

# **BUDGET IMPLICATIONS OF CLOSING YUCCA MOUNTAIN**

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## **HEARING**

BEFORE THE

### **COMMITTEE ON THE BUDGET HOUSE OF REPRESENTATIVES**

ONE HUNDRED ELEVENTH CONGRESS

SECOND SESSION

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HEARING HELD IN WASHINGTON, DC, JULY 27, 2010

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## BUDGET IMPLICATIONS OF CLOSING YUCCA MOUNTAIN

TUESDAY, JULY 27, 2010

HOUSE OF REPRESENTATIVES,  
COMMITTEE ON THE BUDGET,  
*Washington, DC.*

The Committee met, pursuant to call, at 10:20 a.m., in room 210, Cannon House Office Building, Hon. John M. Spratt, Jr. [Chairman of the Committee] presiding.

Present: Representatives Spratt, Kaptur, Becerra, Doggett, Etheridge, McCollum, Scott, Larsen, Connolly, Schrader, Ryan, Simpson, Jordan, Nunes, Lummis.

Chairman SPRATT. Good morning, and welcome to the Budget Committee hearing. Our topic today is the budget implications of the administration's proposal to close the Yucca Mountain Nuclear Waste Project. Speaking for myself, I am opposed to the administration's decision to terminate Yucca Mountain for several reasons.

First, I am concerned that the federal government's failure to resolve the problem of nuclear waste disposal has significant implications for the federal budget, which is our jurisdiction. Second, it also means that nuclear waste that belongs in a permanent repository will instead be stored indefinitely at sites including my state and my district.

Radioactive waste is a byproduct of this nation's energy production and defense. By law, disposing of spent nuclear fuel and high level waste is a federal responsibility. But because the federal government is not meeting its obligation, waste is being stored indefinitely at more than 120 sites across the nation. In addition to the several sites that are in my district, South Carolina, my state, has the Savannah River Site, of which we are justly proud. But it stores more than 37 million gallons of nuclear waste, a grim legacy of the Cold War.

This approach is not what Congress had in mind. The Nuclear Waste Policy Act of 1982 set up a system for dealing with this waste. That plan or process included a fee collected from the electric utilities, who have paid for taking the waste off their hands beginning in 1998, twelve years ago. After decades of study and analysis by experts, the government decided to have a single national nuclear waste repository. Later, Congress approved Yucca Mountain, Nevada, as the site and the Department of Energy submitted the license application with the Nuclear Regulatory Commission.

But after decades of analysis and decisions, and after billions of dollars in fees collected and appropriations made, the administration decided last year to drop—abandon—Yucca Mountain Project.

This March, the administration told the Nuclear Regulatory Commission that it wanted to withdraw the license application for Yucca Mountain with prejudice. The Commission is in the midst of deciding whether to allow that. In addition, there are several pending lawsuits challenging the administration's right to do what it has done.

I have called for the administration to instead move forward with Yucca Mountain as required by law. I have been joined in this view by many others in Congress. Our goal for this hearing is to gain a better understanding of the budget implications of the administration's proposal to close Yucca Mountain. First of all, how much have we spent on the project so far? A basic question for a Budget Committee to ask. What happens if the project is indeed stopped with prejudice? How much does the federal government owe to these utilities for failing to meet its obligations, or our obligations? I am doubtful there are easy alternatives or welcome options to the Yucca Mountain site. If we abandon Yucca where do we go to find a suitable alternative?

We have several excellent witnesses today to pursue the answers to those questions and I want to thank them for their participation. First, from the Department of Energy we welcome Under Secretary Kristina Johnson. She is accompanied by the Department of Energy's General Counsel Scott Blake Harris. Dr. Johnson, Mr. Harris, thank you both for joining us today.

Also on our first panel from the Department of Justice we have Michael Hertz. He is the Deputy Assistant Attorney General in the Civil Division. Mr. Hertz, we welcome you again and appreciate your coming.

After we hear from these government witnesses, we will get a view of this problem from the state and local level. We will hear testimony from Mr. David Wright, who is Vice Chairman of the Public Service Commission of South Carolina. Mr. Wright, I thank you also, sir, for coming.

In addition, the Committee has just received from the Congressional Budget Office updated estimates of the funding and liabilities related to Yucca Mountain. For the record, CBO estimates, one, the nuclear industry has paid more than \$17 billion in fees since 1983 for the federal government to remove nuclear waste, and they contribute \$750 million to \$800 million more each year. Second, another \$14 billion in interest has been credited to the nuclear waste trust fund. CBO's statement also addresses how much has been spent on nuclear waste removal. More than \$7 billion from the fund has been spent, a large percentage of it for Yucca Mountain. Congress has appropriated another \$4 billion to deal with defense related waste. And finally, CBO tallies the budget cost of failing to meet federal obligations. The government has paid more than \$700 million to date, with more to come, in judgments and settlements with the nuclear industry. Potential total liabilities, including the sums above, could exceed \$13 billion, according to the latest estimates.

Without objection, we will make the CBO statement in its fullness part of the record. Hearing none, so ordered.

[The prepared statement of CBO follows:]

PREPARED STATEMENT OF KIM CAWLEY, CHIEF, NATURAL AND PHYSICAL RESOURCES,  
COST ESTIMATES UNIT, CONGRESSIONAL BUDGET OFFICE

Mr. Chairman, Congressman Ryan, and Members of the Committee, I am pleased to provide updated information about the federal government's responsibilities and liabilities under the Nuclear Waste Policy Act of 1982 (NWPA). Since I testified on this topic in 2009, there have been a number of important developments.<sup>1</sup> After signaling its intention to terminate a project to build a geologic repository for nuclear waste at Yucca Mountain—the only site where such waste is authorized to be stored under current law—the Administration announced in January 2010 the formation of a Blue Ribbon Commission to make recommendations on alternative means of storing, processing, and disposing of nuclear waste. In March, the Administration filed a motion with the Nuclear Regulatory Commission (NRC) to withdraw its license application to construct a permanent repository at Yucca Mountain. That motion was denied in June by a three-member NRC panel; the Administration has subsequently appealed that decision.

Despite those developments, the federal government remains responsible for permanently disposing of spent nuclear fuel generated by civilian facilities, and the owners of those facilities continue to pay fees for that service. Regardless of how the government meets that responsibility, that task will require a significant amount of federal spending over many decades.

THE FEDERAL GOVERNMENT'S RESPONSIBILITIES  
UNDER THE NUCLEAR WASTE POLICY ACT

The Nuclear Waste Policy Act requires the federal government to take possession of and permanently dispose of spent nuclear fuel generated at civilian nuclear reactors and to dispose of radioactive waste that results from federal activities in manufacturing nuclear weapons. Under current law, the only solution that the government is authorized to pursue involves permanent disposal of waste at a geologic repository, and Yucca Mountain in Nevada is the only place where such a repository may be located.

Under the NWPA, the federal government, through the Department of Energy (DOE), faces substantial costs to establish a repository for the nation's nuclear waste. It has also incurred contractual obligations to remove waste from civilian nuclear facilities. The government will also be responsible for disposing of waste from any new facilities built in the future.

FINANCING THE COSTS OF DISPOSING OF NUCLEAR WASTE

The NWPA addressed how the disposal of spent nuclear fuel and defense-related waste was to be paid for. Under that act, the costs are to be borne by the parties that generate it, and the law authorizes DOE to levy fees on the nuclear power industry to cover the costs for the waste it generates. The law also authorizes appropriations from the Treasury's general fund to pay for disposing of high-level radioactive waste generated by the nation's defense programs.

In 2008, DOE published an estimate of the total costs—including those for transportation and project management—associated with geologic disposal of waste generated by existing nuclear plants. At that time, Yucca Mountain was assumed to be the primary repository. In DOE's estimation, the project would cost about \$96 billion in 2007 dollars over a period of more than 100 years.<sup>2</sup> DOE has not published an updated estimate of the cost of completing a geologic repository for the nation's nuclear waste.

FINANCING THE COSTS ASSOCIATED WITH CIVILIAN NUCLEAR WASTE

Starting in 1983, the NWPA authorized DOE to charge electric utilities fees to cover the costs of disposing of the nuclear waste they generate. Utilities today pay annual fees at a rate of 1 mil (0.1 cent) per kilowatt-hour of the electricity they sell that is generated by nuclear power plants. In addition to the ongoing yearly fees, the NWPA established one-time fees to cover the costs of disposing of waste that was generated before the law was enacted. DOE provided utilities with several op-

<sup>1</sup> See the statement of Kim Cawley, Congressional Budget Office, The Federal Government's Responsibilities and Liabilities under the Nuclear Waste Policy Act, before the House Committee on the Budget, July 16, 2009.

<sup>2</sup> Department of Energy, Office of Civilian Radioactive Waste Management, Analysis of the Total System Life Cycle Cost of the Civilian Radioactive Waste Management Program, DOE/RW-0591 (July 2008).

tions for paying that one-time charge, but several utilities have not yet paid the fee, and a significant amount remains uncollected.

The fees, which are recorded in the budget as offsetting receipts (a credit against direct spending), are deposited into the Treasury's Nuclear Waste Fund. The NWSA authorized appropriations from the Nuclear Waste Fund to cover the costs of the civilian nuclear waste program. In addition, the law authorized the Secretary of the Treasury to invest the fund's unspent balances in nonmarketable Treasury securities, which are credited with interest.

Table 1 summarizes the government's receipts and disbursements related to the nuclear waste disposal program from 1983 through the end of fiscal year 2009. During that time, \$31.0 billion was credited to the Nuclear Waste Fund. That amount includes fees paid by the nuclear industry totaling \$17.1 billion as well as \$13.8 billion from intragovernmental transfers of interest credited to the fund. Cumulative expenditures from the fund during that period totaled about \$7.3 billion, mostly for analyses related to the waste disposal program and for initial design work by DOE on the Yucca Mountain facility. The NRC and other federal entities also received modest appropriations from the fund for work related to the program, leaving an unspent balance of \$23.6 billion at the end of fiscal year 2009. CBO estimates that in 2010, another \$2.0 billion will be credited to the fund—nearly \$800 million from fees and the rest from interest. Expenditures in 2010 will total \$0.2 billion, bringing the fund's end-of-year balance to \$25.4 billion, CBO estimates.

TABLE 1.—CUMULATIVE RECEIPTS AND DISBURSEMENTS OF THE NUCLEAR WASTE FUND

[Billions of dollars]

	Cumulative Totals 1983 Through 2009	Estimated 2010
<b>Deposits:</b>		
Annual fees .....	15.6	0.8
One-time fees .....	1.5	0
Subtotal, cash receipts .....	17.1	0.8
Interest credited <sup>a</sup> .....	13.8	1.2
Total Deposits .....	31.0	2.0
Disbursements .....	7.3	0.2
Fund Balance .....	23.6	25.4
<b>Memorandum:</b>		
Appropriations from the General Fund for Defense-Related Activities .....	3.7	0.1

Source: Department of Energy and Congressional Budget Office.

Notes: Amounts are in nominal dollars. Components may not add up to totals because of rounding.

<sup>a</sup> Intragovernmental transfers from general revenues.

If all of today's 104 licensed nuclear reactors continue to generate electricity, future annual receipts from industry fees are likely to average between \$750 million and \$800 million for at least the next decade. Most U.S. nuclear power plants began operating in the mid-1970s or during the 1980s under 40-year licenses. The NRC has approved 20-year extensions to the licenses of more than half of the plants in operation today, and it anticipates that many of the others will apply for such extensions. When those plants reach the end of their license extensions (or their economically useful lives) and cease operations—probably in the 2030s and 2040s—they will no longer pay fees to the Nuclear Waste Fund to dispose of their waste.

Receipts from the one-time fees that remain unpaid and become due once the federal repository is opened currently amount to about \$3.2 billion, DOE estimates.<sup>3</sup> Interest accrues on the balances due from those one-time fees until the utilities pay them to the government; therefore, eventual deposits of such fees will probably be significantly greater than the current balances due. Also accruing and adding significantly to the fund's balances are credits of interest on the fund's unspent dollars. Those amounts are intragovernmental transfers because the fund's balance is invested in U.S. Treasury securities, and thus, the crediting of interest does not create net receipts to the federal government. However, such amounts add to the resources that are authorized to be used for the waste disposal program.

<sup>3</sup>Data supplied to the Congressional Budget Office in July 2010 by the Department of Energy.

## FINANCING THE COSTS ASSOCIATED WITH DEFENSE-RELATED NUCLEAR WASTE

In addition to the amounts appropriated from the fees and interest credited to the Nuclear Waste Fund, the Congress has provided annual appropriations to the nuclear waste program to cover the costs that DOE estimates are related to the disposal of nuclear waste generated by federal defense programs. In 2008, DOE determined that about one-fifth of the total life-cycle costs of the waste disposal program was attributable to that endeavor and that this share of the program's total costs should be paid for with appropriations from the general fund of the Treasury.<sup>4</sup> Since 1993, the Congress has provided about \$3.8 billion from the general fund for such costs—roughly half of the budgetary resources provided to the waste program so far.

## CONTRACTUAL OBLIGATIONS AND LIABILITIES FOR NUCLEAR WASTE

Under contracts signed with electric utilities pursuant to the Nuclear Waste Policy Act, DOE was scheduled to start removing waste from storage sites at individual power plants for transport to a federal storage or disposal facility by 1998. After the federal government missed its 1998 contractual deadline to start collecting waste, electric utilities began—successfully—to sue the government for resulting damages, which are paid from the Treasury's Judgment Fund.

Pursuant to the Department of Justice's settlements with electric utilities, utilities have been reimbursed for the costs they incurred because of DOE's partial breach of its contracts. Such costs are unique to each nuclear power plant and depend partly on the age and operating status of the plant and the size and configuration of the plant's available space for nuclear waste storage.

## EXISTING LIABILITIES UNDER THE NUCLEAR WASTE POLICY ACT

According to DOE, as of June 2010, electric utilities filed 72 lawsuits seeking compensation for costs they incurred because the federal government could not begin to accept nuclear waste for disposal in 1998. Of those lawsuits, 11 have been settled, and about \$725 million has been paid under those settlements. Ten other cases have been dismissed, and one affirmed judgment has resulted in a payment of \$35 million to the Tennessee Valley Authority (a government entity). Of the 50 pending cases, 20 have been decided, but some are subject to post-trial motions. If those decisions stand, the federal government's liabilities, including amounts already paid pursuant to settlements, will total \$1.8 billion.<sup>5</sup> Because judicial claims for damages are made retrospectively, many more cases can be expected in the coming decades as utilities seek to recover their ongoing costs for storing nuclear waste long after they expected it to be removed and sent to a permanent disposal site.

## FUTURE LIABILITIES UNDER THE NUCLEAR WASTE POLICY ACT

DOE currently estimates that, if it begins to accept waste in 2021, taxpayers' liabilities to electric utilities—including amounts already paid—will total \$13.1 billion (in today's dollars).<sup>6</sup> Further, DOE anticipates that payments from the Judgment Fund will occur for several decades. DOE has previously estimated that liabilities will increase—by roughly \$500 million annually—if the schedule for completing the planned repository slips further beyond 2021 and waste continues to accumulate at utilities' storage sites.<sup>7</sup>

In addition, it is not clear how the Administration's decision to terminate the Yucca Mountain repository will affect the federal government's liabilities to electric utilities. If DOE is found at some point to have fully breached its contractual commitments, the federal government's liabilities could increase considerably.

Ultimately, a change in law would be required to authorize DOE to permanently dispose of all of the waste anticipated to be generated by existing nuclear facilities at a site other than Yucca Mountain. Even if such legislation is enacted, federal liabilities will remain substantial, and payments from the Judgment Fund to compensate utilities for storing waste will continue for many years.

Chairman SPRATT. Before turning to our witnesses for their testimony, let me turn to our Ranking Member, Mr. Ryan, for his opening statement. Mr. Ryan?

<sup>4</sup>Department of Energy, Office of Civilian Radioactive Waste Management, Analysis of the Total System Life Cycle Cost of the Civilian Radioactive Waste Management Program, DOE/RW-0591 (July 2008).

<sup>5</sup>Information supplied to CBO in July 2010 by the Department of Energy.

<sup>6</sup>Ibid.

<sup>7</sup>Ibid.

[The prepared statement of John M. Spratt, Jr. follows:]

PREPARED STATEMENT OF HON. JOHN M. SPRATT, JR., CHAIRMAN,  
COMMITTEE ON THE BUDGET

Good morning and welcome to this Budget Committee hearing. Our topic today is the Budget Implications of the Administration's proposal to close the Yucca Mountain nuclear waste project.

I oppose the Administration's decision to terminate the Yucca Mountain project for two reasons. First, I am concerned that the federal government's failure to resolve the problem of nuclear waste disposal has significant implications for the federal budget. Second, it also means that nuclear waste that belongs in a permanent repository is instead being stored indefinitely at sites including in my state and my district.

Radioactive waste is a by-product of our nation's energy production and defense. By law, disposing of spent nuclear fuel and high-level waste is a Federal responsibility. However, because the Federal government is not meeting its obligation, waste is being stored indefinitely at more than 120 sites across the nation. In addition to the several sites that are in my district, South Carolina also has the Savannah River site, which stores more than 37 million gallons of nuclear waste as a legacy of the Cold War.

