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THE DEPARTMENT OF ENERGY'S ROLE IN MANAGING CIVILIAN RADIOACTIVE WASTE

HEARING

BEFORE THE

SUBCOMMITTEE ON ENVIRONMENT AND ECONOMY

OF THE

COMMITTEE ON ENERGY AND COMMERCE
HOUSE OF REPRESENTATIVES

ONE HUNDRED TWELFTH CONGRESS

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CONTENTS

	Page
Hon. John Shimkus, a Representative in Congress from the State of Illinois, opening statement	1
Prepared statement	2
Hon. John Barrow, a Representative in Congress from the State of Georgia, opening statement	3
Hon. Joe Barton, a Representative in Congress from the State of Texas, opening statement	4
Hon. Henry A. Waxman, a Representative in Congress from the State of California, opening statement	6
Hon. Gene Green, a Representative in Congress from the State of Texas, prepared statement	52

WITNESSES

Hon. Shelley Berkley, a Representative in Congress from the State of Nevada	8
Hon. Doc Hastings, a Representative in Congress from the State of Washington	11
Hon. Mike Simpson, a Representative in Congress from the State of Idaho	13
Mark E. Gaffigan, Managing Director, Natural Resources and Environment, U.S. Government Accountability Office (GAO)	15
Prepared statement	17
Gregory H. Friedman, Inspector General, Department of Energy	36
Prepared statement	37
Peter B. Lyons, Assistant Secretary for Nuclear Energy, Department of Energy	46
Prepared statement	48
Gary Hollis, Chairman, Nye County Board of County Commissioners, Nye County, Nevada	73
Prepared statement	76
Answers to submitted questions	145
Martin G. Malsch, Partner, Egan, Fitzpatrick, Malsch and Lawrence, on behalf of the State of Nevada	80
Prepared statement	82
Greg R. White, Commissioner, Michigan Public Service Commission	95
Prepared statement	97
Answers to submitted questions	149
Christopher A. Kouts, Former Acting Director of Department of Energy's Office of Civilian Radioactive Waste Management	106
Prepared statement	108
Answers to submitted questions	153

SUBMITTED MATERIAL

Letter of June 1, 2011, from Mr. Waxman and Mr. Green to Messrs. Upton and Shimkus, submitted by Mr. Waxman	129
Letter of May 27, 2011, from the Blue Ribbon Commission on America's Nuclear Future to Messrs. Upton and Shimkus, submitted by Mr. Green	124
Letter of May 31, 2011, from the Board of County Commissioners of Clark County, Nevada to Mssrs. Shimkus and Green, submitted by Mr. Green	127
Resolutions from Nevada counties, submitted by Gary Hollis	131

THE DEPARTMENT OF ENERGY'S ROLE IN MANAGING CIVILIAN RADIOACTIVE WASTE

WEDNESDAY, JUNE 1, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT AND ECONOMY,
COMMITTEE ON ENERGY AND COMMERCE
Washington, DC.

The subcommittee met, pursuant to call, at 1:15 p.m., in room 2322 of the Rayburn House Office Building, Hon. John Shimkus (chairman of the subcommittee) presiding.

Members present: Representatives Shimkus, Barton, Whitfield, Pitts, Murphy, Bass, Cassidy, Gardner, Dingell, Green, Inslee, Butterfield, Barrow and Waxman (ex officio).

Staff present: Carl Anderson, Professional Staff Member; Gary Andres, Staff Director; Charlotte Baker, Press Secretary; Mike Bloomquist, Deputy General Counsel; Sean Bonyun, Deputy Communications Director; Todd Harrison, Chief Counsel, Oversight and Investigations; Cory Hicks, Policy Coordinator, Energy and Power; Katie Novaria, Legislative Clerk; Chris Sarley, Policy Coordinator, Environment and Economy; Peter Spencer, Professional Staff Member, Oversight; Kristin Amerling, Democratic Chief Counsel and Oversight Staff Director; Tiffany Benjamin, Democratic Investigative Counsel; Alison Cassady, Democratic Senior Professional Staff Member; Jocelyn Gutierrez, Department of Energy Detailee; and Caitlin Haberman, Democratic Policy Analyst.

OPENING STATEMENT OF HON. JOHN SHIMKUS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF ILLINOIS

Mr. SHIMKUS. I call this hearing to order to recognize myself. This is a part of our ongoing effort at the committee to make certain we are providing safe and sustainable long-term storage of high-level spent nuclear fuel. Specifically today, we focus our attention on the part the Department of Energy plays and the process by which decisions have been made when it comes to a long-term repository.

No matter if you support the continued use of nuclear energy or if you don't, we have a responsibility to deal with existing spent nuclear fuel and high-level waste materials from our Nation's defense complex. As we sit in this room, spent nuclear fuel from commercial power plants is piling up and remains scattered around the country in two-thirds of our States.

It was always the determination that the Federal Government, not the individual states and not the utility companies, would take responsibility for the safe storage of spent fuel and other nuclear

materials. After a careful search, we found a scientifically proven, geologically ideal site to store these materials that is on secure, federal property, in a remote desert, deep under Yucca Mountain.

Now we are at a crossroads. Politics, not science, is driving the debate. It is time for us to decide if we will keep our end of the deal with the Nation's citizens by delivering exactly what they have been paying for all these years, or if we will waste ratepayers' and taxpayer money by failing to deliver on our end of the contract.

Recently, the Government Accountability Office released a report examining the results of the Obama Administration's withdrawal of the Yucca Mountain license application. What GAO found was this unilateral decision comes at a cost of $15 billion so far, 9.5 billion of it directly collected from every American's electricity bill. But the fleecing of taxpayers won't end there. GAO estimates taxpayers are already on the hook for $15 billion and an additional $500 million for each year the project is delayed beyond 2020. Meanwhile, the U.S. Treasury will be paying out taxpayer dollars, not ratepayer dollars, in judgments to utilities for DOE's breach of contract.

Billions of dollars and over 30 years of research from our Nation's top scientists were jettisoned, not for technical or safety reasons, but as the GAO report stated, "social and political opposition to a permanent repository, not technical issues, is the key obstacle."

When I visited Yucca Mountain last month, I heard firsthand the overwhelming support from local residents and officials from the seven surrounding counties. We will hear firsthand of that support today from those representing locals closest to Yucca Mountain, locals who raise families in that area and know it is safe. Those who would be directly affected the most took it upon themselves to ensure the safety of their children and grandchildren through an independent scientific investigative program, and what they found was high-level nuclear fuel could be stored at Yucca Mountain while keeping their water supply safe, a major concern, particularly for locals. They also know it has the ability to infuse desperately needed jobs both directly and indirectly related to the Yucca Mountain site.

We must not let the political games stop us from keeping a promise to taxpayers. The licensing process for Yucca Mountain must legally continue so that we can give the American people the surety of a safe, centralized, permanent storage site for spent nuclear fuel.

I want to thank all of our witnesses for being here today to give us their perspective on moving forward. I look forward to their verbal testimony and willingness to answer any questions members may have.

[The prepared statement of Mr. Shimkus follows:]

PREPARED STATEMENT OF HON. JOHN SHIMKUS

I call this hearing to order and recognize myself for 5 minutes. This is part of our ongoing effort at the committee to make certain we are providing safe and sustainable long term storage of high level spent nuclear fuel. Specifically today we focus our attention on the part the Department of Energy plays and the process by which decisions have been made when it comes to a long term repository.

No matter if you support the continued use of nuclear energy or if you don't, we have a responsibility to deal with existing spent nuclear fuel and high level waste materials from our nation's defense complex. As we sit in this room, spent nuclear

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I want to thank all of our witnesses for being here today to give us their perspective on moving forward. I look forward to their verbal testimony and willingness to answer any questions members may have.

I yield back the balance of my time.

Mr. SHIMKUS. With that, I will yield back the balance of my time and recognize the ranking member, Mr. Barrow from Georgia.

OPENING STATEMENT OF HON. JOHN BARROW, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF GEORGIA

Mr. BARROW. Thank you, Chairman Shimkus, for holding this hearing, and I appreciate the participation of all of our witnesses today.

Mr. Green has asked me to fill his chair in his absence, and I would like to think that at least in part is because he knows something about my district that makes this hearing particularly important to me. Considering both the commercial and the defense applications, I probably represent as many people touched by the nuclear industry as anyone else in Congress.

I am proud to represent the expanding Plant Vogtle in Burke County, Georgia, and I also represent a large percentage of people who work at the Savannah River site just across the river in South Carolina. The workers, the families and associated industries attached to those facilities number many thousands, and other posi-

tive economic impacts are very high. For example, Burke County collects about 75 percent of all its tax revenues from just Plant Vogtle. That is a lot of schoolbooks, police cars and trash pickups from just one corporate citizen.

However, those benefits bring challenges. The nuclear industry is only as safe as we make it. Up to this point, we have managed the processes and the waste well, and we have had a very safe industry. However, as the industry grows as it is doing in Georgia and a couple of other places around the country and as the waste accumulates, we need to have a concerted waste management strategy.

I believe we are too far down the Yucca Mountain road in time and in money to turn back now, but if we aren't going to pursue Yucca, then we need to be working together on another strategy and we need to stick with it. That is one reason why I am disappointed that the Blue Ribbon Commission was unable to participate today. The Blue Ribbon Commission was recently in my district at Vogtle and at Savannah River site. I am hopeful they will have some concrete consensus solutions to offer, and I suggest that it is in the committee's best interest to have them back as soon as possible.

I know the witnesses today will have some good insight on the way forward. I want to thank them for their time, I want to thank the chairman, and I yield back.

Mr. SHIMKUS. The gentleman yields back his time.

As Mr. Barton makes his way up here, the chair would like to recognize the chairman emeritus, Mr. Barton, for the 5 minutes which hopefully he will apportion out to Mr. Whitfield and Mr. Gardner if he shows.

OPENING STATEMENT OF HON. JOE BARTON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF TEXAS

Mr. BARTON. Well, thank you, Mr. Chairman, and thank our distinguished first panel of Members. It is good to see you and we are especially glad that Congressman Hastings is back and we are hope you are healthy. Just remember, this is the Energy and Commerce Committee. No more shenanigans like you were trying earlier.

Mr. Chairman, our Nation is sitting on 13,000 metric tons of spent nuclear fuel and high-level radioactive waste. Our Nation is sitting on over 65,000 metric tons of spent nuclear fuel from commercial nuclear power plants in 75 sites in 33 states. That is 78,000 metric tons of spent nuclear fuel in over 80 sites in over 33 states. Yucca Mountain was approved by the previous Administration as a repository for our nuclear waste. As you well know, we spent over $15 billion in taxpayer and ratepayer funds through 2009. It is clear that safe and permanent storage of nuclear waste is a critical element of a long-term energy strategy. Study after study has shown that Yucca Mountain is suitable for storage of that waste.

We are now here today to discuss the Department of Energy's reckless decision to terminate the Yucca Mountain repository. In my opinion, the Administration decided to ignore the science and circumvent the law. This Administration has for what I think are political reasons determined that Yucca is not a workable option

and is proposing that millions of taxpayer dollars be spent in further studies. I think it is unsettling that DOE stopped short of characterizing Yucca as unsuitable, instead choose unworkable. It seems clear that this Administration did this to circumvent the law as defined by the Nuclear Waste Policy Act to avoid explaining to the Congress the basis for their determination.

We know that the economic impact of DOE's decision is tremendous. There is no guarantee that a more acceptable or less costly alternative can be identified, which will only prolong the need for interim storage of spent nuclear fuel at existing reactor sites. Delays in opening a repository have already created an estimated $15.6 billion in taxpayer liability plus an additional $500 million for each year beyond 2020. This is not only a financial issue but it is also a national security issue. We cannot have over 78,000 tons of radioactive waste scattered across 75 sites. We need a central repository. In my opinion, that repository is Yucca Mountain.

At this point I would like to yield to the distinguished subcommittee chairman, Mr. Whitfield.

Mr. WHITFIELD. Thank you, Mr. Barton.

I would just like to say, this is, in my view, a perfect example of a wasteful Federal Government on a very important project. You have already heard about the amount of money that has been spent, $15 billion. You have heard about 65,000 tons located in 33 States and 75 sites. You have heard about the legal liability of the Federal Government being sued by nuclear power plants because the Federal Government has not taken responsibility for this material, and that is an ongoing liability. That liability is already in excess of $15 billion. Estimates could easily go up to $50 billion. And it is no wonder the American people are frustrated with the Federal Government and this $14 trillion federal debt that we have.

So I want to thank Chairman Shimkus for having this important hearing to bring attention to the predicament we find ourselves in, and hopefully we can find a solution, and I would yield back.

Mr. BARTON. I am supposed to yield to Mr. Gardner but I don't see him.

Mr. SHIMKUS. If the chairman emeritus would yield to Mr. Murphy from Pennsylvania?

Mr. BARTON. OK. I would yield the remaining time to Dr. Murphy.

Mr. MURPHY. Thank you very much.

We know that the States are suing the Department of Energy because the mandate with an application approved waste storage in Yucca Mountain, and the utilities have sued the DOE to halt further collection of fees, arguing that the country no longer has a disposal plan after ruling out Yucca Mountain. Simply put, the Administration is acting in violation of the law.

You have heard about other members about the 65,000 metric tons of spent fuel and the 75 different sites of storage. While nuclear provides 20 percent of electricity in this country and with superb advancements in technology like small modular reactors and passive systems, it stands poised for renaissance but only if the Administration gives the taxpayers an explanation, offers to Congress a workable solution, not saying this is unworkable, and also acts

in accordance with the law to apply the law, not to selectively enforce the law, and I yield back.

Mr. SHIMKUS. The gentleman yields back his time.

The chair now recognizes the chairman emeritus, Mr. Waxman, for 5 minutes.

OPENING STATEMENT OF HON. HENRY A. WAXMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. WAXMAN. Thank you, Mr. Chairman.

I am a strong advocate for serious oversight. Throughout my service on the Committee on Oversight and Government Reform and this committee, I have led numerous investigations into governmental agencies, private companies and entire industrial sectors, and I take the role of congressional investigator very seriously.

Today this committee is holding its second hearing on the decision to shut down the Yucca Mountain waste repository project. Questions have been raised about this decision, and I support a fair and impartial inquiry. But that does not appear to be what this committee is doing. Even before the committee launched its investigation, Chairman Shimkus had apparently already reached his own conclusions.

In January, the chairman told The Hill that he wanted to ask questions about whether the decision to "pull the plug" on Yucca Mountain was "all politics." He stated that he thought people already knew the answer to that question, but "you should go through the process of asking the questions."

Then, last month, he called the decision to halt the Yucca Mountain license application and review "politics at its worst at its highest levels." Full committee Chairman Upton has made similar comments.

A congressional investigation should be a genuine inquiry, not a process of asking questions to reach a predetermined conclusion.

At our first hearing, the chairman tried to prevent members from asking relevant and important questions, and I believe was off-base in his criticism of my right to question the NRC chairman, Gregory Jaczko. The latest affront to fairness is the effort to prevent Democratic staff from attending committee interviews of fact witnesses. Ranking Member Green and I wrote a letter today to Chairmen Upton and Shimkus protesting this new policy, which I ask to be made part of the hearing record.

Mr. SHIMKUS. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. WAXMAN. Excluding Democratic staff from committee interviews is inappropriate and it is inconsistent with committee precedents. The practice denies nearly half the members of the committee equal access to relevant information about the investigation. It wastes taxpayer resources by necessitating duplicative interviews, and it calls into question the basic fairness and credibility of the committee's inquiry.

Our job should be to keep an open mind in the investigation and follow the facts where they lead. If the evidence shows that the Department of Energy decided to close Yucca Mountain for invalid

reasons, we should not hesitate to be critical. But we should also not prejudge the facts or use unfair and partisan procedures in conducting this investigation.

Mr. Chairman, we are still at the early stages of this investigation. I hope we can resolve these procedural differences so we can focus on the work of the investigation. We can do it together, and I think that is the best goal of an oversight investigation, to work together to see if we can get the facts and then follow them wherever they may lead.

I hope this hearing and the witnesses we will hear from today will help get us back on track, and I yield back my time.

Mr. SHIMKUS. The gentleman yields back his time.

Before we go to the witnesses, I would ask unanimous consent for 1 minute to respond to the comment. Is there objection?

Mr. WAXMAN. Reserving the right. Would you give me a potential minute to respond if I feel it is appropriate?

Mr. SHIMKUS. I would, sir.

Mr. WAXMAN. OK.

Mr. SHIMKUS. Thank you. First of all, the issue raised is not timely with this hearing but the point we want to raise is that the majority staff has been in discussion with this issue in good faith with the minority staff but we also have raised the issue that you are asking for a double standard. It is my understanding that the minority has had meetings with other witnesses during this session of Congress and has not included the majority or provided notice to the majority. If we are going to have a rule about this, it has to apply to both sides equally, and I think if you agree to allow us when you are questioning your folks, we can reciprocate by having you with ours, and I think that would be a great way to resolve this conflict.

It is my understanding that when you all were in control in the last Congress, Republicans were not included in all the discussions with potential witnesses and conducted interviews without notifying members on our side. Having put that on the table, I would just say if we can come to agreement where when you are interviewing your witnesses, you invite us, we will invite you when we are interviewing, and I think that can resolve the conflict. I yield back my time.

Mr. WAXMAN. I thank you for yielding to me.

It is important to distinguish between consulting with agency experts to understand policy issues and bringing in fact witnesses to obtain information relating to an investigation of alleged wrongdoing. There is no question that the interviews of the NRC employees from which the minority were excluded were in fact fact witnesses regarding our investigation, and I think if we agree that when we interview anybody who has pertinent information on the facts of the investigation, that we all should be included, and I think your suggestion would be appropriate.

My staff has spoken with the three of the individuals who were interviewed, and each of them spent several hours in these interviews, so in fact, as a reality, what we did is spent more time with the same witnesses we should have been there together. In the investigation relating to Yucca Mountain licensing process, the minority has not conducted any fact witness interviews either with or

without the majority. We have instead been focused on reviewing and understanding the documents that have been produced to the committee on this matter. In fact, we identified a fact witness we believe to be important for the committee to interview, and we will discuss that with you.

But I think you lay out a compromise that should help us reach an agreement. If we are going to have witnesses that are pertinent to the investigation, give us facts that we want to know about. Just as we share documents, we should interview those witnesses together.

Mr. SHIMKUS. If the gentleman would yield his time, I would just say as he knows real well, I am not the chairman of the full committee so I am speaking as the chairman of the subcommittee, but I will have to run this all through Chairman Upton.

Mr. WAXMAN. Well, I will certainly have to run it through my subcommittee ranking member. Mr. Barrow will certainly be involved in that. He is sitting in the chair of the ranking member.

My last point is, I thought you said we had identified. The point was, if we identify, we will share it with you, and we think we should work together in interviewing them, and I hope the full committee chairman shares the position that you put out and that I have suggested affirmative response to.

Mr. SHIMKUS. Is the gentleman yielding back his time? The gentleman yields back his time.

Now we will welcome our colleagues. If it is OK with my colleagues, we will start from the left and go to the right, or ladies first. It may be not politically correct, but with that, we would like to recognize the Hon. Shelley Berkley from the great State of Nevada, and you are recognized for 5 minutes. Your full statement can be submitted into the record, and so the time is yours.

STATEMENTS OF HON. SHELLEY BERKLEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF NEVADA; HON. DOC HASTINGS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON; AND HON. MIKE SIMPSON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

STATEMENT OF HON. SHELLEY BERKLEY

Ms. BERKLEY. Thank you very much, Chairman Shimkus, Ranking Member Barrow and members of the committee. Thank you for inviting me to testify today.

Let us get right to the point. Nevadans have been saying no to Yucca Mountain for decades, and we will continue shouting no at the top of our lungs until this effort to shove nuclear waste down our throats has ended. I don't know who you met with but I can tell you the latest polls show that 77 percent of the people of the State of Nevada don't want nuclear waste stored at Yucca Mountain. Why? Because we don't want our home turned into a nuclear garbage dump, and we oppose more wasteful spending on a $100 billion dinosaur in the Nevada desert that should have gone extinct years ago.

I know members of this committee will hear today from others who will say that Nevada's efforts to stop the dump is all political and has nothing to do with science. Hogwash. The truth is that Ne-

vada's opposition has always been based on the danger that Yucca Mountain poses to our State and our Nation, and Nevada's resolve only hardened in the face of renewed efforts to force us to accept this fatally flawed dump, given the true risk it represents.

Make no mistake: the Yucca Mountain project was born of politics starting with the infamous 1987 screw Nevada bill, and why was it politics? Because the State of Nevada had a very small delegation at that time and we were unable to protect the State from the 49 others. You want to talk about science? There are no radiation standards that currently exist because there is no way to create radiation standards to protect the public from nuclear waste with 300,000-year half shelf life, and there is a GAO report that shows thousands of e-mails that make a mockery of so-called scientific studies. I would be glad to present those to you as well. Originally, they were going to store nuclear waste at Yucca Mountain. Then they realized there were groundwater problems so we were going to store it in containers with a titanium shield to protect it from the dripping water. Then they realized that wasn't enough because the titanium shields were going to erode. So then they were going to build concrete bunkers to contain the titanium shields that contained the canisters, and then the last Secretary of Energy in the Bush Administration actually said he was going to create an army of robots that were going to go down to Yucca Mountain because man can't go down there to be able to protect us from the nuclear waste leakage.

This legislation, the screw Nevada bill, did away with any pretense of science and it eliminated every other site under consideration as a dump location. At the same time, the nuclear industry and its allies have worked for years to silence Nevada's criticism and to minimize the fact that the proposed dump is located smack in the middle of an active earthquake zone. This is an area that has been rocked by violent earthquakes in the recent past and we know the risk it creates. Proponents of the dump have also sought to dismiss scientific findings showing that water will enter Yucca Mountain, causing rapid corrosion of waste canisters and resulting in release of dangerous radioactive materials, and dump backers have worked tirelessly to downplay the risk to millions of Americans living along the transportation routes from decades of waste shipments barreling down our Nation's roads and railways with each canister a potential terrorist target or accident waiting to happen. Whether caused by human error, mechanical failure or a deliberate strike, a massive release of these deadly materials threatens to kill or injure Americans, to release radioactive contamination and to shut down major portions of our interstate highway system and rail system.

When it comes to plans for Yucca Mountain, the fact remains that you could never eliminate the risks that will accompany shipping nuclear waste across more than 40 States through communities utterly unprepared to deal with radioactive contamination. We are talking about shipments passing homes, hospitals, schools every single day for four decades, and even more incredible, at the end of those 40 years, there will even be more waste in the cooling ponds than there were when the shipments began, and that is because as long as a plant is operating, some amount of nuclear

waste will always remain at the nuclear facility, and that is why the threat posed by Yucca Mountain must be weighed against the availability of dry cask storage as an affordable solution to this problem and it is available today. Using this method, we can secure waste at existing sites in hardened containers where they can remain for the next 100 years until we figure out what to do with this garbage.

The nuclear industry is already utilizing dry cask storage at various locations around the United States. There is no reason we should not require plants to begin moving waste right now from cooling pools into hardened containers. This would also give our Nation time to find a true solution to addressing the nuclear waste issue that does not involve dumping $100 billion down a hole in the middle of the Nevada desert, particularly at a time that we can ill afford it. Surely, we can do better than a dump plan that is incredibly dangerous, decades behind schedule and whose budget has ballooned with every passing year to a staggering sum, even by Washington standards. At the end of the day, the cost to build and operate Yucca Mountain will exceed the amount it would cost to settle lawsuits by plant operators seeking payment for the cost of moving waste into dry casks.

It is also extremely important to remember that moving ahead on Yucca Mountain won't mean savings for families in nuclear States. Instead, they will continue paying the Yucca Mountain tax that is slapped on power bills each and every month. At a time when our Nation is debating spending cuts, I am truly amazed that those that favor Yucca Mountain continue to demand that we open the floodgates and let tens of billions of dollars in additional spending come pouring out.

The good news is that we do not have to go down this fiscally irresponsible path. Earlier this year, Congress passed a package that fully eliminates funding for the Yucca Mountain project. The time has come to let this boondoggle die and to permanently end efforts to breathe life back into a program that is too dangerous and too costly for our Nation.

In conclusion, Nevada remains, in case you don't already know, opposed to more wasteful spending on a failed $100 billion project that threatens lives, the environment and the economy of my community and others across the Nation. I will lay my body down on those railroad tracks to prevent any train that has nuclear waste in it from going to Yucca Mountain. I make that pledge to you and the people I represent. Nuclear waste can remain on existing sites in dry cask storage for the next century, giving us time to find an actual solution to replace the failed Yucca Mountain project, and if anybody watched what was happening in Japan and still has the audacity to suggest this for the people of our country, shame on us all, and Germany just announced that they were ending their nuclear program because they have no way to safely store nuclear waste. If Germany can figure that out, by gosh, the United States of America should be able to figure that out too.

I yield back the balance of my time.

Mr. SHIMKUS. It is a good thing I have a great relationship with the trucking industry. Thank you. Obviously, all Members will have as much time as they need for their statements. We do appre-

ciate your time, and we do appreciate your passion, and we have been opponents on this issue for many, many years.

Ms. BERKLEY. Yes, I am hoping to bring you on to the right side of this issue.

Mr. SHIMKUS. I think I am.

Now I would like to recognize the chairman of the Interior Committee, Doc Hastings, for as much time as he may consume, around 5 minutes, and welcome back to Washington and welcome to the committee.

STATEMENT OF HON. DOC HASTINGS

Mr. HASTINGS. Thank you very much, Mr. Chairman, and thank you for inviting me to go second.

Thank you, Mr. Chairman and members of the committee, for the opportunity to testify regarding the importance of Yucca Mountain project to my district and to the Nation as a whole, and my concerns regarding the Department of Energy's action to illegally dismantle this program.

First and foremost, there should be no disputing that Yucca Mountain is a national repository for high-level defense waste and commercial spent nuclear fuel. Congress has voted to reaffirm this decision several times. Billions of dollars and many years have been spent studying what to do with nuclear waste, and Yucca Mountain was determined to be the answer. It is the law, period. Now, some may disagree with the law but it is the law.

For more than 16 months, the Obama Administration acting through the Department of Energy has acted outside the scope of the law in order to pursue a purely politically driven mission to shut down the Yucca Mountain project. Time and time again DOE has been asked to provide technical scientific evidence to justify their reasons to withdraw the license application for Yucca Mountain. They have been unable to provide any reason, only stating that Yucca Mountain is no longer "workable."

