IEER. Mr. Makhijani? You might tell us what IEER is.

MR. MAKHIJANI: It is the Institute for Energy and Environmental Research, General. Thank you. Thank you for giving me this opportunity.

First, let me appreciate what Dr. MacFarlane said, and I hope the Commission will take up her suggestion, because you've heard a lot of things, and I hope it'll give

confidence in your product, certainly, with the public if you accept that suggestion and follow through with collating those comments and take them seriously into account. Thank you.

The -- a couple of comments regarding reprocessing. It's going to cost $100 billion to reprocess existing spent fuel. There is no business case for it. Industry doesn't want to pay for it. You've heard them that they don't want to pay for it, and there is no business case for it.

You're going to separate 1,000 tons of plutonium if you do that. You're going to create more waste, and you heard the former DOE person to say you're going to create more low-level waste.

There -- whether you do advanced fuel cycles or not, this is very iffy, and you heard Tom on that. I won't repeat what Dr. Cochran said. I think if you really want to get on with the job and do the job that we

failed to do -- and there is a real merit in the Nuclear Waste Policy Act.

The real merit in the Nuclear Waste Policy Act and the reason I support and I've always supported a repository program, for the last 20 years, anyway, is its non-proliferation merit. You're locking up that plutonium in spent fuel without separating it. Please do not lose that most important merit of the Nuclear Waste Policy Act.

Since there is no foreseeable business case for reprocessing, I really think the MIT report suggestion that somehow we ought to keep options open for 100 years and then figure out what to do is going to be very diversionary, and it is going to encourage proliferation from paths in other countries.

The "Do as I say and not as I do" days are over. The United States doesn't have the deep pockets to make it happen, as it might have in the 1950s and 60s.

You've heard -- my second point is

about the technically informed political process. Actually, what we have had so far, we had the technical information to avert this Yucca Mountain problem, but we didn't use it.

The Department of Energy commissioned -- requested the National Academy to do a study, and they produced a report in `83, and I think I alluded to it last time, and I hope that you will all look at it.

In that report in the fine print, as well as in the background report prepared by a member of that panel, said that Hanford was a dangerous site to mine, and we should try to find a better one.

If you read the charts, it will tell you that Yucca Mountain would have had the highest radiation doses of any site, because there is very little groundwater there. It would have gotten very polluted.

This was 1983, and yet in 1985, I think, the DOE selected Hanford and Yucca Mountain as two of the top three sites,

because it was politically convenient. Then, of course, it was all abandoned.

Yucca Mountain was not a technically informed political process. It was a politically driven process in which the technical information was there, and it was not used.

I take the suggestion that was made earlier that we can't just select a community and then say -- and then find it's a bad site. How are you going to generate the technical information?

I suggest that a two-step process would be very useful. If we go directly from your Commission into a new siting process, the existing loss of trust and confidence because of the poor way in which the whole process was carried out, despite a lot of competent science that was part of it, is very likely to result in another Commission in 10 or 20 years.

You don't want to go into a siting

process right away. I have suggested and I will suggest again that you need ten years of solid scientific work. What types of rocks? What has been done? How do those rocks marry with the packages? How do the packages marry with the sealing process?

The scientific process will then be detached from a specific set of sites, and then you will know how to site. If you have confidence and trust and transparency and sound science, all of those things, before you start talking about sites, there's a ghost of a chance you might have -- you might have a process that the public will have confidence in.

My last comment is on your institutional structure. I am very uncomfortable with the suggestion that somehow the shareholders are the rate payers and utilities, and there is nobody else.

There is a party that can't vote, and there's a party that doesn't have the

money, and there is a party that's not present. That's the most important party, because everybody knows this is a very long-term problem, and we're really talking about our kids either if we talk about proliferation and certainly if we talk about environmental impact.

So I think you have to have an institutional structure that doesn't have overwhelming or large weight to a set of parties whose attitude is, "Get it out of my backyard."

So it's the opposite of NIMBY. "Don't put it in my backyard," but you can't give it over to a set of parties that says, "Get it out of my backyard," and I'll close with this following story.

Secretary O'Leary once had a roundtable on nuclear waste. I was part of that. It was a not-for-attribution roundtable, but we could say what had been said.

So I'll tell you that a nuclear utility executive told Secretary O'Leary, "You have to get this out of our sites, and I don't care where you put it," and that's what you will be putting in the driver's seat if you give the nuclear utilities the main seat at the table. I don't, you know, I don't think other rate payers are likely to count for much in that process. Thank you.

CHAIR SCOWCROFT: Thank you very much, Mr. Makhijani. Our next commenter is Michael Hardy, the National Society of Professional Engineers. Mr. Hardy? Thank you for coming.