This approach is not what Congress had in mind. The Nuclear Waste Policy Act of 1982 set up a system for dealing with this waste. That plan included a fee collected from utilities to help pay for taking the waste off their hands beginning in 1998.

After decades of study and analysis by experts, the government decided to have a single national nuclear waste repository. Later, Congress approved Yucca Mountain, Nevada, as the site, and the Department of Energy submitted the license application with the Nuclear Regulatory Commission.

However, after decades of analysis and decisions, and after billions of dollars in fees collected and appropriations made, the Administration decided last year to abandon the Yucca Mountain project.

This March, the Administration told the Nuclear Regulatory Commission it wanted to withdraw the license application for Yucca Mountain. The commission is in the midst of deciding whether to allow that. In addition, there are several pending lawsuits challenging the Administration's right to do that.

I have called for the Administration to instead move forward on Yucca Mountain as required by law. I have been joined in this view by others in Congress.

My goal for this hearing is to gain a better understanding of the budget implications of the Administration's proposal to close Yucca Mountain:

- How much have we spent on the project so far?
- How much will we need for the future?
- What happens if the project is indeed stopped?
- How much does the Federal government owe to these utilities for failing to meet its obligations?

I am doubtful that there are easy alternatives to the Yucca Mountain site. If we abandon Yucca Mountain, where are we going to find a suitable alternative?

We have several excellent witnesses today, and I want to thank them for their participation in this hearing.

First, from the Department of Energy, we welcome Under Secretary Kristina Johnson. She is accompanied by the Department of Energy's General Counsel, Scott Blake Harris. Dr. Johnson and Mr. Harris, thank you for joining us today.

Also on our first panel, from the Department of Justice, we have Michael Hertz. Mr. Hertz is Deputy Assistant Attorney General in the Civil Division. Mr. Hertz, we thank you for being here today as well.

After we hear from these government witnesses, we will get a view of this problem from the state and local level. We will hear testimony from Mr. David Wright, who is Vice Chairman of the Public Service Commission of South Carolina. Mr. Wright, thank you for joining us.

In addition, the committee just received from the Congressional Budget Office updated estimates of funding and liabilities related to Yucca Mountain. CBO estimates:

- The nuclear industry has paid more than \$17 billion in fees since 1983 for the Federal government to remove nuclear waste, and they contribute \$750 to \$800 million more each year.
- Another \$14 billion in interest has been credited to the Nuclear Waste Fund.

CBO's statement also addresses how much has been spent on nuclear waste removal:

- More than \$7 billion from the Fund has been spent—a large percentage of it for Yucca Mountain.

- Congress has appropriated another \$4 billion directly to deal with defense-related waste.

Finally, CBO tallies the budget costs of failing to meet Federal obligations:

- The government has paid more than \$700 million in legal judgments and settlements with the nuclear industry.

- Potential total liabilities—including the sums above—exceed \$13 billion.

Without objection, CBO's statement will be made part of the record.

Before turning to our witnesses for their testimony, let me turn to our Ranking Member, Mr. Ryan, for an opening statement.

Mr. RYAN. Thank you, Mr. Chairman, for this hearing. I might be a little less diplomatic, but I will be brief.

It is clear that safe and permanent storage of high level and spent nuclear fuel waste is a critical element to our long term energy strategy. It is also important, has important budgetary implications that if not addressed will only serve to worsen our already bleak fiscal picture.

Over the past twenty-five years we have already spent \$10 billion in taxpayer and ratepayer funds to study Yucca Mountain as a suitable site for nuclear waste storage. These studies show that Yucca, in fact, is suitable for nuclear waste storage, and Congress has confirmed this conclusion. Yet the administration has, for what I think are political reasons, determined that Yucca is not a workable option and is proposing millions more of taxpayer dollars be spent on further studies. This delaying tactic is a waste of taxpayer dollars and a hindrance to permanently resolving this issue.

In addition to the futility of these studies, it would also expose taxpayers to large liabilities from the government's broken promise on nuclear waste storage. Courts have already awarded utility companies over \$1 billion in damages for the government's breach of contract. And DOE estimates the government's total liability relating to lawsuits is \$12.3 billion. Abandoning Yucca, or even further delay, would add billions more to this already unacceptable liability. Abandoning Yucca is also clearly at odds with the administration's promise to let science guide our decision making process and instead puts political calculations ahead of the national interest.

Mr. Chairman, we do not need further studies on Yucca. I look forward to the testimony of today's witnesses and hope that we can move forward in resolving this issue. Thank you.

Chairman SPRATT. Thank you, Mr. Ryan. Before proceeding with our witnesses, I would ask unanimous consent that all members be allowed to submit an opening statement for the record at this point. Without objection, so ordered.

We welcome all of our witnesses today and would advise each of you that your prepared statements have been made part of the record so that you can summarize as you see fit. But we welcome you to take as much time as you see necessary to fully explore and state your case.

Dr. Johnson, let us begin with you, and thank you again for coming. The floor is yours.

**STATEMENTS OF KRISTINA M. JOHNSON, UNDER SECRETARY,  
ACCOMPANIED BY SCOTT BLAKE HARRIS, GENERAL COUNSEL,  
U.S. DEPARTMENT OF ENERGY; AND MICHAEL F. HERTZ,  
DEPUTY ASSISTANT ATTORNEY GENERAL, U.S. DEPARTMENT  
OF JUSTICE, CIVIL DIVISION**

**STATEMENT OF KRISTINA M. JOHNSON**

Ms. JOHNSON. Thank you. Thank you very much. Mr. Chairman, members of the Committee, my name is Kristina Johnson and I am the Under Secretary of Energy. I appreciate the invitation to appear before the Committee to discuss issues surrounding the government's responsibility for the safe management and disposition of nuclear waste.

The Department remains committed to meeting its obligations for disposing of spent nuclear fuel and high level radioactive waste. To that end, the Secretary at the direction of the President has established a Blue Ribbon Commission on America's Nuclear Future, chaired by former Congressman Lee Hamilton and General Brent Scowcroft. The Commission is evaluating options and will make recommendations for developing a safe, long term solution to managing the nation's used nuclear fuel and nuclear waste. The Blue Ribbon Commission is working expeditiously and is expected to submit its draft report within a year from now and its final report six months later.

As you know, the administration has decided that Yucca Mountain is not an option for a repository for spent nuclear fuel and high level waste. Consistent with that decision, on March 3, 2010, the Department filed a motion in the Nuclear Regulatory Commission Licensing Proceedings asking for permission to withdraw its license application for a Yucca Mountain repository. On June 29th the designated NRC Atomic Safety and Licensing Board denied the Department's motion. On June 30th, the Commission invited the participants in the licensing proceeding to submit briefs on whether the Commission should review and affirm or reverse the Board's decision. The NRC has not yet made a ruling. The Department remains confident in its legal authority to withdraw the application.

The Nuclear Waste Policy Act authorizes the Secretary to enter into contracts with commercial nuclear utilities and commercial research reactor operators that own and generate spent nuclear fuel. Under the terms of these contracts, in return for the payment of a fee of one mill per kilowatt hour the government was to begin disposing of spent nuclear fuel starting in 1998. The fees collected under these standard contracts are deposited into the Nuclear Waste Fund. As you commented, the fund currently has a balance of approximately \$25 billion which is invested in U.S. Treasury instruments. The government receives approximately \$750 million per year in revenues from ongoing nuclear generation, and the fund averages approximately \$1 billion annual return in its investments. To date, utility contract holders have paid nearly \$18 billion in fees.

It is important to note that the government's obligation under these contracts is to dispose of the spent fuel. The contracts specify no method or location for the disposal. It is also important to understand that contracts going forward to take used fuel from newly

built reactors would contain provisions different from the earlier original contracts under which the government has been found liable and which are discussed.

The Department has in recent years developed a new standard contract for utilities planning to build new commercial reactors. Under these new standard contracts, the Department would not be required to complete disposal of the spent fuel until twenty years after the expiration of the operation license and any extensions thereto. Assuming such a reactor became operational in 2020, any liability resulting from the obligation to accept used fuel from the reactor most likely would not come into effect until the end of this century.

Beginning in 1998, most contract holders initiated lawsuits against the government due to the delay in beginning the acceptance of the spent nuclear fuel as required by the contracts. Courts have determined the delay was a partial breach of contract by the government, and numerous trials have been held to determine the amount of damages to be awarded. Last year, the Department estimated the liabilities under current law resulting from the delay in beginning waste acceptance from 1998 to 2020 could be as much as \$13 billion. We have not attempted to update this estimate. As you know, the Department of Justice is in charge of defending these cases. I understand that Deputy Assistant Attorney General Hertz will address the status of the litigation.

The Department remains committed to meeting its obligations for managing and ultimately disposing of spent nuclear fuel and high level radioactive waste. The Blue Ribbon Commission provides an opportunity for a dialogue on how best to address this challenging issue, and the Commission's recommendations will provide a basis for working with Congress to revise the national policy. The Department looks forward to an ongoing dialogue with members of Congress, interested stakeholders, and others as alternate waste management approaches are reviewed.

Thank you for this opportunity to discuss these issues, and I would be pleased to answer any questions the Committee may have at this time. Thank you.

[The prepared statement of Kristin M. Johnson follows:]

PREPARED STATEMENT OF DR. KRISTINA M. JOHNSON,  
UNDER SECRETARY OF ENERGY, U.S. DEPARTMENT OF ENERGY

Mr. Chairman and Members of the Committee, my name is Kristina M. Johnson, Under Secretary of Energy. I appreciate the invitation to appear before the Committee to discuss issues surrounding the Government's responsibility for the safe management and disposition of nuclear waste.

The Department remains committed to meeting its obligations for disposing of spent nuclear fuel and high-level radioactive waste. To that end, the Secretary, at the direction of the President, has established a Blue Ribbon Commission on America's Nuclear Future chaired by former Congressman Lee Hamilton and General Brent Scowcroft. The Commission is evaluating options and will make recommendations for developing a safe, long-term solution to managing the Nation's used nuclear fuel and nuclear waste. The Blue Ribbon Commission is working expeditiously; it is expected to submit its draft report within a year from now, and its final report six months later.

As you know, the Administration has decided that Yucca Mountain is not an option for a repository for spent nuclear fuel and high-level waste. Consistent with that decision, on March 3, 2010 the Department filed a motion in the Nuclear Regulatory Commission (NRC) licensing proceeding, asking permission to withdraw its license application for a Yucca Mountain repository. On June 29, 2010 the des-

ignated NRC Atomic Safety and Licensing Board denied the Department's motion. On June 30, 2010, the Commission invited the participants in the licensing proceeding to submit briefs on whether the Commission should review and affirm or reverse the Board's decision. The NRC has not yet made a ruling. The Department remains confident in its legal authority to withdraw the application.

#### THE STANDARD CONTRACTS

The Nuclear Waste Policy Act authorizes the Secretary to enter into contracts with commercial nuclear utilities and commercial research reactor operators that own and generate spent nuclear fuel. Under the terms of these contracts, in return for the payment of a fee of 1 mill per kilowatt-hour, the Government was to begin disposing of the spent nuclear fuel starting in 1998.

The fees collected under these standard contracts are deposited in the Nuclear Waste Fund. The Fund currently has a balance of approximately \$25 billion which is invested in U.S. Treasury instruments. The Government receives over \$750 million per year in revenues from on-going nuclear generation, and the Fund averages approximately \$1 billion annual return on its investments. To date, utility contract holders have paid nearly \$18 billion in fees.

It is important to note that the Government's obligation under these contracts is to dispose of the spent fuel; the contracts specify no method of or location for disposal. It is also important to understand that contracts going forward—to take used fuel from newly built reactors—contain provisions different from the earlier original contracts under which the Government has been found liable (and which are discussed below).

The Department has in recent years developed a new standard contract for utilities planning to build new commercial reactors. Under these new standard contracts, the Department would not be required to complete disposal of the spent fuel until 20 years after expiration of the operating license and any extensions thereto. Assuming such a reactor became operational in 2020, any liability resulting from the obligation to accept used fuel from that reactor most likely would not come into effect until the end of this century.

#### LIABILITY UNDER THE ORIGINAL VERSION OF THE STANDARD CONTRACT

Beginning in 1998, most contract holders initiated lawsuits against the Government due to the delay in beginning the acceptance of spent nuclear fuel as required by the contracts. Courts have determined the delay was a partial breach of contract by the Government, and numerous trials have been held to determine the amount of damages to be awarded.

Last year, the Department estimated the liabilities under current law resulting from the delay in beginning waste acceptance (from 1998 to 2020) could be as much as \$13.1 billion. We have not attempted to update that estimate.

As you know, the Department of Justice is in charge of defending these cases. I understand Deputy Assistant Attorney General Hertz will address the status of the litigation.

#### CONCLUSION

The Department remains committed to meeting its obligations for managing and ultimately disposing of spent nuclear fuel and high-level radioactive waste. The Blue Ribbon Commission provides an opportunity for a dialogue on how best to address this challenging issue, and the Commission's recommendations will provide a basis for working with Congress to revise the national policy. The Department looks forward to an ongoing dialogue with members of Congress, interested stakeholders, and others as alternative waste management approaches are reviewed.

Thank you for this opportunity to discuss these issues, and I would be pleased to answer any questions the Committee may have at this time.

Chairman SPRATT. Mr. Harris?

Mr. HARRIS. Mr. Chairman, I have no prepared statement. But if you do not mind, I would take just a second to make a personal statement. I have been practicing law in Washington for thirty-four years. This is the third federal agency in which I have served. This is only the second time that I have had the opportunity to appear before a Committee of the House of Representatives. And I just want to tell you it is an honor to be here today. Thank you.

Chairman SPRATT. And we are happy to have you. Mr. Hertz?

**STATEMENT OF MICHAEL F. HERTZ**

Mr. HERTZ. Thank you, Mr. Chairman. My name is Michael Hertz. I am a Deputy Assistant Attorney General in the Civil Division of the Department of Justice, the division that is handling the spent nuclear fuel contract litigation. I have testified before this Committee twice before, and I am privileged to be here for a third time.

As I have before I would like to touch on three points this morning. One, the origin of the litigation that we are handling. Two, the status of that litigation. And three, the liabilities that we are facing and the costs of that litigation.

As you know, in 1983 pursuant to the Nuclear Waste Policy Act the Department of Energy entered into seventy-six standard contracts with commercial utilities that were producing nuclear power. DOE agreed that by January 31, 1998, it would begin accepting spent nuclear fuel. In return the utilities agreed to make quarterly payments into the Nuclear Waste Fund, and they began making those payments in 1983. As is well known, DOE has not yet commenced accepting spent nuclear fuel. However, DOE has clearly stated its continuing commitment to meet its obligations for disposing of spent nuclear fuel and high level radioactive waste.

In response to DOE's delay, utility companies filed seventy-two cases in the United States Court of Federal Claims alleging that DOE's delay in beginning to accept spent nuclear fuel constituted a breach of contract. The Court of Appeals for the Federal Circuit agreed with that and ruled that it constituted a breach, but it held that it was a partial breach. Partial, in response to both the fact that the utilities kept paying the fees, and the government maintained its obligation to dispose of the spent nuclear fuel.

Utilities' damage claims are largely for the costs incurred to store spent nuclear fuel that they allege DOE would have expected absent the breach. That is, storage costs that utilities allege that they would not have expended had DOE begun timely performance under the contracts. In addition, some of the utilities have alleged diminution in value claims for utility plants that they have sold to other utilities. Total claims to date approximately \$5.7 billion, although I would note in the cases that we have filed, there are no claims data in thirteen of the pending cases yet. As has been stated, DOE estimated its potential liability in 2009 at about \$13.1 billion, assuming that a start date of acceptance would begin in 2020. That estimate was created before the administration announced that it would not proceed to build the repository at Yucca Mountain.

Because these are partial breach cases, the utilities have to return to court at least once every six years to file new claims. So, we will probably continue to litigate these claims until DOE begins accepting spent nuclear fuel.

Of the seventy-two cases filed, six of them are what we refer to as "round two" cases. That is, cases where utilities would come back to file a second claim. Thirty-two cases remain pending before the trial court, the United States Court of Federal Claims. Four cases, there have been final judgment where we are making a determination whether to appeal. There are thirteen final judgments

on appeal. There are five final unappealable judgments. Eleven cases have been settled. And six cases were voluntarily withdrawn.

The government's liability for judgments that have already been entered, many of which are not final or are subject to appeal, and settlements currently stands at approximately \$2 billion. I would note that last year when I was before this Committee that figure was \$1.3 billion. This \$2 billion amount covers approximately 60 percent of the claim years of liability. That is, that liability that accrued between January 31, 1998, and the end of 2009. In total, the government has paid out approximately \$760 million pursuant to settlement and one trial court judgment that was not appealed. Additional government liability will continue to accrue for as long as DOE is delayed in commencing spent nuclear fuel at contractually required rates.

To give you an idea of the extent of the litigation, the Department has conducted two spent nuclear trials this year where the total claim by the utilities was approximately \$70 million. Next year, we are expecting to have eight trials in 2011, where the amount the utilities claim is approximately \$900 million. And in 2012, we are expecting six trials, the first three of which we expect the total claims to be \$212 million, and we do not have claims data for the other three that will be heard in that year.