What is truly not workable is the uncertainty that faces our commercial nuclear power industry as they look to a future that may require them to house spent nuclear fuel on a site for decades because there is no geological repository ready to accept it. The same is true for the communities across the Nation that are hard at work cleaning up the high-level defense waste that is the legacy of our country's nuclear weapons production program. Commercial spent fuel and high-level defense waste are to be stored alongside each other at Yucca Mountain, and it made sense to talk about them together.

The State of Washington, the State of South Carolina and leaders in my hometown community have failed a lawsuit challenging Department of Energy's ability to withdraw the Yucca Mountain license application yet the Administration continues to rush to terminate the project before the courts rule or before the Nuclear Regulatory Commission's vote is released on this matter. In addition, the GAO recently released a report that determined that the decision to dismantle the Yucca Mountain project was political and not based on sound science.

My district in central Washington is home to the Hanford nuclear site, part of the top-secret Manhattan Project that developed

and constructed the first atomic bomb. The work done at Hanford helped win World War II and later provided the nuclear deterrence that helped defeat communism and end the Cold War. Today, Hanford is the world's largest environmental cleanup project, and the high-level defense nuclear waste at Hanford is slated to be shipped to the national repository at Yucca Mountain. Right now, the Department of Energy is building a critical $12 billion plant that will treat 53 million gallons of high-level defense waste currently stored in underground tanks at Hanford and turn it into safe, stable, glass logs that are scheduled to be stored at Yucca Mountain. The waste treatment plant, which is a $12 billion plant, which is over halfway done, is being built to meet specifications designed to match the geological structure and makeup of Yucca Mountain. The Department of Energy is requesting increased funds to reduce the risk and complete the waste treatment plants sooner than the expected 2016 time frame. Changing the goal posts at halftime will unnecessarily add risk to the project and has the potential to waste limited cleanup dollars that are already difficult to secure.

The waste treatment plant must move forward, but that requires more than proper funding. It requires Yucca Mountain. And I have an article I would like to submit for the record detailing this, if I may, Mr. Chairman, an article on this issue.

Mr. SHIMKUS. Is there objection? Hearing none, so ordered.

Mr. HASTINGS. Thank you. I will submit that.

Delaying or abandoning Yucca Mountain means that Hanford will be home to high-level defense waste even longer, the Federal Government's legal commitment to our State won't be kept, and cleanup progress at Hanford will be jeopardized. With more defense waste slated to go to Yucca Mountain than any other State in the union, the stakes for my State of Washington cannot be higher and the risks could not be more real.

In addition, Richland, which is just south of the Hanford project, is the home to the Pacific Northwest's only commercial nuclear power plant, the Columbia generating station. The spent nuclear fuel from this plant is also slated to go to Yucca Mountain but without Yucca opening, the spent fuel will have to be kept on site for an unknown amount of time at great expense to the taxpayers and ratepayers. In my district, we understand that nuclear power is safe and that it provides good-paying jobs but all of this being jeopardized by the Administration's decision to shut down Yucca Mountain. At a time of record debt, massive bailouts and trillion-dollar deficits, our country cannot afford to waste billions of dollars going back to the drawing board on a national repository. It is time for the Administration to follow the letter of the law, as I pointed out in my opening remarks, and to bring the Yucca Mountain project online and accept the shipments of the spent nuclear fuel and high-level defense waste.

I would like to again thank you very much for the opportunity to be here, and with that, I yield back my time.

Mr. SHIMKUS. Thank you very much, Doc, for joining us.

Now, I would like to recognize appropriator cardinal, Mr. Simpson, from the great State of Idaho.

STATEMENT OF MIKE SIMPSON

Mr. SIMPSON. Before I start, let me just say for the record that I haven't been questioned by either the majority or the minority staff.

Mr. SHIMKUS. And I am not sure you would want to be.

Mr. SIMPSON. Mr. Chairman and members of the committee, I thank you for the opportunity to testify before your committee on the Department of Energy's Yucca Mountain decision.

I have been now in Congress for 12½ years. For 8½ years, I have served on the Appropriations Committee and the Subcommittee on Energy and Water Development, which funds the DOE including the DOE's nuclear energy division. In my short time in Congress, there have been three Administrations, four or five Secretaries of Energy and numerous nuclear energy administrators and under secretaries. Each Administration has its own priorities concerning the direction the department takes with respect to addressing the energy needs of our country, particularly nuclear energy. I lived through the IFR bubble, the GNEP bubble, the NGNP bubble and the current SMR bubble. The most frustrating dilemma I faced is this: After spending billions of dollars going into ever-changing directions, how do you sustain a program with a 20- to 30-year lifetime frame in an environment of ever-changing policies? What can we show the taxpayers for our investments? To make it clear, it is not a problem that I blame on the DOE. New Administrations and Secretaries are elected and appointed to enact their vision of the future but it is a reality that the short-term nature of our political cycles does not lend itself to solving long-term problems.

One of the ways we address this dilemma is by enacting statutes passed by Congress and signed by the President. These statutes become the law of the land, binding on future Congresses and Administrations. No Administration or Congress can unilaterally decide the law doesn't apply to them. If the Administration or Congress decides it doesn't like the current law, there are ways to change it: enact a new law. Absent that, the current law binds us all.

One of the most glaring decisions by the Administration to ignore this fundamental principal of law is the attempt by the Administration to unilaterally withdraw the license application for Yucca Mountain currently before the NRC and to mothball Yucca Mountain. Let me be perfectly clear here. We all know why this decision was made. It wasn't about science or the suitability of Yucca Mountain or even the need for a geological repository for high-level nuclear waste. It was a promise made during the heat of a presidential campaign. It was pure politics.

We could spend days debating the suitability of Yucca Mountain as a geological waste repository or the over 50 scientific studies that have been done on Yucca Mountain. We know more about this patch of earth than probably any other patch of earth in the world. We could talk about the $15 billion already spent on Yucca Mountain, the $9.5 billion collected from the utility consumers for the nuclear waste fund and whether that should be paid back to the consumers as well as the $956 million paid out as the result of the 74 lawsuits resulting from the government's failure to receive spent fuel or the GAO investigation which concluded "DOE's decision to

terminate the Yucca Mountain repository program was made for policy reasons, not technical or safety reasons" or the fact that this interpretation is supported by volume 3 of the NRC's safety evaluation report.

But all of this really isn't the point. The point is, the President is obligated to follow the law of the land as enacted by Congress and signed by a previous President. The Nuclear Waste Policy Act was amended in 1987 to designate Yucca Mountain as the repository for high-level nuclear waste for whatever reason. I was not a Member of Congress at the time but that law passed and Yucca Mountain became the law of the land. Following a veto by the Governor of Nevada, the House voted to override the Governor's veto by a 306-117 vote, and the Senate followed suit by a 60-36 vote. Yucca Mountain is still the law of the land.

Congress has reaffirmed its position. In fact, I have with me here, and I want to ask to put them in the record because they are available, 34 recorded votes in recent years assembled by the CRS in which Congress has reaffirmed its support for Yucca Mountain.

I can't fault Secretary Chu or Secretary Lyons for pursuing this policy decision. After all, they work for the President and he made this misguided decision to ignore the law. Based on these simple facts, the NRC licensing board reviewed the Administration's request to withdraw the Yucca Mountain licensing application and denied that request nearly one year ago, June 29, 2010. The commission reviewed and voted on the licensing board decision but has yet to release its ruling nearly a year later. The NRC is supposed to serve as an independent watchdog which is driven by science, not politics. Unfortunately, the chairman of the NRC has lost sight of its mission in order to effect a political outcome that has eroded the reputation of the NRC at a time when the public confidence is needed most, and he should be replaced.

Again, I repeat, the issue of siting the Nation's nuclear waste repository at Yucca Mountain is a matter of law, not politics. It serves as the clearest example of an ever-changing policy which is costing the taxpayers billions of dollars and diminishing our ability to advance a long-term energy policy for our country, and I thank you, Mr. Chairman, for inviting us here today.

Mr. SHIMKUS. I want to thank my colleague, Mr. Simpson, and my colleagues for joining us.

It is the tradition of this committee not to follow up with questions but to move. We have two more panels that we have to meet with and so we want to thank you for your time, and we will see you on the floor for votes.

Without objection, the vote totals that Mr. Simpson had mentioned will be entered into the record. Having no objection, so ordered.

[The information appears at the conclusion of the hearing.]********** COMMITTEE INSERT **********

Mr. SHIMKUS. I would like to place the first panel, Mr. Gaffigan, Mr. Friedman and Mr. Lyons. We want to thank you for joining us. As per the previous panel, we will start from my left, your right, and each of you will be recognized for 5 minutes. Your full statement can be submitted for the record. To begin with, I would like to ask Mr. Mark Gaffigan, Managing Director of Natural Resources

and Environment for the U.S. Government Accountability Office. Thank you for your attendance, and you are recognized for 5 minutes.

STATEMENTS OF DR. MARK E. GAFFIGAN, MANAGING DIRECTOR, NATURAL RESOURCES AND ENVIRONMENT, U.S. GOVERNMENT ACCOUNTABILITY OFFICE (GAO); GREGORY H. FRIEDMAN, INSPECTOR GENERAL, DEPARTMENT OF ENERGY; AND DR. PETER B. LYONS, ASSISTANT SECRETARY FOR NUCLEAR ENERGY, DEPARTMENT OF ENERGY

STATEMENT OF MARK E. GAFFIGAN

Mr. GAFFIGAN. Mr. Chairman and members of the committee, I am pleased to be here.

First of all, I want to summarize my remarks in three areas, basically the current status of Yucca Mountain and the Nation's nuclear waste policy, the nuclear waste policy alternatives that have been discussed, and lastly, sort of lessons learned from past experience that may help inform our future as we go forward.

First, the Nation's policy for nuclear waste disposal is in dispute, creating great uncertainty about its future direction. In 1957, the National Academies of Science first endorsed nuclear waste disposal in a geological repository as the means for permanently disposing of nuclear waste. However, achieving a permanent policy leading to an acceptable repository has proven to be both costly and difficult. Under the Nuclear Waste Policy Act from the 1980s, the Federal Government made a commitment to take the Nation's nuclear waste and DOE has been investigating Yucca Mountain a permanent repository, culminating in a license application to the NRC in 2008.

However, after decades of work and expenditures of about $15 billion in today's dollars, DOE is now seeking to withdraw its application. DOE has not cited any technical or safety issues but has stated that Yucca Mountain is not a workable option, in large part because of the lack of public acceptance by the people of Nevada. This decision is being challenged both in the courts and by a board ruling that the Nuclear Waste Policy Act requires DOE to continue with the application. While these matters remain unresolved, DOE has proceeded to terminate Yucca Mountain in a definitive manner that will make it more difficult to reprise should they be compelled to do so.

In lieu of pursuing Yucca Mountain, DOE established a Blue Ribbon Commission to consider alternative waste disposal strategies. Based on past work, we have identified three categories of alternatives. The first alternative is keeping the waste on site at about 80 different sites, both commercial and defense sites in the United States. This is the path of least resistance option since it is our current de facto policy for disposal. However, it does not address the commitment of the U.S. government to take possession of the waste. As has been pointed out, taxpayers have already paid nearly $1 billion in legal judgments because of the government's inability to meet its obligation. Estimates are that another $15 billion will be paid out by 2020 with the bill estimated to be another $500 million per year after that, again, coming from the taxpayers through

the Department of Justice's judgment fund. Also, with continued onsite storage, DOE may not be able to meet commitments to States to remove defense-related waste. This could have negative impacts such as jeopardizing Navy shipments of spent fuel and the refueling of Navy warships.

A second general alternative is centralized interim storage. While this may offer some relief from onsite storage, such a facility faces the same siting challenges, and DOE states it does not have the authority to implement such a facility.

Finally, the third option remains a geological repository, the goal of the Yucca Mountain project. Despite the promise of future technology that may reduce the demands on a geological repository, the best thinking of experts today is that no matter what, there will be some amount of waste in need of permanent disposal and that a geological repository is the only feasible option for permanently disposing of nuclear waste.

Lastly, I would like to address lessons learned that might be instructive for future nuclear waste policy. DOE's recent policy decision to terminate Yucca Mountain due to a lack of public acceptance has been criticized because it was not based on any technical or safety reasons. However, if we are to learn anything from the Nation's struggle to implement nuclear waste policy, it is the lesson that public acceptance is just as important a consideration as any technical or safety issues. Transparency, economic incentives and education are important tools in achieving public acceptance of any future nuclear waste policy.

A second broad lesson is that consistent policy, funding, and leadership will be crucial in successful nuclear waste management. Many stakeholders have suggested that an independent organization not subject to political changes with a predictable funding stream may be best suited to carry out this policy.

In closing, let me emphasize that any nuclear waste policy option whether it be continued onsite storage, centralized interim storage or a move to a permanent repository will offer benefits but face serious costs and challenges. With the current uncertainty in the Nation's nuclear waste policy direction and potential competing directions of that policy, those costs and challenges only increase with little additional benefit.

Thank you, Mr. Chairman. That concludes my opening statement. I have submitted a formal statement for the record, and I welcome your questions.

[The prepared statement of Mr. Gaffigan follows:]

United States Government Accountability Office

GAO

Testimony

Before the Subcommittee on Environment and the Economy, Committee on Energy and Commerce, House of Representatives

For Release on Delivery
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NUCLEAR WASTE

Disposal Challenges and Lessons Learned from Yucca Mountain

Statement of Mark Gaffigan, Managing Director
Natural Resources and Environment

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Highlights

Highlights of GAO-11-731T, a testimony before the Subcommittee on Environment and the Economy, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

The United States has generated over 75,000 metric tons of spent nuclear fuel and high-level nuclear waste—extremely hazardous substances—at 80 sites in 35 states and is expected to more than double that amount by 2055. The Nuclear Waste Policy Act of 1982 (NWPA) required the Department of Energy (DOE) to investigate a geologic repository for nuclear waste. In 1987, Congress amended NWPA to direct DOE to focus on a repository at Yucca Mountain, Nevada. In 2008, DOE submitted a license application for the repository but in March 2010 moved to withdraw it. However, the Nuclear Regulatory Commission (NRC) or the courts—as a result of federal lawsuits—might compel DOE to resume the licensing process. GAO has reported on options for interim storage of this waste and the effects a Yucca Mountain termination could have on both commercial waste and DOE-managed waste. This testimony is based on that prior work and discusses (1) the status of the Yucca Mountain repository and national policy for nuclear waste disposal, (2) options for storing nuclear waste and their benefits and challenges, and (3) principal lessons that can be learned from past nuclear waste management efforts.

What GAO Recommends

GAO is making no new recommendations at this time and continues to believe that implementing the recommendations in its March (GAO-11-230) and April 2011 (GAO-11-229) reports could improve DOE's efforts to manage and store nuclear waste.

View GAO-11-731T or key components.
For more information, contact Mark Gaffigan at (202) 512-3841 or gaffiganm@gao.gov

June 1, 2011

NUCLEAR WASTE

Disposal Challenges and Lessons Learned from Yucca Mountain

What GAO Found

Uncertainties exist about the direction of the nation's policy for nuclear waste disposal. Under NWPA, DOE investigated Yucca Mountain as a site for a repository. In 2002, DOE recommended the site to the President and in 2008 submitted a license application to NRC. DOE is now seeking to withdraw the application from NRC's Atomic Safety and Licensing Board. DOE did not cite technical or safety issues but stated that Yucca Mountain is not a workable option because of a lack of public acceptance by the people of Nevada. On June 29, 2010, the board denied DOE's motion, ruling that NWPA requires DOE to continue the licensing effort. The NRC commissioners announced they might consider reviewing the board's decision, but as of May 26, 2011, no review had been announced. Separately, state and local governments and a private party filed suit in federal court against DOE and NRC in an effort to stop the repository termination. The court has not yet ruled. Amid this uncertainty, DOE took steps to shut down Yucca Mountain by September 30, 2010. DOE also established a Blue Ribbon Commission to evaluate alternatives for nuclear waste disposal, which plans to report by January 2012.

Three primary waste storage options offer benefits but also face challenges, including high costs. Two options are for interim storage—continued on-site or centralized storage—which could allow time for research into new approaches that might have wider public acceptance than the Yucca Mountain permanent repository. Continued on-site storage would require less effort to implement since it is the current method of waste storage. However, this option could trigger significant financial liabilities as a result of industry lawsuits stemming from DOE's failure to accept the waste in 1998, as required under NWPA. The federal government has already paid $956 million, and future liabilities are estimated to be at least $15.4 billion through 2020. DOE and the Navy also might not meet certain commitments to remove their waste from two states, which could bring penalties and a suspension of the Navy's shipments of spent fuel, raising concerns about the Navy's ability to refuel its nuclear-powered warships. The second interim option, centralized interim storage, may face challenges because DOE states that it currently has no authority to implement this option. The third option, a geologic repository, is widely considered the only currently feasible option for permanently disposing of nuclear waste. DOE has faced challenges in identifying an acceptable site for permanent geologic disposal. Restarting the search would likely take decades and cost billions of dollars.

Published reports and interviews—with federal, state, and local government officials and representatives of various organizations—suggest two broad lessons that can be learned from past nuclear waste management efforts. First, transparency, economic incentives, and education are important tools for gaining public acceptance. Second, it is important for any waste management strategy to have consistent policy, funding, and leadership, particularly since the process will take decades. An independent organization with a more predictable funding mechanism may be better suited than DOE to oversee nuclear waste management.

Chairman Shimkus, Ranking Member Green, and Members of the Subcommittee:

I am pleased to be here today to discuss our recent work evaluating efforts to manage and store spent nuclear fuel and high-level nuclear waste in the United States. Nuclear energy generates about 20 percent of the nation's electric power and, as a domestic source of electricity with low emissions, is a critical part of our energy infrastructure. In addition, military use of nuclear material—in nuclear weapons and nuclear-powered warships—plays a vital role in our national defense. However, both of these activities generate nuclear waste—referred to as spent nuclear fuel in the case of fuel removed from a reactor and as high-level waste for material that is a by-product of weapons production and other defense-related activities. This nuclear waste has been accumulating since the mid-1940s and currently totals over 75,000 metric tons at 80 sites in 35 states, enough to fill a football field about 15 feet deep. Furthermore, this waste is expected to increase by about 2,000 metric tons per year, more than doubling, to 153,000 metric tons by 2055.[1]

Although these nuclear technologies have been in use for decades, the United States has yet to implement a plan for permanently disposing of its nuclear waste. Since the publication of a 1957 report by the National Academy of Sciences, a geological repository[2] has been considered the safest and most secure method of disposing of nuclear waste. During the 1960s and 1970s, the United States embarked on several efforts to evaluate potential disposal sites for a permanent repository but no repository resulted from these efforts. Then, in the 1980s, the Nuclear Waste Policy Act of 1982 (NWPA) established a federal policy for the disposal of spent nuclear fuel and high-level waste. Under NWPA, the Department of Energy (DOE) was directed with investigating sites for a federal deep geologic repository to dispose of spent nuclear fuel and high-level nuclear waste. In 1987, Congress amended NWPA to direct DOE to focus its effort solely on Yucca Mountain—a site about 100 miles northwest of Las Vegas, Nevada.

[1]The majority of this nuclear waste is expected to be spent nuclear fuel from commercial operators. An estimated 13,000 metric tons of this waste, however, is managed by DOE at five of its sites. Existing nuclear waste already exceeds the 70,000 metric ton capacity of the proposed Yucca Mountain repository.

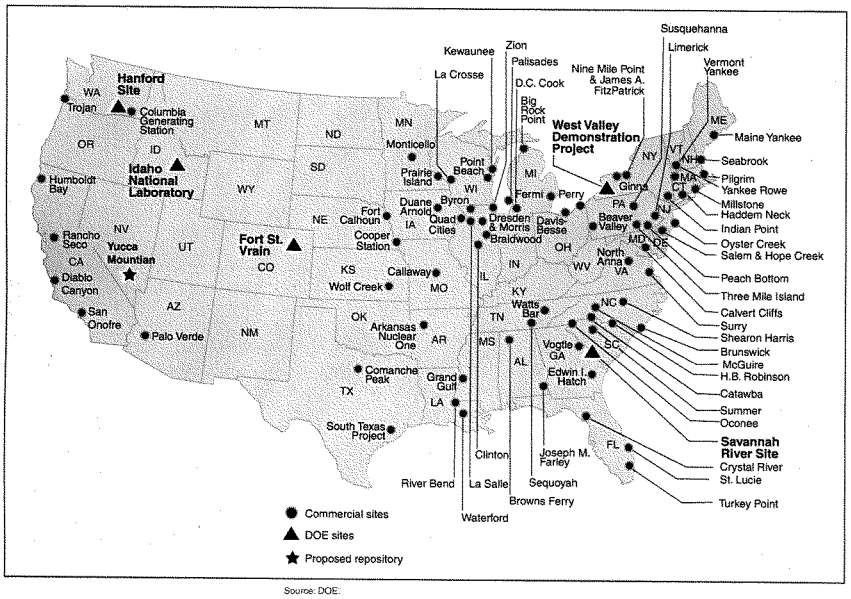
[2]According to NRC, a geological repository is an excavated, underground facility that is designed, constructed and operated for safe and secure permanent disposal of high-level radioactive waste.

After more than 2 decades and spending nearly $15 billion,[3] in 2008, DOE submitted a license application to the Nuclear Regulatory Commission (NRC) seeking authorization to construct a high-level waste repository at Yucca Mountain.[4] DOE planned to open the repository in 2017, although it later delayed the planned opening date to 2020 (see fig. 1 for the current storage sites and proposed repository).

[3]All costs are in constant 2010 dollars, unless otherwise noted. Numbers taken from our 2009 report on Yucca Mountain and potential alternatives were estimated in 2009 constant dollars and are reported with no further change. See GAO, *Nuclear Waste Management: Key Attributes, Challenges, and Costs for the Yucca Mountain Repository and Two Potential Alternatives*, GAO-10-48 (Washington, D.C.: Nov. 4, 2009).

[4]NRC has regulatory authority to authorize the construction of a repository as well as its operations and closure.

Figure 1: Current Storage Sites and Proposed Repository for High-Level Nuclear Waste



Source: DOE.

Note: Locations are approximate. DOE has reported that it is responsible for managing nuclear waste at additional sites but these generally include research reactors that generate small amounts of waste that will be consolidated at the Idaho National Laboratory for packaging prior to disposal.

In March 2009, however, the Secretary of Energy announced plans to terminate the Yucca Mountain repository program and instead study other options for nuclear waste management. The President's fiscal year 2011 budget proposed eliminating all funding for the program, including the DOE office that managed it, the Office of Civilian Radioactive Waste

Management. The administration directed DOE to establish a Blue Ribbon Commission[5] of recognized experts to study nuclear waste management alternatives. The commission is scheduled to issue a final report by January 2012.

My testimony is based on three of our recently issued reports on the storage of spent nuclear fuel and high-level nuclear waste,[6] updated with recent information from DOE, NRC, federal court proceedings, and the Blue Ribbon Commission's preliminary recommendations. It addresses (1) the status of the Yucca Mountain repository and national policy for nuclear waste disposal, (2) options for storing spent nuclear fuel and high-level nuclear waste and the key benefits and challenges of each option, and (3) the principal lessons learned from past nuclear waste management efforts and how these lessons might be applied to future efforts. A detailed description of our methodologies can be found in our published reports. We conducted this work in accordance with generally accepted government auditing standards.

Background

Spent nuclear fuel and high-level nuclear waste are considered some of the most hazardous substances on earth. Without protective shielding, the intense radioactivity can kill a person immediately or cause cancer for those who receive smaller doses. Nuclear waste can remain radioactively dangerous for tens of thousands of years. This waste is the result of both commercial and noncommercial activities.

The majority of spent nuclear fuel is generated from commercial power plant operations. After the nuclear fuel is used, or "spent," and removed from the reactors, operators must actively manage the spent nuclear fuel by isolating and continually monitoring it to keep humans and the environment safe. Most spent nuclear fuel is stored at operating reactor sites, immersed in pools of water designed to cool it and isolate it from the environment. With no offsite storage or disposal option for the spent nuclear fuel, some of the racks in the pools holding spent nuclear fuel

[5]The President directed the creation of the Blue Ribbon Commission on America's Nuclear Future in January 2010.

[6]GAO, *Commercial Nuclear Waste: Effects of a Termination of the Yucca Mountain Repository Program and Lessons Learned*, GAO-11-229 (Washington, D.C.: Apr. 8, 2011); *DOE Nuclear Waste: Better Information Needed on Waste Storage at DOE Sites as a Result of Yucca Mountain Shutdown*, GAO-11-230 (Washington, D.C.: Mar. 23, 2011); GAO-10-48.

have been be rearranged to allow for more dense storage. Despite this re-racking, spent nuclear fuel pools in the United States are reaching their capacities. Even before the March 2011 earthquake and tsunami in Japan that resulted in the release of radiation from the damaged reactors at Fukushima Daiichi Nuclear Power Station, concerns had been expressed about the possibility of an accident involving radiation release. The concerns were that an overcrowded spent nuclear fuel pool could release large amounts of radiation if an accident or other event caused the pool to lose water, potentially leading to a fire that could disperse radioactive material. As U.S. reactor operators have run out of space in their spent nuclear fuel pools, they have turned in increasing numbers to dry cask storage systems, which generally consist of stainless steel canisters placed inside larger stainless steel or concrete casks and stored outside the pools on concrete pads. Without a final disposition pathway, this commercial spent nuclear fuel generally remains where it was generated, including nine sites where the reactors have been decommissioned.[7]

In addition to spent nuclear fuel generated from commercial purposes, DOE manages an inventory of about 13,000 metric tons of spent nuclear fuel and high-level nuclear waste at five DOE sites. From 1944 until the 1980s, the United States used nuclear reactors to produce plutonium and other materials for nuclear weapons. As a result of these activities, after the shutdown of weapons production and of some reprocessing plants at the end of the Cold War, DOE retained an inventory of spent nuclear fuel that had not been reprocessed, as well as high-level nuclear waste—which is one of the byproducts of reprocessing. Weapons production and related defense activities—such as the reprocessing of the Navy's spent nuclear fuel to produce new fuel, which also created high-level nuclear waste—are the source of about 87 percent of DOE's inventory of spent nuclear fuel and almost its entire inventory of high-level waste. Because weapons production and reprocessing of the Navy's spent nuclear fuel have ended, DOE's inventories of this waste are largely fixed.