MR. HARDY: Chairman Hamilton, Chairman Scowcroft, my name is Michael Hardy. I am the President of the National Society of Professional Engineers, an organization that represents approximately 45,000 licensed professional engineers across all disciplines, structural, nuclear, mechanical, electrical. I appreciate the opportunity to comment before

the Commission today.

NSPE believes that the United States should lead the world in the advancement and use of nuclear power. Green, clean, renewable nuclear power systems will be an important component in our efforts to reduce the nation's reliance on foreign oil and the release of harmful pollutants.

The nuclear energy industry has an excellent safety record, thanks in part to strict regulation, comprehensive safety planning, and rigorous training and qualification standards for employees.

Nuclear power's great potential, however, is accompanied by a risk of disaster. The unlikely accident at a nuclear facility would cause serious harm to people and their livelihoods and the environment for generations to come.

Improper storage of spent radioactive fuel would also endanger the public health and safety. NSPE believes that

licensed professional engineers should have direct supervision over all engineering design, operations, and maintenance decisions at a nuclear facility.

Professional engineers are licensed by the government, which requires them to meet and maintain an acceptable standard of competence. Professional engineers are also bound by a code of ethics to make decisions only in their area of expertise.

Most critically, even while striving to achieve a technical solution to very complex problems, professional engineers are ethically obligated to protect the public health and safety above all other concerns. Safety can be compromised when employees feel compelled to put loyalty to their employer before ethics.

Professional engineers are unique in two ways. First, professional engineers are accountable to the state they're licensed

in, ensuring that a professional engineer's loyalty is to the public, not an employer.

Like doctors and attorneys, professional engineers depend on the license to practice. Losing the license could ruin the professional engineer's reputation and end its career. Continued licensure carries more weight than continued employment with one company.

Second, when professional engineers make decisions, they are taking full personal accountability for those decisions. Professional engineers sign and seal plans and documents as individuals, and they take singular responsibility for the soundness of those decisions and plans.

The sense of personal responsibility renders professional engineers impervious to the outside pressures and motivates them to maintain the highest standards of quality. Because of the proven competence and commitment to public health and

safety, NSPE recommends that the nuclear power plants employ professional engineers to supervise all engineering design, operations, and maintenance functions.

This will help the nuclear industry preserve its strong safety record, minimize the potential for disaster, and build trust with the public. Thank you.

CHAIR SCOWCROFT: Thank you very much, Mr. Hardy. The next presenter is Darrell Lacy of Nye County. Mr. Lacy? Thank you for coming. You may proceed.

MR. LACY: Thank you, Chairmen Hamilton and Scowcroft and members of the Commission. I appreciate the opportunity to make this public comment on behalf of Nye County, Nevada.

My name is Darrell Lacy. I am the Director of the Nye County office that provides oversight for Yucca Mountain, and we've been involved in this process now for approximately 20 years. As the home of the

Yucca Mountain repository, we have been very concerned with the decisions that have been made in the past, as well as what's going on here in this Commission.

When the repository site was chosen in 2002 using a process that was spelled out of the Nuclear Waste Policy Act, the Nye County Board of Commissioners interpreted that action as the law of the land, and rather than oppose the repository, they resolved to actively and constructively engage with DOE.

The County has worked under the oversight provisions of the Nuclear Waste Policy Act to ensure the safety of the repository, to protect the citizens of Nye County, and to help encourage economic development opportunities. We feel that this was best done through the successful development of the repository and transportation systems.

On a broader basis, nuclear power

is integral to the U.S. energy policy and energy security. The only way to successfully encourage the development of nuclear energy is with a long-term approach to taxes incentives, a common sense regulatory approach, and a steady hand on the tiller.

As you've heard several times today, it's a multi-decade process, and we have to make sure that we're taking a long-term view of this. Local communities and citizens of these United States expect the federal government to recognize its obligations and responsibilities here. We feel like it is very important to the nation's future to do so.

As of today, the Nuclear Waste Policy Act is still the relevant law, and no meaningful effort has been put forth to change this law. We hope the outcome of this committee here will come up with some steps that will help improve it and help the waste process move forward.

Up until now, the Nuclear Waste Policy Act and its amendments have been met by the Yucca Mountain project up to the point of actually validating the safety and scientific basis of the repository and the licensing process before the NRC. It's difficult to imagine a different approach that would be more acceptable to the states and local communities that have been most impacted by this waste.

Whatever organizational structure that you come up with should have formal involvement with the state and local governments through oversight and/or representation on any kind of governing body.

To that end, we submit the following formal statement that is a synopsis of international consensus approach that we have been involved with and think that this will help to integrate government and regulatory responsibilities.

This is not a new problem. I

think we can learn a lot from our experience and those of other countries that are facing the same problems. Thank you.

CHAIR SCOWCROFT: Thank you very much, Mr. Lacy. Our next presenter is Judy Treichel of the Nevada NWTF. Thank you for coming. You may proceed.