While we are asserting legitimate defenses to these claims, we have also made concerted efforts to settle them. As I noted, we have paid out a certain amount in settlement. We have settled cases, seventeen of the standard contracts in eleven of the cases. I would note also that we have recently begun discussions with the utilities as a group to explore the possibility of reaching a standard agreement with a larger segment of the utilities whose claims are currently pending.

Because many of the major recurring issues have been resolved, the ultimate success of many types of claims is now more predictable to both the government and the utilities, which may make settlement more possible.

The payments of settlements and judgments to date have all been paid out of the Judgment Fund. In 2002 the United States Court of Appeals for the Eleventh Circuit determined that the Nuclear Waste Fund was not available to pay these judgments or to pay settlements. The litigation costs—and we are also unaware of any statutory requirement that DOE is required to reimburse the Judgment Fund. So these funds come from the Judgment Fund the Treasury holds. The litigation costs that we have incurred to date, the government's cost of close to \$200 million. We are spending approximately twelve to fifteen attorney man years per year on defending these cases. The costs constitute about \$29 million in attorney costs, \$111 million in expert fees, \$52 million in litigation support costs. I would note that the President's budget for fiscal year 2011 has requested an \$11 million increase for the Civil Division to handle more effectively this litigation, and we would urge the Congress to pass that.

Absent settlement, these litigation costs will continue to be incurred into the foreseeable future. Until DOE begins SNF acceptance or another suitable arrangement is made with the industry, the government's underlying liability will continue to accrue.

I look forward to responding to questions from the Committee. Thank you.

[The prepared statement of Michael F. Hertz follows:]

PREPARED STATEMENT OF MICHAEL F. HERTZ, DEPUTY ASSISTANT  
ATTORNEY GENERAL, CIVIL DIVISION, U.S. DEPARTMENT OF JUSTICE

Mr. Chairman, and members of the Committee, I am Michael F. Hertz, and I am a Deputy Assistant Attorney General of the Department of Justice, Civil Division. I am pleased to testify today regarding the status of litigation concerning the Department of Energy's obligations under the Nuclear Waste Policy Act ("NWPA") of 1982. I testified before the Committee in October 2007 and July 2009 regarding the same subject, and this testimony updates and supplements the testimony that I have previously provided. Let me note at the outset that much of the litigation about which you have asked the Department of Justice to provide testimony is still pending in the Federal courts. As a result, the Department's pending matter policy applies to any discussion of those cases. Pursuant to that policy, I will be happy to discuss matters that are in the public record. Background In 1983, pursuant to the NWPA, the Department of Energy ("DOE") entered into 76 standard contracts with entities, mostly commercial utilities, that were producing nuclear power. Through the standard contracts, DOE agreed that by January 31, 1998, it would begin accepting spent nuclear fuel and high-level radioactive waste (collectively, "SNF") created by the utilities. In return, the utilities agreed to make quarterly payments into the Nuclear Waste Fund ("NWF") created by the statute. The utilities began making payments into the NWF in 1983. To date, DOE has not yet commenced accepting SNF. The commencement date for SNF acceptance at a Federal facility is currently unknown; however, DOE has clearly stated its continued commitment to meeting its obligations for disposing of spent nuclear fuel and high-level radioactive waste. Status Of Court Of Federal Claims Litigation

In response to DOE's delay, utility companies have filed 72 cases in the United States Court of Federal Claims, alleging that DOE's delay in beginning SNF acceptance constituted a breach of contract. The Court of Appeals for the Federal Circuit, in *Maine Yankee Atomic Power Co. v. United States*, 225 F.3d 1336, 1341 (Fed. Cir. 2000), has ruled that the delay constitutes such a breach.

The utilities' damages claims are largely for the costs incurred to store SNF that they allege DOE would have accepted from them absent the breach—specifically, storage costs that utilities allege they would not have expended had DOE begun timely performance under the standard contracts. In addition, several utilities have alleged damages arising from the "diminution-in-value" of their plants as the result of DOE's delay, claiming that they realized these damages when they sold their plants to other utilities as part of the sale.

DOE's most recent estimate of potential liability, which was formulated in 2009 and assumed a projected start date of SNF acceptance of 2020, was as much as \$13.1 billion. This estimate does not fully account for the Government's defenses or the possibility that plaintiffs will not be able to prove the full extent of their claims, and they were created before the Administration's 2009 announcement that it would not proceed to build a repository at Yucca Mountain, Nevada.

The United States Court of Appeals for the Federal Circuit has held that, because the utilities are continuing to perform their obligations under the standard contracts by paying money to the NWF with the expectation of future performance, all claims for breach of the standard contracts are "partial" rather than "total" and damages are only available through the date of the complaints that have been filed. *Indiana Michigan Power Co. v. United States*, 422 F.3d 1369 (Fed. Cir. 2005). To comply with the applicable statute of limitations, utilities must file new cases with the trial court at least every six years to recover any costs incurred as the result of DOE's delay, and, absent settlement, we will continue to litigate these claims until after DOE begins accepting SNF.

Of the 72 lawsuits filed, 50 cases remain pending either in the Court of Federal Claims or in the Court of Appeals for the Federal Circuit, 11 have been settled, six were voluntarily withdrawn, and five have been litigated through final unappealable judgment. Of the 50 pending cases, the trial court has entered judgment in 17 cases, 13 of which are pending on appeal and the time to appeal on the remaining four of which has not yet elapsed. Six of the 72 cases represent "second-round" claims—that is, claims that seek recovery for expenditures incurred after the claim period for their initial claims and that are required to be brought in a second lawsuit as a result of the partial nature of the Government's breach.

The Government's liability for judgments that have already been entered (most of which are not final because of appeals or remands) and settlements currently stands at approximately \$2.0 billion. This amount covers approximately 60% of the claim-years of liability (that is, the total number of individual years in which individual contract-holders could seek damages for DOE's failure to accept SNF) that accrued between January 31, 1998 and the end of 2009. In total, the Government has paid approximately \$760 million pursuant to settlements and one trial court judgment that was not appealed. In addition to the approximately 40% of the claim-years through 2009 that are not already the subject of settlements or judgments, additional Government liability will accrue for as long as DOE is delayed in commencing SNF acceptance at contractually required rates.

As noted, I provided testimony to this Committee concerning these cases in October 2007 and July 2009. Both prior to and since these times, the Department has been actively involved in trying cases, and the judgments issued in these cases have resulted in a large number of appeals being filed and handled. The following chart depicts the progression of SNF cases through trial and to appeal as of October 2007, July 2009, and July 2010:

The Department of Justice has conducted 2 SNF trials in 2010. Barring settlements and excluding cases that may be remanded for further proceedings by the Federal Circuit, our current estimate is that we will conduct 8 trials in 2011 and 6 trials in 2012. Because the plaintiffs are suing for partial breach, we also anticipate that, absent settlement, the number of pending cases will increase as additional utilities file second-round claims.

While asserting legitimate defenses to plaintiffs' claims in litigation, we also have made concerted efforts to settle claims. The settlements resolving claims on 17 of the standard contracts in 11 of the cases involve six companies: Exelon Generation, LLC; South Carolina Electric & Gas Company; Omaha Public Power District; Duke Power Company; Florida Power & Light Company; and PSEG Nuclear LLC. These settlements provide for the periodic submission of claims to the contracting officer for costs incurred since the date of the last submission.

We have also recently begun discussions with the utilities as a group to explore the possibility of reaching a standard settlement with a larger segment of the utilities whose claims are currently pending. Because many of the major recurring issues have been resolved as the cases have worked their way through trial and the appellate process, the ultimate success of many types of claims is now more predictable to both the Government and the utilities. Because the claims of a substantial number of the utilities are not substantially affected by issues that require resolution at the appellate level, it may be possible to implement an administrative claims process with these utilities that is less expensive and more efficient than litigation and that achieves largely the same results.

#### PROCEEDINGS IN OTHER FORUMS

There are several matters currently pending in the United States Court of Appeals for the District of Columbia Circuit and before the Nuclear Regulatory Commission ("NRC") that are related to DOE's obligation to accept SNF. Those cases do not directly implicate the breach of contract cases in the Court of Federal Claims and the Federal Circuit, but could have some effect upon the issues likely to arise during the litigation.

In *In Re Aiken County* (D.C. Cir.), the States of South Carolina and Washington, a county in South Carolina, and three individuals are seeking review of the Secretary of Energy's decision to move to withdraw the license application and to terminate other activities related to development of the Yucca Mountain site for a permanent repository for nuclear waste. The District of Columbia Circuit has consolidated the various petitions and is handling them on an expedited basis, with the Government's brief currently due to be filed on July 28, 2010. In a related matter, an Atomic Safety and Licensing Board of the Nuclear Regulatory Commission has recently held that the Secretary of Energy lacks authority to withdraw the previously submitted license application for Yucca Mountain, and the full NRC has requested briefing from interested parties regarding whether it should "review, and reverse or uphold, the Board's decision."

In addition, in *National Association of Regulatory Utility Commissioners v. United States Department of Energy* (D.C. Cir.), two industry groups and several nuclear reactor owners have filed petitions, which have been consolidated, challenging the continued collection of NWF fees. *Payment Of Judgments And Settlements*

To date, all payments to the utilities have come from the Judgment Fund. In *Alabama Power Co. v. United States Department of Energy*, 307 F.3d 1300 (11th Cir.

2002), the Court of Appeals for the Eleventh Circuit ruled that the Government could not use the NWF to pay for any of the damages that the utilities incur as a result of DOE's delay. The only other available funding source that has been identified to date is the Judgment Fund. We are also unaware of any statutory requirement that DOE be required to reimburse the Judgment Fund for judgments paid, unlike other statutory schemes that govern the adjudication of contract and other monetary disputes with the Government. Litigation Costs

The costs to the Government to litigate these cases are significant. The Department of Justice has expended approximately \$29 million in attorney costs, \$111 million in expert funds, and \$52 million in litigation support costs in defense of these suits. In addition, DOE has expended many manhours to support this effort. Absent settlement, these litigation costs will continue to be incurred into the foreseeable future, just as, until DOE begins SNF acceptance (or other suitable arrangement is made with the industry), the Government's underlying liability will continue to accrue.

Chairman SPRATT. Let me just ask you for the record if the numbers that I read previously by CBO comport with your understanding of the costs, the different costs, of this situation?

Mr. HERTZ. I had a quick opportunity to look at CBO's statement this morning, and I thought they were pretty accurate, pretty consistent with the numbers that I gave you this morning as well, and that we have at the Department as well.

Chairman SPRATT. We will give you a copy and if there is any deviation that should be noted for the record, we would appreciate your doing so.

Mr. Hertz, do you agree that the Department of Energy has the authority to terminate with prejudice?

Mr. HERTZ. Mr. Chairman, that matter is in litigation now, both before the Nuclear Regulatory Commission in a case that the Department of Energy is handling, and it has been challenged in the D.C. Circuit. And I am really not prepared to comment on pending litigation. I will note that the Department of Justice is defending the Department of Energy's decision to file the motion in the litigation in the D.C. Circuit.

Chairman SPRATT. Supporting what position?

Mr. HERTZ. Supporting the position of the Department of Energy that it had authority to file the motion to withdraw the application for a repository at Yucca Mountain.

Chairman SPRATT. And what parties have taken up the other side of that issue?

Mr. HERTZ. What parties?

Chairman SPRATT. Yes, sir.

Mr. HERTZ. I think a number of the utilities and some of the trade groups have filed that case in the D.C. Circuit, and Aiken County, South Carolina, as well.

Chairman SPRATT. Dr. Johnson, it is said frequently that Yucca is not "a workable option." Would you explain to us what "workable" means in this context?

Ms. JOHNSON. Well, thank you very much, Mr. Chairman. As Secretary Chu has said, over the past two decades the science and technology for managing the back end of the fuel cycle has accelerated our understanding. And I will give you a few examples there. When we are thinking about managing the back end of the fuel cycle, we have improved our understanding of the kinds of forms of high level waste that we will get. We have improved our understanding for proliferation resistant and recycling technology. We operate right now the only deep geologic storage facility in the

world at the Waste Isolation Pilot Plant in New Mexico that has received 5,000 shipments since it started operating in 1999.

Chairman SPRATT. That is in a salt dome. Are you suggesting a salt dome would be the alternative location for a deep geologic repository?

Ms. JOHNSON. I am not suggesting that. But if I may, just to continue where my thinking is going and to answer your question. In addition, we also have accelerated our understanding of high performance computing in the nuclear sense. Taking a page from the Stockpile Stewardship Program, we know how to model and simulate nuclear materials in a way that we had not when the Nuclear Waste Policy Act was passed in 1982. And as a result, this administration believes that it is time to step back and to look at what we have learned, and to see if there is a better solution with broader support. Which is why we are standing up the Blue Ribbon Commission with distinguished individuals to help make recommendations on how we might better manage the back end of the fuel cycle.

Chairman SPRATT. But in the case of NEPA—

Ms. JOHNSON. Right.

Chairman SPRATT [continuing]. The basic requirement is that all viable options be considered. You are ruling out in the consideration of new alternatives consideration of Yucca Mountain. Do you think that is compliant with the NEPA, the spirit and letter?

Ms. JOHNSON. The Blue Ribbon Commission will consider many options, including deep geologic storage. But it is not a siting organization or committee. So, therefore, it will not consider Yucca or any other site in any other state.

Chairman SPRATT. But it will consider deep geological repositories, not Yucca?

Ms. JOHNSON. Deep geologic repository of spent nuclear fuel is one of the options that I am sure it will be considering, since it has been asked by the Secretary and charged to consider all options that may result in a better solution to the long term disposition of spent nuclear fuel and high level waste.

Chairman SPRATT. Would Yucca be on the table?

Ms. JOHNSON. Again, the Blue Ribbon Commission, Mr. Chairman, is not a siting committee. It is looking for making recommendations on the best possible solutions to managing the back end of the fuel cycle.

Chairman SPRATT. I am still fetching for why Yucca is unworkable after all of these years, and all of this money spent, we come to the unilateral decision that Yucca is not a workable option?

Ms. JOHNSON. Again, stepping back for a minute and thinking about where we have come as a society over the last twenty-five years. If you think back in 1982 when the Nuclear Waste Policy Act came into being, that was a time when Intel introduced the 8286 microprocessor, which had a processing speed of six to eight megahertz. It was before the Macintosh was introduced. It was before the IBM PC became available in 1986. We connected through a modem dial up. It was before widespread utilization of the analog cell phone, never mind the digital cell phone. In December, 2009, the Jaguar high performance computer at Oak Ridge National Lab was acknowledged as being the fastest computer in the world and

it achieved 1.25 petaflops. Given Moore's Law, what has happened over the last thirty years, we have thirty thousand times the processing speed of a single processor. And high performance computing architectures that were not known at the time that the Nuclear Waste Policy Act came into being leverages that another ten thousand to a million times. Given also the capability we have developed through the Stockpile Stewardship Program, I think it is prudent to step back and see: can this new technology capability that has come online will help develop a better solution?

Chairman SPRATT. Will this be, then, recycling? Reprocessing?

Ms. JOHNSON. It could—

Chairman SPRATT. Is that what you have in mind as an alternative to—

Ms. JOHNSON. I do not want to presuppose what the Blue Ribbon Commission will recommend at this time. But I think it is important to realize what the technology may do now that we could not have envisioned even ten years ago.

Chairman SPRATT. But if the Commission said, "Let us consider reprocessing." Would that be in its purview?

Ms. JOHNSON. I believe that the Blue Ribbon Commission has been directed to consider all possible methods for dealing with the back end of the fuel cycle, and we will look forward to getting those recommendations. But again, I do not want to presuppose or prejudice what they might say. They are a distinguished group of individuals. They include, as you know, former Senators Domenici, Hagel; Ms. Susan Eisenhower; and the Honorable Former Under Secretary Moniz to mention just a few, besides the leaders General Scowcroft and former Congressman Lee Hamilton. So, we are looking very much forward to their recommendations and providing all the information to help them in their deliberations.

Chairman SPRATT. In the meantime there is a great deal of data and information and analytical results that have been achieved through the expenditure of \$10 billion to \$11 billion at Yucca Mountain. What do you do to preserve that data for future use?

Ms. JOHNSON. That is a great question, and we have been very diligent about setting up six functional groups to look at the orderly shut down of Yucca Mountain. And that includes procurement and contracts, that includes transferring the records for management to legacy management within the Energy and Environment Programs at the Department of Energy. So, we are very conscious of records and data collection. We are even keeping the specimens of the rocks that have been used for some of the research at Yucca Mountain and preserving those as well. So, we are allocating the resources as well as the individuals to make sure that we retain all the knowledge gained from this endeavor.

Chairman SPRATT. There are others here who have questions to ask, and I will come back to my additional questions. But one final question concerns the people—

Ms. JOHNSON. Right.

Chairman SPRATT [continuing]. Who have engaged in this Yucca Mountain project. I understand there is somewhere between 2,500 and 3,000 workers who have been, employees and contractors, who have been working on Yucca Mountain. What happens to their jobs?

Ms. JOHNSON. Again, thank you for the question. To my knowledge, it is 200 federal employees and about 400 contractors.

Chairman SPRATT. 207?