DOE is also responsible for managing nuclear waste from a variety of other sources. For example, DOE is responsible for managing spent

[7]Not only is DOE responsible for spent nuclear fuel and high-level waste, but also so-called greater than class C nuclear waste. The nation generates greater than class C nuclear waste from the maintenance and decommissioning of nuclear power plants, from radioactive materials that were once used for food irradiation or for medical purposes, and from miscellaneous radioactive waste, such as contaminated equipment from industrial research and development. DOE is required to dispose of this nuclear waste.

nuclear fuel from the Navy through the Naval Nuclear Propulsion Program, which is jointly operated by DOE and the Navy. The remainder of DOE's inventory of nuclear waste comes from various nondefense sources, including research activities and foreign research reactors. The United States operates a program to take custody of spent nuclear fuel from foreign research reactors, which supports a U.S. policy to prevent the proliferation of nuclear weapons; this program is scheduled for completion in 2019. In general, DOE stores this waste at five sites: the Hanford Site in Washington state, the Savannah River Site in South Carolina, Idaho National Laboratory in Idaho, the Fort St. Vrain Site in Colorado, and the West Valley Site in New York.[8] As with commercial sites, DOE currently stores spent nuclear fuel in either cooling ponds or dry cask storage. Much of the high-level nuclear waste is currently stored in liquid or semiliquid form in large underground tanks and requires further processing before it can be safely stored or disposed of.

The Status of the Yucca Mountain Repository

Uncertainties exist about the direction of the nation's policy for nuclear waste disposal. Under NWPA, as amended, Yucca Mountain is the only site that DOE is to investigate for suitability as a permanent nuclear waste repository. DOE investigated Yucca Mountain; in 2002 recommended the site to the President; and in 2008 submitted a license application to NRC. On March 3, 2010, however, DOE submitted a motion to NRC's Atomic Safety and Licensing Board to withdraw its application with prejudice, which DOE said would mean that the Yucca Mountain site would be excluded from further consideration as a repository. DOE did not cite technical or safety issues as the reason for its decision to withdraw the license application. In a May 2010 reply DOE filed before NRC's Atomic Safety and Licensing Board, the department explained that the Secretary's judgment is not that Yucca Mountain is unsafe or that there are flaws in the license application, but rather that Yucca Mountain is not a workable option and that alternatives will better serve the public interest. DOE stated that a key aspect of the problem was the continuing lack of public support for the repository among the people of the state of Nevada and that public acceptance is a key component of a workable solution to permanent disposal of nuclear waste.

[8]DOE has reported that it is responsible for managing nuclear waste at additional sites but these generally include research reactors that generate small amounts of waste that will be consolidated at the Idaho National Laboratory for packaging prior to disposal.

On June 29, 2010, the licensing board denied DOE's motion, ruling that DOE was obligated under NWPA, as amended, to continue with the licensing effort. On June 30, 2010, the day after the Atomic Safety and Licensing Board denied DOE's motion to withdraw its license application with prejudice, the NRC commissioners issued an order inviting parties—including the state of Nevada, local counties, and industry—to file briefs addressing whether the commissioners should review the board's decision and, if so, whether they should uphold or reverse it. As of May 26, 2011, however, the commissioners have yet to announce whether they plan to review the board's decision.

Separately, the states of South Carolina and Washington, Aiken County in South Carolina, and a private party have sued DOE and NRC, arguing that DOE had no authority to terminate the proposed Yucca Mountain repository. The U.S. District Court of Appeals for the District of Columbia Circuit, which is hearing the lawsuits, initially decided to stay its proceedings until the NRC commissioners ruled on the board's decision but agreed to hear oral arguments on March 22, 2011. As of May 27, 2011, the court has not ruled on the case. The Atomic Safety and Licensing Board, with no further input from the NRC commissioners or federal courts, announced its intention to continue with its consideration of the challenges to the license application. In these proceedings, the board will consider approximately 300 contentions submitted by stakeholders questioning certain aspects of DOE's license application and related participant filings and evidence. It is not yet clear whether NRC or the court will rule that the license application review process should resume.

Amid uncertainties about the status of the repository license, DOE took steps to shut down the Yucca Mountain program and the Office of Civilian Radioactive Waste Management by September 30, 2010, when funding would have ended under the President's budget proposal. Specifically, DOE eliminated the jobs of all federal employees working on the program, terminated program activities by contractors, and disposed of office and other equipment. DOE took steps to preserve scientific and other data, including data stored in the Licensing Support Network. The data in this network had been maintained and made accessible to others through the NRC Web site. The network facilitates the exchange of documents among the parties involved in the review process by making the parties' documents publicly accessible over the internet. However, NRC's Licensing Support Network Administrator stated that, under the administration's budget proposal for fiscal year 2012, the NRC's Licensing Support Network faces a shutdown on October 1, 2011, and would no longer be accessible by scientists and the public. In response, the Atomic

Safety and Licensing Board expressed concerns that the Licensing Support Network might no longer be available as it considers challenges to the license application. On April 11, 2011, the board ordered parties involved in the review process to preserve all the Licensing Support Network documents in "PDF" format and submit them to NRC by August 31, 2011, for inclusion in its publicly accessible database called the Agencywide Document Access and Management System or ADAMS. On April 21, 2011, NRC filed a motion to the board that asked the board to reconsider its order due to the unanticipated expense. As of May 26, 2011, the board has not ruled on the motion. Separately, a DOE official stated that it had already planned to make its Licensing Support Network documents available to the public upon written request.

In our April 2011 report,[9] we raised concerns about DOE's lack of a formal approved plan to guide shutdown activities or assess related risks, given the uncertainty about whether DOE will be compelled by either NRC or the courts to resume the license application review process. Both federal internal control standards and DOE orders require that DOE sufficiently plan for major activities—including shutdowns—and assess the risks of these activities. DOE officials stated that they held frequent meetings and focus groups to help guide the shutdown. DOE's Inspector General, in a report, also expressed concern about the lack of a formal plan, given the scope and complexity of the shutdown and the possible effects on areas such as the preservation of intellectual, scientific, and technological information and on the disposition of property.[10] In addition, as we reported, the loss of staff with experience at Yucca Mountain could hinder the license review if the process is resumed. Furthermore, several DOE and NRC officials and industry representatives said that ending the license review process before allowing NRC to review the merits of the application represented a loss of potentially valuable information that might have been useful in the search and licensing of an alternate site.

DOE plans to wait for the Blue Ribbon Commission's final recommendations, before deciding on a direction for future nuclear waste storage efforts. In the meantime, it is not clear whether or how the nation's nuclear waste policy will change. The commission has taken steps to

[9]GAO-11-229.

[10]DOE Office of Inspector General, *Special Report: Need for Enhanced Surveillance During the Yucca Mountain Project Shut Down*, OAS-SR-10-01 (Washington, D.C.: July 2010).

identify alternatives to meet the nation's nuclear waste storage needs. After receiving input from numerous experts and sources, on May 13, 2011, at a public meeting, the commission subcommittees released draft recommendations for public comment. At this meeting, each of the three subcommittees—disposal, reactor and fuel cycle technology, and transportation and storage—presented preliminary recommendations from its draft report to the rest of the commission and the public. The disposal subcommittee's preliminary recommendation stated that geologic disposal is the most promising and technically accepted option available for safely isolating high-level nuclear wastes for very long periods of time and will be needed under all reasonably foreseeable scenarios, a recommendation that echoes a 1957 National Academy of Sciences study. Until geologic disposal is available, the transportation and storage subcommittee's preliminary recommendation was to establish one or more centralized interim storage facilities. According to the commission's Web site, the subcommittees will now revisit their draft reports as necessary and will issue those draft reports for public comment by the end of May.

Each Storage Option Offers Benefits but Poses Challenges, Including High Costs

The three primary nuclear waste storage and disposal options we have reported on—continued on-site storage, interim storage at a centralized facility, and permanent disposal in a geologic repository[11]—offer benefits as well as challenges, including significant costs. Two of the options—which could be used in the interim before permanent disposal is available—provide the nation with additional time to seek approaches to nuclear waste management and disposal that might achieve broader acceptance than the Yucca Mountain permanent repository. NRC has stated that continued on-site storage is safe for up to 60 years beyond the life of a reactor, and at DOE sites storing spent nuclear fuel regulated by NRC. Interim storage in general comes with benefits and challenges. DOE has stated that recent advances in dry cask storage systems allow spent nuclear fuel to be stored above ground for as long as 300 years. Another benefit is that nuclear waste in continued on-site storage or interim centralized storage is more easily retrievable. Easy retrieval is important when considering approaches, such as reprocessing, a process that could eventually be used to recycle parts of the spent nuclear fuel for further power production. An important challenge, however, is that interim storage is not a permanent solution and would require active controls, such as continued monitoring and security measures to prevent human

[11]GAO-10-48.

and environmental exposure. In addition, nuclear waste in interim storage may need to be repackaged after 100 years, at a cost of $180 million to $500 million.[12] Furthermore, interim storage, if used for a long time period, would pass responsibility for a permanent solution to future generations, who may not be willing or able to either maintain the interim storage facilities or to develop and implement some permanent waste management solution.

Continued on-site storage. We have reported on the following benefits of continued on-site storage:

- Requires minimal near-term effort. Continued on-site storage is the de facto approach for managing nuclear waste.
- Reduces transportation risks. The waste will only have to be transported once, to a final disposal site, and it will become cooler and less radioactive over time.

Continued on-site storage also presents challenges, including the following:

- The continued on-site storage option, assuming geologic disposal in 100 years, would cost from $20 billion to $97 billion.[13] It would also result in costs to the federal government such as
  - exposure to liabilities resulting from lawsuits against DOE, which committed to take custody of commercial nuclear waste in 1998, as required by NWPA, as amended. The federal government has paid $956 million through the Department of Treasury's judgment fund, and DOE estimates future liability to be about $15.4 billion through 2020, plus $500 million every year after that.[14]
  - potential penalties of $75,000 per day, or about $27.4 million per year if DOE and the Navy fail to meet commitments to remove their spent

[12]GAO-11-229.

[13]GAO-10-48.

[14]All liability and penalty values are in current dollars. Not all of the lawsuits have been resolved. Also, the Department of Justice has already incurred over $168 million through fiscal year 2010 to defend DOE in litigation. With ongoing litigation, these costs will continue.

nuclear fuel from DOE-sites in Idaho and Colorado by January 1, 2035.

- DOE will likely incur costs of $918 million to maintain storage at DOE sites if its waste remained there through 2040, and another $300 million for additional storage at the Hanford Site.[15]
- likely repackaging of spent nuclear fuel if it is stored in dry-casks for over 100 years, at a potential cost of $180 million to $500 million.[16]
- it could contribute to community opposition to license extensions of currently operating reactors or license applications for new reactors.

- It could raise national security concerns, according to Navy officials, if Idaho can suspend further shipments of Navy spent nuclear fuel to DOE's Idaho site until the agreement with the state for removal of such fuel is met, because the Navy depends on this site as part of the process of refueling its nuclear warships.

Interim storage at a centralized facility. Potential benefits of centralized interim storage include the following:

- Nuclear waste from decommissioned reactors could be consolidated, decreasing the complexity of monitoring and securing the waste and freeing the land for other uses.
- DOE could fulfill its obligation to take custody of spent nuclear fuel until a long-term strategy is implemented, thus avoiding additional liabilities as the result of lawsuits.
- Reactor operators may choose to thin out spent nuclear fuel assemblies from densely packed pools, which could reduce risk and may save reactor operators the cost of building dry storage cask systems at each reactor location.

Centralized interim storage also poses challenges, including the following:

[15]GAO-11-230. The costs we previously reported include earlier estimates of these costs.

[16]GAO-11-229. We also previously reported estimates of these costs in a 500-year projection in GAO-10-48.

- Interim storage could take years to site and construct. We have reported that a federal centralized storage option with two locations, assuming geologic disposal in 100 years, would take about 19 years to implement and would cost from $23 billion to $81 billion, although private industry could likely develop centralized interim storage in less time and for less cost.[17]

- Provisions in NWPA, as amended, that would allow DOE to arrange for centralized storage have either expired or are unusable because they are tied to milestones in repository development that have not been met.[18]

- A centralized storage facility will likely face intense state or local opposition, particularly if there is no final disposition pathway or other benefits that would accompany it. Even if a local community supported a centralized storage facility, a state may not.

- Any nuclear waste stored at a centralized site could create increased safety concerns because it would have to be transported twice—once to the centralized site and from there to a repository.

Permanent disposal in a geologic repository. Experts generally agree that, based on current technology, the only safe and secure permanent solution for nuclear waste is disposal in a geologic repository. We drew this conclusion in our November 2009 report, as did the National Research Council in 2001 and the Blue Ribbon Commission in 2011 in their respective publications. Other permanent disposal options—such as narrow shafts bored deep into the ground—could be feasible, but face cost or technical constraints. Technologies are available that could reduce the radioactivity or volume of spent nuclear fuel—namely, reprocessing and advanced reactors—but they do not eliminate the need for a geologic repository. The National Research Council of the National Academies reported that developing other alternatives is not likely for the foreseeable future.

[17]GAO-10-48.

[18]DOE acknowledged that the Atomic Energy Act of 1954, as amended, does provide the authority for DOE to accept and store spent nuclear fuel under certain circumstances, and DOE has done so in the past, such as U.S.-supplied spent nuclear fuel from foreign reactors, as well as damaged and spent nuclear fuel from the Three Mile Island reactor site. However, DOE asserts that NWPA's detailed statutory scheme limits its authority to accept spent nuclear fuel under Atomic Energy Act authority except in compelling circumstances, such as an emergency involving spent nuclear fuel threatening public health.

Key challenges to a geologic repository are the cost and time required to site and build it and the need to gain public acceptance for the project. The nation has already spent nearly $15 billion on developing a repository and, as we reported in November 2009, completing, operating, and closing the Yucca Mountain repository would likely have cost between $41 billion and $67 billion more. If the nation halts the effort at Yucca Mountain, it will need to restart the search for an alternate repository or other solution and, based on past experience, this could take decades, cost billions of dollars, and face public opposition. Although some past efforts have had local community support, they have also faced public opposition, including Yucca Mountain.

Principal Lessons Learned That Could Facilitate Future Nuclear Waste Storage or Disposal Efforts

Our review of reports and interviews with DOE and NRC officials and representatives of various national associations, local and state governments, and community organizations, suggest two broad lessons for future waste storage or disposal efforts. First, overcoming social and political opposition and gaining public acceptance is crucial, and the federal government has several tools for doing so. One important tool is cooperation with key stakeholders, as we reported[19] and the Blue Ribbon Commission stated in its most recent public meeting, on May 13, 2011. Specifically, in our April 2011 report, we cited the need for the federal government to involve stakeholders but also to be transparent and cooperative. Similarly, in its preliminary recommendations for public comment, the Blue Ribbon Commission stated that all affected levels of government must have, at a minimum, a meaningful consultative role in important decisions. As state government officials told us, if local communities or states feel that the federal government is not willing to address their concerns in a transparent way, they will be less inclined to work cooperatively with the federal government. Another important factor is allowing states to have an oversight role. One reason for the success of the Waste Isolation Pilot Plant—a permanent repository for transuranic waste[20] in New Mexico—was that DOE conceded some of its authority to the state and worked collaboratively with state officials. States are important partly because they have broader constituencies than local

[19]GAO-11-229.

[20]The Waste Isolation Pilot Plant was designed to accept transuranic waste, not spent nuclear fuel. Generally, transuranic waste consists of clothing, tools, rags, residues, debris, soil, and other items contaminated with radioactive elements heavier than uranium, mostly plutonium, as a result of work related to the defense industry.

communities and are more likely to raise objections. Other considerations for overcoming social and political opposition include long-term incentives and education. Substantial, long-term federal investments in the host community and state can help win support by keeping key parties committed to a repository over the several decades of development. Education has also helped foster public acceptance. For example, DOE's contractor at the Waste Isolation Pilot Plant gained public acceptance through education and training programs on the safe transportation of radioactive waste. One important aspect of education has been to dispel the inaccurate perception that nuclear waste poses risks comparable to nuclear weapons.

A second broad lesson is that, in developing storage or disposal options, it is important to have consistent policy, funding, and leadership, since any such effort will take decades. We reported in April 2011 that policies must be credible and consistent to be effectively implemented and that inconsistent policies may contribute to public opposition.[21] Stakeholders told us that the siting process and safety standards changed over time at both the Waste Isolation Pilot Plant and Yucca Mountain, contributing to public opposition. Similarly, a program should also have consistent funding. The Office of Civilian Radioactive Waste Management budget was not predictable and varied by as much as 20 percent from year to year, with an average annual shortfall of appropriations from its budget requests of about $90 million each year. Stakeholders, including former DOE officials, told us that this made long-term planning difficult. Finally, continuity in leadership can help address societal and public opposition to a repository. In contrast, the Office of Civilian Radioactive Waste Management operated with a revolving-door style of management; it had 17 directors over 27 years, hurting relationships with local and state governments. Just as important, according to some former DOE officials and industry representatives, the program was not always a high priority and the quality of managers running the program varied. Some stakeholders said this illustrated a lack of commitment and undermined public trust.

Because the nation has not resolved how to manage spent nuclear fuel and high-level waste and because any future endeavor is likely to take decades and cost billions of dollars more, in our April 2011 report we raised matters Congress may wish to consider to improve the success of future

[21]GAO-11-229.

nuclear waste disposal efforts. Specifically, Congress may wish to consider whether a more predictable funding mechanism and an independent organization, outside of DOE, may be more effective in developing a permanent solution to nuclear waste management. In addition, because DOE shut down the Yucca Mountain repository without planning for continuing work on it, should it be compelled to do so, we recommended that the Secretary of Energy assess the risks of shutting down the repository and develop a preliminary plan for restarting work on it. In addition, because DOE had not planned for long-term storage, in our March 2011 report on DOE-managed waste, we recommended that DOE assess the condition of existing nuclear waste storage facilities and identify any gaps and actions that might be needed to address long-term storage requirements.

Chairman Shimkus, this concludes my prepared statement. I would be pleased to answer any questions that you, Ranking Member Green, or other Members of the Subcommittee may have at this time.

GAO Contacts and Staff Acknowledgments

For further information about this testimony, please contact Mark Gaffigan at (202) 512-3841 or gaffiganm@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Janet Frisch, Assistant Director, and Gene Aloise, Kevin Bray, Terry Hanford, Cristian Ion, Mehrzad Nadji, Robert Sanchez, Ben Shouse, and Kiki Theodoropoulos made key contributions to this statement.

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Mr. SHIMKUS. Thank you very much.

Now, I would like to turn to Mr. Gregory Friedman, Inspector General at the Department of Energy. Welcome, sir.

STATEMENT OF GREGORY H. FRIEDMAN

Mr. FRIEDMAN. Thank you, Mr. Chairman.

Rather than repeat many of the statistical points and data that has been provided already, let me abbreviate my already abbreviated statement, which contains a synopsis of the work that we have done in Yucca Mountain over time and it is more expanded in my full statement, which I hope will be submitted for the record.

Getting down to the nub of the matter, our work to date has highlighted a number of issues that require the continued attention of department management. For example, as has been mentioned, delays in the opening of Yucca Mountain have, as demonstrated by a number of financial and performance reviews, increased the ultimate cost of disposal of waste intended for Yucca Mountain. Closure of the project could significantly impact the department's future environmental remediation liability currently estimated to be $250 billion. We will further evaluate the impact of the closure as part of the ongoing financial work that we do at the Department of Energy. Further, unless the repository or other alternative strategy becomes available in the near term, the department may miss a number of deadlines which are part of tri-party settlement agreements. As a result, the department may be subject to significant assessments due to missed deadlines. As of September 30, 2010, more than $800 million has been expended from the Treasury's judgment fund for payments to commercial nuclear waste producers for delayed acceptance of nuclear waste. In addition, the department has estimated its contingent liability for spent nuclear fuel litigation to be approximately $15.4 billion.

In summary, in our judgment, the need to develop a viable, effective and acceptable path forward for nuclear waste disposal becomes more pressing day by day. The United States has announced plans to dismantle a significant part of its nuclear waste stockpile with the unavoidable reality of increasing the volume of defense nuclear waste. Further, commercial nuclear waste, which was to represent 90 percent of the high-level waste stored at Yucca Mountain, continues to be generated at nuclear power facilities across the Nation.

To paraphrase one draft recommendation from the Blue Ribbon Commission on America's Nuclear Future, which was established by the Secretary of Energy at the request of the President in January 2010, the United States should proceed expeditiously to develop an integrated, comprehensive plan for managing the back end of the nuclear fuel cycle.

Mr. Chairman, this concludes my statement. I would be pleased to answer any questions that you or the subcommittee may have.

[The prepared statement of Mr. Friedman follows:]

Statement of Gregory H. Friedman

Inspector General

U.S. Department of Energy

Before the

Subcommittee on Environment and the Economy

of the

Committee on Energy and Commerce

U.S. House of Representatives

FOR RELEASE ON DELIVERY
9:30 AM
Wednesday, June 1, 2011

Mr. Chairman and members of the Subcommittee, I am pleased to be here at your request to testify on matters relating to the Department of Energy's Yucca Mountain Project.

As you know, issues surrounding the termination of the Project have been widely publicized. They directly impact the Department's responsibilities to manage legacy waste generated from nuclear weapons production and to accept and dispose of spent nuclear fuel emanating from commercial nuclear reactors.

The United States has invested nearly 30 years of effort and expended over $15 billion to develop a nuclear waste repository. Nearly $9 billion of these expenditures was funded by fees paid into the Nuclear Waste Fund by users of nuclear-powered electricity and the balance by the Department and the Nation's taxpayers. Establishing a secure and scientifically sound method for storage and disposal of high-level nuclear waste and spent nuclear fuel is critical to ongoing environmental remediation efforts at many Department of Energy legacy sites and to the Nation's nuclear power industry.

Current Status of Repository Development

As you are aware, the Department's Fiscal Year 2011 budget included no funding for the Yucca Mountain Project. Additionally, the Department disbanded the Office of Civilian Radioactive Waste Management, whose programmatic mission was the management and disposal of high-level radioactive waste and spent nuclear fuel. Virtually all personal property and facilities relating to the Project have been either been disposed of or reassigned, and the site is in "cold standby" status.

On January 29, 2010, the Department announced the formation of a Blue Ribbon Commission on America's Nuclear Future to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, including all alternatives for the storage, processing, and disposal of civilian and defense nuclear waste. On May 13, 2011, the Commission issued draft recommendations associated with developing a safe, long-term solution to managing nuclear waste.

Office of Inspector General Reviews Relating to the Yucca Mountain Project

Over the past several years, the Office of Inspector General has completed a substantial amount of work related to the Yucca Mountain Project. A complete listing of the relevant Inspector General reports is included in the attachment at the end of my testimony. Specifically, we reported on:

- Issues with the implementation of a Corrective Action Program to identify and resolve all potential conditions adverse to quality that could affect the license application for the Project. We found that conditions continued to occur after management reported that appropriate corrective actions had been taken;
- The disposition of excess property for which the Government received no monetary benefit. The Department gave a contractor title to approximately 9,000 metric tons of property and derived no benefit from the sale of potentially reusable property, such as a drilling rig, diagnostic trailers, and several tons of iron and steel;
- Problems relating to the development, maintenance, and quality assurance over licensing activities and data maintained in the Licensing Support Network;
- The inappropriate usage by the State of Nevada and affected units of local government of oversight funds provided by the Department; and,

- Payment by the Department of performance-based incentives to the Yucca Mountain Project contractor even though the contractor did not meet performance expectations.

In addition, we have performed several audits that focused on the progress in preparing nuclear waste from Departmental sites for disposal at Yucca Mountain. Finally, Nuclear Waste Fund and Project financial issues are regularly included in the scope of financial statement audits conducted under the auspices of the Office of Inspector General.

Office of Inspector General Reviews Relating to the Closure of the Yucca Mountain Project

Over the last year, the Office of Inspector General has completed work relating to the shutdown of the Project. Specifically, after the Department announced its decision to terminate the Project, we reported that a plan to ensure an orderly shutdown had not been developed. Due to the lack of a formal plan, we outlined a number of lessons learned based on problems we had observed during prior reviews of other project closure activities. In particular, we pointed out that the Department should focus on disposing of personal property; maintaining intellectual, scientific, and technology property; managing the close-out process for prime and sub-contracts; and administering benefits for contractor employees formerly working at the Project.

Additionally, a recent Office of Inspector General report identified approximately $175 million in questioned and unresolved costs that the Department needed to address as part of its Yucca Mountain Project contract close-out effort. Our review determined that a significant amount of these questioned, unresolved, and potentially unallowable costs had accumulated over a number of years.

Issues Requiring Continuing Attention

We have repeatedly expressed concern regarding the Department's activities to ensure the effective disposal of nuclear waste as part of our annual Management Challenges report to the Department and Congress. Specific concerns relate to the potential financial and environmental impacts associated with the termination of the Project.

The Yucca Mountain Project played a central role in the Department's planned disposal of significant quantities of high-level waste now in temporary storage or being recovered at sites including the Savannah River Site in South Carolina, the Oak Ridge Reservation in Tennessee, and the Hanford Site in Washington. Delays in the opening of Yucca Mountain have, as demonstrated by a number of financial and performance audits, increased the ultimate cost of disposal of this waste. It is likely that the closure of the Project will significantly impact the Department's future environmental remediation liability, currently estimated to be $250 billion. We will further evaluate the impact of the closure as part of the ongoing financial statement work.

Further, unless a repository or other alternative strategy becomes available in the near term, the Department may miss a number of deadlines that are part of tri-party settlement agreements with Federal and state regulators. If history is any indication, the Department may be subject to significant assessments as a result of the missed deadlines. For example, as of September 30, 2010, more than $800 million had been expended by the Judgment Fund, administered by the Department of the Treasury, for payments to commercial nuclear waste producers for delayed acceptance of nuclear waste. Overall, the Department has estimated its contingent liability for spent nuclear fuel litigation to be approximately $15.4 billion.

In summary, in our judgment, the need to develop a viable, effective, and acceptable path forward for nuclear waste disposal becomes more challenging day by day. The United States has announced plans to dismantle a significant part of its nuclear weapons stockpile with the unavoidable reality of increasing the volume of defense nuclear waste. Further, commercial nuclear waste, which was to represent 90 percent of the waste stored at Yucca Mountain, continues to be generated at nuclear power facilities across the Nation. To paraphrase one draft recommendation from the Subcommittee on Transportation and Storage of the Blue Ribbon Commission on America's Nuclear Future, the United States should proceed expeditiously to develop an integrated, comprehensive plan for managing the back end of the nuclear fuel cycle.

Mr. Chairman, this concludes my statement and I would be pleased to answer any questions you may have.