MS. TREICHEL: Thank you. It's Judy Treichel from the Nevada Nuclear Waste Task Force. I was really interested yesterday. Susan Eisenhower asked a question that I have been asking for almost 30 years, and that is to anybody involved at that time with Yucca Mountain, but please define the problem that Yucca Mountain is supposed to be the solution for.

Susan asked the presenters as they were presenting to define the problem that they were speaking to, and twice she got the answer. Well, I think only two people answered the question, but both of those answers were climate change.

It seems to me that waste storage, waste management, or waste disposal, which is what this Commission is primarily supposed to be looking at, really are pretty neutral when it comes to climate change. They neither make it any better or make it any worse.

What these speakers were talking about and what that problem is defining is nuclear power, and I can't imagine how nuclear power can be that important to everybody around this table, and I hope that it's not.

I know that it's terribly important and it's a primary -- of primary importance to a lot of the people that you've had present, but when you sit here and you listen to the attendant problems and certainly the problems of waste management and waste disposal that have gone on in this country for probably 40 years or 50 or 60, if you go back to when waste started being produced and then even get into the issues of proliferation and the possibility of weapons being manufactured

around the world, all of the things that have to go with this, I just cannot imagine that nuclear power can be that important or of the primary importance, and I'm hoping that it's really not.

I know one of the presenters yesterday talked about one of the first things you have to tell the people in the host community is how important nuclear power is.

Well, I don't think that that's the case, and when you're listening to people talking very casually about the fact that 15 years is going to go by before something else happens, and by that time we've got 100,000 tons of nuclear waste, we'll never be able to keep up when it comes to reprocessing, if that's a decision that's made. We can't keep up with emplacing.

I would just ask that you step back and be absolutely sure that you're focused on nuclear waste disposal or management, and I think you can come to an

agreement with anybody out there, with any of the public you want to talk to.

Everybody agrees that nuclear waste now exists. There is probably 60,000 to 65,000 tons of nuclear waste sitting out there. We can all agree on that, and we can all agree that we want the public kept as absolutely safe as they can be. That's where everybody starts at agreement, and then you can go from there.

You can probably build public trust, public confidence if you all come together and if the public is in, bought in from that very basic premise that it does exist. Nobody's arguing with that, and it needs to be safe, and the public needs to be kept safe. So thank you.

CHAIR SCOWCROFT: Thank you very much, Ms. Treichel. Our last presenter is Alfred Meyer, who is representing himself. Mr. Meyer, you're welcome.

MR. MEYER: Thank you very much for

making this opportunity possible. I would like to just comment on a couple of things that I've heard over the past few days.

I particularly was taken with Dr. Cragg's concept of justified trust, and I thought his concept that a body such as this might really be charged with asking the right questions and then getting the answers, in fact, from the public, and I hope that you have taken that to heart.

I'd like to second Ms. Treichel's comments about the grave concern of the buildup of nuclear waste. We've heard that there really at this point is no solution for high-level nuclear waste or low-level nuclear waste, so it brings up the question what do we do in such a situation.

I would suggest that you will gain much public credibility if this Commission also considers the shutdown option of just not expanding nuclear power but of trying to shut it down and to deal with what we have at hand.

I applaud Commissioner Carnesale for actually saying that nuclear waste is a burden. I feel that it is. However, I must disagree with his consequent statement that the ethical reason to take such a great risk is the solution -- is the fact that nuclear power would be a solution for climate change.

I feel that climate change is a profound and immediate problem. It needs action now, and the fact is the nuclear power cannot respond quick enough or in enough volume to really make the changes that we need.

I would also like to suggest that the loan guaranties are not the problem. There is still money on the table from 2007. I think the problem really more is having a viable project that can utilize the existing funds.

Dr. Miller pointed out the inherent proliferation risks of nuclear power, and I think that the situation in Iran is a

clear example of what this is, and I think that he challenged the U.S. to be a leader in terms of adopting an international fuel bank, that if we want other countries to be happy to be dependent on some other source of fuel, then I think that we need to be able to follow through and do that ourselves.

Lastly, I'd like to commend Commissioner Eisenhower for asking the clarifying question yesterday of the presenters what problem are they trying to solve, and I'd like to invite the Commissioners here today -- we probably have a few minutes before adjournment -- to go around the table and for each of you to tell us that same -- answer that same question.

What problem are you trying to solve here? For me, I have grave concerns about public health and the need to keep these very dangerous and very long-lasting elements separated from the biosphere. Thank you very much.

CHAIR SCOWCROFT: Thank you, Mr. Meyer, appreciate it. Are there any comments from the Commissioners? We will not go around the table right now, but if any of you wish to comment, you're welcome to do so. If not, I will declare the meeting adjourned and thank our presenters very much for appearing before us.

(Whereupon, the foregoing matter was adjourned at 12:13 p.m.)

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