Ms. JOHNSON. 200 federal employees and about 400 contractors. And we have worked with the employees to help and support them in their careers. So, to the point where we now have only thirty federal employees that are still either considering retirement or considering other career options that we are supporting. And so we issued, the Deputy Secretary issued a memorandum which gives the RW employees preference in terms of jobs within the Department of Energy. And we have been very diligent about providing resources to help employees because we care very much about the individuals that we have worked with, to continue their career, or if they choose to separate, to help them in any way we can.

Chairman SPRATT. Mr. Hertz, you mentioned several different elements of damages in addition to the damages due to delay in taking possession of the spent fuel. Included in your estimate were expert witness fees and attorneys. What were those numbers again, for those ancillary costs?

Mr. HERTZ. The fees I was referring to are the costs that the government has incurred in defending these cases. And what I said was that the Department of Justice has expended about \$200 million in defending the cases.

Chairman SPRATT. Are we paying also the plaintiffs' lawyers, the electric utilities that are suing?

Mr. HERTZ. The plaintiffs' lawyers are paid by the utilities.

Chairman SPRATT. So, all the cost in bringing the suits, including expert witness fees and attorneys' fees, are being borne at the present time by the utilities, by the plaintiffs?

Mr. HERTZ. Each side is bearing its own costs.

Chairman SPRATT. Okay. Thank you, sir. Mr. Ryan?

Mr. RYAN. I will yield my time to Mr. Simpson.

Chairman SPRATT. Mr. Simpson?

Mr. SIMPSON. Thank you, Mr. Chairman. Thank you, Mr. Ryan. I appreciate it. This hearing would be almost funny if it were not so serious, because I honestly do not believe that there is anybody within the Department of Energy or here that believes that a good decision was made by shutting down Yucca Mountain. However, it is what it is. And we have to deal with what it is. And we all know the reason that the administration decided not to go forward with Yucca Mountain.

Does the Administration, does the Department feel like it has to follow public law?

Mr. HARRIS. Perhaps as the General Counsel that question is best directed to me, and the answer is absolutely yes, sir.

Mr. SIMPSON. Public Law 107-200 passed in 2002 by Congress, signed by the President, establishes Yucca Mountain as the site for the permanent geological repository. The ASLB Board has twice ruled against the Department of Energy's withdrawing its license application, although the NRC Commission has not followed up on that. In part, they stated that Congress had a say in this. It was not just up to the DOE to decide to withdraw the license application, that it had to go through Congress. Do you differ with that opinion?

Mr. HARRIS. Actually I do, sir, with all due respect. I differ in a couple of particular points. First, Congress did not, in fact, as I read the law designate Yucca Mountain as the nuclear repository in the sense that it directed that it be built. What it did in 2002, the way I read the law, is that it instructed the Secretary to go ahead and prepare and file an application, which of course was done. I think it was in 2008 when it was finally filed.

Mr. SIMPSON. Well did we not override the State of Nevada's objections?

Mr. HARRIS. Yes, sir, you absolutely did that. You did, and that is what triggered the process, if you will, by which the application was filed. The question decided by the Board, and I believe decided incorrectly by the Board, is whether or not the direction to file an application meant that once it is filed it was now beyond the power of the Secretary of Energy and the administration to withdraw that application no matter what the Secretary, no matter what the Department, no matter what the administration believed about whether that was wise. I believe Congress, in setting up this statute, left that authority with the Secretary of Energy. And I believe we have applied it lawfully. Having said that, you are correct, the Board has disagreed. And that will be reviewed, I believe, by the Nuclear Regulatory Commission.

Mr. SIMPSON. I can tell you that there are an awful lot of members of Congress that would disagree with that. Let me ask you again. The Blue Ribbon Commission, as you have said Dr. Johnson, is not a siting commission. Everyone, virtually everyone, including the Secretary, has stated that a deep geological repository will be necessary at some point. Whether it is Yucca Mountain or something else, we are going to have to have a deep geological repository. In the appropriation bill for \$5 million for the Blue Ribbon Commission, we stated in there that they could only use that if Yucca Mountain was in fact an option. The Commission's co-chair stated in their first press conference that Secretary Chu has made it quite clear that Yucca Mountain is not an option. What is going on with that?

Ms. JOHNSON. Well, as you said, and thank you very much for the question, Secretary Chu has said that Yucca Mountain is not an option. And again I think that goes back to we are standing at a very interesting time, as you are well aware, in the restart of the civilian nuclear power industry. And as a result, given the stand of this administration with the recent conditional loan guarantees that have been issued for the new power plant in Vogtle, in Georgia. We understand that it is very important that we have the best workable solution for long term disposition of the spent nuclear fuel and high level waste. So, I think considering all the work that has, all the knowledge that has gone on in the last thirty years from high performance computing, to understanding the geology, to understanding the long-lived actinides, and how to make them shorter lived, as well as the transuranic waste experience from WIPP, I think that it is prudent to step back and to see what is the best possible solution to the long term disposition of spent nuclear fuel.

Mr. SIMPSON. But we will need a geological depository at some time? Because there is going to be some stuff left over, no matter what you do.

Ms. JOHNSON. I am sure there will be some stuff left over. And again, not to predispose what might be recommended by the Blue Ribbon Commission. I do believe they will consider deep geologic storage. I do not know what shape, form, factor, or how deep. But again, I am looking forward to their recommendations and working with the Blue Ribbon Commission in the appropriate way to help our nation move forward on managing the back end of the fuel cycle.

Mr. SIMPSON. If, with the administrations opinion, Yucca Mountain is off the table, is anything in any location or site in Nevada off the table? Or just Yucca Mountain?

Ms. JOHNSON. Well, again, I think we are going to wait for the recommendations from the Blue Ribbon Commission, which is not a siting committee.

Mr. SIMPSON. Let me ask Mr. Hertz, are the fines that are being paid, the penalties being paid by the federal government to the utilities, are those, are there penalties involved? Or are those mostly for the cost of the utilities' storage of the nuclear waste that the federal government should be paying for? Their on site storage?

Mr. HERTZ. They are not fines and penalties, they are damages. And they are damages that are being incurred. What the court does is it engages in an exercise of looking at the breach world and the non-breach world. What would have been the utility's expense if the Department of Energy had not breached the contract? That is the base. Then you look at what the utility's expense is in the breach world, because Energy has not picked up the spent nuclear fuel. Compare the two, the difference is damages. So, the government is paying essentially the increased storage capacity that is necessary at various utilities because the government has not come and picked up the spent nuclear fuel.

Mr. SIMPSON. Will those costs increase in the future as more and more utilities sue the federal government? And effectively, you know, I do not know what case we have got to stand on, or what ground we have got to stand on. We have breached contract.

Mr. HERTZ. As I have said, the Federal Circuit has said there has been a partial breach of the contract. Until we begin performing under the contract, until we begin picking up waste at what the Federal Circuit has decided was the contractual rate of acceptance that the government had agreed to, that we will keep incurring damages. The amount of damages in any given case is very individualized. You know, it depends on the configuration of the utility. It depends on what kind of storage they engage in, what their physical plant looks like. At some point, you would think that utilities build, I mean, they put spent nuclear fuel in pools, they have to remove it from the pools and put it on slabs. They have to store it. They incur expense to secure that. At some point, the current utilities will stop operating, they will stop producing spent nuclear fuel. If the federal government does not pick up, does not begin picking up the spent nuclear fuel, you will incur costs to secure those things on site.

Mr. SIMPSON. Currently, the damages are being paid out of the Judgment Fund?

Mr. HERTZ. Correct.

Mr. SIMPSON. There is \$24 billion sitting in the nuclear waste disposal fund—

Mr. HERTZ. Correct.

Mr. SIMPSON [continuing]. That the ratepayers and also the rest of the taxpayers have paid into that fund. If we are, if we do not move forward with completing this geological repository, can those funds be used to pay the utilities for their on site storage of the SNF that we have not taken charge of?

Mr. HERTZ. Probably not without legislation. The government had argued that, early on when we settled a case for increased costs, that we should be able to pay those increased costs, that settlement out of the Nuclear Waste Fund. The United States Court of Appeals for the Eleventh Circuit disagreed with that under the Nuclear, under the Act, saying that those funds were only available essentially to design and build a repository. They were not designed for on site storage, which in effect that settlement was. So, unless there is legislation changing that, and legislation can change it. I mean it, you know, it is a decision of the court interpreting the Act as it existed at the time.

Mr. SIMPSON. Should we stop charging the ratepayers for the construction of a waste repository when we are not doing it?

Mr. HERTZ. You mean the fee, the annual fee that is being paid?

Mr. SIMPSON. Right.

Mr. HERTZ. Well, I mean, there is litigation that has been filed by some of the utilities challenging that. Challenging the Secretary's determination not to reconsider setting the rate. And that litigation is being defended by the Department of Justice. I think, you know, under the Act as it exists now, the costs to build a repository, or to ultimately dispose of this, are to be borne by the utilities. You know, this is a question if you were to stop it, if the Secretary were to determine that, and then the Blue Ribbon Commission came up with another solution, and that was going to cost a certain amount, you would just have to ramp up the rate at that point. At least unless the law changed in some other respect. But under the law now the utilities have to bear the cost through this fund.

Mr. HARRIS. Congressman?

Mr. SIMPSON. Dr. Johnson, let me—go ahead.

Mr. HARRIS. Might I add to that?

Mr. SIMPSON. Sure.

Mr. HARRIS. Though I do not want to discuss the details of the litigation, obviously, I thought I might express the Department of Energy's view on this. In our view, we are absolutely required and committed to taking and disposing of the spent nuclear fuel. We believe we have an obligation that is commensurate with the obligation to take the fuel to charge the fee to be able eventually to dispose of it. We view the two obligations as inextricably linked in law. And that is why we are continuing with the spent nuclear fuel fee. We think our obligation to take it is tied, as a matter of law, to our obligation to charge the fee.

Mr. SIMPSON. Can I ask one last question, Mr. Chairman? Dr. Johnson, this year the mark up in the Energy and Water Subcommittee and also I believe in the Senate Energy and Water Subcommittee included no funds to proceed with Yucca Mountain for the licensing application. Should the NRC rule, as I believe they correctly will, that the administration cannot unilaterally withdraw the application, what will the Department do in terms of the \$100 million to \$200 million that will be necessary to proceed with the license application? Will they come in and ask for a reprogramming to do that? Or will they just ignore it and say, "We do not have any funds?"

Ms. JOHNSON. Thank you very much for the question. If the NRC were to rule, and we would follow the rulings, and we would follow the appropriate appropriations processes, and we would do what we need to do to follow what we have been directed to do by Congress and the NRC.

Mr. SIMPSON. Do you not think it would be wise to put that \$100 million in there now, and then if we do not have to spend it that would be a wonderful thing?

Ms. JOHNSON. I think we feel confident that we have the authority to withdraw the application. Therefore, we need to plan for what the President's budget, which calls for no funding for continuing with the licensing. Having said that, we do have funds in nuclear energy to continue to look at research and how to manage the back end of the fuel cycle. We do have funds allocated in legacy management to continue with the records and the management of the records so that we do not lose the knowledge. We have funds allocated in general counsel in order to continue the processing of the contracts. So, I believe we are following a very well thought out process in order to be prepared to, when we get the recommendations from the Blue Ribbon Commission, to carry those out with your help and Appropriations.

Mr. SIMPSON. If the Department, if the NRC rules that they cannot withdraw it, the license application, will the Department still have the personnel in place? Or is it being dismantled at a rate that we will have to appropriate money to put everybody back in place to proceed with the license application?

Ms. JOHNSON. Certainly, we have been following a path to take care of the people, to make sure that they have opportunities as we believe that we have the right to withdraw the motion and to close down Yucca Mountain. So, we have had to move and make sure that the employees can find other positions. So, therefore, we will not have employees as of October 1, and we would have to restart that process.

Mr. SIMPSON. Thank you.

Chairman SPRATT. Ms. McCollum?

Ms. MCCOLLUM. Thank you, Mr. Chairman. I think it is important to know a little bit where people are coming from, so I am going to make a couple of brief comments. And I want to thank you all for being here today, and I want to thank the Chairman particularly for holding this hearing.

For over a decade, my time as a state legislator in Minnesota, I have worked on the issue of what to do with our nation's nuclear waste. Minnesota tax ratepayers have already contributed \$714

million to the Nuclear Waste Fund to find a permanent solution to this problem. And yet, the U.S. government still does not have an answer for how to store the nation's radioactive waste. I am deeply troubled, very troubled by this.

Until the administration can detail a real plan and commitment to resolving the issue of nuclear waste, it is irresponsible to abandon the study of Yucca Mountain as a viable option, particularly after \$100 billion has already been spent on the project. The administration and many of my colleagues have pushed for a nuclear power plant expansion. I believe we should not even be discussing the future of nuclear power until we can start cleaning up our present toxic waste mess.

Now, we have heard a lot about the consequences of Yucca Mountain and what it holds for Nevadans. But let me tell you about the serious consequences for Minnesotans. About thirty miles from my district, St. Paul, lies the Prairie Island Indian Community on the banks of the Mississippi River. The children of Prairie Island for over two decades have seen concrete casks of nuclear waste from their swing sets on a storage site that is owned and operated by Xcel Energy that was designed, designed to be only a temporary storage facility. This is unacceptable for human health, and for environmental hazards in this community like many others across America. And in fact, my understanding is that the Prairie Island community only has one emergency exit, because they only have one exit to leave the reservation in case of something happening.

So, I think, you know, you really understand the thrust of my frustration. I am not anti-nuclear power. But I am anti-nuclear power expansion when we have not figured out how to solve our problem. Now, a lot of the questions have been asked about cost, and court cases. And Secretary, Dr. Johnson, you keep talking about, you know, moving forward, and the panel is going to come up, this blue ribbon panel is going to come up with the solution idea and not the storage idea. Is it, in your opinion, that this blue ribbon panel would find fault with Yucca Mountain?

Ms. JOHNSON. Well, thank you very much for the questions, and again for the opportunity to address this. And I, like you, am very much pro-nuclear as one of the potential—

Ms. MCCOLLUM. I have limited time, so if you could just answer the question?

Ms. JOHNSON. Oh, okay.

Ms. MCCOLLUM. Because the clock is running for me now.

Ms. JOHNSON. Oh, I see. Let me start again, then, if I will, to be succinct. As I was saying, I am pro-nuclear. Which means that I also am very concerned about how we manage the back end of the fuel cycle. And I just want to say that it has been shown that the storage on site, dry cask, by the Nuclear Regulatory Commission, is safe up to 100 years. And the International Atomic Energy Commission has said that dry cask storage is safe up to 300 years. So, the first thing is that we have time to figure out the best possible solutions for managing the back end of the fuel cycle.

Ms. MCCOLLUM. Excuse me, Mr. Chairman. If I heard you correct, then, we will wait how many generations before we decide whether or not to do anything with this temporary storage? I

mean, temporary to me is not 100 or 300 years. So, my question is, is there something in the modeling that shows that Yucca Mountain would be less safe than storing nuclear waste in temporary storage facilities on the banks of rivers where children play nearby?

Ms. JOHNSON. And as I was saying, it is safe to store it up to 100 years, which gives us time to work on managing the back end of the fuel cycle.

Ms. MCCOLLUM. Is that your idea of temporary storage? We were told that this was only temporary storage. Is 100 to 300 years temporary storage?

Ms. JOHNSON. I believe that originally the storage and the long term solution was going to be at ten thousand to a million years. So in terms of relative to long term storage I think that up to 100 years is within a temporary storage. I am not suggesting that we would actually store it for a hundred years. What I am saying is that we are doing active research in managing the back end of the fuel cycle. We have—

Ms. MCCOLLUM. Thank you. Thank you.

Ms. JOHNSON. Okay.

Ms. MCCOLLUM. Mr. Chairman, I am going to editorialize here in the few minutes that I have left. I do not think any reasonable person thinks 100 years is temporary. And the whole, the whole premise of reasonable storage and safe storage, Minnesota, when it made its decision to store, was told Yucca Mountain was going to be open. We were told it was going to be temporary. I was there. I heard the testimony. I saw the letters that came from the Department of Energy. I did not vote to store, because I was very skeptical until Yucca Mountain was open that it would be there. Mr. Chairman, this is a very, very serious issue, especially if we are considering nuclear power as part of the mix, which we should. But then we need to grapple with this and not push it down for another hundred years, for another two, three, five generations to deal with. Thank you, Mr. Chairman.

Chairman SPRATT. I thank the lady. Mrs. Lummis?

Mrs. LUMMIS. Thank you, Mr. Chairman. My question is for Mr. Harris. Why withdraw Yucca Mountain's license application with prejudice? I mean, if we are going to have a Blue Ribbon Commission that is going to consider options, and as Dr. Johnson has pointed out the technology is such that we really need to step back in her view and evaluate all these options, why would you dismiss with prejudice? Why not dismiss without prejudice, so if the Blue Ribbon Commission ultimately determines that Yucca Mountain given all the options explored is exactly the right place? You have pulled it off the table.

Mr. HARRIS. Thank you, Congresswoman. So I work with people who routinely use words like petaflops. And my job is to put into legal terminology what I understand their policy decisions to be. We filed our motion with prejudice because I understood it to accurately reflect the decision of the Department, the Secretary, and the administration to end the Yucca Mountain process and to move ahead with a different plan. Having said that, of course, that is being considered by the Nuclear Regulatory Commission now. And whether or not we are ultimately able to withdraw it with preju-

dice will be decided by the NRC. I just want to point out, it is not a unilateral move we are making. We are seeking permission to do these things and I sought it in this sense because it is my understanding it reflects the decision that was made.