Attachment

Department of Energy Office of Inspector General
Yucca Mountain Project Relevant Reports

	Title	Report Number	Date Issued
1.	Management Challenges at the Department of Energy	IG-0844	2010-11-16
2.	Office of Civilian Radioactive Waste Management's Fiscal Year 2010 Financial Statement	OAS-FS-11-03	2010-11-15
3.	Resolution of Questioned, Unresolved and Potentially Unallowable Costs Incurred in Support of the Yucca Mountain Project	OAS-SR-10-02	2010-07-29
4.	Audit Coverage of Cost Allowability for Bechtel SAIC Company, LLC During Fiscal Years 2004 Through 2009 Under Department of Energy Contract No. DE-AC28-01RW12101	OAS-V-10-15	2010-07-29
5.	Need for Enhanced Surveillance During the Yucca Mountain Project Shut Down	OAS-SR-10-01	2010-07-21
6.	Yucca Mountain Project Purchase Card Programs	INS-O-09-04	2009-08-20
7.	Yucca Mountain Project Document Suspension	OAS-M-08-07	2008-04-28
8.	Review of Alleged Conflicts of Interest Involving a Legal Services Contractor for the Yucca Mountain Project License Application	IG-0792	2008-04-02
9.	Design of the Engineered Barrier System at the Yucca Mountain Site	OAS-L-07-08	2007-02-27
10.	Management Challenges at the Department of Energy	IG-0748	2006-12-13
11.	The Office of Civilian Radioactive Waste Management's Corrective Action Program	IG-0736	2006-08-16
12.	Management Controls over Cesium and Strontium Capsule Disposition at the Hanford Site	OAS-M-06-06	2006-08-04
13.	Management of Spent Nuclear Fuel at the Savannah River Site	IG-0727	2006-05-12
14.	Allegations Involving False Statements and False Claims at the Yucca Mountain Project	I05LV002	2006-04-25
15.	Quality Assurance Weaknesses in the Review of Yucca Mountain Electronic Mail for Relevancy to the Licensing Process	IG-0708	2005-11-09
16.	Use of Performance Based Incentives by the Office of Civilian Radioactive Waste Management	IG-0702	2005-09-30

Attachment (continued)

Department of Energy Office of Inspector General
Yucca Mountain Project Relevant Reports

	Title	Report Number	Date Issued
17.	Use of Oversight Funds by the State of Nevada and Affected Units of Local Government	IG-0696	2005-07-29
18.	Assessment of Changes to the Internal Control Structure and their Impact on the Allowability of Cost Claimed by and Reimbursed to Bechtel SAIC Company, LLC Under Department of Energy Contract Numbers DE-AC08-01NV12101, and DE-AC28-01RW12101	OAS-V-05-03	2005-01-31
19.	Property Disposals at the Yucca Mountain Project	IG-0664	2004-09-27
20.	Management Controls Over the Licensing Support Network for the Yucca Mountain Repository	OAS-M-04-04	2004-05-20
21.	Oversight Funds Provided to Local Governments in the State of Nevada	IG-0600	2003-05-23
22.	State of Nevada Yucca Mountain Oversight Funds for Fiscal Year 2001	CR-C-02-01	2002-08-22
23.	Yucca Mountain Surface Facilities	WR-L-02-02	2002-04-11
24.	Review of Alleged Conflicts of Interest Involving a Legal Services Contract for the Yucca Mountain Project	I01IG001	2001-11-13
25.	Yucca Mountain Project	I01HQ005	2001-04-23
26.	Management of the Site Characterization Program at Yucca Mountain	IG-0366	1995-02-15
27.	TRW Environmental Safety Systems, Inc.'s Disclosure Statement Adequacy and Cost Accounting Standards Compliance	CR-L-94-33	1994-09-30
28.	Audit of Costs and Management of the Yucca Mountain Project	IG-0351	1994-06-23
29.	Follow-up Audit of the Cask Development Program	IG-0345	1994-03-15
30.	Assessment of Changes to the Internal Control Structure and their Impact on the Allowability of Costs Claimed by and Reimbursed to TRW Environmental Safety Systems, Inc. Under Department of Energy Contract No. DE-AC01-91RW00134	CR-V-94-04	1994-03-01
31.	The Office of Civilian Radioactive Waste Management	WR-L-92-14	1991-12-06

Attachment (continued)

Department of Energy Office of Inspector General
Yucca Mountain Project Relevant Reports

	Title	Report Number	Date Issued
32.	Credits Due the Department of Energy for Funding High-Level Nuclear Waste Management Research and Development	IG-0287	1990-08-08
33.	The Proposed Maintenance and Operating Contract for Office of Civilian Radioactive Waste Management	CR-LC-89-2	1988-10-28

Mr. SHIMKUS. Thank you, Mr. Friedman.

Last but not least on the first panel is Dr. Peter Lyons, Assistant Secretary for Nuclear Energy at the Department of Energy. Sir, welcome, and you have 5 minutes.

STATEMENT OF PETER B. LYONS

Mr. LYONS. Thank you, Mr. Chairman, Mr. Ranking Member and members of the committee. Thank you for the opportunity to testify before you today.

By way of introduction, I grew up in Nevada. I worked at the Los Alamos National Laboratory with frequent assignments at the Nevada Test Site. When I led the lab's energy and environmental programs, all work on Yucca Mountain and reprocessing of fuel reported to me. More recently, I visited the Tunnel Complex many times while working for Senator Pete Domenici and as an NRC commissioner. I have devoted 42 years of public service to the Nation's needs for and uses of nuclear technology. I am convinced that nuclear energy must remain a part of our Nation's clean energy portfolio, an acceptable solution to the Nation's management of used nuclear fuel and high-level defense waste as a prerequisite for nuclear power to play this role.

Secretary Chu has emphasized that a successful management significant for used fuel must be founded on strong technical criteria and public acceptance. The GAO made the similar conversation that overcoming social and political opposition is crucial. For example, there are successful repository programs in Switzerland, Finland, Sweden and France where public involvement and consultation are heavily emphasized. Our own experience with the Waste Isolation Pilot Plant, or WIPP, illustrates our success with achieving social and political acceptance for a permanent repository and stands in stark contrast to the Yucca Mountain project. As the Secretary has stated, it is time to move beyond the 25-year-old stalemate over Yucca Mountain. I agree, and I accepted this position with full support for the Administration's position.

Let me turn to two interrelated statements made in the GAO report with which the department has very serious concerns. First, the GAO presumes that the Yucca Mountain repository would have opened on a date certain, and second, GAO presumes that an alternative would take longer than the Yucca Mountain repository to implement. The GAO report uses 2020 for operations as a firm date and expresses concern that the department did not provide GAO with a more precise date. Yet the department has consistently stated that the 2020 date was subject to a number of contingencies over which the department has no control. Thus, there was always considerable uncertainty about when or whether the Yucca Mountain repository would open. Among other things, that opening would require new legislation for land withdrawal, a second NRC license, presuming the first one were issued, and a new 300-mile railroad, and many related actions hinging on availability of State-issued permits. All of these would have faced persistent opposition from the State in Nevada.

In shutting down the Yucca Mountain project, DOE is committed to building better, more workable alternatives. In fact, as the GAO report notes, if a more widely accepted alternative is identified, it

carries the potential for avoiding costly delays experienced by the Yucca Mountain repository program. That is a point that Secretary Chu has emphasized. Thus, the department disagrees with the GAO statement that the proposed termination of Yucca Mountain, which had been planned to be opened in 2020, will likely prolong storage at reactor sites, which would increase onsite storage costs. There is simply no basis to assume that the termination of Yucca Mountain will prolong this process. There may be other alternatives that can be put in place sooner than Yucca Mountain might have opened.

I would also like to highlight another statement in the report to which the department takes exception, namely that a final impact of terminating Yucca Mountain is that communities may be even less willing to host nuclear fuel repositories or other storage sites in the future due to further erosion of DOE's credibility. Quite to the contrary, a new start with Secretary Chu's emphasis on public acceptance I believe can lead to enhanced credibility of the department, and as further proof, the department's leadership of the WIPP program enjoys very strong support from the local community.

In conclusion, the department is acting responsibly in terminating the Yucca Mountain project. We can and we should do better than the Yucca Mountain project. Working together, the Administration and the Congress can seize an opportunity to craft a new option with a higher certainty of success. I personally look forward to the chance to put a successful used nuclear fuel management program into practice that will serve future generations and above all enable them to enjoy the benefits of clean, safe nuclear power.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Lyons follows:]

Statement of Peter B. Lyons
Assistant Secretary for Nuclear Energy
U.S. Department of Energy

Before the

Committee on Energy and Commerce
Subcommittee on Environment and the Economy
U.S. House of Representatives

"The Department of Energy's Role in Managing Civilian Radioactive Waste"
June 1, 2011

Chairman Shimkus, Ranking Member Green and Members of the Committee, thank you for the opportunity to testify on DOE's role in radioactive waste management, and in particular the April 2011 U.S. Government Accountability Office (GAO) document entitled "Commercial Nuclear Waste: Report on the Effects of Termination of the Yucca Mountain Repository Program and Lessons Learned" (GAO-11-229).

As you know, I provided the Department of Energy's March 30, 2011, response to the GAO report. My response indicates areas of both agreement and disagreement with the report's conclusions. My response is included in full in Appendix IV of the final report so I will not go through it in detail here.

I grew up in Nevada and regularly visited my parents there for decades. While an employee for the Los Alamos National Laboratory (LANL), my assignments often required me to work and even live for long periods at the Nevada Test Site. I visited the Yucca Mountain area many times during those years, long before there was a tunnel. When I was the Deputy Associate Director for Energy and Environment at LANL, all LANL work on Yucca Mountain and reprocessing of used fuel reported through my office. I visited Yucca Mountain to review some of LANL's early exploratory excavations. More recently, I visited the tunnel complex several times while working for Senator Pete Domenici and as a Commissioner of the Nuclear Regulatory Commission.

I have devoted my 42 years of public service to the Nation's needs for and uses of nuclear technologies. I am convinced that nuclear energy will continue to be a part of our nation's clean energy portfolio going forward, and the President has stated his commitment to nuclear power as part of a broad energy portfolio. An acceptable solution to the Nation's management of used nuclear fuel and high level defense waste is a key component of the ability of nuclear power to play the role that the Nation requires. I continue to believe that we can solve these problems, and we must move forward in order to do so.

In a letter to the Blue Ribbon Commission on America's Nuclear Energy Future, Secretary Chu emphasized that a successful management strategy for used fuel must be founded on strong technical criteria and on equally strong public acceptance. As he stated in that letter, "It is time to move beyond the 25 year old stalemate over Yucca Mountain — especially since technology

has advanced significantly during that time, giving us better options both in terms of science and public acceptance."

The GAO has noted "overcoming social and political opposition is crucial," which parallels statements by Secretary Chu. It is clear that we can do better. For example, there are successful repository programs in Switzerland, Finland, Sweden, and France, where public involvement and consultation are heavily emphasized. Our own experience with the Waste Isolation Pilot Plant in New Mexico illustrates our success with achieving social and political acceptance for a permanent waste repository and stands in stark contast to the Yucca Mountain Project.

Let me turn to two interrelated statements made in the GAO Report with which the Department has very serious concerns. *First*, GAO presumes that the Yucca Mountain repository would have opened on a date certain; and, *second*, GAO presumes that any alternative would take longer than the Yucca Mountain repository to implement. The GAO report uses 2020 for operations as a firm date and then expresses concern that the Department did not provide GAO with a more precise date. Yet the Department has consistently stated that the 2020 date was subject to a number of contingencies over which the Department has no control.

As a consequence, there was always considerable uncertainty about when or whether the Yucca Mountain repository would open. Among other things, Congress would have had to pass new legislation permanently withdrawing the land for the repository; NRC would have had to issue both a construction authorization and a license to receive and possess for the repository after completion of contested adjudicatory proceedings; a 300 mile railroad would have had to have been constructed and a number of permits issued by the State of Nevada would have had to have been obtained. All these would have faced persistent opposition and challenges from the State of Nevada and others. In shutting down the Yucca Mountain Project, DOE is committed to pursuing better, more workable, alternatives. In fact, as the GAO report notes, "if a more widely accepted alternative is identified, it carries the potential for avoiding costly delays experienced by the Yucca Mountain repository program," which is precisely the point that Secretary Chu has emphasized.

Thus, the Department disagrees with the GAO statement that: "the proposed termination of Yucca Mountain, which had been planned to be opened in 2020, will likely prolong storage at reactor sites, which would increase on-site storage costs." There is absolutely no basis to assume that the termination of Yucca Mountain will prolong this process. There may be other alternatives that could be put in place sooner than Yucca Mountain might have opened.

The Department does concur with the following GAO statement: "[T]erminating the Yucca Mountain repository program could bring benefits, primarily the opportunity for the Department of Energy to seek new approaches to nuclear waste management that could be more widely accepted, particularly since Yucca Mountain had little support from the State of Nevada." This is precisely the key point that Secretary Chu has made on numerous occasions.

To that end, Secretary Chu established the Blue Ribbon Commission (BRC) on America's Nuclear Future to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle. The BRC will provide advice and make recommendations on issues,

including alternatives for the storage, processing, and disposal of used nuclear fuel and nuclear waste. The BRC's interim report is due in July of this year, and its final report is due by January 2012. The Administration will evaluate the findings and recommendations of the BRC as it determines the best path forward.

Before closing, I want to highlight another statement in the GAO report to which the Department takes exception, namely that: "[A] final impact of terminating Yucca Mountain is that communities may be even less willing to host spent nuclear fuel repositories or other storage sites in the future due to further erosion of DOE's credibility." Quite to the contrary, a new start to this program, emphasizing Secretary Chu's recognition of the importance of public acceptance, can lead to tremendous enhancement of the credibility of the Department's approach. I note that the Department's leadership of the Waste Isolation Pilot Program in New Mexico enjoys strong support from the local community and is a strong endorsement of the Department's ability to develop and maintain strong public support.

In conclusion, the Department is acting responsibly in terminating the Yucca Mountain Project. We can and should do better here in the United States than the Yucca Mountain Project. Working together, the Administration and Congress can seize this opportunity to craft a new option with a far higher certainty of success. I look forward to the chance to put a successful used nuclear fuel management program into practice that will well serve future generations and enable them to enjoy the benefits of clean, safe nuclear power.

Mr. SHIMKUS. Thank you, Dr. Lyons, and I would encourage the first panel to stick around for the second panel because you will have some local folks from the State of Nevada who probably already have some acceptance of this position.

I would like to begin my first round of questioning and recognize myself for 5 minutes, and I will start with Mr. Gaffigan. How much has been expended on Yucca Mountain development? How much money have we spent?

Mr. GAFFIGAN. About $15 billion in today's dollars.

Mr. SHIMKUS. And where did that money come from?

Mr. GAFFIGAN. About $10 billion from the nuclear waste fund and another $5 billion from appropriations.

Mr. SHIMKUS. And how does the nuclear waste fund get its money?

Mr. GAFFIGAN. It is a tax on the ratepayers, pay a one-tenth of a cent.

Mr. SHIMKUS. Which ratepayers? Just those that——

Mr. GAFFIGAN. Those who benefit from nuclear power.

Mr. SHIMKUS. Of the money from ratepayers, are those fees still being collected?

Mr. GAFFIGAN. Absolutely.

Mr. SHIMKUS. Of the taxpayer funds, what happens to taxpayer spending if Yucca Mountain is terminated?

Mr. GAFFIGAN. The taxpayer spending continues. Current estimates are $15 billion through 2020.

Mr. SHIMKUS. And what happens to this liability for each year a repository is not accepting waste past 2020?

Mr. GAFFIGAN. Current estimates are $500 million per year. Those are DOE's estimates.

Mr. SHIMKUS. And what other costs might the taxpayer face if this nuclear waste issue is delayed?

Mr. GAFFIGAN. There will be costs associated with the judgments. There are about 72 lawsuits currently brought and about 6 have settled, so there will be Department of Justice costs involved with it. There will be costs associated with the waste on the defense side in terms of perhaps more storage needed at these various defense facilities because Yucca Mountain is not available or some other repository.

Mr. SHIMKUS. Great. Thank you.

Dr. Lyons, the Nuclear Waste Policy Act is the law that governs nuclear waste and spent fuel disposal policy, is it not?

Mr. LYONS. Yes.

Mr. SHIMKUS. And the law says that the Department of Energy must study, characterize for suitability, and develop a repository at Yucca Mountain, correct?

Mr. LYONS. That is correct.

Mr. SHIMKUS. That is what the law says. The law says further that DOE shall file an application for a license to construct the repository, correct?

Mr. LYONS. Yes, sir.

Mr. SHIMKUS. The law also established the Office of Civilian Radioactive Waste Management and a director for that office, correct?

Mr. LYONS. Yes.

Mr. SHIMKUS. The law actually makes clear DOE's—and I want to note for the record for the transcript, all these questions have been responded to affirmatively by Dr. Lyons.

The law actually makes clear DOE's duties and obligations in the development of Yucca Mountain, and those obligations presently are to support the application pending before the Nuclear Regulatory Commission, correct? I am talking about the law.

Mr. LYONS. As you know, sir——

Mr. SHIMKUS. I am talking about the law so be very, very careful how you answer this. What does the law say?

Mr. LYONS. That is what the laws, and——

Mr. SHIMKUS. Thank you very much. Now I will go to the next question. What provision of the Nuclear Waste Policy Act, what provision of the law is the Secretary relying on to withdraw the application?

Mr. LYONS. I am not a lawyer, sir. Our general counsel has reviewed that and believes that the Secretary has the authority to withdraw the application.

Mr. SHIMKUS. I think you might need to get with your general counsel, and you better be very careful in answering these questions.

And I am out of time—I am not out of time but I have finished my questions. I will now turn to the ranking member, Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman, and I apologize for being late. I know we finished opening statements and I would like to ask unanimous consent to place an opening statement into the record.

Mr. SHIMKUS. Without objection, so ordered.

[The prepared statement of Mr. Green follows:]

PREPARED STATEMENT OF HON. GENE GREEN

Thank you Mr. Chairman for holding this hearing and I want to thank the witnesses for appearing before the committee to discuss the issue of Yucca Mountain.

As you may know, I recently toured Yucca Mountain when I went on a CODEL organized by Chairman Shimkus. I appreciated the opportunity to view the facility up close and to meet with some of the local individuals, including folks from Nye County, to hear their thoughts on Yucca Mountain.

There has been a lot of discussion in this committee on the decision by the Administration not to proceed with Yucca Mountain. As I've stated several times before, The US alone produced 806 billion kilowatt hours of nuclear power in 2008, making us the biggest producer of nuclear power in the world.

The President has said he supports investments in alternative forms of energy and Secretary Chu has testified before this committee that we will be unable to meet the President's goals if we do not continue to invest in nuclear energy. This of course means we will have an increase of nuclear waste and we will need to safety store it.

As we look toward and focus on investing more in nuclear energy we will still have radioactive waste. Even if we have better short term storage than we have now, we will still need somewhere to put that waste 25, 50, or 100 years from now.

Let me be clear, no matter what decision we make on Yucca Mountain, we still have a nuclear waste disposal issue. So, the 25 year old dilemma remains and we will need to resolve this situation sooner rather than later.

I want to thank the witnesses and with that I yield back my time. Thank you Mr. Chairman.

Mr. GREEN. I would also like to ask unanimous consent to place into the record a letter from the Blue Ribbon Commission on Amer-

ica's Nuclear Future, and also from the chair of the Board of County Commissioners of Clark County, Nevada.

Mr. SHIMKUS. Without objection, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. GREEN. I thank our panel for being here. I think most of you know that a number of us did a congressional trip to Yucca Mountain last month, and I appreciate the opportunity to view up close what are the decisions or what has been going on since the 1980s, and I appreciate the opportunity the folks from the local county to express their concern or their interest in reopening Yucca Mountain from the decision. While on the trip, I heard various reports on the actual cost of building Yucca Mountain, and I know from the testimony of Mr. Gaffigan, it was $14 billion?

Mr. GAFFIGAN. We put it all in today's dollars, about $15.4 billion.

Mr. GREEN. OK. Is there any of that that could be recouped if we decided to, you know, forget about it and look for another long-term facility?

Mr. GAFFIGAN. That money is spent.

Mr. GREEN. Any opinion from any other witnesses on the panel?

Mr. FRIEDMAN. Well, Mr. Green, we pointed out in our Lessons Learned report that the retention of the intellectual property derived as a result of the expenditures associated with Yucca Mountain is an extremely important focus of the department, should be an important focus of the department, so hopefully if the decision is sustained to terminate the site, there will be a tremendous body of knowledge that will be useful going forward. That is certainly our anticipation and our hope.

Mr. LYONS. I would agree with Mr. Friedman.

Mr. GREEN. Do each of you agree that we should have some long-term storage facility?

Mr. GAFFIGAN. I would say that the National Academies of Science back to 1957 has said we are going to need some form of permanent repository, no matter—and that is the current thinking today, even if we go to some new technologies, there will be some waste and we will need to dispose of it in a permanent solution.

Mr. FRIEDMAN. I would agree with Mr. Gaffigan's comments, Mr. Green.

Mr. LYONS. I would also agree, and the Blue Ribbon Commission recently in their draft recommendations so stated as well.

Mr. GREEN. Well, I guess I have some concern because I know the only other alternative is along the Texas border and New Mexico, and we could just be opening another can of worms if we started out there. Obviously in Nevada, nobody runs for office out there saying they support Yucca Mountain. I don't know if anybody would run for office in New Mexico if they would say they want to support a high-level nuclear storage facility in New Mexico. That is one of my concerns about it, that we need one, and we spent $15.4 billion and now in the last year and a half the decision has been made to literally put a fence across it and shut it down.

How long would it take us if we started anew right now? Did Yucca Mountain actually start in 1982, the discussion of it, or the decision on the site or the pathway to get to the decision?

Mr. GAFFIGAN. I think early on it was one of nine sites that was considered, and eventually that was winnowed down to about three sites by 1987 and then the 1987 amendment directed that only Yucca Mountain be considered, so it is fair to say at least——

Mr. GREEN. When did the decisionmaking start?

Mr. GAFFIGAN. It is fair to say we have been at this since the mid-1980s. I don't know if Dr. Lyons would like to elaborate.

Mr. LYONS. No, I would agree that there is some characterization work that probably started even before 1982.

Mr. GREEN. So we are talking about 25 years to where we are now, and do you think if we decided to do something that it would take another 25 years to get there?

Mr. LYONS. I think it is important to note, sir, that as the Blue Ribbon Commission works through this process and evaluates successful models from both within the country, WIPP, and in the international community that there may well be approaches to the management as well as the selection that will be suggested by the BRC that can lead to a much more expeditious movement on this.

Mr. SHIMKUS. Would the gentleman yield on that real quick?

Mr. GREEN. I would be glad to yield.

Mr. SHIMKUS. Dr. Lyons, is it true that the Blue Ribbon Commission was given a mandate not to consider Yucca Mountain?

Mr. LYONS. The Blue Ribbon Commission is not a siting commission. They are not considering any——

Mr. SHIMKUS. But they were given a mandate not to even consider Yucca Mountain?

Mr. LYONS. They are simply not a siting commission, sir.

Mr. SHIMKUS. So that is a yes?

Mr. LYONS. They are not a siting commission. That is the statement I would make, sir.

Mr. SHIMKUS. So nothing, interim storage, nothing would be considered with Yucca Mountain? If they are doing centralized regional storage sites, Yucca Mountain could not be considered?

Mr. LYONS. I didn't say that. I simply said they are not a siting commission. They are not evaluating sites.

Mr. SHIMKUS. It is my understanding that the Blue Ribbon Commission was given explicit directions not to consider Yucca Mountain. Would you dispute that?

Mr. LYONS. It is my understanding that they are simply not a siting commission. They are not considering sites.

Mr. SHIMKUS. I yield back.

Mr. GREEN. Well, and my concern is, and it is more of a statement than a question, is that we have all over the country sites, two of them in Texas, where we are actually storing them on-site, and we would hope that we would have some long-term permanent storage. I support recycling so we don't have to put as much there, but that is not available in our country, but that is my concern is that by starting over a year and a half ago, then, you know, it could be 25 years, maybe longer, but even that, we are looking at 10 years away, and a lot of our temporary storage sites were not designed to be the long-term that they are now.

Mr. Chairman, thank you.

Mr. LYONS. If I may, Mr. Green, the Blue Ribbon Commission may recommend, since I certainly can't speak for what their final

recommendations will be, may recommend other paths such as interim storage that could lead us to at least useful options far sooner than a repository could be in operation.

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

The chair recognizes the vice chairman of the committee, Mr. Murphy from Pennsylvania.

Mr. MURPHY. Thank you, Mr. Chairman.

Are the current sites at nuclear power plants and other facilities above and below ground in concrete containers, etc., suitable for safety?

Mr. LYONS. Yes, Mr. Murphy. That is reviewed on a regular basis by the Nuclear Regulatory Commission.

Mr. MURPHY. And they are adequate for how long?

Mr. LYONS. Excuse me?

Mr. MURPHY. They are adequate for how long? I believe I read some studies where some are good for 30 years or so.

Mr. LYONS. The decision recently reached by the NRC——

Mr. MURPHY. Just give me a number.

Mr. LYONS [continuing]. Was 30 years after the cessation of operations at the site. We have research programs——

Mr. MURPHY. I just have to keep going. It has taken us 30 years to get this far. Does DOE maintain a record of the balance of the nuclear waste fund?

Mr. LYONS. I am sure they do, sir, but I——

Mr. MURPHY. Or how it is broken down by source or anything?

Mr. LYONS. I don't have those numbers but I would assume it is available.

Mr. MURPHY. Can you get us that information?

Mr. LYONS. We will provide that for the record.

Mr. MURPHY. I would also like to know if DOE is continuing to maintain that record, if it is available to the public, at least to the State PUCs and make sure it is updated, and I would like to know if we can have that information. That would be helpful.

Mr. LYONS. Well, the number is around $25 billion. I am not positive of the exact number.

Mr. MURPHY. We would to know how the fund is broken down.

Mr. FRIEDMAN. That is correct. And it can be provided broken down.

Mr. MURPHY. Given that it has taken about 30 years to get this far, what makes you think you can suddenly complete this by 2020?

Mr. LYONS. I didn't say we could do it by 2020. I said we may be able to do it sooner than Yucca Mountain——

Mr. MURPHY. There is absolutely no basis to assume the termination of Yucca Mountain will prolong the process, you said.

Mr. LYONS. I said that there is as g question in my mind whether Yucca Mountain will open. As to how soon one could do an interim storage site probably could be——

Mr. MURPHY. I am trying to go by the law here, sir, and I hope you are too, but the law that Congress signed by the President as we have gone through my Administrations here says that this is the site that was selected. So I have to ask, is there something unsuitable scientifically about the Yucca Mountain site?