Mrs. LUMMIS. So Mr. Harris, you are directly contradicting what Dr. Johnson testified to earlier in response to a question by Mr. Simpson, and which is that all options are on the table. So, how can—

Mr. HARRIS. If I contradicted her I promise you I did not do so deliberately. My understanding, again, of the Department's policy is that Yucca Mountain is in fact off the table. I believe what she said in response to the earlier question was that the Blue Ribbon Commission is not a siting commission and is looking at alternatives. I may have misunderstood, but that was my understanding of her testimony.

Mrs. LUMMIS. Excuse me, it might have been my misunderstanding. Dr. Johnson, so you really are saying Yucca Mountain is off the table? Completely off the table?

Ms. JOHNSON. Yucca Mountain is not being considered as—

Mrs. LUMMIS. Well, that is, no. Is it off the table?

Ms. JOHNSON. It is off the table. Yucca Mountain as a site is off the table.

Mrs. LUMMIS. Because? What is the scientific justification for taking Yucca Mountain off the table?

Ms. JOHNSON. Well, as I mentioned earlier, the Secretary said over the last two decades we have made great strides in the understanding of not only the forms of nuclear waste but how to manage the back end of the fuel cycle, reduce potentially the amount of nuclear waste, and therefore, come up with a better solution to managing the back end of the fuel cycle. And the only thing I just want to say, if I may—

Mrs. LUMMIS. Dr. Johnson?

Ms. JOHNSON. Yes?

Mrs. LUMMIS. I apologize, because we are on a clock.

Ms. JOHNSON. Yes.

Mrs. LUMMIS. And you do not see the clock.

Ms. JOHNSON. Okay.

Mrs. LUMMIS. So, you are saying that the panel has determined that scientifically there is something wrong with Yucca Mountain?

Ms. JOHNSON. That is not what I said. What I said is the panel, the committee, the Blue Ribbon Commission, is not a siting commission, so it is not considering any particular site. It is considering all options to deal with the back end of the fuel cycle and to deal with spent nuclear fuel and high level waste.

Mrs. LUMMIS. Dr. Johnson, President Obama in one of his first actions as President, was to send a memorandum to agencies saying, "Science and the scientific process must inform and guide the decisions of my administration. The public must be able to trust the science and scientific process informing public policy decisions." Is the Blue Ribbon Commission adhering to this memo when you are not, when you are saying there is no scientific justification for taking Yucca Mountain off the table?

Ms. JOHNSON. I did not say that.

Mrs. LUMMIS. Okay, so what are you saying?

Ms. JOHNSON. What I said was, is that the Blue Ribbon Commission is being stood up to consider all options to manage the back end of the fuel cycle, and to make recommendations for a best possible solution that would have broad support.

Mrs. LUMMIS. Okay, so now the issue is public support?

Ms. JOHNSON. No, I did not say public support. I said broad support. The Blue Ribbon Commission is comprised of, it is an interesting commission as you know. It has got academics, it has got government, it has got not for profit, that are going to be considering what is the best possible way to proceed to manage the back end of the fuel cycle from an energy policy perspective.

Mrs. LUMMIS. So it is energy policy? Not public policy?

Ms. JOHNSON. The Blue Ribbon Commission is being set up to make recommendations to the Secretary of the Department of Energy on the best method and way to go after managing the back end of the fuel cycle.

Mrs. LUMMIS. Thank you, Mr. Chairman. I have to say, you know, I share the frustration of my colleagues on this Committee with the scientific response being lacking. Thanks, Mr. Chairman. I yield back.

Mr. SCOTT. Thank you, Mr. Chairman. Mr. Hertz, what is the annual amount of payments we are making based on the liabilities so far?

Mr. HERTZ. I am not sure I can give it to you on an annual basis. I think one of the things I testified to is the increase in what our liability has been found since the year I testified. As I think I said, our current liabilities in the litigation, although some of it is still subject to appeal, is about \$2 billion. Last year when I testified, it was only \$1.3 billion.

Mr. SCOTT. Now, once we are on the hook for liability you would expect that to continue, and others will come in, and that number will grow. Is that right?

Mr. HERTZ. Well, a couple of things I have said. Some of those cases are still on appeal, so some of those judgments that are in that number may get reduced, one. Two, I think all of the utilities who could have sued us, virtually all of them have sued us. As I said, they sue us for a period of time up until they file their complaint. And—

Mr. SCOTT. Right. And then once you get judgment on that, then the next year, six months later they are going to come back for some more.

Mr. HERTZ. Six years, six years later.

Mr. SCOTT. Six years later they are going to come back for some more.

Mr. HERTZ. Correct. Now—

Mr. SCOTT. So, once they have come in you would expect those to continue, you have to pay, and that number is going to grow.

Mr. HERTZ. Well the total number will certainly grow. There is no question about it. Whether the amount each year grows per utility, I do not think we know.

Mr. SCOTT. Well, this is the Budget Committee. We are trying to look for a number.

Mr. HERTZ. Right. And I think the only numbers that we really have is the estimate from the Department of Energy, which was I

believe about \$13 billion in total liability when they were predicting that—

Mr. SCOTT. Well, if you can give us some numbers as to what we are on the hook for now, and how much we can expect it to grow, that would be helpful to this Committee.

Mr. HERTZ. You know, again, the best I can do is the numbers I have given you, and told you the amount that is coming up in trials over the next two years, which—

Mr. SCOTT. Okay. Well, if you can come up with some numbers that would be helpful because we are going to have to budget for some of this. Now, the, Dr. Johnson you have indicated that you have withdrawn, you made a motion to withdraw the application, right? What basis would the Commission have to deny that motion?

Mr. HARRIS. You are asking us to argue the other side of the case.

Mr. SCOTT. If they have the right to say no, how do you have the right to be there to begin with?

Mr. HARRIS. Well, so the question is, what does the law require? Our review of the law is that the Atomic Energy Act, the Department of Energy Organization Act, and the Nuclear Waste Policy Act, allow the Secretary to make the decision to withdraw the application for the facility at Yucca Mountain. However, whether or not we are correct in our understanding of the law is something that is and will be decided in the first instance by the Nuclear Regulatory Commission. And so, we filed the motion basically asking for permission to withdraw, setting forth our understanding of the law. We have opponents who believe our understanding is incorrect.

Mr. SCOTT. Well, what is the status, what is the status of that request? Were you not rejected?

Mr. HARRIS. There is an administrative board, at sort of a trial level if you will, at the Nuclear Regulatory Commission that denied our motion. It said we misunderstood the law.

Mr. SCOTT. Now how many times have you been denied?

Mr. HARRIS. We have been denied one time by that board. The Nuclear Regulatory Commission on its own immediately issued an order asking the parties to brief the questions. One, whether it should review that decision? And two, if it is to review that decision whether it should affirm it or reverse it? That has been fully briefed, by the way, by all of the parties. And I anticipate that the Nuclear Regulatory Commission will decide the issue sometime in the next few months.

Mr. SCOTT. What is the time table for the Blue Ribbon Commission to come up with a solution?

Ms. JOHNSON. The time table for the Blue Ribbon Commission to make their recommendation is a year from now we will have received a draft report, and six months later we will receive their final report on recommendations.

Mr. SCOTT. But that is not, that is not a solution. Then, that just gives you some options but not a solution.

Ms. JOHNSON. That is correct. That is correct.

Mr. SCOTT. So, you will start thinking about it in a year and a half?

Ms. JOHNSON. We will be, obviously we are doing R and D right now in the back end of the fuel cycle. But we are going to wait till we get their draft report—

Mr. SCOTT. Well—

Ms. JOHNSON [continuing]. So that we do not preclude, or presuppose, anything that the Blue Ribbon Commission might say. And if I could just—

Mr. SCOTT. Let me, I want to get into another question. You can answer them both at the same time. I think we have concluded that it has to go somewhere. If it does not go to Yucca Mountain, what was in second and third place?

Ms. JOHNSON. So, right now, as I was mentioning before, the NRC has said that spent nuclear fuel can be stored on site in dry cask storage for up to a hundred years. The International Atomic Energy Commission has said that it is safe to be stored for up to three hundred years. That does not mean we are going to take a hundred years, and it certainly does not mean we are going to take three hundred years. It does mean that we have time to take a year to step back and get some of the smartest and brightest individuals that we have in this country to come up with recommendations that will give us a better solution than we have right now.

And that does not preclude that we would not potentially be able to move faster than the approach that we are on now. It certainly does not mean we are going to take a hundred years. But it does give us time.

Mr. SCOTT. But if it is not Yucca Mountain, what was in second or third place?

Ms. JOHNSON. Again, I do not want to preclude the work of the Blue Ribbon Commission. And there is not a second or third place. We are looking forward to their recommendations.

Mr. SCOTT. It was not South Carolina?

Ms. JOHNSON. Again, the Blue Ribbon Commission is not a siting body, and they are not considering any site anywhere in the U.S. or elsewhere.

Mr. SCOTT. Well, there must, there must have been second and third choices. Yucca Mountain did not come out of the air. I mean, you had choices. What, did—

Ms. JOHNSON. Yucca Mountain, I believe, was decided on over the course of the last twenty years. So, it was not just this last—

Mr. SCOTT. Has anybody suggested that another place is more appropriate?

Ms. JOHNSON. Again, this is not a siting, the Blue Ribbon Commission is not a siting commission. So, we are not considering any particular site.

Mr. HARRIS. Congressman, if I can help? At one point a number of different locations were being considered. At some point, Congress decided that the Department of Energy should proceed only with Yucca Mountain. I do not recall the specifics of that, and did not prep myself on that for this hearing. But there were a number of other sites that we were to consider, and Congress decided that we should proceed with Yucca Mountain.

Chairman SPRATT. Mr. Nunes?

Mr. NUNES. Thank you, Mr. Chairman. Mr. Harris, you seem fairly convinced that you are reading the law the right way and

that the Department of Energy, and the Secretary has the decision to close Yucca Mountain. You know, and despite Ms. Johnson just said that for twenty years the Congress was heading down the road of developing Yucca Mountain. And I just wonder, what are you going to do with Yucca Mountain now that you have decided to close it?

Mr. HARRIS. I am convinced of my legal opinion, which probably is not a shock if you talk to lawyers very often. But I would have to defer to the Under Secretary about what will happen with Yucca after that.

Mr. NUNES. I would like to see the plan for what you guys are going to do with it. Casino under the ground or something in Nevada? I would be—

Ms. JOHNSON. With all due respect, I am not sure that that is actually being planned right now. But I could take that under advisement, I guess.

Mr. NUNES. Well, if you guys could get back to me with what the plans would be if it was in fact closed down?

Ms. JOHNSON. Yes, sir. I will take that as a—

Mr. NUNES. And Mr. Chair, I would like to yield to Mr. Simpson. He had an additional question. I would like to yield the rest of my time to Mr. Simpson.

Mr. SIMPSON. Thanks, Mr. Chairman. There were two sites being considered besides Yucca Mountain. One of them was, there were a number of them, and it was down to three sites. Hanford, Washington, and a place in Texas, and Congress ultimately decided Yucca Mountain would be the final place.

And I also want to clear up, people seem to get Yucca Mountain and the Blue Ribbon Commission confused. The Blue Ribbon Commission is a commission that is going to look at the processes of how we deal with nuclear waste, and whether we can do it in a more efficient manner, whether we can reduce the volume of waste through reprocessing, other types of things. But ultimately, I think everybody agrees that you are going to have to have a geological repository at some time, at some location. Does that mean the other places are back on the table? Probably so, if the only place we are not going to consider is the place we have done fifty-two scientific studies on to make sure that it is the appropriate and everything else. The only place we know more about than anyplace else on Earth, we are not going to consider it.

So, but this question. Is the Department considering in their budget the fact that we are currently investing, I cannot remember what, \$14 billion in the waste treatment plant at Hanford, that will design waste based on the storage requirements at Yucca Mountain? And that we will probably have to redesign and rebuild much of that waste treatment, or at least a portion of that waste treatment plant, when we finally at some time ultimately come up with a decision of where to put it, and the requirements for that specific location? That we will have invested a whole lot of money based on Yucca Mountain being the place that will no longer be valid?

Ms. JOHNSON. Thank you very much for the question. So, the waste treatment plant at Hanford is a very robust way of handling both low level waste and high level waste. The low level waste is not destined to go to Yucca. The high level waste is.

Mr. SIMPSON. Right.

Ms. JOHNSON. So, because WIPP right now does not receive high level waste, because it is such a robust method, the glass vitrification, it would be suitable for long term storage appropriate for I believe any recommendation that might come out of the Blue Ribbon Commission.

Mr. SIMPSON. Would the, well you are going to have to have a siting location, and that siting location is going to have to have requirements just like Yucca Mountain has requirements. If the waste that is produced by the waste treatment plant in Hanford does not meet those requirements of a new location, because we do not know what that new location is and what those requirements will be, are we going to have to invest a lot of money in redoing this?

I guess what bothers me a whole lot, within the Department of Energy and our policy, the government's policy over the last fifty years, is that we spend a lot of money and then respend a lot of money as we change as things go on and on and on. We buried waste out to the INL for years under the ground because guess what? Ground was the greatest protection there was. Unfortunately, it caused us some problems. Now, we are spending billions of dollars digging up that waste and sending it to the WIPP site. Are you worried? Is the Department looking at all this stuff?

Ms. JOHNSON. So, Hanford has five different elements to it, as you probably know.

Mr. SIMPSON. Right.

Ms. JOHNSON. So, there is the waste tanks themselves, there is the low level waste facility, there is a high level waste facility, there is an analytical laboratory, and the balance of systems. Hanford is on track to come on line between 2019 and 2020. So, where we are now is we believe that the processing that we have designed going on at Hanford will be able to handle low level waste to go to WIPP, high level waste to go to a permanent storage, and will be consistent and compatible with the recommendations that come out of the Blue Ribbon Commission.

Mr. SIMPSON. Thank you.

Chairman SPRATT. Mr. Etheridge?

Mr. ETHERIDGE. Thank you, Mr. Chairman. And let me thank you for this hearing, and thank our witnesses for your testimony. I do not need to remind any of us, but I think it goes without saying that nuclear power is an important part of our alternative and renewable energy debate. And for my home state it is a big piece because they are looking at expanding. And as a part of our nation's effort to reduce our dependence on foreign oil as a way to help level that up and down of the cost of energy over time. And I think it will help contribute to international stability where we now have a lot of instability. And I think an important priority has to be in that process for reducing our national debt. And that is really what this Committee is about, is talking about budgeting.

I just came from a meeting a few minutes ago that I chair with some new Dems about, I co-chair that Committee on Budget Discipline, and we have been talking about that. So, I am concerned about the cost we are talking about here. Because every time we, as we say on the farm, we plow a field, it costs some energy to

replow that field. And we are spending money to replow it. And depending on which numbers you come out with, we are talking about about \$13.1 billion or somewhere in that number. That is a lot of money. And these dollars affect every taxpayer.

So, let me ask any of you three who want to respond to this. What are our options to reduce this liability and protect the taxpayers' investment, number one? And number two, we have talked about now, and I know this is, you said Yucca Mountain is closed. But would it be less expensive or more expensive if we did use that site? And are there other possibilities that would work that will help protect the taxpayer? That is really what we are about here. How do we protect the people who pay the bill?

Mr. HARRIS. Congressman, can I perhaps start off with that question? The \$13.1 billion you are referring to is the current estimate of potential liability for paying utilities for not having taken the spent nuclear fuel. We can—

Mr. ETHERIDGE. Let me interrupt you just a second, then I will come back to your question.

Mr. HARRIS. Surely. Yes, sir.

Mr. ETHERIDGE. We use a lot of nuclear fuel. And in my home state, we have invested about \$868 million so far into the fund.

Mr. HARRIS. Into the fund, yes, sir.

Mr. ETHERIDGE. Okay, excuse me. Go ahead.

Mr. HARRIS. Yes, sir. I do understand that. The point is, the government's liability is solely a function of when it begins to take the waste and how much of that waste it takes. It is a direct correlation. It is conceivable to come up with a plan that would allow us to begin to take waste even before Yucca Mountain could have come online. For example, and this is just a hypothetical, we are currently prohibited by law from doing interim disposal. That is a legal prohibition. Were the Blue Ribbon Commission to recommend interim disposal, I am not saying it will. But were it to, were Congress to decide this was a good idea, I am not saying it will or should, but there are possibilities that would allow us to go forward to take nuclear waste more quickly than we even could have with Yucca Mountain. And that would have a direct impact on the liability of the United States government to the utilities.

Mr. ETHERIDGE. Any comment, Dr. Johnson?

Ms. JOHNSON. I wanted, if you would not mind repeating your second question? But before you do that I just want to say that I am very aware that the State of North Carolina is largely dependent right now on coal, with sixty-some percent of it coming from coal, and coal that is actually imported from surrounding states. And so, I do believe that nuclear will be an ever bigger part of the solution, particularly for states such as—

Mr. ETHERIDGE. And they are in the process of looking at more nuclear. But my point is, that they have already paid a substantial amount in it.

Ms. JOHNSON. Right.

Mr. ETHERIDGE. And the longer we wait, that cost is going to continue to be out there with no resolution. Mr. Hertz?

Mr. HERTZ. Let me say I agree with Mr. Harris. You know, the government's liability is a direct function of how quickly and how soon we begin to pick up the waste. I think the other possibilities

include if we are able to come up with a settlement plan that substitutes administrative resolution of the utilities' claims as opposed to court litigation. You know, there could be, you know, it is not, it should come as no surprise that often in court litigation you get extravagant claims, at least initially. You know, in an administrative process where the rules were more well defined in terms of what the government would pay for in terms of damages versus what it will not pay for, could ultimately save the government some money as well. And that is one of the things we are looking at in terms of a, you know, a long range settlement, or if Congress were to enact some kind of administrative mechanism to resolve these claims as opposed to litigation.

Mr. ETHERIDGE. Thank you. I think the issue is not about litigation, because that is after the fact. The question is, we have not gotten the job done so the taxpayers are paying twice. They are paying through the rate that is going into the fund. And ultimately, if there is litigation and a penalty, they are going to get to pay a second time, because the government does not have any money, it comes from the taxpayer. And I think that was the point I was trying to make. I yield back, Mr. Chairman.

Chairman SPRATT. Mr. Larsen?

Mr. LARSEN. Thank you, Mr. Chairman, for the hearing. And just, I would like to start by asking unanimous consent to enter for the record a letter that was sent earlier this month signed by ninety-one members of the House regarding this issue to Secretary Chu? Unanimous consent to enter that into the record?

Chairman SPRATT. Without objection, so ordered.

Mr. LARSEN. Thank you.

[The letter to Secretary Chu follows:]

**Congress of the United States**  
Washington, DC 20510

July 6, 2010

Secretary Stephen Chu  
U.S. Department of Energy  
1000 Independence Avenue, SW  
Washington, DC 20585-0002

Dear Secretary Chu:

We write today to request that the Department of Energy immediately halt all actions to dismantle operations at Yucca Mountain at least until legal action regarding the withdrawal of the application is resolved by the DC Circuit Court and the Nuclear Regulatory Commission.

The DC Circuit Court has taken the important step of approving the motion to expedite legal actions and has combined the cases involving the State of Washington, State of South Carolina, Aiken County, and Tri-Cities, Washington community leaders. This is a clear demonstration by the Court that the merits of the case must be heard and ruled upon prior to further action by the Department of Energy to shut down Yucca Mountain.

On June 29, 2010, the Nuclear Regulatory Commission's Atomic Safety and Licensing Board denied the Department's motion to withdraw its license application for Yucca Mountain, a clear statement that the Department does not have the authority under the Nuclear Waste Policy Act to unilaterally terminate Yucca Mountain.

In light of the recent legal and regulatory actions, we are deeply troubled that the Department continues to move forward with terminating the project regardless of this decision. We are also concerned that the Department is using its budget proposal in an attempt to justify the termination of Yucca Mountain.

As you know, the Nuclear Waste Policy Act designated Yucca Mountain as the only candidate site for the national repository. Congressional intent is clear – Congress has voted several times to retain Yucca Mountain as the national repository. We are deeply disappointed that DOE has overstepped its bounds and has ignored congressional intent without peer review or proper scientific documentation in its actions regarding Yucca Mountain.

We ask that you recognize the letter and spirit of the law, honor the timeline set by the court, and halt all efforts to reprogram funds or terminate contracts related to Yucca Mountain.

Thank you for your consideration and we look forward to your timely response.

Sincerely,

Patty Murray  
Lee Neuharth

Laura Alexander  
Jim Clark  
Kay Bailey Hutchison

Mary Landrini  
Olympia Snowe  
Jeff Bond

Geoffrey S. Felt  
Sally Chaudhri

Norbert  
Jim DeMint  
John McLean

John Cornyn  
Jim Bunning  
James Inhofe  
John Kyl

Jeff Sessions  
Mike Enzi  
Jan E. Pinal

<u>Paul Cochran</u>	<u>Mike Cryer</u>
<u>John Barrasso</u>	<u>Susan Collins</u>
<u>Sam Brandt</u>	<u>Norm Dicks</u>
<u>John Sprain</u>	<u>James E. Left</u>
<u>Eric Carter</u>	<u>Gene Russell</u>
<u>Loe Boston</u>	<u>Rick Davis</u>
<u>Fred Lyles</u>	<u>R. Helingsen</u>
<u>Shirley Penn</u>	<u>Cathy McMahon Rodger</u>
<u>D. Becht</u>	<u>J. Jabe</u>
<u>Rick Loran</u>	<u>J. M. Smith</u>
<u>Joe Wilson</u>	<u>Henry E. Baum</u>
<u>Ben Inglis</u>	<u>Bart Stupak</u>

~~Carl Brown~~  
Vicki Gillitts

Don Davis  
Pete Olson

Alan Kim

John Kline

Mrs. Gray

Lynn Jenkins

Mike Kim

Bob Luthraie

Vicki Gray

Ging Barwick

Mike

John Shedy

John Linder

Judy Briggs

Jack Ward

Bob

Blaine Justice

Robt E. Anderson

Bob D. Little

John Jr.

<u>Paul C. Kajroski</u>	<u>Ken Cabert</u>
<u>John J. Ducey</u>	<u>Donald Monjallo</u>
<u>E. Bonner</u>	<u>Peter Sisson</u>
<u>JP Bonner</u>	<u>Joe Tamm</u>
<u>David [unclear]</u>	<u>Doug Walden</u>
<u>Jack Kingston</u>	<u>E. C. Tamm</u>
<u>Ralph M. Hall</u>	<u>Harold Rogan</u>
<u>Joe Courtney</u>	<u>Tim H. [unclear]</u>
<u>Denny Riddery</u>	<u>Jim [unclear]</u>
<u>J. R. [unclear]</u>	<u>Michael Bachmann</u>
<u>[unclear]</u>	<u>[unclear]</u>
<u>Sue Myrick</u>	<u>J. R. [unclear]</u>
<u>[unclear]</u>	<u>[unclear]</u>

Mr. LARSEN. I was going through the testimony of Mr. Wright, who is testifying next. And page eight of his testimony is actually sort of Washington State's argument in this. And I think it is just important to note that, and this echoes what Mr. Etheridge said, that the states of Idaho, South Carolina, and Washington State indeed have agreements with the federal government with a date certain to move defense waste out of their respective states. Significant penalties to the federal government are incurred if the agreements are not complied with. It is yet another way that all taxpayers and not just ratepayers are having to pay for compensation for the government's failure to build the site at Yucca. And as well,

I want to make a point before asking a question, that earlier the discussion was about what the federal government has had to pay to litigate. There is a large amount of money as well that states are having to pay to litigate to get the federal government to do its job. And we are certainly paying that cost in Washington State. Fortunately, there is a firm consensus in Washington State that the federal government should do its job and clean up Hanford as well as moving forward on Yucca.

But I would like to ask Dr. Johnson to reconcile a statement from the charter of the Commission on, its advisory committee charter. Three C: Options for permanent disposal of \* \* \* Excuse me, the Commission is supposed to look at options for permanent disposal of used fuel and/or high level nuclear waste including deep geological disposal. So, in fact, the Blue Ribbon Commission is in fact looking at deep geological disposal, but apparently not looking at Yucca Mountain. Is that correct?

Ms. JOHNSON. That is correct.

Mr. LARSEN. So, if they are not into a siting decision, it seems to me that they are looking at deep geological disposal, certainly they are not going to point to a place on the map. But it seems to me that, and I do not want to prejudge what they are going to say, but I will. They are going to say something along the lines, if they get to this point, they are going to have to say, "Look, your disposal site has to have these characteristics, it needs to be so far away from folks," and it is going to, you know, the map is going to shrink on us. And it is going to end up being maybe not an actual piece of acreage but it is going to be a general direction. It certainly seems to me. Does that make sense to you?

Ms. JOHNSON. Well, thank you very much for the question. Again, the Blue Ribbon Commission is not a siting organization. It is considering, as you said—

Mr. LARSEN. I am sorry, I know they are not a siting organization. I am asking you if my statement makes sense to you, that if they are not going to site but they are looking at deep geological disposal they are going to have to look at certain geological characteristics around this country. And that is going to shrink the map for where deep geological disposal goes. Does that make sense to you or not?

Ms. JOHNSON. So, the Blue Ribbon Commission is looking at many options. It is looking at processes, as well as policy—

Mr. LARSEN. Right, I got that.

Ms. JOHNSON [continuing]. As well as the technology. So, we do not want to presuppose what they are going to recommend.

Mr. LARSEN. I do not either. Does it make sense to you what I said?

Ms. JOHNSON. If you would not mind, could you say that one more time?

Mr. LARSEN. No.

Ms. JOHNSON. Okay.

Mr. LARSEN. So, back to high level waste in Hanford, although you do not want to prejudge what they said, it sounded like you prejudged the Blue Ribbon Commission when you said the high level waste at Hanford with the WTP would be consistent and compatible with Blue Ribbon Commission recommendations. That

sounds to me like you are prejudging what they might say about high level waste at WTP.

Ms. JOHNSON. The high level waste at WTP is going to be stored in, as the plan of record is right now, in a very robust vitrification form that would be able, in my view, to be stored anywhere. And I am not going to presuppose the options that the Blue Ribbon Commission is going to come up with for that ultimate long term disposition storage.

Mr. LARSEN. No, I do not think you will, except earlier you did. You said it would be consistent and compatible with Blue Ribbon Commission recommendations. I will go back and look at what you said earlier to clarify what I said.

Ms. JOHNSON. Okay.

Mr. LARSEN. So, it sounded to me like you were in fact prejudging one aspect of what they might come up with.

Ms. JOHNSON. Well, I also said earlier that the Hanford is going to come online in 2019 and 2020. We will have the recommendations from the Blue Ribbon Commission, the draft in a year and the final report within eighteen months.

Mr. LARSEN. I would also say that that is not on track. On track was about 2015. It is off track, and it is going to be about 2019 to 2020.

Ms. JOHNSON. Right.

Mr. LARSEN. Just for the record.

Ms. JOHNSON. Yeah. And I appreciate your comments there. As you know, it has been rebaselined, and we have a new consent decree that has been established. And we have with the new baseline to finish this by 2019 or 2020. Thank you.

Mr. LARSEN. Right. Thanks. Thank you, Mr. Chairman.

Chairman SPRATT. Mr. Becerra?

Mr. BECERRA. Thank you, Mr. Chairman. And thank you, the three of you, for your patience in answering the questions. I apologize for not being able to be here for the entire hearing, but I would like to ask a couple of questions. My understanding is, and maybe this has already been discussed so please forgive me if you are going to be repetitive in your response. My understanding is that whether or not we were to move forward with Yucca Mountain or any other potential site, that we still have not resolved the issue of what we do with, how we dispose of safely, with all of the nuclear contaminated materials that we might have generated by 2020. Is that still the case? And Dr. Johnson, why do I not ask you that question.

Ms. JOHNSON. Right. Thank you very much. We have learned a lot over the last twenty years about the technology and the research involved with managing the back end of the fuel cycle. We have learned that there are ways to modify the forms of some of the waste. We have learned about how to be better about proliferation proof, or I should say resistant, technologies that may involve recycling. And I think at this moment, given the way that technology has accelerated, we want to step back and see are there better solutions for managing the back end of the fuel cycle? And hence potentially reducing the amount of waste that we would be storing going forward?

Mr. BECERRA. Okay. So, there is some hope that we can come up with better ways to package the waste so that perhaps we will be able to more efficiently not only store it but dispose of it?

Ms. JOHNSON. I think there are ways that we would consider that would be different than we are doing now. That does not mean that that would not be compatible with we are doing at the WTP. Because right now if you look at where we are with regard to the whole design cycle, there is still time should we choose. And we still continue to look for best practices to reduce the cost to the taxpayer.

Mr. BECERRA. Yeah. And my sense is that once we make a decision on how to move forward, whether it is Yucca Mountain or anything else, we want to make sure that we have used every available piece of evidence and science to help guide us. Because once we move in a particular direction, it will be a heck of a lot harder to turn away from that and come up with something else.

Ms. JOHNSON. Is that a question, or—

Mr. BECERRA. Or a comment.

Ms. JOHNSON. Oh, okay.

Mr. BECERRA. But I am assuming that we want to get it right.

Ms. JOHNSON. Well, I think again, as I said, and before you were here, is that we are at an interesting time in the history of our nuclear power industry. And we started thirty years ago with the Nuclear Waste Policy Act, and times have very much changed in thirty years. And I think that one of the things that I realized in thinking and preparing for this briefing, is just how far we have come with our computational efforts. Where we can model and simulate what we would be doing in the back end of the fuel cycle, and point to opportunities to come up with a better solution. And that is a tool we have not utilized before for this particular application. We have utilized it brilliantly in the Stockpile Stewardship Program.

In 1993, after the Comprehensive Test Ban Treaty, we decided we no longer were going to explode nuclear weapons in order to understand their aging. And therefore, what we had to do is combine simulation and modeling at a very detailed level with some of the experimental data that we had in order to predict how those nuclear materials would react and nuclear weapons would age over time. We have been very successful at doing that.

We are in a position now where we can do the same thing and apply it towards clean up, apply it towards managing the back end of the fuel cycle, and give us opportunities to do a better job and a better solution. So, why not take advantage of that knowledge now, take a moment, step back, and see if there is a better solution? Because as the Secretary said, we can do better.

Mr. BECERRA. I do not know what the solution is. I do know this. That we are asking you to captain the USS Enterprise and go where no human being has gone before. And for that reason, I hope that what you will do is apply every bit of brain power and evidence and technology that we have within our disposal to try to come up with a solution that can unify the country behind a particular proposal. I do not believe at this stage we are there. I appreciate the work that you have been trying to do. I understand the frustration that many feel. And I suspect we will continue to see lawsuits generated for any number of reasons.

But what I would urge you to do is to watch a few of the previous episodes of Star Trek and get a sense of how Captain Kirk was able to always prevail. Because we have to make sure that when we go where no human being has gone before, that we end up on the right planet. So, I thank you for having come and provided more insight on this issue. Mr. Chairman, I thank you very much. I yield back the balance of my time.

Chairman SPRATT. Mr. Doggett?

Mr. DOGGETT. I have no questions at this time, Mr. Chairman.

Chairman SPRATT. Mr. Simpson, do you have anything further?

Mr. SIMPSON. No, I have been questioned out.

Chairman SPRATT. I have a couple, then we will call it quits. Looking back at the history of the defense waste program, and the defense nuclear program in particular, when we have come to junctures like this and had critical decisions to make, we have typically turned for outside advice to the National Academy of Sciences. And they have typically come back with very, very skilled and expert answers to our questions. Why in this case did we not follow that precedent, and choose for the membership of this Blue Ribbon Commission the NAS, National Academy of Sciences, as opposed to the group of individuals? All of whom are quite, quite renowned in their own right, but quite a few of whom are not technically versed in the subject matter. Why did we not choose to simply go back to the NAS and ask them for guidance?

Ms. JOHNSON. Thank you very much for the question. As you said, the Blue Ribbon Commission is a committee, a commission, of very esteemed and distinguished individuals. And they do include members of the National Academy. They also include individuals that have served the country, including Senators Domenici and Hagel, and they are chaired by General Brent Scowcroft as well as Congressman Lee Hamilton. And I think that this distinguished committee will discharge their duties diligently and give us an excellent report.

Chairman SPRATT. Well, thank you for your—

Mr. SIMPSON. Mr. Chairman?

Chairman SPRATT. Mr. Simpson?

Mr. SIMPSON. I do have one other comment or question, because I do not know that I got a really clear answer. Mr. Becerra mentioned that we have to make sure that we get this right. And I am not sure that there is any getting it right. What we can do is use the best technology that we have at the current time, and I am sure forty years from now it will be different. And we will say, "You know what? If we had known this back then, we could have done this." Just like we are saying that now about what we decided in 1980. And I think that is what this Blue Ribbon Commission is all about. So, I have no problem with what the Blue Ribbon Commission is looking at.

But as I have stated, and I do not know that I got a clear answer from you, do you disagree with the Secretary of Energy that a geological repository, regardless of what you do. Regardless of what process you use, a geological repository will be needed at some time?

Ms. JOHNSON. I would never disagree with the Secretary.

Mr. SIMPSON. That is why I qualified the question that way.

Ms. JOHNSON. Stepping back again, you know, I understand what you are saying about, well, forty years from now we have a different view of what is going on. You know, let me see if I can put it in the way that there has been extraordinary progress over the last thirty years with regard to computation. With regard to our knowledge about the basic materials, and with regard to transuranic waste, high level waste, low level waste. And I think given that right now, when we are considering restarting, and we are restarting, and this administration has signaled its strong interest in restarting the civilian nuclear energy program, that it gives us a chance to take a year and six months from now to step back and say, "Let us find a better solution with broad support."

Mr. SIMPSON. That will end up in a geological repository?

Ms. JOHNSON. Again, I do not want to preclude what the Blue Ribbon Commission might recommend.

Mr. SIMPSON. Well, if they can find something else, that would be wonderful. But nobody believes they will, and nobody believes that is possible. That ultimately there is going to be a pile of gunk that has to go somewhere.