Mr. LYONS. The license application submitted by the Department of Energy——

Mr. MURPHY. Is it unsuitable? Yes or no. Unsuitable, yes or no? Scientifically based, is it unsuitable, yes or no?

Mr. LYONS. The license application was based on the technical criteria.

Mr. MURPHY. Is it unsuitable? Yes or no.

Mr. LYONS. In the DOE's judgment on their application, it met——

Mr. MURPHY. You stated that GAO noted that overcoming social and political opposition was crucial, and so in the midst of the social and political opposition, I am assuming. I am trying to find out if it is scientifically credible or not. Did DOE mess this all up over the 30 years? Do we not trust anything you do and basically say that all the work that DOE has done in the last 30 years on deciding that Yucca Mountain is suitable or not, is that scientific garbage or is it scientifically credible, yes or no?

Mr. LYONS. As I indicated, sir, the license application——

Mr. MURPHY. I am trying to find out——

Mr. LYONS [continuing]. Was based on the technical criteria.

Mr. MURPHY. So what does that mean? Is it suitable or not? Is it scientifically suitable or not? This is really not hard to do, sir. It is a yes or no. There are only two words you get to say, yes or no.

Mr. LYONS. In the judgment of DOE, yes. They don't have the final answer.

Mr. MURPHY. That is important. So given that this is suitable, I have to find out this thing. Now, you mentioned some legal counsel in relation to Mr. Shimkus's question. I would like you to provide to this committee all communications regarding the judgment from legal counsel at the Department of Energy saying that they don't have to comply with the law, oral, written, e-mail, anything. It is important that we have an opportunity. Will you provide that for us?

Mr. LYONS. The department has provided about 40,000 pages already. We will try to provide what you mean.

Mr. MURPHY. It is important that we have this really parsed out so we understand when someone receives legal advice not to comply with the law, I would really like to have that there, not just say here is 40,000 pages. I hope you can do that.

Back to the question here with regard to—now that DOE has ruled that the site was suitable back in 2002 and you just confirmed it, a reversal is going to require new physical evidence that the criteria suitability are not met and then DOE would have to follow several explicit steps laid out in the statute, in the law instead of just walking away. Do you have that physical evidence that this site is no longer suitable?

Mr. LYONS. Again, sir, as was pointed out in my testimony and by other speakers already, Secretary Chu has made the statement that a workable solution——

Mr. MURPHY. Just the facts.

Mr. LYONS [continuing]. And public acceptance.

Mr. MURPHY. I am asking the facts. What we don't get to do is to say we get to selectively enforce laws based upon that the polls

change or we need votes in States. I am asking you from a scientific—because this is where DOE either is credible as an organization or it lacks credibility. I really want it to be a credible organization. I have the highest respect for many of the scientists in there, and this is an opportunity to either be a scientist or go by polling and politics.

Has there been some physical evidence that says this site is no longer suitable which therefore says you are compliant with the law by saying we don't have to do Yucca Mountain anymore? Is there some scientific evidence out there that says it is not suitable?

Mr. LYONS. As I stated, the license application was based on technical criteria. Based on general counsel, the Secretary's view is that we do have the authority to withdraw——

Mr. MURPHY. I didn't ask if you had the authority. I am not sure I am getting anywhere, Mr. Chairman, but I hope you would provide that information to us because that is the crux of what we are doing today.

Mr. LYONS. We will continue to provide information as best we can.

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

The chair now recognizes the gentleman from Georgia, Mr. Barrow, for 5 minutes.

Mr. BARROW. Thank you, Mr. Chairman.

A moment ago when we were going over the subject of the cost that has been invested in the program so far, there was an attempt to explain some of the value we recouped from this, the knowledge, the information, the lessons learned. What I would remind you is that the more you spend on something of doubtful authenticity, the more likely you are to think you have the real deal. If you spent $5 million on a pen-and-ink sketching that is reported to be a Leonardo da Vinci, you are very likely to believe it is the real deal. If you paid $5 for it, you know it is a fake. The point I want to emphasize is, this vast difference between the value of a lesson learned and the cost of a lesson learned, and I am not exactly sure we have a good understanding of the difference, what the magnitude of the difference is in this particular case.

I want to try to see where we go from here. I want to change the subject just a little bit. I had been present when Secretary Chu has summed up the cost to the American consumer of the fact that we were a nuclear pioneer country in this world and we went down a bunch of different paths and got different designs for different reactors here and there. It is part of the legacy costs of being the pioneer and going first and actually developing all kinds of different ideas. He was talking to one of his colleagues in France, and his French colleague says it is very simple what the problem is you Americans, you have 80 different reactors and one cheese; we have 80 different cheeses and one reactor. It is a good lesson to learn. We have 80 different waste repositories in this country, whether we know it or not and whether we like it or not, and we have a whole array of approaches toward dealing with the problem for the foreseeable future. Some of these are wet storage, dry storage. Some are a lot more stable, some are a lot more safe than others. Meanwhile, the American consumer has been paying for this long-term repository program that has stopped dead in its tracks right

now. Two-thirds of the cost has just been paid by ratepayers, whether they know it or not and whether they like it or not and whether they support it or not. Another third of this has been paid by the general fund by taxpayers chipping in their income taxes to run the government. All the money that has been paid in so far I gather has been spent but the money is still coming.

One question I have, and maybe this is addressed in part to the Blue Ribbon Commission but I want to address it to you all, is what can we do to divert that income stream to provide some stability, some predictability and some safety in the meantime for all those utilities that are running and operating these plants now and trying to operate these 70 waste repositories on site that we have got right now? For example, if the money they are forced to extract from customers in the form of an excise tax on the rates they are paying can be diverted back to those utilities on the condition that it be used to take wet storage and turn it into dry storage, something that is inherently unstable and likely to get loose into something that is very stable, an asset that would not be stranded, something that would have lasting value no matter what we are going to do in terms of a long-term repository, wouldn't that be a useful thing to do in the meantime? Does anybody have any suggestions along those lines of what we can do with the current mess we are in?

Mr. GAFFIGAN. I would say there are a couple hurdles. You know, under the Nuclear Waste Policy Act, the money is being collected for a long-term repository, and we talk about maybe using it for a centralized repository. DOE is saying they don't have the authority to use that fund for that so there would have to be some change in law for that.

In the meantime, industry is saying if you are not going to pursue a long-term repository, stop collecting the money. DOE is proceeding to collect the money. In fact——

Mr. BARROW. That would require a law, wouldn't it?

Mr. GAFFIGAN. And they are proceeding on the basis of a Yucca Mountain by 2020. That is how they base their rates. So, you know, Mr. Lyons may have some doubt about the 2020 date but it is still being used by DOE as the best alternative going forward.

Mr. LYONS. If I may add to that?

Mr. BARROW. Go ahead, Dr. Lyons.

Mr. LYONS. The Department of Energy recognizes it has the responsibility for the long-term management of the used fuel. As that fuel is being generated at your Plant Vogtle, for example, whatever the future option is going to be, that still will require handling by the Department of Energy. That is the rationale for continuing to collect the fee, and there has been no rationale, at least demonstrated to date, to change that fee.

Mr. BARROW. Well, here is my concern. I recognize you all's need to set aside a little something in the future for handling the charges you all are going to incur in the future, but you don't have any ideas of when you are going to be handling nothing, and we are handling it right now. My ratepayers are handling it right now and our customers are handling it right now.

My question is—and the questioning has shined a light on a problem when you have a law that tells you what this policy is

going to be, it is going to take 25 years to implement and a lot of annual appropriations bills that have to get through both Houses of Congress in order to implement. I mean, if we are going to have to have a change in law to do anything positive, can we at least open the discussion and put on the table the idea of changes we can all agree on to try and manage the problem on site as long as it takes us to get our act together? Because what took an act of Congress to start us down the course and a plan that required several Congresses to go along with it is going to require another act of Congress to fix. Let us have an interim strategy we can all agree on. Let us try to work together on that. That would be my suggestion.

Thank you. I yield back.

Mr. SHIMKUS. The gentleman yields back his time.

The chair now recognizes the gentleman from Pennsylvania.

And just for the record, they are supposed to call votes at 2:30. We will try to get one or two more rounds of questioning before we go down to vote but we will have to adjourn because there are three votes in a row and not everybody will be through, so we will have to recess.

The gentleman from Pennsylvania is recognized for 5 minutes.

Mr. PITTS. Thank you, Mr. Chairman.

Mr. Gaffigan, the Nuclear Waste Policy Act of 1982 created a federal legal obligation to accept nuclear fuel and dispose it in a geologic facility. Is that correct?

Mr. GAFFIGAN. There was a commitment on the part of the Federal Government to take possession of the waste and explore a long-term repository.

Mr. PITTS. So is it accurate to say in light of this law that Congress resolved how to manage spent nuclear fuel and high-level waste back in 1982?

Mr. GAFFIGAN. It was a decision made by the Congress to pass the Nuclear Waste Policy Act. That is correct.

Mr. PITTS. The development of the act was not the development of a single Congress or some partisan maneuvering, was it?

Mr. GAFFIGAN. No.

Mr. PITTS. In point of fact, in 1982 when the Nuclear Waste Policy Act was enacted, there was a Republican President, a Republican Senate and Democrats firmed controlled the House. In 1987, when Congress determined Yucca Mountain consistently of the top three sites was to be examined for a repository, there was a Republican President and Democrats controlled both the House and Senate. In 2002, leadership of the Congress was reversed but Congress overwhelmingly resolved to support Yucca development 306-117. So when the Nation through its elected representatives resolved how to solve the nuclear waste problem, it did so in a consistently bipartisan fashion, wouldn't you agree?

Mr. GAFFIGAN. Those are policy decisions based by the Congress.

Mr. PITTS. Dr. Lyons, the Department of Energy motion to withdraw the license application said "the Secretary has decided that a geologic repository at Yucca Mountain is not a workable option for long-term disposition." Was the Secretary's decision based on internal department scientific evaluation by the Administration?

Mr. LYONS. As I indicated, the license application was based on the technical criteria and the Secretary in his evaluation recognized the importance of technical criteria and social acceptance criteria.

Mr. PITTS. Was it based on any scientific evidence that Yucca is not workable?

Mr. LYONS. No, it was based on the concern that there are two major criteria, as I indicated.

Mr. PITTS. Isn't there in fact ample scientific evidence that Yucca is workable and safe?

Mr. LYONS. That would remain to be determined if this were to move through the process, sir. In the DOE's estimation when they submitted the license, that was their determination.

Mr. PITTS. Has the department determined that Yucca Mountain's repository is not suitable to meet the relevant safety standards for long-term storage of spent fuel and nuclear waste?

Mr. LYONS. No, there is no data that has been presented along those lines. However, again, the decision has made to withdraw, and whether that—and the legality of that is being tested both through the NRC and the courts.

Mr. PITTS. In fact, DOE still stands behind the quality of its application that the repository can be built and protective of the public health for 10,000 years and more. Isn't that the case? Doesn't DOE in fact admit as much in its application to the NRC?

Mr. LYONS. Those were the technical criteria and others that were deemed met by the Department of Energy.

Mr. PITTS. So technically speaking, Yucca Mountain remains a workable option. Why is it not workable in DOE's view?

Mr. LYONS. I don't know how else to say it, sir, other than the Secretary in his view, which I agree with, views both technical criteria and social acceptance criteria as key to ever moving ahead towards successfully opening a repository.

Mr. PITTS. What scientific evaluations has DOE performed to make this determination?

Mr. LYONS. I believe I just indicated that it was a question of social public acceptance.

Mr. PITTS. So this is the opinion of the Secretary. Did DOE inform this opinion? Was anyone from the White House or the Administration involved in this decision in any way?

Mr. LYONS. That was before I was involved. I simply can't answer that, sir. I know the Secretary certainly has the benefit of general counsel that it was within his rights to withdraw the application, and that is now in the courts and the NRC.

Mr. PITTS. Thank you, Mr. Chairman.

Mr. SHIMKUS. The gentleman yields back his time.

The chair recognizes the chairman emeritus, Mr. Dingell, for 5 minutes.

Mr. DINGELL. Thank you, Mr. Chairman, for your courtesy.

This is to Mr. Gaffigan. We have here a splendid situation where the Federal Government has invested huge sums of money in a thing that we cannot use. We have taxed the daylights out of the ratepayers, and how much is that fund that we have taxed into the ratepayers?

Mr. GAFFIGAN. Currently, the current balance is about $25 billion and about——

Mr. DINGELL. How much have we spent of that on what?

Mr. GAFFIGAN. Almost $10 billion.

Mr. DINGELL. Almost 10. And what——

Mr. GAFFIGAN. Just to clarify, we spent about 10, plus there is another 25 sitting there.

Mr. DINGELL. So we have got a gigantic hole in the ground. Now, tell me, there is a lawsuit going on in this matter, is there not?

Mr. GAFFIGAN. There is, sir.

Mr. DINGELL. And the Federal Government is being sued, but because of the mercy and the charity of the plaintiffs in that lawsuit, it has never progressed to the point where it is going to lead to a judgment. Is that right?

Mr. GAFFIGAN. There was some oral arguments taken in March of this year. The basic gist of those arguments was whether there was a final action of the government, whether the NRC was going to rule, so that was the gist of the oral arguments. We haven't heard anything since.

Mr. DINGELL. I am just a poor Polish lawyer from Detroit, but you have stated that DOE officials stated they have frequent meetings and focus groups to help guide the shutdown. Can you tell me what that means?

Mr. GAFFIGAN. We had a hard time knowing what that means. We asked——

Mr. DINGELL. Does DOE know what that means?

Mr. GAFFIGAN. Well, I think they know what it means but we asked them, could they at least document what they have in terms of a shutdown.

Mr. DINGELL. Did they explain it to you?

Mr. GAFFIGAN. They said they had a draft plan, they were working on it, and this is something the IG looked at.

Mr. DINGELL. Has that draft plan been submitted to anybody, Mr. Chairman?

Mr. SHIMKUS. Not that I know of.

Mr. LYONS. No, sir, the draft plan was not completed, and instead the department moved ahead as expeditiously as possible to shut down by the end of fiscal 2010.

Mr. DINGELL. Could we get the draft plan? I think it would be nice if you would share it with us. Would you submit it, please?

Mr. LYONS. I honestly don't know if it is completed, sir. If it is available, yes.

Mr. DINGELL. I don't care whether it is completed. Submit the darn thing to the committee and we will tell you what we think of it.

Now, in your testimony, Secretary Lyons, you said that DOE takes exception to a statement in the GAO report that a final impact of terminating Yucca Mountain is that communities may be even less willing to host spent nuclear fuel repositories or other storage sites in the future due to further erosion of DOE's credibility. You go on to say that on the contrary, a new start could lead to enhancement of the credibility of the department's approach. I don't mean to make light of a difficult situation but to your knowl-

edge have communities around the country been volunteering to host a nuclear waste repository?

Mr. LYONS. Yes, sir, there have been communities that have corresponded with the department.

Mr. DINGELL. Who has volunteered to do this?

Mr. LYONS. One I am aware of is in New Mexico around the Carlsbad area. There may be others. I don't know.

Mr. DINGELL. Is that for high-energy waste or——

Mr. LYONS. Again, this is local communities supporting, yes, sir.

Mr. DINGELL. Now, Mr. Friedman, how much is closing out the Yucca Mountain project costing the Federal Government?

Mr. FRIEDMAN. You know, Mr. Dingell, I am not sure of the answer to that question.

Mr. DINGELL. Would you please get it and submit it for the record?

Mr. FRIEDMAN. If I can, I certainly will.

Mr. DINGELL. It isn't going for peanuts, is it? It is costing lots of money, isn't it?

Mr. FRIEDMAN. No, no. They have spent a great deal of money on the licensing support network and finalizing some of the technical studies that have been done.

Mr. DINGELL. Now, how much is it estimated that the closeout of Yucca will impact the Department of Energy's environmental remediation liability? Do you have any estimate on that?

Mr. GAFFIGAN. We do. We expect that it will be——

Mr. DINGELL. Would you submit that and the answer to that for the record?

Mr. GAFFIGAN. I certainly will.

Mr. DINGELL. Now, how much has the United States invested in the Yucca Mountain project? How much of that was from the nuclear waste fund, i.e., the ratepayers, and how much from the Federal Government, i.e., the taxpayers?

Mr. FRIEDMAN. It was about two-thirds, one-third, two-thirds from the rate fund, about $10 billion——

Mr. DINGELL. What does that come down to, Mr. Gaffigan?

Mr. GAFFIGAN. Where does that what?

Mr. DINGELL. How much does that come down to coming out of the skin of the ratepayers and taxpayers?

Mr. GAFFIGAN. Ten billion from the ratepayers and about $5 billion from the taxpayers, and that doesn't include any of the judgment fund.

Mr. DINGELL. Now, you know, fellows, I know my questions seem repetitive and everybody who comes up here from the department gets the same because we have all heard about how much spent nuclear fuel is stored at various sites around the country and we just destroy the damn stuff. We don't reprocess it the way the French do but we dig holes that cost lots of money. And then we sit around and you guys come up and explain to us and a little while later somebody else runs the committee and then you come up and explain to us again, or your successors do. And so we have got a facility here that everybody wants to do something with. We have got a resource that we are not using. We are threatening nuclear, which is extremely important to this country in an energy shortage and all the other problems that we have, and it seems

that we have no long-term plans for dealing with spent nuclear waste and the best we can say is that you seem to be proceeding down a very dangerous path with more and more and more of this stuff piled up. And Members of the Congress need to know what is going on. We need to protect the funds collected and we need to have a long-term solution, either storage that will work or reprocessing, and when are you going to get to this? This question was going on when I was chairman of the committee, and as a matter of fact, it was going on when I was a young member of this body. When is it that I can look forward to being young enough that I am going to get an answer on these questions?

Mr. LYONS. I think the best answer, sir, is that that is the charge of the Blue Ribbon Commission. They will have their interim report in July of this year. I am looking forward to that report, and I too have been working many years to understand what the long-term solutions acceptable in this country will be.

Mr. DINGELL. Thank you, Mr. Chairman.

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

Just for notice to my colleagues, first a question. We have votes on the floor. We are going to finish with the Chairman Emeritus Barton for 5 minutes and then we will recess. The question to my colleagues is, what is your pleasure to ask the first panel to come back, because some of you have been waiting to address questions to them, or do we go to second panel? You want the first panel?

Mr. BARTON. I think you should let this panel come back because some of the members——

Mr. SHIMKUS. That is my question, and that is what I am posing to my colleagues, and I think that we will ask you to come back after votes to finish.

The chair recognizes Chairman Emeritus Barton for 5 minutes.

Mr. BARTON. Thank you, and I know that we have to vote so I am going to go through this pretty quick.

We had the Nuclear Waste Policy Act in 1982 as amended in 1987. That is 29 and 24 years ago. Under that law, the Nuclear Regulatory Commission and the Department of Energy are authorized to find a permanent repository for the high-level nuclear waste both from civilian and military applications in this country. Through a convoluted process, Yucca Mountain was chosen as the repository. It has been through innumerable hearings, studies, but back in 2008 a license application was tendered to the Nuclear Regulatory Commission by the Department of Energy. I think the law gives them 4 years to make a decision. With the change in the Administration, the Obama Administration last year asked to withdraw that application. The board empowered to make the decision whether the application should be withdrawn in a very unusual decision chose not to allow it to be withdrawn and now we have got a very convoluted process at NRC where we are trying to determine whether there is a vote or isn't a vote, and we are in discussions on a bipartisan basis with the Chairman of the Nuclear Regulatory Commission about that issue.

The purpose of this hearing is to determine what the legal criteria are for the Department of Energy to terminate Yucca Mountain, and the distinguished Deputy Secretary or Under Secretary

has said, if I heard him correctly, that that decision was based on social public acceptance. Is that correct, Dr. Lyons?

Mr. LYONS. As Secretary Chu has testified many times, yes, he views both technical criteria and public acceptance——

Mr. BARTON. Where in the NWPA does it say that social public acceptance is a criteria?

Mr. LYONS. I didn't say it was in the Nuclear Waste Policy Act. I said that it——

Mr. BARTON. Then why is that a variable in the decision-making process?

Mr. LYONS. Again, sir, our Secretary has the benefit of legal counsel, and this is in the courts and in the NRC——

Mr. BARTON. If the Secretary of Energy decided that the Yucca Mountain wasn't acceptable because it was in the desert, would that be a criteria? If he just decided he didn't like the color purple, would that be a criteria?

Mr. LYONS. I think you know our Secretary, sir, and he would have substantially stronger criteria.

Mr. BARTON. I don't think social public acceptance is a criteria under the law.

Mr. LYONS. As I noted in my testimony, there are many, many actions that are still required if Yucca Mountain were ever to open. Many of those decisions require permits and concurrences from the State of Nevada.

Mr. BARTON. But my understanding is that everybody at your level and above has to hold up your hand and take an oath of office or an oath to uphold the Constitution and defend the laws of the United States and all of this. We have a current public law that has not been amended that gives the Department of Energy the authority to tender an application. That application has been tendered. The Secretary decided to withdraw it but the board responsible for accepting that withdrawal said no. So I would assume the Secretary of Energy is knowingly and willfully violating federal law.

Mr. LYONS. Well, as you are aware, sir, the day after the ASLB made that decision, then the commission decided that they wished to take review. That is their prerogative as the commission.

Mr. BARTON. And we are in a, it is not a negotiation but we are certainly in a situation where we are trying to determine with the chairman and the current members of the NRC just what they have decided or not decided to do, and that is a convoluted mess if I have ever seen one.

Mr. LYONS. I certainly can't comment on what is going on at the NRC, but between the NRC and the courts, because this is also in the courts, the legality of that withdrawal is going to be determined eventually.

Mr. BARTON. Well, I have got 51 seconds. If this Congress affirmatively states that the application should continue to be reviewed and that Yucca Mountain should continue to be considered according to current law, is the Secretary of Energy and the President of the United States going to honor that law?

Mr. LYONS. If we are ordered by one of those mechanisms that is not appealed to resume the license, we have indicated repeatedly in testimony that yes, we can and will. However, at part of our

thinking, Congress has not provided any appropriations in fiscal year 2011.

Mr. BARTON. I have a feeling we will, before the end of this year, do so.

With that, I yield back, Mr. Chairman.

Mr. SHIMKUS. And just to correct the record, that is not true. We stopped funding for the last half of fiscal year 2011 in the C.R. The first part of the fiscal year was under a continuing resolution that still had it, and that is another issue of debate.

The chair recognizes Mr. Inslee for as much time as he can consume before we have votes.

Mr. INSLEE. Thank you.

This is very disturbing on a couple of bases. One is, in my State, the State of Washington, we have people very diligently trying to follow their obligations legally and in their profession getting this waste ready to ship to Yucca. They are going to be ready to ship 9,700 canisters to Yucca. They are doing their job, but the department is not doing its job, and that is on a local concern.

But on a national concern, I just think this situation is one of a failed state. They talk about failed states around the world. Because of the failure to follow the clear law here, this is the equivalency of a failed state. We reached a national decision. It is unpopular in one local part, a beautiful part of the country, as it will be in any part of the country that we ever have this decision made, and yet we can't execute a decision.

Now, this sort of flagrant statement that social acceptance is now a legal criteria, I don't understand. I will just ask Dr. Lyons, how are we ever to build anything like a nuclear waste repository anywhere in the United States if social acceptance is a mandatory criteria to build something?

Mr. LYONS. I used the example in my testimony of the Waste Isolation Pilot Plant in New Mexico, which has the strongest local acceptance, and I noted that there are a number of international examples where with careful education with transparent processes, there has been strong acceptance of repository programs.

Mr. INSLEE. So why didn't you do the same thing in Nevada?

Mr. LYONS. I also indicated in my testimony——

Mr. INSLEE. Are you saying there is something unique about Nevadans that make them unique in the United States and this will be welcome as rosewater in the rest of the United States?

Mr. LYONS. Sir——

Mr. INSLEE. It is going to smell the same no matter what name we put on it, and this is just a failed policy looking for another social acceptance criteria failure around the United States. What evidence do you have that there is any more socially acceptable place for this particular situation?

Mr. LYONS. I provided the example of the Waste Isolation Pilot Plant. That is a different repository, different type of repository, but it is a repository and it has strong local acceptance.

Mr. INSLEE. And obviously in the decision-making of the department based on the best science and geology and hydrology, we decided Nevada was the best place, but now you are telling me we are going to maybe look for a less scientifically credible, less geologically stable, less hydrologically isolated place because we might

get a little better social acceptance. That is a failed policy by a failed state, and I have to tell you, regardless who the Administration is, an abject failure to follow federal law here is most disturbing and it is unacceptable, and I don't really want to belabor you with too many more questions. I just want to tell you it is unacceptable by any Administration of any party. To make its decision when we are dealing with this number of curies of radiation based on social acceptance is just not a winner for this country. Thank you.

Mr. SHIMKUS. The gentleman yields back his time.

The votes are being called right now. There are three votes. That is probably going to run around 30 minutes. We will see who comes back, who hasn't asked questions of the first panel, and if not, be prepared to answer questions but having done this before, it may be it for you all but you need to be here in case someone wants to ask you all a specific question.

I will recess this hearing subject to the call of the chair.

[Recess.]

Mr. GARDNER [presiding]. We will go ahead and resume the hearing. I recognize myself for 5 minutes for my opportunity to question.

Thank you very much for being here today and your time to share with us. Just a couple of quick questions for you based on some previous testimony by Dr. Lyons. I heard a great deal of discussion regarding social acceptance, the social acceptance theory as it pertains to the Yucca Mountain license. Mr. Gaffigan, can you cite any statutory authority for social acceptance criteria?

Mr. GAFFIGAN. Not in the Nuclear Waste Policy Act.

Mr. GARDNER. Mr. Friedman, can you cite social acceptance criteria in the statute?

Mr. FRIEDMAN. Not that I am aware of.

Mr. GARDNER. Dr. Lyons, can you cite statutory authority for social acceptance?

Mr. LYONS. I am not citing statutory authority, sir, but what I have tried to indicate is the number of steps that would be required to ever open Yucca Mountain, steps that Nevada stands, I believe, in opposition to, and I believe they could very successfully block that.

Mr. GARDNER. So you would agree that there is no statutory authority or basis for social acceptance theories as criteria?

Mr. LYONS. Not specifically in the Nuclear Waste Policy Act.

Mr. GARDNER. So the answer is no, then, there is no statutory authority for social acceptance?

Mr. LYONS. No.