Chairman SPRATT. Mr. Scott has a further question.

Mr. SCOTT. Just to follow up on the time table for the Blue Ribbon Commission, you said in a year to year and a half you would get a recommendation. And then I guess at that point we will, they are not a siting committee, so at that point we will start looking for a site? As the gentleman from Idaho just mentioned. It has taken us, what, twenty or thirty years to get to this point with Yucca Mountain. Once we start, why would we not expect it to take twenty or thirty years with whatever site is picked, fighting tooth and nail against it, delaying, and doing everything they can, filing suit? Why should we think it would not take another thirty years to get to where we are now?

Ms. JOHNSON. Right. Thank you very much for the question. In the charter 3-E, the Blue Ribbon Commission is being asked to recommend not only methods and ways to manage the back end of the fuel cycle but also for options for decision making processes and management of disposal. So, there is also a process they will be recommending as well as recommendations for how to manage the back end of the fuel cycle. And I have full confidence in the Blue Ribbon Commission to recommend processes and procedures that can be accomplished in a reasonable period of time.

Mr. SCOTT. Thank you.

Chairman SPRATT. Thank you. And to our panel, Dr. Johnson, Mr. Harris, Mr. Hertz, thank you very much for your patience, your forbearance, and for your forthright answers to our questions. We appreciate your coming here to participate in this hearing.

Ms. JOHNSON. Thank you.

Chairman SPRATT. Thank you very much indeed.

Mr. HERTZ. Thank you, Mr. Chairman.

Chairman SPRATT. Our next witness is Mr. David A. Wright, who is the Vice Chairman of the Public Service Commission of South Carolina. Mr. Wright, welcome indeed. Thank you very much for your participation in this hearing. As you may have noted, we have made your statement and the other statements part of the record so that you can summarize them as you see fit. But you may also

take your time and review thoroughly what you have presented for us. And we very much appreciate your coming. The floor is yours.

**STATEMENT OF DAVID A. WRIGHT, VICE CHAIRMAN,  
PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA**

Mr. WRIGHT. Good morning, Mr. Chairman. I guess it is still morning. And members of the Committee, my name is David Wright, and I am Vice Chairman of the South Carolina Public Service Commission. In addition to that, I am past Chairman and current member of the Subcommittee on Nuclear Issues and Waste Disposal, and a member of the Full Electricity Committee of the National Association of Regulatory Utility Commissioners. And I also serve as Chairman of the Nuclear Waste Strategy Coalition.

The issues that you are addressing today are very important to South Carolina and any state that is home to commercial spent nuclear fuel or the nation's defense waste. I am grateful to have this opportunity to represent and share our views concerning the disposition of spent nuclear fuel, currently stored at nuclear power plant sites that is intended for ultimate disposal at the Yucca Mountain Geological Repository.

By way of the Nuclear Waste Policy Act of 1982, the federal government became responsible for disposal of high level radioactive waste, including spent or used nuclear fuel from commercial reactors. Utilities, ratepayers, and regulators had the expectation from the NWPA that the Department of Energy would begin initial waste acceptance and disposal in the properly licensed and constructed repository by January 31, 1998. Utility ratepayers have paid and continue to pay for the disposal cost of the material. To date, ratepayers in states that receive power from commercial nuclear utilities have paid over \$17 billion into the Nuclear Waste Fund. Including allocated interest, the Nuclear Waste Fund today totals almost \$35 billion, but only a fraction of the money collected from ratepayers has actually been spent on the developing of the Yucca Mountain repository. The ratepayers in South Carolina, Mr. Chairman, have paid nearly \$1.3 billion into the Nuclear Waste Fund, or more than \$2.3 billion when interest is included.

State public utility commissions, like mine, are one of the stakeholders on the disposition of used nuclear fuel from commercial reactors because the fees paid to the Nuclear Waste Fund by the current caretakers of the used fuel, that would be electric utilities, are passed onto ratepayers who are supplied with electricity from nuclear power generation.

When the Director of the Office of Civilian Radioactive Waste Management within the Department of Energy submitted the Yucca Mountain repository license application in June of 2008, it was a comprehensive document. The eight thousand page document was the culmination of over twenty-five years of exhaustive investigation of the site. Like others, I expected the NRC to conduct a rigorous review and conduct an open, fair, and inclusive adjudicatory process. The filing of the license application was an important step, because it appeared to take the application out of the political arena and put it under a full blown court review that would be based on science, not politics.

Since 1998, when DOE failed to meet its obligation to begin waste acceptance for disposal, organizations that I and my state are a part of have simply asked that the government fulfill its part of the bargain and remove the spent fuel per the standard contract, since the utilities and ratepayers continue to pay for services not performed. That remains our position, as we believe that the license application shows that Yucca Mountain will meet the requirements of the NWPA and regulations. If Yucca Mountain cannot be licensed through the NRC process, or is licensed but not built, we interpret NWPA as still requiring DOE to develop and dispose of spent nuclear fuel in a geologic repository. Therefore, unless the law is repealed or amended to direct otherwise, Congress is the only body that can authorize DOE to conduct a site search for another suitable repository site.

This is particularly costly, and most locations where the fuel pool cooling storage capacity at the reactor sites has long since been filled. In addition, the older fuel in the spent fuel pools is being removed and placed in concrete and steel containers called "dry cask" that are stored outside in concrete vaults. More than 62,000 metric tons of uranium is currently stored in pools or dry cask storage at nuclear plant sites in the United States. This amount increases with each refueling cycle, which generally occurs about every eighteen months. License applications for at least twenty-four new nuclear units have been submitted to the Nuclear Regulatory Commission. The amount of spent nuclear fuel to be stored will increase as new units are constructed and old units are relicensed, usually for an additional twenty years, as is happening with numerous reactors.

Nearly 3,800 metric tons of uranium is stored at four nuclear plant sites in South Carolina, Mr. Chairman, which are home to seven reactors as you know. Two nuclear units at the V.C. Summer Nuclear Station in Jenkinsville, South Carolina, have been approved by the South Carolina Public Service Commission and are awaiting license approval by the NRC. License applications for another two units near Gaffney, South Carolina, have been submitted to the NRC but not to the South Carolina Public Service Commission.

This nation will need more base load electric generation as the population grows and the economy recovers. Some areas, such as the Southeast in general, and South Carolina in particular, need for base load generation is needed in the near future. Renewable energy, conservation, and efficiency help to lessen the amount of base load generation needed but cannot entirely eliminate that need. The climate and health impacts of burning coal have forced utilities to depend upon gas fired and nuclear plants to meet the need for new base load generation. Without a solution to the storage of spent nuclear fuel, meaning a permanent repository, state regulators may be hesitant to approve the construction of new nuclear units, and utilities may be hesitant to construct new nuclear units, even if the NRC approves the license applications. Such circumstances could result in reduced electric reliability, brown outs, and increased costs of electricity as gas fired generation would be the only option, and its price would increase as the demand for natural gas increases, all else being equal.

Federal courts have already ruled that the federal government is liable for the added storage costs past the dates agreed in original contracts with spent fuel utilities. The Department of Energy already faces at least \$1.5 billion in court judgments and legal expenses resulting from failure to meet the government's obligations. In 2009, when DOE had a plan to begin waste acceptance and disposal at Yucca Mountain by 2017, DOE officials estimated that the liability for sixty-five cases could reach \$12.3 billion, growing further by at least \$500 million for each additional year of delay. DOE pays these court determined liabilities from the Judgment Fund.

What is really happening is this: because of the federal government's failure to construct a permanent repository, ratepayers are paying up to four times for ongoing spent fuel storage and future disposal. And that does not include decommissioning funds. First ratepayers are paying into the Nuclear Waste Fund for storage at the deep geologic repository at Yucca Mountain. Second, because of the initial delay, ratepayers have to pay through rates to expand and rerack their existing cooling pools in order to accommodate more waste. Third, ratepayers are continuing to pay through rates to keep the waste stored at the existing plant sites in dry cask storage. And finally, all taxpayers, not just ratepayers, are paying through taxes for judgments and settlements through the Judgment Fund.

Congress should suspend collection of the nuclear waste fees until further notice and refund the Nuclear Waste Fund money to ratepayers if Yucca is not built. Not counting defense waste, over 62,000 metric tons of spent fuel is stored in seventy-two operating and shut down reactor sites in thirty-four states. Individuals and organizations opposed to nuclear power will raise questions or even voice fears over safety and security at some of these storage facilities. Although the utilities and NRC contend that storage is safe and secure, it still costs ratepayers big money to implement individualized security programs for each of these locations around the country. How can this be more efficient, safe, secure, or cost effective than having all spent nuclear fuel and defense waste at one secure deep geologic location?

Recently, there has been great interest in reprocessing, or recycling as some call it, of spent nuclear fuel. The organizations that I am a member of, including NARUC, have supported research into reprocessing and recycling and share the views that, if there will be substantial global nuclear power expansion, there will probably become a time when uranium becomes more scarce and expensive, and closing the fuel cycle will become necessary. But no matter the future course of this country, whether we reprocess, or recycle, or maintain the status quo, a geologic repository is still needed for defense related, high level radioactive waste that has already been reprocessed, or cannot be reprocessed, and the residue from any future reprocessing program.

Finally, the states of Idaho and South Carolina, and maybe Washington as was mentioned a while ago, all have agreements with the federal government with a date certain to move defense waste out of their respective states. There are penalties, they are substantial, for the government's failure to comply. And that is just

another way that the taxpayer, all taxpayers not just ratepayers, are going to pay for the government's failure.

Thank you for the time today, and I appreciate being here. And I will answer any questions that you may have.

[The prepared statement of David A. Wright follows:]

PREPARED STATEMENT OF DAVID WRIGHT,  
SOUTH CAROLINA PUBLIC SERVICE COMMISSIONER

Good Morning, Mr. Chairman and Members of the Committee.

My name is David Wright and I am a legislatively elected commissioner and current Vice-Chairman of the South Carolina Public Service Commission. In addition to that, I am the past Chairman and current member of the Subcommittee on Nuclear Issues and Waste Disposal, and a member of the full Electricity Committee of the National Association of Regulatory Utility Commissioners, most often referred to as NARUC. I also serve as Chairman of the Nuclear Waste Strategy Coalition (NWSC).

The issues that you are addressing in this hearing are very important to South Carolina and any other state that is the home to commercial spent nuclear fuel, or the nation's defense waste. I am grateful to have this opportunity to represent and share our views concerning the disposition of spent nuclear fuel currently stored at nuclear power plant sites that is intended for ultimate disposal at the Yucca Mountain geologic repository.

I believe it's important to know how we got to where we are today, because it has led to the positions the organizations I represent currently hold.

By way of the Nuclear Waste Policy Act of 1982 (NWPAct), the federal government became responsible for disposal of high-level radioactive waste—including spent or used nuclear fuel from commercial reactors. Utilities, ratepayers and regulators had the expectation from the NWPAct that the Department of Energy (DOE) would begin initial waste acceptance and disposal in the properly licensed and constructed repository by January 31, 1998, as the law and contracts signed with owners of spent fuel required.

Utility ratepayers have paid, and continue to pay, for the disposal costs of the material. To date, ratepayers in states that receive power from commercial nuclear utilities have paid over \$17 billion dollars into the Nuclear Waste Fund (NWF). Including allocated interest, the NWF today totals almost \$35 billion, but only a fraction of the money collected from ratepayers has actually been spent on developing the Yucca Mountain repository. The ratepayers in South Carolina have paid nearly \$1.3 billion into the NWF, or more than \$2.3 billion when interest is included.

State public utilities commissions, like mine, are one of the stakeholders on the disposition of used nuclear fuel from commercial reactors because the fees paid to the Nuclear Waste Fund by the current caretakers of the used fuel, the electric utilities, are passed on to the ratepayers who are supplied with electricity from nuclear power generation.

When the Director of the Office of Civilian Radioactive Waste Management (OCRWM) within the Department of Energy (DOE) submitted the Yucca Mountain repository license application (LA) in June 2008 it was a comprehensive document. The 8,000-page document was the culmination of over 25 years of exhaustive investigation of the site.

Like others, I expected the NRC to conduct a rigorous review and conduct an open, fair and inclusive adjudicatory process. The filing of the license application was an important step, because it appeared to take the application out of the political arena and put it under a full-blown court review that would be based on science, not politics.

Since 1998, when DOE failed to meet its statutory and contractual obligation to begin waste acceptance for disposal, organizations that I and my state are a part of have simply asked that the government fulfill its part of the NWPAct disposal bargain and remove the spent fuel per the Standard Contract since the utilities and ratepayers continue to pay for services not performed. That remains our position, as we believe that the license application shows that Yucca Mountain will meet the requirements of the NWPAct and regulations.

If Yucca Mountain cannot be licensed through the NRC process, or is licensed but not built, we interpret NWPAct as still requiring DOE to develop and dispose of spent nuclear fuel in a geologic repository. Therefore, unless the law is repealed or amended to direct otherwise, Congress is the only body that can authorize DOE to conduct a site search for another suitable repository site.

This is particularly costly in most locations where the fuel pool cooling storage capacity at the reactor sites has long since been filled. In addition, the older fuel in the spent fuel pools is being removed and placed in concrete and steel containers—called dry casks—that are stored outside in concrete vaults.

More than 62,000 metric tons of uranium is currently stored in pools or dry cask storage at nuclear plant sites in the United States. This amount increases with each refueling cycle, which generally occurs about every 18 months. License applications for at least 24 new nuclear units have been submitted to the Nuclear Regulatory Commission (NRC). The amount of spent nuclear fuel to be stored will increase as new units are constructed and old units are re-licensed, usually for an additional 20 years, as is happening with numerous reactors.

Nearly 3,800 metric tons of Uranium is stored at four nuclear plant sites in South Carolina, which are home to seven reactors. Two new nuclear units at the VC Summer Nuclear Station in Jenkinsville, SC have been approved by the South Carolina Public Service Commission and are awaiting license approval by the NRC. License applications for another two nuclear units near Gaffney, SC have been submitted to the NRC, but not to the South Carolina Public Service Commission.

This nation will need more base load electric generation as the population grows and the economy recovers. Some areas, such as the southeast in general and South Carolina in particular, need more base load generation in the near future. Renewable energy, conservation, and efficiency help to lessen the amount of base load generation needed, but cannot entirely eliminate that need. The climate and health impacts of burning coal have forced utilities to depend upon gas-fired and nuclear plants to meet the need for new base load generation. Without a solution to the storage of spent nuclear fuel, meaning a permanent repository, state regulators may be hesitant to approve the construction of new nuclear units and utilities may be hesitant to construct new nuclear units even if the NRC approves the license applications. Such circumstances could result in reduced electric reliability, brown outs, and increased cost of electricity as gas-fired generation would be the only option and its price would increase as the demand for natural gas increases, all else being equal.

Federal courts have already ruled that the federal government is liable for the added storage costs past the dates agreed in original contracts with spent fuel utilities. The Department of Energy already faces at least \$1.5 billion in court judgments and legal expenses resulting from failure to meet the government's obligations. In 2009—when DOE had a plan to begin waste acceptance and disposal at Yucca Mountain by 2017—DOE officials estimated that the liability for 65 cases could reach \$12.3 billion, growing further by at least \$500 million for each additional year of delay. DOE pays these court-determined liabilities from the Judgment Fund.

What is really happening is this—Because of the federal government's failure to construct a permanent repository, ratepayers are paying up to four times for ongoing spent fuel storage and future disposal—and that does not include decommissioning funds. First, ratepayers are paying into the NWF for storage at the deep geologic repository at Yucca Mountain; second, because of the initial delay, ratepayers have to pay through rates to expand and re-rack their existing cooling pools in order to accommodate more waste; third, ratepayers are continuing to pay through rates to keep the waste stored at the existing plant sites in dry cast storage; and finally, all taxpayers—not just ratepayers—are paying through taxes for judgments and settlements through the Judgment Fund.

Not counting defense waste, over 62 thousand metric tones of spent fuel is stored in 72 operating and shutdown reactor sites in 34 States. Individuals or organizations opposed to nuclear power will raise questions, or even voice fears, over safety and security at some of these storage facilities. Although the utilities and the NRC contend that storage is safe and secure, it still costs ratepayers big money to implement individualized security programs for each of these locations around the country. As the Office of Homeland Security increases security requirements, the cost for security programs at the plant sites will increase.

How can this be more efficient, safe, secure or cost effective than having all spent nuclear fuel and defense waste at one secure, deep, geologic location?

Recently, there has been great interest in the reprocessing, or recycling as some call it, of spent nuclear fuel. The organizations I am a member of, including NARUC, have supported research into reprocessing and recycling and shares the view that, if there will be substantial global nuclear power expansion, there will probably come a time when uranium becomes more scarce and expensive and closing the fuel cycle will become necessary.

No matter the future course of this country—whether we reprocess, recycle, or maintain the status quo—a geologic repository is still going to be needed for de-

fense-related high-level radioactive waste that has already been reprocessed or cannot be reprocessed, and, the residue from any future reprocessing program for commercial spent nuclear fuel.

Finally, the states of Idaho and South Carolina, and maybe Washington, as well, have agreements with the federal government with a date certain to move defense waste out of their respective states. There are significant financial penalties to the federal government in the agreements for failure to comply—which is yet another way that all taxpayers, not just ratepayers, will have to pay compensation for the government's failure to build the site at Yucca Mountain.