Mr. GARDNER. Thank you. And what is the theory of your legal counsel when he believes that social acceptance is a valid criteria?

Mr. LYONS. Our Secretary has outlined that many times. The briefs that are our general counsel has filed either with the NRC or in the court cases, those are available; your staff has them. That spells out the position of the general counsel. I certainly won't try to repeat it. I am not a lawyer.

Mr. GARDNER. Thank you, Dr. Lyons.

Mr. Friedman, your role as Inspector General, what is that role in a nutshell?

Mr. FRIEDMAN. Well, I have four responsibilities, Mr. Gardner. One is to act as an independent set of eyes and ears for the Secretary and for the Congress. Two is to bring to justice those who are attempting to defraud the people of the United States. Three is to be independent fact finders in high-profile controversial matters, and four is to give the U.S. taxpayers a seat at the table when important government decisions are made.

Mr. GARDNER. Thank you, Mr. Friedman. Mr. Friedman, do you believe that the social acceptance criteria is a valid theory?

Mr. FRIEDMAN. Mr. Gardner, I don't exactly know how to answer that question, to be honest with you. You asked me whether I thought it was in statute, and I don't believe that it is per se, so I would have to say it is somewhat questionable from a legal standpoint, but I am not a lawyer and I am not making legal judgment.

Mr. GARDNER. Mr. Friedman, in the four roles that you mentioned the Inspector General has under its purview, do you believe one of them is to expect or to perhaps visit with the Secretary's office about the social acceptance criteria that they are using if you believe there is no statutory authority?

Mr. FRIEDMAN. Well, we also have a responsibility under the IG statute, Mr. Gardner, not to overlap and duplicate what GAO has done. So I think it is fair to say that GAO's report, which has obviously been a major topic of this hearing, has really addressed that issue essentially.

Mr. GARDNER. Thank you. And a further question, Mr. Friedman. You stated that it is likely that the termination of the Yucca Mountain project will significantly impact the department's environmental remediation liability, which is currently estimated at $250 billion in future cleanup costs. Have you seen any evaluation by the department regarding how its decisions will affect this liability?

Mr. FRIEDMAN. No. What we are anticipating, I indicate in my long testimony, my complete testimony, that we will be looking at this as the department prepares its financial statements for the current fiscal year, and they will be responsible for coming up with a revised estimate, which will reflect their judgment as to the impact of the closure of Yucca Mountain on the liability, and we will be reviewing that carefully at that time.

Mr. GARDNER. The Department of Energy's recent actions to dismantle its nuclear stockpile will increase the volume of defense nuclear waste. How has the department planned to accommodate this waste as it shuts down Yucca Mountain?

Mr. FRIEDMAN. Well, Yucca Mountain, approximately 10 percent of Yucca Mountain was designated, as I recall, for high-level defense spent nuclear waste. My understanding is that the current inventory of waste in that category exceeds even the 10 percent of Yucca Mountain that was reserved for that purpose originally. There are lots of proposals right now to compact the waste, to mix it with—to down blend it, if you will. But the fact of the matter is, it will have an impact as the level of the waste grows.

Mr. GARDNER. Did the Department of Energy consider whether its role in START would be compromised by its decisions on Yucca Mountain?

Mr. FRIEDMAN. Well, that obviously is a very fundamental issue, Mr. Gardner, and to be honest with you, it is outside of my area, my purview. I don't know the answer to the question.

Mr. GARDNER. Dr. Lyons, do you know if DOE did any analysis under START implications?

Mr. LYONS. I have not seen such analysis. However, the department recognizes its responsibilities for defense high-level waste. That has never been in question.

Mr. GARDNER. Thank you. My time is expired.

The chair recognizes Mr. Cassidy for 5 minutes.

Dr. CASSIDY. On June 29 an administrative court judge—the Department of Energy did not have the authority to close Yucca Mountain.

Mr. LYONS. June 29, 2010.

Dr. CASSIDY. Yes. But you did anyway. I mean, does the rule of law have no say-so? Does the attorney you sought an opinion from trump the administrative procedures that have been set up to hear your concerns?

Mr. LYONS. The Atomic Safety Licensing Board decisions are reviewed by the commission. The commission can take review of any ASLB decision and the commission—and I was no longer on the commission at that time—would like to take review of that decision. That moves the responsibility from——

Dr. CASSIDY. Excuse me. I have limited time. So the commission has not yet issued its report and frankly, there are some allegations of politicization of the process. But was there a stay upon the ruling of the preliminary administrative court, the June 29, 2010, board, was there a stay upon that? The ruling has not been released by NRC but clearly you are disregarding it.

Mr. LYONS. Not being a lawyer, I don't want to get into a question of what a stay is in this case. I am positive that my statement is accurate that the commission has taken the review and the action is with the commission and the——

Dr. CASSIDY. But you preempted the action of the commission, if you will, because they have not yet issued a ruling but you have shut down Yucca Mountain, even though you were told you didn't have legal standing to do so, and if you are not an attorney, I would ask next time you bring an attorney because it is really fundamentally the question that is before the taxpayers. We just blew $10 billion. It frankly doesn't look like you had legal standing, and I am getting a little bit of a legal rope a dope by you saying that you are not an attorney, and I don't mean to be rude, but imagine the frustration.

Now, let me ask you next. Mr. Friedman's complete testimony in the written portion speaks of a process whereby after you disregarded this Atomic Safety Licensing Board's ruling and decided on 10/1/2010 to shut it down, you declared an abandonment of, what was it, 22 metric tons, Mr. Friedman?

Mr. FRIEDMAN. You may be referring to the GAO report, Mr. Cassidy.

Dr. CASSIDY. Oh, I thought it was your report where this was declared abandoned.

Mr. GAFFIGAN. It was some property that was declared abandoned.

Dr. CASSIDY. Tons. Now, granted it was steel and——

Mr. GAFFIGAN. Computers, office equipment, that sort of thing.

Dr. CASSIDY. Yes, trailers, I mean, stuff of both value by bulk and by value. Why did you just declare it abandoned? I mean, frankly it looks like you were trying to make it so it would be expensive to restart, again, after deciding to disregard the Atomic Safety Licensing Board's ruling. Why did DOE just declare it abandoned?

Mr. LYONS. Again, sir, those decisions were carefully reviewed by our general counsel. Abandonment is one of the mechanisms by which property can be disposed. The department was certainly working on an expedited schedule to complete the shutdown within fiscal year 2010.

Dr. CASSIDY. So——

Mr. LYONS. Or I should say that there is a complete inventory underway now and there will eventually, as we go into the closeout process, there will be a reconciliation.

Dr. CASSIDY. One of the two—again, for whatever reason, I came back and not entirely organized but one of the men had testimony that said that it was a rather hasty shutdown and that the complete sort of gathering of information that would have been beneficial was not done, that I gather intellectual property was lost. Am I speaking for one of the two of you?

Mr. GAFFIGAN. I would sort of summarize, I think both the IG and GAO had concerns about the lack of a plan to shut down. They basically started shutting down in June of 2010—I am sorry, February of 2010 and had basically completed shutdown by September of 2010. During that time, there was a draft plan that never got finalized. They were trying to get things done quickly, and we raised concerns about that.

Dr. CASSIDY. So it really looks like there was an attempt to abandon the process in a way which it could not be restarted.

Mr. LYONS. Absolutely not, sir. As part of the quality assurance program, as each decision has been made along the way, the technical justification for that must be recorded in writing——

Dr. CASSIDY. So who made that decision to abandon tons of material including things that could have been sold for scrap or given to other federal agencies, instead, to turn it over to a contractor? Who made that decision?

Mr. LYONS. It was an evaluation on the prospective value of the property in that decision. However, I believe both of the reports in question here note that the majority of this equipment in question was transferred to other DOE sites, particularly Hanford.

Dr. CASSIDY. Well, I thought I saw where it was abandoned.

Mr. GAFFIGAN. It is declared abandoned, but then under that process they can transfer it to other sites, so Dr. Lyons is right. Most of it got transferred internally. It was considered unusual but DOE had the authority to do that.

Our concern was, and we put this out in our recommendations, that, number one, in some cases they didn't have a good inventory. They would say they are working on and we would say great and they should have a full accounting for the inventory and what was sold. We still think that remains to be done. And then lastly, we

think they should consider a plan to restart if they are compelled to do so. Those were our two recommendations.

Dr. CASSIDY. I yield back. Thank you.

Mr. GARDNER. The gentleman from North Carolina, Mr. Butterfield, is recognized for 5 minutes.

Mr. BUTTERFIELD. Thank you very much, Mr. Chairman, and I thank the three witnesses for their testimony today. I am sorry I could not hear their testimony in their entirety but I will certainly work with my staff and look at your transcript as we go forward.

But Mr. Chairman, by any assessment, this is a very, very complicated issue, but it is clear to me that the Department of Energy's decision to withdraw its application for Yucca Mountain is really the cherry on top of a greatly mismanaged federal exercise. I generally believe that the Department of Energy should follow the process laid out by the act and maintain focus on the technical and scientific elements of Yucca Mountain rather than the political considerations, but I am a realist and I understand that all politics are local, and that if any of our respective constituents came to us and said this is our number one issue, we would certainly fight tool and nail to stop it even if the focus should be technical in nature.

Notwithstanding, ratepayers in my home State of North Carolina have contributed $900 million of their hard-earned money to help finance the construction of a permanent repository for our nuclear waste. I believe in nuclear power. I have said it time and time again. It makes up over 30 percent of my State's generating capacity. I am embarrassed to tell my constituents that their contributions have amounted to very little as we appear to be in no better position for solving this problem as we were when we started splitting atoms. We have a responsibility to see this process through and to make it a high priority.

So let us talk about some of the options set out by the GAO. Mr. Gaffigan, you stated that an independent organization with predictable funding might be a way to overcome some of the administrative issues we have had with Yucca. Would such an independent organization have to be created by statute or does the Administration have the authority to create it?

Mr. GAFFIGAN. Currently, no separate authority exists so I think it would have to be created.

Mr. BUTTERFIELD. Obviously, you might eliminate some of the political capriciousness by granting this agency predictable mandatory funding but eventually the decision to site a repository will be inherently political, and we all understand that. That said, outside of funding, how could this independent agency be able to overcome the political hurdles with any greater efficiency than the Department of Energy?

Mr. GAFFIGAN. We had two lessons learned, and that is part of it. That is sort of the first lesson that perhaps some consistent leadership policy on where we are going would be a mechanism to get there, overcoming the many factors including public acceptance, which is recognized by many as a hurdle that should be addressed, just as well as the technical and safety issues. The key to those sorts of things is transparency, education, economic incentives. Those are some of the tools that have been used in other countries to gain acceptance for such a site.

Mr. BUTTERFIELD. You talked about greater transparency in the process. Where do you see historical transparency gaps and how might they be closed?

Mr. GAFFIGAN. It goes back to the 1960s when they looked at a facility in Kansas. There was, you know, a feeling on the part of the folks that were out there that there wasn't full disclosure of what the information was. Even in the process of Yucca Mountain, there has been some complaints about not full disclosure of the different issues out there, and I think DOE to its credit has worked on that and tried to establish some credibility but it still has a ways to go, particularly in the eyes of the folks from Nevada.

Mr. BUTTERFIELD. The American people may not take notice of this issue based upon the spent fuel issue alone but I guarantee you that they will notice when the cost of not completing the project becomes known.

Mr. Friedman, to you, sir, in your testimony, I am told by my staff that you stated that the U.S. spent nuclear fuel litigation liability is approximately $15 billion. If the Yucca project is completely scuttled and no clear path is established, when will the government have to make these payments and to whom?

Mr. FRIEDMAN. I don't know the answer to your question, Mr. Butterfield. I can't give you a precise date. But there will be payments that will have to be made, there is no doubt, and our view is that it is likely that there will be a significant increase in the gross amount of the payments.

Mr. BUTTERFIELD. And will my constituents and the chairman's constituents and all of our constituents ever see any refund of the money that they have contributed to this date?

Mr. FRIEDMAN. Well, that is not for me to say. I mean, if this project actually comes to a close, if there is a legislative fix or amendment or series of amendments or new legislation, then it wouldn't surprise me that there would be some attempt to try to reimburse those who have made those contributions only to see them go for naught.

Mr. BUTTERFIELD. Thank you. My time is expired. Thank you.

Mr. GARDNER. The chair recognizes Mr. Bass from New Hampshire for 5 minutes.

Mr. BASS. Thank you very much, Mr. Chairman.

The answer to Mr. Butterfield's question is that the only way you are going to get their money back is to open this project.

Lots of questions have been asked today, and Dr. Lyons, I have to say I almost feel sorry for you. You know what is going on here. Everybody in the audience knows what is going on here. The Democrats, Mr. Inslee, Mr. Green, all the Republicans know what is going on here, and it is unfortunate that we even have to have this hearing. The process of debating what to do with high-level and low-level nuclear waste began when I was a State rep in New Hampshire in the early 1980s and I believe there was a site in New Hampshire that was under consideration in some of the earlier rounds. We have gone through an excruciatingly detailed and complete analysis. We passed legislation. There have been battles that have occurred, as we have heard, through different Administrations, different parties have been in charge, it has been bipartisan,

and we have come to as good a conclusion as we could possibly come to to solve this issue, which is of grave national importance.

And then the Energy Secretary and the President and perhaps others that have a political interest in this issue stopped the project, potentially incurred expensive legislation, waste $10 billion and possibly $25 billion of taxpayers' money on the basis of undefined technical criteria and social acceptance, which is an interesting comment, deferring everything to a Blue Ribbon Commission that can't consider any sites. In essence, what we are proposing here is that the clock be wound back to the early 1980s again and we begin this process over again.

Now, Dr. Lyons, you are the Under Secretary for Nuclear Energy so you are pretty high up in this organization but you can't make any comments. Can you define social acceptance, what it is? And again, I feel sorry for you because I know you can't answer these questions because there are no answers to the questions because there aren't any really valid criteria for doing what you are doing, but give it a try.

Mr. LYONS. I am the Assistant Secretary, sir, not the Under Secretary.

I grew up in Nevada. I visited Nevada. I worked in Nevada. I saw the opposition in Nevada growing. I saw it as it was created. I have watched over many, many years while Nevada has progressively blocked each of the various initiatives that was attempted with regard to Yucca. In my view, there are many, many steps that remain before Yucca Mountain could ever be opened. The views in Nevada for which I am using the buzzword of public acceptance or social acceptance, that opposition that has been spawned in Nevada I believe will continue to block progress towards opening Yucca Mountain.

Mr. BASS. Not one single member of this subcommittee that I have seen has come out and shared your view, neither Republican or Democratic, and I understand that there are no members from Nevada here. Is there any place in the United States where you could build this without local opposition, in your opinion?

Mr. LYONS. Well, I have used the example several times today about the Waste Isolation Pilot Plant in New Mexico that enjoys very, very strong local and regional support, and the way that process developed as well as the way repositories have been sited in other countries, which is what the BRC is evaluating, I think provides extremely important lessons as to how to do this job right and get the public education, general the public acceptance which I am convinced can be achieved.

Mr. BASS. I beg to differ with you. I think that it has been pretty clear that the GAO, the Inspector General, we will hear a later panel that this project was ready to go. The taxpayers have funded it. The taxpayers are going to be on the hook for billions and billions of dollars more if we don't proceed, and the justification for its hopefully suspension, not termination, as of yet undefined technical criteria, social acceptance criteria, and what is not mentioned is political criteria.

With that, Mr. Chairman, I will yield back.

Mr. GARDNER. The gentleman yields back.

That concludes the testimony of our first panel, and thank you very much for your time and commitment to be here today and for bearing with us through the votes. Thank you.

We will stand in recess subject to the call of the chair. We have got a 4:00 markup beginning, and we will give you as much information when we will reconvene.

[Recess.]

Mr. SHIMKUS. Welcome to the second panel. There was clapping as I was coming down the hallway and I thought, oh, man, people must love me. No, they just wanted to get the hearing back going on. So we will start. I will call the hearing to order, and we want to welcome our second panel, and we apologize but actually I am very excited to have the second panel here. In order, again, I will go from left to right, your right to left, we have on panel two Mr. Charles Hollis, Chairman of Nye County Board of County Commissioners, Nye County, Nevada. Good to see you again, sir. Mr. Martin Malsch, Partner, Egan, Fitzpatrick, Malsch and Lawrence, on behalf of the State of Nevada, welcome, sir. Mr. Greg White, Commissioner, Michigan Public Services Commission, and Mr. Christopher Kouts, former acting director of DOE's Office for Civilian Radioactive Waste Management.

Again, your full statement will be submitted for the record. You have 5 minutes, and we will start with you, Mr. Hollis. Welcome.

STATEMENTS OF CHARLES GARY HOLLIS, CHAIRMAN, NYE COUNTY BOARD OF COUNTY COMMISSIONERS, NYE COUNTY, NEVADA; MARTIN G. MALSCH, PARTNER, EGAN, FITZPATRICK, MALSCH AND LAWRENCE, ON BEHALF OF THE STATE OF NEVADA; GREG R. WHITE, COMMISSIONER, MICHIGAN PUBLIC SERVICE COMMISSION; AND CHRISTOPHER A. KOUTS, FORMER ACTING DIRECTOR OF DOE'S OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

STATEMENT OF CHARLES GARY HOLLIS

Mr. HOLLIS. Thank you, Mr. Chairman and members of the committee. Thank you again for the opportunity to testify about local support in Nevada for Yucca Mountain. I am Gary Hollis and I am the Chairman of the Nye County Board of Commissioners, the State of Nevada.

As you know, Mr. Chairman, Yucca Mountain is located entirely within Nye County. While this testimony is mine, I want you to know that it reflects the views of the other four county commissioners as well, and as well as views of many political and local leaders in rural Nevada.

Mr. Chairman, we deeply appreciate that you and Congressmen Green and Burgess took the time to visit Yucca Mountain and to meet local people in Nevada. As you learned, there many of us who live next to Yucca Mountain who support the completion of the licensing process. Most of us who live in the vicinity believe that the decision on Yucca Mountain should be made based on sound science, and this can only happen by full review by the Nuclear Regulatory Commission. If the NRC determines that the repository is safe, I favor its construction.

As I am sure you can understand, no one is more concerned about the safety and welfare of the citizens of Nye County than me and the other four commissioners. It is my community. My family, my friends live and work here. I would never accept a federal facility to be located in my county if I thought it was unsafe, no matter what the economic benefits were attached to it. Frankly, I resent suggestions that any of the five Nye County commissioners would jeopardize the heath and safety of our citizens for any sum of money. That would not happen on my watch.

When Congress passed the 1987 amendment to the Nuclear Waste Policy Act, it provided money for local communities impacted by Yucca Mountain to fund oversight activities. Nye County used that money to create an independent science program. We had unbiased scientists to conduct the work. After years of effort, they found no reason to believe that the repository could not be built and operated safely. We have provided that information to the Department of Energy and the public. Our work was top quality and the results were available to everyone.

But to get the full picture, we need to see all the evidence from every source. That includes information from Nye County, DOE, NRC staff and the State of Nevada. We want every piece of evidence to be reviewed so a final determination of the safety of Yucca Mountain can be made. That determination can only happen if the licensing process is complete.

Mr. Chairman, if the NRC determines that the repository cannot be built and operated safely, I would be the first person to object to its construction. I only ask that all of the facts and the science are reviewed by the NRC and that the legal process established by the Nuclear Waste Policy Act is carried out. Let the facts dictate the result, not politics.

My views are shared by leaders of other rural Nevada counties. Upon being elected last year, Nye County Commissioner Dan Chinhofen initiated a resolution of support for the licensing application and worked with Esmeralda, Mineral, Lander, Churchill and Lincoln counties to do the same. Thus, these six rural counties that would see the most impacts from Yucca Mountain called on the DOE and the NRC to complete the licensing process. We are willing to live by the results of a fair, scientific review process. I ask permission to put all six resolutions in the record, Mr. Chairman.

Mr. SHIMKUS. Is there objection? Hearing none, so ordered.

[The information appears at the conclusion of the hearing.]

Mr. HOLLIS. Beyond the political leaders of those other counties, a majority of the residents of the county support the license application.

Mr. Chairman, let me point out that all five current Nye county commissioners expressed their support for Yucca Mountain and all were elected or reelected by our citizens. Therefore, it is not accurate to say there is no local support for Yucca Mountain. The people that live in the neighborhood do support completion of the licensing process.

Thank you. I am available to answer any questions you may have. I am here with two of the county's technical professionals, and they are available to answer questions as well. Thank you, Mr. Chairman.

[The prepared statement of Mr. Hollis follows:]

Testimony of Gary Hollis, Chairman
Nye County Board of County Commissioners,
Nye County, Nevada

House Energy and Commerce Committee
Subcommittee on Environment and the Economy
"The Department of Energy's Role in Managing Civilian Radioactive Waste"

June 1, 2011

Mr. Chairman, Members of the Committee,

Thank you for the opportunity to testify today to discuss the level of local support in Nevada for Yucca Mountain. I am Gary Hollis and I am Chairman of the Nye County Nevada Board of County Commissioners.

As you know, Mr. Chairman, Yucca Mountain is located entirely within Nye County. While this testimony is mine, I want you to know that it reflects the views of the other four Nye County Commissioners, as well as the views of many political and local leaders in rural Nevada.

Mr. Chairman, we deeply appreciate that you and Congressmen Green and Burgess took the time to visit Yucca Mountain and to meet interested people in Nevada. As you learned, there are many of us who live next to Yucca Mountain who support the completion of the licensing process. Most of us who live in the vicinity believe that the decision on Yucca Mountain should be made based on sound science and this can only happen after a full review by the Nuclear Regulatory Commission. If the NRC determines that the repository is safe, we favor its construction.

As I am sure you can understand, no one is more concerned about the safety and welfare of the citizens of Nye County than me and the other four Commissioners. It is my community. My family and friends live and work here. I would never accept a federal facility to be located in my county if I thought it was unsafe, no matter what economic benefits were attached to it. Frankly, I resent suggestions that any of the five Nye County Commissioners would jeopardize the heath and safety of our citizens for any sum of money. That would not happen on my watch.

When Congress passed the 1987 Amendment to the Nuclear Waste Policy Act, it provided money for local communities impacted by Yucca Mountain to fund oversight activities. Nye County used that money to create an extensive independent science program. We used unbiased scientists to conduct the work. After years of effort they found no reason to believe that the repository could not be built and operated safely. We have provided that information to the Department of Energy and the public. Our work was top quality and the results were available to everyone.

I am not saying that Nye County's program answered every question about the safety of Yucca Mountain. The studies done by the Department of Energy were more extensive. What I am saying is that with the information we have, we believe the Yucca Mountain repository can be built and operated safely.

But to get the full picture, we need to see all the evidence from every source. That includes information and analysis by DOE, by the staff of the NRC, and by the State of Nevada. We want every piece of evidence to be reviewed so a final determination of the safety of Yucca

Mountain can be made. That determination can only happen if the licensing process is completed.

Mr. Chairman, if the NRC determines the repository cannot be built and operated safely, I would be the first person to object to its construction. I only ask that all of the facts and science are reviewed by the NRC and that the legal process established by the NWPA is carried out. Let the facts dictate the result, not politics.

My views are shared by the leaders of other rural Nevada counties. Nye County recently passed a resolution of support for the license application -- so have Esmeralda, Mineral, Lander, Churchill and Lincoln Counties. Thus, these six rural counties that would see the most impacts from Yucca Mountain call on the DOE and NRC to complete the licensing process. We are all willing to live by the results of a fair, scientific review process. I ask permission to put all six resolutions in the record.

Beyond the political leaders of those other counties, a majority of the residents of Nye County support the license application. Let me point out that all five current Nye County Commissioners expressed their support for Yucca Mountain and all were elected or re-elected by our citizens. Therefore, it is not accurate to say that there is no local support for Yucca Mountain. The people that live in the neighborhood do support completion of the licensing process.

In conclusion, Mr. Chairman, as Chairman of the Nye County Board of County Commissioners I can assure you that the people of Nye County know and understand who makes the laws for this nation. I believe that the Secretary of Energy and the NRC Chairman are obstructing the will of Congress. We want to see that the Nuclear Waste Policy Act is followed. We want to see the science reviewed. And, we want to see that the Secretary of Energy and the NRC Chairman follow the law.

Thank you. I am available to answer any questions you may have. I am accompanied by two of the County's technical professionals. They are available to answer questions as well.

Mr. SHIMKUS. Thank you, Mr. Hollis.

And now I would like to recognize Mr. Malsch. Sir, you are recognized for 5 minutes, and your full statement is in the record.

STATEMENT OF MARTIN G. MALSCH

Mr. MALSCH. Thank you, Mr. Chairman and members of the subcommittee. I appreciate the opportunity to provide testimony on behalf of the State of Nevada at this hearing today. My name is Martin Malsch. I have practiced law in the nuclear energy field and nuclear waste field for over 40 years in both the public and private sectors, and I am Special Deputy Attorney General for the State of Nevada.

The failure of the Yucca Mountain repository program is a direct result of decisions taken beginning almost 25 years ago. A decent respect for history would have suggested that those decisions created a very high risk of program failure but the lessons of history were disregarded.

The original 1982 Nuclear Waste Policy Act foresaw many of the problems that now afflict the Yucca Mountain program. Among other things, it sought fairness and redundancy by requiring multiple sites from which to choose, ultimate locations for repositories and it strove for regional equity by setting up site selection programs for two facilities, one in the West and one in the East.

However, all this was scrapped in 1987. Congress decreed that all repository development efforts must focus now on just one site in Nevada, and it did so notwithstanding incomplete scientific information and the fact that now spent reactor fuel and high-level waste from every region in the country would now be sent to a single Western State with no nuclear power plants or high-level waste-generating facilities.

After 1987, there was only one possible site, and inevitably as more and more dollars were spent, it became progressively more difficult to admit that the selection of Yucca Mountain had been a mistake. But we know now things we did not know in 1987. We now know that groundwater will reach the waste at the site in about 50 years, not the hundreds or thousands of years that had been originally thought. We now know that Yucca Mountain is not dry. Total water seepage into the tunnels where the waste will be located will be as much as 130,000 kilograms per year. These and other serious problems led to even more exotic and doubtful engineering fixes.

When it appeared likely that the Yucca Mountain site could not satisfy certain EPA and NRC licensing requirements, the requirements were simply eliminated. These actions by Congress and then by EPA, DOE and NRC destroyed the credibility of the program. Public opinion in Nevada which until 1987 had been mixed with regard to Yucca Mountain now solidified into strong, consistent, across-the-board opposition, and by annual surveys done between 1989 and 2010, opposition to the project has remained constant at between 63 and over 70 percent.