Thank you for the opportunity to testify before you today. I look forward to your questions. I will also be happy to provide written answers to further questions, should you have any I am unable to answer today or for which you would like me to provide answers at a later date.

Chairman SPRATT. South Carolina has a particular interest in this because we have defense waste generated at the Savannah River Site as well as bomb grade materials that are being brought onto site to be processed into a fuel that can be burned in commercial reactors.

Mr. WRIGHT. Yes, sir.

Chairman SPRATT. Are you comfortable with the, would you explain to the Committee the liquidated damages which we have in law in the event that the waste accepted in South Carolina is not timely processed and removed from the site?

Mr. WRIGHT. Are you talking about from Savannah River Site?

Chairman SPRATT. Yes, sir.

Mr. WRIGHT. Well, the South Carolina Commission, Mr. Chairman, does not regulate or control SRS. So, I am not really, I guess, confident or comfortable answering the question because I do not know exactly how much that would be. But I would be more than happy to go home and get that answer for you, and get that written and submit that.

Chairman SPRATT. If you do that, submit it for the record. Before we agreed to accept the bomb grade material in particular for reprocessing into fuel we stipulated with the Department of Energy that if they failed to perform this in a reasonable period of time, and we provided more than what was anticipated, then there would be damages payable to the State of South Carolina for the delay. Rather than having to prove the actual damages, we would be entitled to liquidated damages in a very substantial amount.

Mr. WRIGHT. Yes, sir.

Chairman SPRATT. The purpose being to encourage the Department of Energy to do what it was telling us it was going to do.

Mr. WRIGHT. Yes, sir. And my understanding, just from the periphery of things where the defense waste in those states are concerned, I believe that Idaho's date is the closest date. And using that as a model, I know that, I believe they are substantial, almost per day costs.

Chairman SPRATT. Does the State have concerns that the dry cask storage and the alternative expedients that are being considered are adequate from a safety standpoint?

Mr. WRIGHT. Mr. Chairman, it is my understanding and belief, because we are told and nobody really has disputed it in proceedings, that in order to get a license for a nuclear reactor you have got to prove that the fuel can be safely stored on site. But having said that, the deal that was cut with the federal government, and the utilities, and the ratepayers of this country were, we

are going to charge you one-tenth of a cent per kilowatt hour, and we are going to dispose of your waste in return for that. And it has been twenty-eight years, and that has not happened yet.

Chairman SPRATT. I have a few more questions, but let me turn to the members who are here now and let me give them an opportunity. Mr. Simpson?

Mr. SIMPSON. Thank you, Mr. Chairman. And thank you, Mr. Wright, for being here. Do not hold me to this, but it seems like Idaho's agreement with the federal government, the penalty is like \$60,000 a day.

Mr. WRIGHT. That is the number that comes to mind.

Mr. SIMPSON. And I think we were fairly cheap. I think South Carolina did a lot better job of negotiating. I think they were upwards of a million bucks a day or something for—

Mr. WRIGHT. It very well could be. But I would like to research that for the Chairman to be accurate.

Mr. SIMPSON. Yeah. But you mentioned waste confidence. In order to build a new reactor, we have to have waste confidence. They have to show that there is going to be a path forward to disposal of the waste. How are we going to do that? How are we going to license any new reactors, or power plants, nuclear power plants, if we cannot meet that waste confidence rule of where the waste is going to go?

Mr. WRIGHT. Well, I do believe it is going to become issues in proceedings. Because the proceedings that have gone forward so far have been with the understanding that there was going to be a repository built. You know, that change has just been a recent announcement, as things go, especially in the Yucca Mountain process.

Mr. SIMPSON. Yeah. As I understand, it may fall on Congress to have to legislate waste confidence. Which I do not think was the original intent, but that is what they are talking about now.

Mr. WRIGHT. Well, and that is my understanding, that Congress. I think under any scenario Congress has to take the lead and has to act on this.

Mr. SIMPSON. Right. Should we suspend the taxes being paid by the ratepayers that use nuclear power? The tenth of a cent per kilowatt hour that they are paying? I was looking at the amounts. Most people look at that and say, "What is a tenth of a cent?" I think in New York it was, like, \$81 million a year the ratepayers pay there that could stay in their economy. And at least suspend it until we decide where we are headed with this? Because we have got \$24 billion, I think it is, sitting in that fund right now.

Mr. WRIGHT. Well, there is, quite honestly, and my personal opinion is I think it ought to be considered and done, yes, sir. But there is litigation that is going forward now where that very issue is concerned. And NARUC is involved in that.

Mr. SIMPSON. Could you tell me in general, what are the, what is the status of the storage pools, the capacity that currently exists at nuclear power plants around the country? Are they getting full, or—

Mr. WRIGHT. Yes, sir. And I believe, and I have that document I think with me. But the Nuclear Energy Institute does have a document that I can supply to the Committee that does show the reac-

tors, and who is, whose pools are full and are now in dry cask, and those that are nearing being full and considering dry cask storage.

Mr. SIMPSON. Okay. I thank you for being here. This is a dilemma that we are going to have to face somehow.

Mr. WRIGHT. Yes, sir.

Mr. SIMPSON. But it is a problem we need to address and solve.

Mr. WRIGHT. Yes, sir.

Mr. SIMPSON. I appreciate it. Thank you.

Chairman SPRATT. Mr. Scott, do you have questions?

Mr. SCOTT. Yes?

Chairman SPRATT. Do you have questions?

Mr. SCOTT. Thank you, Mr. Chairman. Mr. Wright, the federal government has made a motion to withdraw its application for Yucca Mountain. What do public service commissioners outside of Nevada think of that?

Mr. WRIGHT. Well, they are not real happy about it, I can tell you that. I mean, a lot of us, and I can speak specifically to my committee, the Subcommittee on Nuclear Issues and Waste Disposal, which is made up of commissioners. And then, you know, not just my committee, but those that have defense waste in the states around the country, or even get power from across state lines. They may not have a reactor but they do pay into the fund. They do not understand the "with prejudice" thing at all. And one, we feel, commissioners do feel, especially the ones that have been involved in this issue, feel like there was a knife taken to us. Because we were encouraging working alongside the Department of Energy and pushing forward trying to get a license application submitted so that we could move forward and get the process started, and consider the science of Yucca Mountain. If science proves it is not workable, then it is not, and then the Congress can do what they want. But the commissioners, we were supportive of that and we were all working toward encouraging Congress to move forward with funding to make sure the license app could be defended, and then it is like they turned on us.

Mr. SCOTT. Have the commissioners expressed an opinion as to whether or not the federal government has the legal authority to withdraw the application?

Mr. WRIGHT. We do not believe that they do. And I can tell you, you know, in South Carolina we are part of that lawsuit process. You know, the bottom line is, you know, we have your waste, and you have our money.

Mr. SCOTT. Now, there is a concept of total life cycle costs, when you try to charge for electricity, for example, charge for power, that you want to charge the total life cycle costs, not just the annual little costs. Because if there is a balloon, like disposal costs at the end, you want to have collected that going through. If you do not know what you are going to do for disposal, how do you set a reasonable cost for consumers for their electricity?

Mr. WRIGHT. Well, I mean, one-tenth of a cent is one-tenth of a cent. That is what we are, that is what we are—

Mr. SCOTT. That is what you—

Mr. WRIGHT. The utilities are obligated to charge that to the ratepayer.

Mr. SCOTT. And the federal government is obligated to take the disposed waste, so that is your end cost?

Mr. WRIGHT. That is what you would think, yes.

Mr. SCOTT. Okay. Now, if they—

Mr. WRIGHT. But, but, taxpayers are having to pay, and ratepayers, through the Judgment Fund to settle these suits, too.

Mr. SCOTT. And if they are paying to settle these lawsuits and have this ongoing expense of litigation, is that cost of litigation, is that cost passed on to the ratepayers in South Carolina? I mean, somebody has got to pay the cost of the litigation, if—

Mr. WRIGHT. Well, and in our State it is the State of South Carolina, the City of Aiken, that are involved in the litigation, so ratepayers would not be involved in that. There is not a utility in my state that is suing. Now, they are suing for the Judgment Fund for failure, and there have been settlements, I believe with Duke and with SCE&G. So, there have been settlements out of the Judgment Fund, but that does not come from the Nuclear Waste Fund.

Mr. SCOTT. If we are not going to use Yucca Mountain, if Yucca Mountain is as we heard “off the table,” when would you expect us to have a site designated, open, and working?

Mr. WRIGHT. Well, it is my position personally, and others too, but I am going to speak for myself right now. The Nuclear Waste Policy Act is pretty clear on that. Congress selected the site and went through a long process, and Yucca was selected at the end. And that is the law of the land.

Mr. SCOTT. And if we start—

Mr. WRIGHT. And Congress has to change that.

Mr. SCOTT. If we start from scratch, and start looking all over from scratch, how long do you think it would take to get to where we are now?

Mr. WRIGHT. I would probably, my son would probably have great-grandchildren. I really have no idea.

Mr. SCOTT. Thank you, Mr. Chairman.

Chairman SPRATT. Mr. Etheridge?

Mr. ETHERIDGE. Thank you, Mr. Chairman. Thank you, Commissioner Wright, for being here today. I guess just like our southern neighbor, North Carolina taxpayers are, they have invested significantly in nuclear plants, are in the process of adding to that.

Mr. WRIGHT. Yes, sir.

Mr. ETHERIDGE. Or in the process of trying to do that. And we have been paying, trying to move toward building a more sustainable energy future, as I said earlier. And we rank, I think, probably fifth, or certainly in the top five, in the money invested in the Nuclear Waste Fund, somewhere in the neighborhood of, short of \$900 million. You stated in your testimony that ratepayers pay four times—

Mr. WRIGHT. Yes, sir.

Mr. ETHERIDGE [continuing]. For waste—

Mr. WRIGHT. Not counting decommissioning funds.

Mr. ETHERIDGE [continuing]. Yeah, for waste disposal. I would be interested in you expanding for the record how that affects the average homeowner’s bill each month, or a business consumer each month.

Mr. WRIGHT. Well, every utility, nuclear utility, has to come before commissioners for a rate proceeding, especially when they are looking at raising rates. Not too many of them will come to reduce rates, but you know, we welcome that when they do. But people are becoming more and more aware about the cost that they are having to pay for, whether it is to store the waste on site, the Nuclear Waste Fund fee, the security for the location where the waste is stored. And so, they see the multiple hits and they are starting to catch onto it, okay? For a long time they did not catch onto it. A lot of times even the staff of members of Congress did not know about it. But they are becoming more educated about it. And so, the more that it is talked about and they see it, I think, and especially in tough economic times. And it is more aggravated now because the cost of commodities, coal, natural gas, all those things that we are looking for, base load needs, are going up. And so at some point, along with taxes. So, at some point the customer and the consumer, ratepayer, taxpayer, they are all at some point a ratepayer and a taxpayer for sure, enough is enough. And they will, you know, it is going to get more difficult.

Mr. ETHERIDGE. So, but what are the four times they pay?

Mr. WRIGHT. The four times they pay?

Mr. ETHERIDGE. Yes.

Mr. WRIGHT. They pay to the Nuclear Waste Fund.

Mr. ETHERIDGE. Right.

Mr. WRIGHT. Okay? The one-tenth of a cent. Then they are paying into the fund, or through rates they are paying to enlarge their cooling pools to rerack, to expand to keep more waste. Then they are taking the waste that has filled the pool, okay? And they have got it, and it has been there for five years or longer. They are taking it out of the pool so they can put other waste in there to cool it. And then they are putting that in dry cask storage, and they are having to pay to store that on site. And then the fourth time that they are paying is, again is not just a ratepayer but a taxpayer, through the Judgment Fund to settle these lawsuits.

Mr. ETHERIDGE. Thank you, Mr. Chairman. I yield back.

Chairman SPRATT. And for all of these additional steps, the reracking and so forth, is that cost being sought and recovered in the litigation against the Department of Energy?

Mr. WRIGHT. I am not exactly sure how that is all, I heard Mr. Harris try to explain that. Or maybe it was the gentleman over here, Mr. Hertz, and I was a little bit confused about that. But I do know that when the expansions are made at the nuclear facilities, that the ratepayer is paying that recovery cost there. I know that.

Chairman SPRATT. And if this issue is not resolved within, say, the next ten years, will it be necessary for the nuclear plants in South Carolina to expand their pools for the placement of the casks with nuclear waste?

Mr. WRIGHT. That is a good question, Mr. Chairman. I know that if they are full, they just continue to put it in dry cask storage. I do not know that they would enlarge the pools anywhere. But the new, you know, you have got the new plants that are going to be coming on line, two of them for sure, in, I think in 2016 and 2017, something like that, at the—

Chairman SPRATT. That is my next question. Despite this issue, Duke, Progress Energy, and SCANA, three of Carolina's utilities, are still pushing forward with plans for new reactors.

Mr. WRIGHT. Well, the only two that have been through a rate proceeding, have been approved, are the two at V.C. Summer that are through SCANA, through SCE&G. The other plants have not come before us, but there has been paperwork filed at the NRC. But there has not been a proceeding before the State. So what they are going to do, I could not tell you what the utilities' future for Duke or Progress are. But SCANA moved forward. But when SCANA moved forward, Yucca was still the end site, the geologic repository.

Chairman SPRATT. We have several different engineering groups that have kind of merged efforts for several different providers, several different power companies. In order not to reinvent the wheel, they are working together on technology and design of new facilities. And in addition, of course, we have others in the State working on the creation of MOX fuel out of bomb grade materials.

Mr. WRIGHT. Yes, sir.

Chairman SPRATT. Have we had any layoffs or significant job losses as a result of the decisions by DOE to close Yucca Mountain?

Mr. WRIGHT. I believe there has been some impact at SRS. I am not, I can get that for you. But I believe there has been some impact, but how much I do not have knowledge of that.

Chairman SPRATT. It was my information that one group in particular in the Fort Mill area of the State, near Charlotte, closed down an office due to the fact that this decision—

Mr. WRIGHT. Yes, sir. I am sure that has happened. But to quantify it, I could not tell you how many people or, you know, what the economic impact is. Although I can certainly get that, because the City of Aiken would give me that information.

Chairman SPRATT. If you get it and submit it for the record, we would appreciate it.

Mr. WRIGHT. Yes, sir. I would be glad to do that.

Chairman SPRATT. Any other questions of the witness? Thank you very much, Mr. Wright, for coming today. And I would ask unanimous consent that members who did not have the opportunity to ask questions be given seven days in order to submit questions for the record. Thank you very much, Mr. Wright, and the hearing is adjourned.

[The prepared statement of Mr. Connolly follows:]

PREPARED STATEMENT OF HON. GERALD E. CONNOLLY, A REPRESENTATIVE IN  
CONGRESS FROM THE STATE OF VIRGINIA

Mr. Chairman, thank you for holding this hearing on the budgetary implications of the plan to close Yucca Mountain as a nuclear waste repository. I look forward to a discussion of the financial issues surrounding the storage of our nation's growing stock of spent nuclear fuel and other radioactive waste.

Nuclear and radioactive waste is an unfortunate byproduct of our nation's 104 nuclear reactors and power plants, hospital waste, industrial waste, federal nuclear weapons programs, and other domestic sources. Nuclear power currently generates roughly 20 percent of the nation's electricity. Most of the waste from these reactors is stored on the individual sites at this time. There is more than 56,000 metric tons of waste stored around the country at 121 different sites. In my own state of Virginia, more than 30 percent of our electricity is generated by two plants at North Anna and Surry. More than 2,000 metric tons of waste from the four reactors at those plants is stored on site in the Commonwealth.

For decades, we have heard various proposals on how nuclear waste can be made harmless to Americans' health and to the environment. So far, none of these proposals have proved viable.

Radioactive waste also poses a threat to national security and serves as a tempting target for those wishing to use the material for dirty, radiological bombs or other weapons of terror. Whether we as a nation continue to store nuclear waste in many different facilities, or move it to one central storage facility, there will be costs associated with safely and securely maintaining those storage locations and providing for the well being of American citizens.

The President has made the closure of the Yucca Mountain repository a priority, and his Fiscal Year 2011 budget proposal terminates funding and saves \$197 million. Although \$10.4 billion has already been spent on the project since its inception in 1982, the total cost has been estimated to be \$96 billion. Meanwhile, concerns continue over the impact of this closure on the nation's ability to continue to adequately store spent nuclear fuel and other radioactive waste at various locations throughout the nation. In addition, there are concerns about the federal government's liability to the commercial nuclear power industry for failing to begin removing spent nuclear from their facilities. To date, the nuclear utility companies have paid \$31 billion in fees for the Nuclear Waste Fund that may be in jeopardy should federal courts rule that the government is required to return those funds in the event of the lack of a federal disposal option. In addition, due to delays in receiving civilian waste, the federal government has paid out roughly \$1 billion already, and may be facing at least \$12 billion in further liabilities.

The budgetary implications of the nation's nuclear waste storage are complex and need to be addressed in a manner that protects the environmental, health and fiscal security of taxpayers. I look forward to this hearing and the testimony of Dr. Johnson, Mr. Harris, Mr. Hertz and Mr. Wright.

[Whereupon, at 12:22 p.m., the Committee was adjourned.]