While there has been and continues to be some support for the project in small rural counties surrounding the site, such support cannot be extrapolated to the wider Nevada population. Taken together, the six counties sometimes cited as evincing some level of

support for DOE's program comprise only a tiny fraction of the State's population.

In 2002, Nevada carefully evaluated the effects of a prospective Yucca repository on the State, its communities and the economy, and that report documents the potential, among other things, for significant risks to Nevada's unique tourism-based economy and property value losses and health effects associated with transportation.

While it can be difficult to terminate a federal project when large amounts of money has been spent, there is no sense now in spending good money after bad. DOE's finding that Yucca Mountain is unworkable, the decision to seek withdrawal of the license application and the establishment of the Blue Ribbon Commission to look for alternatives for the management and storage of spent fuel were all the right and lawful things to do. They had the potential to put the country on a path to a safer, more cost-effective and expeditious solution to managing spent fuel and high-level waste.

Thank you, Mr. Chairman. That concludes my remarks, and I would be pleased to answer any questions.

[The prepared statement of Mr. Malsch follows:]

TESTIMONY OF MARTIN G. MALSCH
SPECIAL DEPUTY ATTORNEY GENERAL FOR THE STATE OF NEVADA
U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENVIRONMENT AND THE ECONOMY
JUNE 1, 2011

Brief Written Summary

The failure of the proposal to dispose of high-level radioactive waste and spent reactor fuel at Yucca Mountain is a direct result of various decisions that were taken beginning almost twenty-five years ago. A decent respect for history would have suggested that those decisions created a very high risk of program failure, but the lessons of history were disregarded. Ironically, the original Nuclear Waste Policy Act of 1982, signed into law by President Reagan with substantial bipartisan support, foresaw many of the problems that now afflict the Yucca Mountain program, and Congress sought to avoid them through a series of carefully constructed provisions designed to achieve safety, regional equity, and credibility. The systematic dismantling of the Act by Congress in 1987, followed by related agency decisions that further undermined both safety and credibility, especially rule making decisions by DOE, EPA and NRC, lead to the situation we find ourselves addressing today. Public opinion in Nevada, which until 1987 had been mixed with regard to Yucca Mountain, solidified into strong, across-the-board opposition. To see why we failed, and how failure was virtually inevitable, my prepared testimony includes a brief history of the geologic repository program in the Unites States and the lessons that history teaches us. While it can be difficult to terminate a Federal project when large amounts of money have been spent, there is no sense in spending good money after bad. DOE's finding that Yucca Mountain is unworkable, the decision to seek withdrawal of the license application, and the establishment of the Blue Ribbon Commission to look for alternatives for the management and storage of spent nuclear fuel, were all the right things to do. They have the potential to put the Country on a path to a safer, more cost-effective and expeditious solution to managing spent fuel and high-level waste.

TESTIMONY OF MARTIN G. MALSCH
SPECIAL DEPUTY ATTORNEY GENERAL FOR THE STATE OF NEVADA
U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENVIRONMENT AND THE ECONOMY
JUNE 1, 2011

Mr. Chairman, members of the Subcommittee, my name is Martin G. Malsch. I appreciate the opportunity to provide testimony on behalf of the State of Nevada at this hearing today. I have practiced law in the nuclear energy and nuclear waste fields for over forty years, in both the public and private sectors, and I am a Special Deputy Attorney General for the State of Nevada.

Background

The failure of the Nation's geologic repository program is a direct result of various decisions that were taken beginning almost twenty-five years ago. A decent respect for history would have suggested that those decisions created a very high risk of program failure, but the lessons of history were disregarded. Ironically, the original Nuclear Waste Policy Act of 1982, signed into law by President Reagan with substantial bipartisan support, foresaw many of the problems that now afflict the Yucca Mountain program, and Congress sought to avoid them through a series of carefully constructed provisions designed to achieve both safety and credibility. The systematic dismantling of the Act by Congress in 1987, followed by related agency decisions that undermined both safety and credibility, lead to the situation we find ourselves addressing today. To see why we failed, and how failure was virtually inevitable, a brief history of the geologic repository program in the Unites States is in order.

History

Four events in the history of DOE's and its predecessor agencies' attempts to address the high-level waste problem stand out in this regard: Lyons, Kansas; the site nomination and selection process

under the 1982 NWPA; the 1987 NWPA amendments; and current NRC legal proceedings associated with the filing of DOE's license application.

In the 1960s a clamor arose over the potential that high-level radioactive wastes would leak from Atomic Energy Commission (AEC) storage facilities located at the National Reactor Testing Station in Idaho, the Savannah River Site in South Carolina, and the Hanford Site in Washington. As a result, the AEC promised Idaho Senator Church that the Idaho wastes would be transferred out of Idaho to a permanent geologic repository by the end of the 1970s. The AEC pinned its hopes on an abandoned salt mine in Lyons, Kansas. However, rather than taking the time to complete necessary scientific investigations, the AEC offered disputable safety conclusions and pressed ahead. Ultimately, the Lyons, Kansas site proved to be unsuitable. The AEC also bungled the political aspects of the debate. It knew that State and local support was essential, but it lost that support when it failed to give any credence to the legitimate concerns of Kansas experts and it effectively committed to the project before the scientific studies were completed. [1]

Two lessons may be learned from Lyons, Kansas. The first is that the Federal Government should not commit or even appear to commit to a repository site unless the necessary scientific investigations are completed and the legitimate safety concerns of State and local experts are addressed satisfactorily. The second is that State and local support is critical to success.[2]

After Lyons, Kansas, failed, the AEC's successor agencies continued to investigate other possible repository sites and the Congress enacted the NWPA in 1982. In accordance with the NWPA, DOE selected five sites for more detailed study (characterization): salt deposits in Mississippi, Texas, and

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[1] J. Samuel Walker, "The Road to Yucca Mountain," University of California Press, 2009 (Walker), at 50-51, 74-75. Mr. Walker was the NRC Historian, and this book is the fifth in a series of volumes on the history of nuclear regulation sponsored by the NRC. The book does not represent the official position of the NRC.
[2] Walker at pp. 74-75

Utah; basalt formations in Hanford, Washington; and volcanic tuff rock in Nevada.[3] In perhaps a hint of what was to come, potential sites in Louisiana were excluded based on a political side agreement between Louisiana Senator Johnston and the Secretary of DOE, known to Congress when the NWPA was enacted.[4] The NWPA then called upon DOE to narrow the choices to three, all three of which were to be fully characterized (studied) so that any one failure would not prematurely destroy the whole repository program.[5]

In 1986, the DOE Secretary announced that the final three choices were the ones in Deaf Smith County, Texas; Yucca Mountain, Nevada; and Hanford, Washington. The designation prompted angry protests from all three areas, whose representatives believed that the scientific investigations were not completed, and the protests became part of a nationwide movement when DOE cancelled the search for an eastern site, notwithstanding a clear informal agreement among NWPA supporters that the second site called for by the NWPA would be located in an eastern State.[6]

The program was now in shambles, program costs were increasing, and the nuclear power industry argued (incorrectly, as it turned out) that the Nation faced a spent fuel storage crisis that might require shutdown of nuclear power plants. Congress reacted by enacting the Nuclear Waste Policy Act Amendments Act of 1987. That Act directed DOE to limit its future site characterization and selection efforts to Yucca Mountain, Nevada, notwithstanding the advice from NRC (and others) that the scientific information was insufficient to make an informed safety conclusion about the suitability of the site.[7] In

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[3] Walker at 181-182.
[4] The agreement was discussed during Senate debates on the enactment of the NWPA. 128 Cong. Rec. D485 S4143O, April 28, 1982.
[5] 42 U.S.C. § 10132 (b) and 10133.
[6] Walker at 182.
[7] 42 U.S.C. 10172; prepared testimony of Robert Bernero, June 29, 1987, appearing in S. Rep. No. 100-152, 100th Cong., 1st Sess at 194 ("At the Yucca Mountain site, the major issues include geological concerns such as the presence of potentially active faults and related ground motion, the potential for volcanism, and the origin and significance of mineral veins in the area. Hydrology is also a concern in the saturated and unsaturated zones; groundwater flow patterns and regimes and travel times have yet to be fully determined. As at Hanford, the ability

fact, the selection of the Yucca Mountain site was based on DOE's so-called "Multiattribute Utility Analysis of Sites," which depended in important part on the assumption that little groundwater would move downward from the Mountain top and seep into the tunnels where the waste would be disposed of. This assumption later proved to be false.[8]

The NWPA Amendments Act of 1987 attempted to place the entire high-level waste disposal burden on one western state with no nuclear power plants or other high-level waste generating facilities. The supporters of the NWPA Amendments Act of 1987 flagrantly ignored both of the lessons learned from Lyons, Kansas. First, they effectively committed the Nation to a single disposal site not only before the necessary scientific investigations were completed, but also before any final licensing standards were in place.[9] Second, supporters ignored the objections of the host State, which believed (with good reason) that Nevada had been singled out simply because it was "the small kid on the block."[10]

By 2001, DOE had spent about $4.5 billion characterizing the Yucca Mountain site, and its efforts established that the site was more complex than originally thought and that (as indicated above) the underground environment was not as dry as Yucca proponents had expected. [11] But DOE pressed

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of the medium (tuff) to retard movement of radionuclides is not yet well understood." Mr. Bernero was the Deputy Director of the NRC Office in charge of evaluating the safety of high-level waste disposal facilities. NRC did not object to studying (characterizing) Yucca Mountain further.

[8] Compare the June 29, 1987 testimony of Donald L. Vieth, DOE Project Manager, Waste Management Project Office, Nevada Operations Office, appearing in S. Rep. No. 100-152, 100th Cong., 1st Sess at 133, 138 "[L]ittle groundwater is expected to be available to dissolve and move the waste even if a waste canister is damaged," with DOE's June 2008 license application at 2.1-21 ("On average over all waste packages, the amount of seeping water is 1.2, 4.6, and 14.4 kg/yr per waste package for the present-day, monsoon, and glacial-transition climate states, respectively," There are 11,000 waste packages (2008 application at 1-10), so this means the total seepage ranges from 13,200 to 158,400 kg of water per year. Accordingly, DOE plans to install thousands of titanium alloy drip shields in the tunnels "to divert seepage away from the waste packages." June 2008 license application at 2-7. However, eventually the drip shield and waste packages are all degraded by corrosion. *Id.*

[9] Final and complete NRC licensing regulations were not in place until 2009. See 74 Fed. Reg. 10811 (March 13, 2009).

[10] Walker at 182.

[11] Walker at 183.

forward with Yucca Mountain much like its predecessor AEC pressed forward with Lyons, Kansas. In February 2002, DOE Secretary Abraham formally recommended the Yucca Mountain site to President Bush, notwithstanding the Nuclear Waste Technical Review Board's conclusion that DOE "has yet to make a convincing case that nuclear waste can safely be buried at Yucca Mountain."[12] President Bush promptly agreed with Secretary Abraham and recommended the site to the Congress. Citing numerous scientific flaws, Nevada Governor Guinn formally disapproved of the site, using the state veto procedure set forth in the NWPA.[13] Congress then formally overrode Nevada's veto by enacting H.J. Res. 87. The designation of Yucca Mountain as a repository site then became effective on July 23, 2002, when the President signed S.J. Res. 34 into law.[14]

The NWPA required DOE to file its license application within 90 days after the President's site recommendation became effective, or by October 21, 2002.[15] October 21, 2002 came, went, and receded into history without any application being filed. This was not a surprising development, given the scientific and engineering challenges DOE still faced when Nevada's veto was overridden. DOE also failed to plan adequately to meet NRC's pre-application discovery requirements.[16] DOE's plan to file its application in 2004 (one of many such plans with progressively later filing dates) was aborted and the application was not filed and docketed by the NRC until September 8, 2008, almost six years after the statutory deadline.

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[12] Hearings before the Senate Committee on Energy and Natural Resources on S.J. Res. 34, May 23, 2001, at 157. The Board elaborated that DOE's safety case was only "weak to moderate." *Id.* The Board was established by Congress to advise DOE on repository safety. Its members were (and are) appointed by the President based on recommendations from the National Academy of Sciences. 42 U.S.C. §§ 10261-64.
[13] Walker at 183.
[14] 42 U.S.C. § 10135 *note*.

[15] 42 U.S.C. § 10134(b).
[16] *U.S. Department of Energy (High-Level Waste Repository, Pre-Application Matters)*, LBP-04-20, 60 NRC 300 (2004).

The NRC then admitted over 300 contentions (formal objections to the application) as matters in controversy in the NRC Yucca Mountain licensing proceeding, more than in any other case in the history of NRC licensing.[17] All of the technical contentions were supported by the equivalent of an expert report under F. R. Civ. P. 26 (a)(2)(B) and, accordingly, the NRC found that each of them presented a "genuine dispute" supported by "facts or expert opinions."[18] DOE faced other serious obstacles. For example, at the time DOE's motion to withdraw its license application was filed on March 3, 2010, no significant progress had been made on funding or constructing the enormously expensive rail line that would be necessary to transport high-level nuclear waste through Nevada to the site in the safest manner. Construction and operation of a repository would require the appropriation of water resources owned by the public and administrated by the State of Nevada, and the State vigorously opposed the granting of the necessary State water use permits. A disinterested observer would reasonably conclude that a repository at Yucca Mountain would probably never be built and operated, even if the necessary NRC licenses were granted.

In the meantime, the near crisis atmosphere that permeated the Congressional debates over the original NWPA had completely dissipated. In 1982, NRC licensees and the Congress were gravely concerned that nuclear power plants would shut down because of a lack of adequate storage space for spent reactor fuel that was piling up in storage pools pending disposal.[19] When DOE moved to withdraw its application twenty eight years later, more than 50 independent spent fuel storage installations across the United States stored more than 45,000 spent fuel assemblies and greater-than-Class C waste in

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[17] *See U.S. Department of Energy (High Level Waste Repository)*, CLI-09-14, __ NRC __ (2009).
[18] 10 C.F.R. § 2.309 (f)(1)(v) and (vi).
[19] *See* NWPA section 111(a)(2), 42 U.S.C. § 10131(a)(2). Senator Alan Simpson, a key supporter of the NWPA, declared in 1982 that "[w]e're about to bring the nuclear industry to its knees unless we act now." Walker at 176.

more than 1,200 dry storage casks.[20] The NRC opined that such dry storage would be safe for at least 100 years and is evaluating whether it may be safe for 300 years.[21]

Loss of Program Credibility

The original Act sought to assure the extent possible that potential repository sites would be identified and evaluated based on objective technical and scientific criteria. It also sought fairness and redundancy by requiring multiple sites from which to choose ultimate locations for repositories, and it strove for regional equity by setting up site selection programs for two facilities – one in the west and one in the east. In 1987, Congress scrapped both the multi-site process and the concept of regional equity that were the cornerstones of the 1982 law. It directed that all repository development efforts focus on just one site in Nevada, notwithstanding the incompleteness of the scientific information and the fact that spent reactor fuel and high-level waste from every region of the Country would be sent to a single western State with no nuclear power plants or high-level radioactive waste generating facilities.

The 1987 amendments lead to a devastating loss of trust in the overall program and ever increasing opposition on the part of the State of Nevada and its citizens. Further actions by DOE, EPA, and NRC then further undermined the credibility of the program. Prior to 1987, DOE's focus – while certainly not without problems – was essentially on identifying safe and suitable sites for a repository. The question that guided investigations at each of the candidate sites was, "Is this site suitable for development as a repository?"

After 1987, that changed drastically. Now there was only one possible site, and the focus changed to efforts to vindicate Congress' choice. Inevitably, as more and more dollars were spent, it became progressively more important to avoid admitting that the selection of Yucca Mountain had been

[20] NRC "Plan for Integrating Spent Nuclear Fuel Regulatory Activities," Revision 00, June 21, 2010, at C-1.
[21] Supra note 20 and COMSECY-10-1007, Enclosure 1 at 10.

a mistake. Technical problems, even site conditions previously considered to be disqualifying, became obstacles to be overcome by ever-more-exotic engineering fixes, some designed to protect the waste from adverse conditions in the mountain, contrary to the original concept that site geology would protect man and the environment from the waste. When it appeared likely that the Yucca Mountain site could not satisfy certain NRC licensing requirements designed to achieve safety defense-in-depth, NRC eliminated the requirements. And, when DOE safety analyses showed that releases of radioactive materials in groundwater would result in doses in excess of EPA safety standards after 10,000 years, EPA and NRC unlawfully declared that releases after 10,000 years would not count in determining compliance. All of these actions, by Congress and then by DOE, EPA, and NRC, utterly destroyed the credibility of the program.

Opposition to the Yucca Mountain project in Nevada was not always a given. Early on while the NWPA of 1982 was being put together and immediately subsequent to its passage, Nevada, while skeptical of DOE's ability to implement a scientifically credible site screening process, essentially took a wait-and-see approach. In 1986, the first chairman of the Nevada Commission on Nuclear Projects, former Governor Grant Sawyer, laid down the criteria by which the state would judge DOE:

> *"... [A] nuclear waste repository should not be built until it can be shown, beyond the shadow of a doubt, that the facility can, in fact ... isolate radioactive materials from the biosphere for more than 10,000 years - and that ... such a repository will be benign in its effects upon the people, the environment and the economy of the state or region within which it would be located."*

When DOE and Congress abandoned the site selection process of the original Act in 1987, things changed drastically. Public opinion, which until then had been mixed with regard to Yucca Mountain, solidified into strong, across-the-board opposition. In biannual surveys done between 1989 and 2010, opposition to the project has remained constant at between 63% and over 70%.

While there has been and continues to be some local government support for the project in small rural counties surrounding the site (although according to survey data, that support is by no means overwhelming or shared by all residents), such support cannot be extrapolated to the wider Nevada population. Nevada's population is roughly 2.6 million, with over 1.8 million in Clark County and the greater Las Vegas area. By contrast Nye County, where Yucca Mountain is located, has less than 45,000 people. Taken together, the six counties sometimes cited as evincing some level of support for DOE's program comprise only a tiny fraction of the overall State citizenry.

In 2002, the State of Nevada carefully evaluated the effects a prospective Yucca repository would have on the State and its communities and economy[22]. That report documents the potential, among other things, for major economic consequences arising out of the Yucca project, including significant risks to Nevada's unique tourism-based economy, property value losses due to the transportation of spent fuel and high-level waste through the state, as well as disastrous consequences in the event of accidents or incidents of terrorism related to waste being shipped to the facility. The report concluded:

> *"Given the unique reliance of the Nevada economy on the State's ability to attract tens of millions of tourists and visitors annually, any impacts that reduce the number of visitors, especially to southern Nevada, would have major consequences for the State's economy. Consequently, the most serious and possibly catastrophic economic risk for Nevada stemming directly from the Yucca Mountain project is the potential for stigma impacts on the tourist and visitor industry. Such impacts would produce significant losses to an economy dominated by visitor-based revenues."*

[22] A Mountain of Trouble, A Nation at Risk: Report on Impacts of the Proposed Yucca Mountain High-Level Nuclear Waste Program (February 2002) Ref. http://www.state.nv.us/nucwaste/yucca/impactreport.pdf

This broad perspective on how the project would affect the State provides a critical basis for the State of Nevada's determined opposition to locating a geologic repository at Yucca Mountain.

The GAO Report, "Effects of a Termination of the Yucca Mountain Repository Program and Lessons Learned," and the Situation Today

In its recent report, GAO report states that DOE's decision to seek withdrawal of the Yucca Mountain license application was made for non-safety reasons. However, GAO made no systematic effort to evaluate the many safety problems that remain unresolved. These problems go to the heart of Yucca Mountain's suitability as a repository and Nevada's opposition to it. They include:

- the rapid movement of water within the subsurface and fast radioactive waste pathways to the accessible environment;
- the likelihood of major waste package corrosion;
- the unstable and highly fractured nature of the host rock and the problems that causes for safety analyses, waste isolation, retrieval, the installation of engineered barriers; and
- the risk of volcanic eruptions below and then through the repository that would disperse radioactive materials to the environment.

Accordingly, from Nevada's perspective, DOE's decision to seek a withdrawal of the license application avoided both significant safety problems and further wasting of taxpayer and ratepayer dollars on a flawed and hopeless project.

Some Lessons Learned

In its 2010 report to the Nevada Governor and Legislature[23], the Nevada Commission on Nuclear Projects identified some of the key findings and lessons to be learned from the Yucca Mountain experience. The findings include:

- While Yucca Mountain failed for many reasons, a critical element was unquestionably the forced nature of the site selection process.
- If DOE had been required to obtain the State's informed consent to continue with the project, Yucca Mountain would have been disqualified years earlier, and billions of dollars and years of effort would have been saved.
- Yucca Mountain was an extremely poor site from the beginning.
- DOE was probably the wrong entity to implement the federal high-level radioactive waste program and placing the program within DOE may have doomed it from the start.

The lessons learned include:

- A successful repository facility siting program must be premised on the fully informed consent of the host state, tribe (if applicable) and local community.
- Any future siting effort must be based on and motivated by irrefutably sound science.
- A scientifically credible repository siting process must have as its foundation objective and rigorous criteria against which the geotechnical suitability of a site would be evaluated.
- The criteria must be established in advance of the siting effort and not structured so as to apply only to specific sites. The application of the criteria to candidate sites must be objective and above reproach, and criteria cannot be changed based on conditions found when studying or characterizing various sites.

Conclusion

[23] Report of the Nevada Commission on Nuclear Projects to the Governor and Legislature of the State of Nevada (December 2010) Ref. http://www.state.nv.us/nucwaste/news2011/pdf/comm2010summary.pdf

It is sometimes difficult to terminate a Federal project when large amounts of money have been spent. But there is no sense in spending good money after bad. What's done is done and we should look to the future for better solutions, guided by the lessons of Lyons Kansas and Yucca Mountain, and the recommendations of the Blue Ribbon Commission on America's Nuclear Future. DOE's finding that Yucca is unworkable, the decision to seek withdrawal of the license application, and the establishment of the Blue Ribbon Commission to look for alternatives for the management and storage of spent nuclear fuel, were the right things to do. They have the potential to put the Country on a path to a safer, more cost-effective and expeditious solution to managing spent fuel and high-level waste.

A key lesson to be learned from Nevada's experience with DOE and the Yucca program is that the Federal Government cannot seek to force a geologic repository on an unwilling state based on incomplete information, press forward with the repository in the face of growing scientific difficulties, and still expect the effort to be successful. At the least, there must be a steadfast and unwavering commitment to scientific credibility, openness and transparency, and a willingness to allow the science to take its course and let the chips fall where they may.

Thank you for the opportunity to address the Subcommittee today. I would be happy to answer any questions.

Mr. SHIMKUS. Thank you, Mr. Malsch.

The chair now recognizes Mr. White. Again, your full statement is in the record and you have 5 minutes. Welcome.

STATEMENT OF GREG R. WHITE

Mr. WHITE. Thank you, Chairman Shimkus, and I would like to thank you for your leadership on this issue.

As you know, my name is Greg White and I am Commissioner for the Michigan Public Service Commission. I am appearing today on behalf of the Public Service Commission in Michigan, electricity ratepayers and the National Association of Regulatory Utility Commissioners.

I have been involved with this issue, the disposal of spent nuclear fuel from commercial reactors, since shortly after the Nuclear Waste Policy Act passed in 1983, which established the policy that the Federal Government has the responsibility for the safe and permanent disposal of government and commercial nuclear waste in a geologic repository, and that the customers that benefit from electricity generated from nuclear power pay for the commercial share of the disposal costs. That was the deal, and we agreed to that deal. The fee payments to the nuclear waste fund began in June of 1983 as required by the Nuclear Waste Policy Act. I am here to tell you that the is the only component of that program that has ever worked as intended. Nearly 30 years later, the Federal Government has our money; we have their waste.

When the Department of Energy submitted a license application to the Nuclear Regulatory Commission in June of 2008, we knew that it could take 3 to 4 years to carefully review the safety and other aspects of this first-of-a-kind facility. We were not prepared to learn that after more than 20 years of study and nearly $15 billion that a different Secretary of Energy would withdraw the license application with prejudice in March of 2010 with no indication that the site is unsafe or that the application is flawed. Instead, the motion to withdraw cited only that Yucca Mountain is considered not a workable option.

The Department of Energy took other steps to terminate the Yucca Mountain project that are documented in the April report of the GAO including disbanding of the Office of Civilian Radioactive Waste Management that had managed the program. Like others, we have questioned the legal and administrative authority of the Department of Energy to disband this office.

As you know, the Department of Energy requested no appropriations for the waste program for fiscal year 2011 or 2012 except for support for the Blue Ribbon Commission on America's Nuclear Future. Yet when the Nuclear Energy Institute and the National Association of Regulatory Utility Commissioners suggested that the Secretary of Energy suspend fee payments by utilities to the nuclear waste fund in 2009, that was denied with an unconvincing pronouncement that all fees are essential. NARUC and the NEI have appealed that decision to the Federal Court of Appeals, which is pending.

We can only speculate how much time and money it will take the United States to be ready to accept spent nuclear fuel for disposal if it is other than Yucca Mountain but it is likely to be decades.

It seems essential then we seek our and develop one or more central interim storage facilities to take used fuel from the nine sites where reactors are currently shut down and the property cannot be decommissioned returned to other productive uses because the waste remains such as the former Big Rock nuclear power plant in Michigan.

Regardless of what storage, transportation or disposal solutions the Blue Ribbon Commission may recommend, they will need certain and reliable financing support. Concerning the financial impacts of terminating Yucca Mountain, a more predictable funding mechanism would certainly enhance future waste management. Also, an independent organization outside of the Department of Energy could be more effective in siting and developing a permanent repository.

If Yucca Mountain's termination is sustained, it means starting over to find and develop repositories since there is clear consensus that least one site is needed in all scenarios. Unfortunately, there are too many unknowns to begin to forecast how long it would take to authorize, search and select, fully evaluate, license, design, construct and be ready to begin deposits in a new repository yet another 20 years seem to be highly conservative.

With that, I would conclude my testimony and make myself available for questions. Thank you.

[The prepared statement of Mr. White follows:]

BEFORE THE
U.S. HOUSE OF REPRESENTATIVES

COMMITTEE ON ENERGY AND COMMERCE,

SUBCOMMITTEE ON THE ENVIRONMENT AND THE ECONOMY

TESTIMONY OF THE HONORABLE GREG R. WHITE

ON BEHALF OF THE

THE MICHIGAN PUBLIC SERVICE COMMISSION

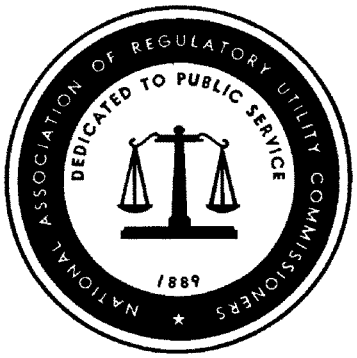
AND

THE NATIONAL ASSOCIATION OF REGULTORY UTILITY COMMISSIONERS

ON

"Department of Energy's Role in Managing Civilian Radioactive Waste"

June 1, 2011



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COMMISSIONER GREG WHITE

"THE ROLE OF DOE IN MANAGING CIVILIAN RADIOACTIVE WASTE"

TESTIMONY SUMMARY

- Here on behalf of ratepayers who have paid over $31 billion in fees and interest for disposal of commercial nuclear waste who have gotten little in return
- We want the government to fulfill the Nuclear Waste Policy Act and the contracts with nuclear utilities to remove spent fuel from reactor sites
- DOE faced a myriad of obstacles, technical, regulatory, managerial, legal and political in trying to develop a repository
- Overall, I rate DOE's performance C minus, despite finally submitting the license application to the NRC in 2008
- Disappointed when DOE reversed course and sought to withdraw the application in 2010
- Although Yucca was not found unsuitable, we await the recommendations of the Blue Ribbon Commission on America's Nuclear Future
- Two likely recommendations that we find attractive in concept
    - Need more stable financing and assured access to the Nuclear Waste Fund
    - Create a new, single-purpose organization to manage nuclear waste

Chairman Shimkus, Ranking Member Green, and Members of the Committee,

Good Morning.

My name is Greg White. I serve on the Michigan Public Service Commission. I am here representing the Public Service Commission, Michigan ratepayers, and the National Association of Regulatory Utility Commissioners (NARUC.) I appreciate the opportunity to appear before the Committee and ask that my written statement be included in the record.

NARUC is a quasi-governmental, non-profit organization founded in 1889. Our membership includes the public utility commissions serving all States and territories. NARUC's mission is to serve the public interest by improving the quality and effectiveness of public utility regulation. Our members regulate the retail rates and services of electric, gas, water, and telephone utilities. We are obligated under the laws of our respective States to assure the establishment and maintenance of such utility services as may be required by the public convenience and necessity and to assure that such services are provided under rates and subject to terms and conditions of service that are just, reasonable and non-discriminatory.

I have been involved with the issue of disposal of "spent" (used) nuclear fuel from commercial reactors since shortly after the Nuclear Waste Policy Act (NWPA) set the basic national policy in 1983, that:

- The federal government is responsible for the safe, permanent disposal of government and commercial nuclear waste in a geologic repository, and
- The customers that benefit from the electricity generated from nuclear power will pay the commercial share of disposal costs through payments of fees made by the generating utilities to the Treasury

The fee payments to the Nuclear Waste Fund were to begin in June 1983 and they did. In fact, the collection of the fees from ratepayers, via the utilities for payment into the Nuclear Waste Fund is the only component of this program that has ever worked as intended.

The repository that was sited at Yucca Mountain, Nevada was to begin waste deposits by January, 1998 and they did not. As you know, it has yet to be licensed.

There was a long list of technical, financial, legal and political factors that the repository program encountered as the Department of Energy (DOE) tried to execute the program as guided by the NWPA. As for the role of DOE in managing civilian radioactive waste, the agency never got to manage any civilian radioactive waste as it was supposed to beginning in 1998 in accordance with the Nuclear Waste Policy Act and contracts with the owners of spent fuel. Everything else was preliminary and the path was a difficult one. It took over 20 years for EPA to get a final radiation standard. There were numerous lawsuits and Congress routinely cut the budget. Overall, I would give DOE a grade of C minus. It would have been lower were it not for the effective leadership of the last Senate-confirmed program director, Ward Sproat, who brought discipline and focus by submitting the repository license application to the NRC.

We have arrived at point where we are told by the Administration that Yucca Mountain is "not a workable option," and since the 1987 Amendment that truncated the site selection process to further evaluated only Yucca Mountain, there is no "Plan B."

When the Department of Energy submitted an 8,000 page license application to build the repository at Yucca Mountain to the Nuclear Regulatory Commission in June 2008, we knew it could take 3-4 years to carefully review the safety and other aspects for this first-of-a-kind facility. We were not prepared to learn that after more than 20 years of study and nearly $15 billion spent that a different Secretary of Energy would withdraw the license application with prejudice in March 2010. There was no indication that the site is unsafe or the application is flawed. Instead, the motion to withdraw cited only that Yucca Mountain is considered "not a workable option." On June 29, 2010 the Atomic Safety Licensing Board of the NRC denied the motion saying the law requires the Board to review an application and that DOE does not have authority to withdraw the application, since Congress had approved the site in a joint resolution in 2002. The ASLB decision is subject to automatic appeal by the NRC commissioners and this Committee has made inquiries into that matter.

This question has also been brought to the United States Court of Appeals for the District of Columbia Circuit.

The Department of Energy took other steps to terminate the Yucca Mountain project that are documented in the April report of the Government Accountability Office, including for all intents and purposes, disbanding the Office of Civilian Radioactive Waste Management that had managed the program to that point. Like others, we have questioned the legal and administrative authority of the DOE to disband this office.

Finally, DOE requested no appropriations for the waste program for Fiscal Year 2011 or FY 2012, except for support for the Blue Ribbon Commission on America's Nuclear Future. Yet, when the Nuclear Energy Institute and the National Association of Regulatory Utility Commissioners (NARUC) suggested that the Secretary of Energy suspend fee payments by utilities to the Nuclear Waste Fund in 2009, that was denied with an unconvincing pronouncement that "all fees are essential." That position was consistent with a Statement of Administration Policy issued by the Office of Management and Budget, but did not show support from the annual fee adequacy review the NWPA requires.

NARUC and NEI appealed the decision to the United States Court of Appeals for the D.C. Circuit, which is pending.

We got our first hint two weeks ago of where the Blue Ribbon Commission may be heading:

- They are not challenging their instructions that Yucca is off the table

- At least one repository is needed but the commission won't site it or any other facilities it may recommend
- Reprocessing needs R&D and decades before it might be in use
- To keep options open and to reduce liability the Commission will likely recommend central interim storage, initially for the stranded fuel from decommissioned sites
- A new, single-purpose organization should be created to manage all aspects of used fuel
- The new organization should have assured access to the Nuclear Waste Fund fees as well as the corpus

We can only speculate how much time and money it will take the U.S. to be ready to accept used fuel for disposal—if it is other than Yucca—but it is likely to be decades. It seems essential, then, that we seek out and develop one or more central interim storage facilities to take used fuel from the nine sites where the reactors are shutdown and property cannot be decommissioned and returned to other productive uses because the waste remains, such as at the former Big Rock Point plant in Michigan. There will be other reactors that will be reaching the end of their service life and there may be net savings to the Government if DOE is able to finally accepting more spent fuel and closing the partial breach of contract.

While we await the final recommendations of the Commission, I will repeat what I told the Commission when I testified in May of last year. Regardless of what storage, transportation or disposal solutions the Commission may recommend, they will need certain and reliable financing

support. The GAO report[1] puts it this way, "Consistent Policy, Funding and Leadership are Important in Any Waste Management Effort." If the Nuclear Waste Fund is going to be the means of implementing a re-vitalized waste program, whether by DOE or a new organization, the Fund needs to be reformed to serve the purpose it was created for, to enable the users of nuclear power to pay for the disposal of the waste it produces. Yucca Mountain did not fail for lack of the utilities and their ratepayers making the payments into the Nuclear Waste Fund, which exceed $31 billion, with interest.

Looking through the GAO report, I am saddened for the signs of lack of care and motivation to follow government procedures on disposition of property as the report describes. The lessons learned on the overall program should be mined by the Blue Ribbon Commission, the successor organization that will manage the new program going forward and the Congress. I agree with the Matters for Consideration by Congress in the report:

- A more predictable funding mechanism would enhance future waste management
- An independent organization, outside DOE, could be more effective in siting and developing a permanent repository

Thank you for this opportunity to express these views.

[1]Commercial Nuclear Waste: Effects of a Termination of the Yucca Mountain Repository Program and Lessons Learned, U.S. Government Accountability Office, GAO-11-229, April 2011

NUCLEAR WASTE FUND
RATEPAYER PAYMENTS BY STATE
THROUGH 9-30-10 (MILLIONS OF DOLLARS)

STATE	PAYMENTS 1 mill/kwh, One Time+Int	RETURN ON INVESTMENTS as of 9/30/10	TOTAL (PAY+RETURN)	DEBT*	FUND ASSETS** (TOTAL + DEBT)
AL	533.9	425.7	959.6	0.0	959.6
AR	358.2	285.6	643.8	175.6	819.4
AZ	266.3	212.4	478.7	0.0	478.7
CA	1,020.3	813.6	1,833.9	0.0	1,833.9
CO	0.2	0.2	0.4	0.0	0.4
CT	295.9	236.0	531.9	358.5	890.4
DE	46.6	37.2	83.8	0.0	83.8
FL	842.4	671.8	1,514.2	0.0	1,514.2
GA	685.5	546.6	1,232.1	0.0	1,232.1
IA	249.4	198.9	448.3	45.1	493.4
IL	1,880.1	1,499.2	3,379.3	972.6	4,351.9
IN	252.1	201.0	453.1	229.9	683.0
KS	133.3	106.3	239.6	0.0	239.6
KY	152.1	121.3	273.4	0.0	273.4
LA	324.2	258.5	582.7	0.0	582.7
MA	356.1	284.0	640.1	163.4	803.5
MD	390.6	311.5	702.1	0.0	702.1
ME	48.5	38.7	87.2	116.9	204.1
MI	314.2	250.6	564.8	198.2	763.0
MN	316.6	252.5	569.1	0.0	569.1
MO	250.7	199.9	450.6	5.1	455.7
MS	161.7	128.9	290.6	0.0	290.6
NC	1,538.0	1,226.4	2,764.4	0.0	2,764.4
ND	18.0	14.4	32.4	0.0	32.4
NE	190.0	151.5	341.5	0.0	341.5
NH	82.2	65.5	147.7	23.8	171.5
NJ	732.3	584.0	1,316.3	196.8	1,513.1
NM	77.4	61.7	139.1	0.0	139.1
NY	850.8	678.4	1,529.2	505.3	2,034.5
OH	461.9	368.3	830.2	32.6	862.8
OR	75.1	59.9	135.0	0.0	135.0
PA	1,378.3	1,099.1	2,477.4	66.6	2,544.0
RI	5.3	4.2	9.5	6.1	15.6
SC	689.4	549.7	1,239.1	0.0	1,239.1
SD	7.1	5.7	12.8	0.0	12.8
TN	580.1	462.6	1,042.7	0.0	1,042.7
TX	801.1	638.8	1,439.9	0.0	1,439.9
VA	698.9	557.3	1,256.2	0.0	1,256.2
VT	100.2	79.9	180.1	141.6	321.7
WA	170.6	136.0	306.6	0.0	306.6
WI	428.2	341.5	769.7	0.0	769.7
SUBTOTAL	17,763.8	14,165.3	31,929.1	3,238.1	35,167.2
FEDERAL	19.8	15.8	35.6	0.0	35.6
INDUSTRY	16.8	13.4	30.2	0.0	30.2
TOTAL	17,800.4	14,194.5	31,994.9	3,238.1	35,233.0

* Funds owed for fuel burned before 1983 but not yet paid by utilities (as allowed by DOE contract)

** before withdrawals for expenditures by DOE

Prepared by Ron Howe, Michigan Public Service Commission, 517-241-6021, hower@michigan.gov

Mr. SHIMKUS. Thank you.

Now the chair would like to recognize Mr. Kouts for 5 minutes. Again, your full statement is in the record, and welcome.

STATEMENT OF CHRISTOPHER KOUTS

Mr. KOUTS. Thank you, Mr. Chairman and members of the subcommittee. I am Christopher Kouts, former principal deputy director of the Department of Energy's now-defunct Office of Civilian Radioactive Waste Management. I appreciate the invitation to appear before the subcommittee. I will focus my remarks on the recently released GAO report that was discussed earlier by Mr. Gaffigan and the Administration's decision to terminate the Yucca Mountain project.

As background, for 25 years I served in various technical and management positions in virtually every program area within the office. I became the principal deputy director of the program in 2007 and was the acting director from January 2009 until I retired in early 2010 after 35 years of federal service. While serving in the program, I was reminded on a daily basis of the formidable challenges that were given to the program by the Nuclear Waste Policy Act. As impatient as those who followed the program have been over the years with its progress, I believe that any new attempt to establish disposal or interim storage facilities outside the confines of the act will be met by many new and likely more vexing challenges regardless of the organization or entity that is established to administer the effort.

Now, why will any new effort be more problematic? The answer to that question lies partly in the advance that society has experienced in instant communication and information flow. When the program proceeded through the facility siting process in 1980s for two repositories and an interim storage facility, the Internet was not in place. E-mail was not available to the general public, nor did the social media of today exist. The 24/7 news cycle we now live in will create many opportunities for those opposed to such facilities to spread rumors and disinformation. As a result, the credibility of any new process will be severely challenged from its inception.

In addition, the State of Nevada has given a clear blueprint to those opposed to such facilities: delay, delay, delay. And it should be noted that I do not in any way begrudge the lawsuits or other actions the State has taken over the years to attempt to impede the project. It was certainly their right to do so, and I fully respect that. But accordingly, the time frame of decades noted in the GAO report for a new repository is nothing more than notional and does not appear to stem from a comprehensive evaluation of the program's past experience nor the changes that have occurred since the 1980s.

The report suggests that an independent entity outside of the Federal Government could be more successful. The "grass is always greener" rules here. It is also my belief that Congress should have the final word on facility siting and that ultimately any siting decision will be a political decision, informed by thorough technical evaluation, just as in the case of Yucca Mountain.

It is difficult to understand the GAO report's so-called benefit of terminating the Yucca Mountain Project to afford DOE the opportunity to explore other approaches. DOE has no authority to undertake new approaches outside the confines of the Act, and history has shown that the consensus needed to develop a new policy path will not come easily or quickly.

Because the development of Yucca Mountain has been such a contentious and protracted process, it is being suggested that only consensual siting of these facilities should be pursued. I would submit to the subcommittee that the U.S. and international experience in this area proves otherwise. In my discussions over the years with the directors of repository programs abroad, they have consistently expressed their concerns that, due to the very long timeframes repository programs take to develop, any political consensus at the beginning can evaporate with one election, just as it has in the United States with Yucca Mountain. At the end of the day, implementing a repository program requires steady, consistent, national leadership.

In closing, beside its questioned legality, the Administration's decision to terminate the Yucca Mountain project is disturbing because Yucca Mountain has not failed any technical or regulatory test. The thousands of scientists and engineers and others that worked on the project over the years believe, as I believe, that the site would meet the stringent regulations of the EPA and the NRC and assure that these materials would not adversely impact future generations and the environment. Given the substantial investment this Nation has made in the site and in the policy that has been supported by every prior Administration since 1982, I believe the Nation deserves a final and definitive answer regarding Yucca Mountain from the NRC licensing process.

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

[The prepared statement of Mr. Kouts follows:]

Statement of Christopher A. Kouts
Before the Committee on Energy and Commerce
Subcommittee on Environment and the Economy
U.S. House of Representatives
June 1, 2011

Summary

- Technological advances in information flow, the widespread use of social media and the blueprint provided by the State of Nevada for defeating a repository project will likely make any new repository siting effort much more problematic.

- Accordingly, the timeframe of "decades" noted in the Government Accountability Office's (GAO's) report for a new repository is nothing more than notional, and does not appear to stem from a comprehensive evaluation of the Office of Civilian Radioactive Waste Management program's past experience nor the changes that have occurred since the 1980's.

- Although some of the findings and recommendations of the GAO report have merit others are questionable and, in some cases have already been tried.

- It is difficult to understand the GAO report's so-called "benefit" of terminating the Yucca Mountain Project to afford the Department of Energy (DOE) the "opportunity" to explore other approaches. DOE has no authority to undertake new approaches outside the confines of the Nuclear Waste Policy Act, as amended, and history has shown that legislative initiatives regarding these materials will be a multi-year and extremely contentious enterprise.

- Because the development of Yucca Mountain has been such a contentious and protracted process, it is being suggested that only consensual siting of these facilities should be pursued. The U.S. and international experience in this area proves otherwise. Due to the very long timeframes repository programs take to develop, any political consensus at the beginning can evaporate with one election. At the end of the day, implementing a repository program requires steady, consistent, national leadership.

- Beside its questioned legality, the Administration's decision to terminate the Yucca Mountain Project is disturbing because Yucca Mountain has not failed any technical or regulatory test. The site has not failed in the NRC licensing process. Given the substantial investment this Nation has made in the site and in the policy that has been supported by every prior Administration since 1982, I believe the Nation deserves a final and definitive answer regarding Yucca Mountain from the NRC licensing process.

Statement of Christopher A. Kouts
Before the Committee on Energy and Commerce
Subcommittee on the Environment and the Economy
U.S. House of Representatives
June 1, 2011

Mr. Chairman and Members of the Subcommittee, I am Christopher A. Kouts, former Principal Deputy Director and Acting Director of the Department of Energy's (DOE) Office of Civilian Radioactive Waste Management (OCRWM). I appreciate the invitation to appear before the Subcommittee to provide my perspective on the recently released Government Accountability Office (GAO) Report entitled "Effects of a Termination of the Yucca Mountain Repository Program and Lessons Learned," and the Administration's decision to terminate the Yucca Mountain Project and OCRWM.

As background, for 25 years, I served in various technical and management positions in virtually every program area within OCRWM. In those positions I was responsible for disposal, interim storage, nuclear waste transportation, systems analysis, strategic and contingency planning activities, as well as activities related to the management of the Standard Contract with nuclear utilities and the ongoing Spent Fuel litigation. I became the Principal Deputy Director of the program in 2007 and was the Acting Director from January 2009 until I retired in early 2010, after 35 years of Federal Service.

I served proudly in the program under the leadership of every Administration since 1985 and I fully support that policy making is solely in the realm of those appointed by the President in office at the time. My testimony should be viewed from the perspective of an

individual who lived through the experiences of the program, during virtually its entire existence, and observed how the program and its surrounding policy environment evolved over many years.

While serving in the program, I was reminded on a daily basis of the formidable challenges that were given to the program by the Nuclear Waste Policy Act, as amended, (the Act) in fulfilling the mission to manage and dispose of this Nation's commercial spent fuel and defense related high-level radioactive waste. As impatient as those who followed the program have been over the years with its progress, I believe that any new attempt to establish disposal or interim storage facilities, outside the confines of the Act, will be met by many new and likely more vexing challenges, regardless of the organization or entity that is established to administer the effort.

Why will any "new" effort be more problematic? The answer to that question lies partly in the advances society has experienced in instant communication and information flow. When the program proceeded through the facility siting process in the 1980's for two repositories and an interim storage facility, the internet was not in place. E-mail was not available to the general public, nor did the social media of today exist. The 24/7 news cycle we now live in will create many opportunities for those opposed to such facilities to spread rumors and disinformation. As a result, the credibility of any new process will be severely challenged from its inception.

In addition, the State of Nevada has given a clear blueprint to those opposed to such facilities: delay, delay, delay. The State of Nevada sued DOE and the Federal Government over every step forward it took, including the siting process, Environmental Protection Agency (EPA) standards, Nuclear Regulatory Commission (NRC) regulations, water permits, the DOE site recommendation, Environmental Impact Statements, etc. Only one of those lawsuits was successful and resulted in the partial remand of the EPA Standard for Yucca Mountain and subsequent further delay. The State also used its Congressional delegation to influence reductions to the program's budget as well as to affect how the program performed its daily business.

Accordingly, the timeframe of "decades" noted in the GAO report for a new repository is nothing more than notional, and does not appear to stem from a comprehensive evaluation of the program's past experience nor the changes that have occurred since the 1980's.

Although some of the findings and recommendations of the GAO report have merit others are questionable and, in some cases have already been tried. The report suggests that an independent entity outside of the Federal Government could be more successful. The "grass is always greener" adage applies here. It is my belief that any new siting process will be "political" regardless of the entity that is conducting it. It is also my belief the Congress should have the final word on facility siting and that ultimately any siting decision will be a political decision, informed by thorough technical evaluation, just as in the case of Yucca Mountain.

It is difficult to understand the GAO report's so-called "benefit" of terminating the Yucca Mountain Project to afford DOE the "opportunity" to explore other approaches. DOE has no authority to undertake new approaches outside the confines of the Act and history has shown that legislative initiatives regarding these materials will be a multi-year and extremely contentious enterprise. The original Act was a compromise between those desiring interim storage of these materials and those desiring disposal. My sense is that any new legislative examination of these issues will bring out similar perspectives and the consensus needed to develop a new policy path will not come easily or quickly.

Because the development of Yucca Mountain has been such a contentious and protracted process, it is being suggested that only consensual siting of these facilities should be pursued. I would submit to the Subcommittee that the U.S. and international experience in this area proves otherwise. In my discussions over the years with the Directors of repository programs abroad, they have consistently expressed their concerns that, due to the very long timeframes repository programs take to develop, any political consensus at the beginning can evaporate with one election, just as it has in the U.S. with Yucca Mountain. At the end of the day, implementing a repository program requires steady, consistent, national leadership.

In closing, beside its questioned legality, the Administration's decision to terminate the Yucca Mountain Project is disturbing because Yucca Mountain has not failed any technical or regulatory test. The site has not failed in the NRC licensing process. The thousands of scientists and engineers and others that worked on the project over the years

believe, as I believe, that the site would meet the stringent regulations of the EPA and the NRC and assure that these materials would not adversely impact future generations and the environment. Given the substantial investment this Nation has made in the site and in the policy that has been supported by every prior Administration since 1982, I believe the Nation deserves a final and definitive answer regarding Yucca Mountain from the NRC licensing process.

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

Mr. SHIMKUS. Thank you, Mr. Kouts, and I will recognize myself for 5 minutes for the first round of questioning.

Again Mr. Hollis, I want to welcome you here, and I think in my visit out there, which was my second visit, I think it was even better that I drove because it gave you an idea of how far the definition of local is. The size of the federal property that consists and Yucca Mountain is inside, how big is that land mass?

Mr. HOLLIS. Well, the county is around 18,000 square miles.

Mr. SHIMKUS. I was told that the federal property, the BLM, the DOE, the nuclear test site is the size of the State of Rhode Island. Is that correct?

Mr. HOLLIS. Well, the test site is just about the size of the State of Rhode Island, but that doesn't account for the Tonopah Test Range and the Nellis Bombing Range.

Mr. SHIMKUS. So it is a large site, and Yucca, the mountain itself is not on the outskirts of this Federal Government land. It is my recollection that we went through the gate, we still drove 10 or 15 miles to get to Yucca Mountain. Is that true?

Mr. KOUTS. If I could answer that question?

Mr. SHIMKUS. Yes, Mr. Kouts.

Mr. KOUTS. Mr. Chairman, the site itself, basically half of it is on the Nevada Test Site and the other half is on BLM land. So——

Mr. SHIMKUS. And so from the security gate, that is how far of a drive from the first—I mean——

Mr. KOUTS. Well, if you entered around Mercury, since the gate that we used to use is now closed, I mean, you probably drove about 5 miles form that gate to try to get to a place near the mountain.

Mr. SHIMKUS. So when we talk about local consideration, what is your county seat? What is the city, the county seat?

Mr. HOLLIS. Tonopah, and from where I live, it is 165 miles to the county seat.

Mr. SHIMKUS. And Pahrump, which is the town I visited, is that the closest community of size?

Mr. HOLLIS. Yes, it is approximately 34,000.

Mr. SHIMKUS. Thirty-four thousand, and it is——

Mr. HOLLIS. The county is about 43,000.

Mr. SHIMKUS. So you are local in the region.

Mr. HOLLIS. Yes.

Mr. SHIMKUS. So if we wanted to talk to local individuals—now, in driving from Las Vegas, it is like—my hometown in Collinsville, Illinois, and the State capital is a town called Springfield, it is about 90 miles. Isn't that the distance?

Mr. HOLLIS. Actually it is probably 130 miles, 135 miles from Las Vegas.

Mr. SHIMKUS. No one in Collinsville, Illinois, would say we are local to Springfield and no one in Springfield, Illinois, would say Collinsville is local. And so we appreciate your being here and we appreciate a local voice in this debate on what the local citizens want to do. And all you are asking is for the NRC to make a decision?

Mr. HOLLIS. That is correct.

Mr. SHIMKUS. Because there is always a debate, and we had the commissioners here, and this is not a hearing on the commissioners

but we feel that the NRC commissioners have voted, and we would like to know what the result of that vote is.

Mr. HOLLIS. Absolutely. That is what we want to know.

Mr. SHIMKUS. And so you are also speaking for other counties that are closer in proximity to the city of Las Vegas?

Mr. HOLLIS. Well, I pretty well speak for all the counties around Yucca Mountain that have impact to Yucca Mountain. Those six counties that I am talking about and that I have resolutions here in support of.

Mr. SHIMKUS. Thank you.

Mr. Kouts, you mentioned in your bio you were in the Office of Civilian Radioactive Waste Management, correct?

Mr. KOUTS. That is correct, sir.

Mr. SHIMKUS. And that office was enacted by—what statute gave that office the authority?

Mr. KOUTS. The Nuclear Waste Policy Act of 1982.

Mr. SHIMKUS. And that law is still valid, correct?

Mr. KOUTS. Yes, sir, it is.

Mr. SHIMKUS. And who is in charge of and how many people are in the Civilian Radioactive Waste Management Office right now?

Mr. KOUTS. Zero.

Mr. SHIMKUS. And would it be your opinion that if there is no one fulfilling the role that is under the law that someone is not abiding by the law?

Mr. KOUTS. Although I am not a lawyer, it would seem to me the department is not following the law.

Mr. SHIMKUS. And I have 11 seconds. How would it would take to reconstitute the office and finally reach an answer on how much that will cost?

Mr. KOUTS. Let me preface my estimate by saying that this all presupposes that the department did not demolish the office as it tried to demolish the licensing process with impunity basically. The motion that they filed was with prejudice, which meant that if indeed it was withdrawn from the NRC, it could never be resubmitted. So if the department has treated the office that way, then I think it will take many years. If the records are in reasonable shape and if you can coax the staff—and I am not talking about the federal staff, I am talking about the contractor and scientific staff-back and you can get the contractors in place, you are going to have to get a law firm again. Having said that, it would probably take 2 to 3 years to reformulate the office and to get it in a position where it could begin defend the license again, and from that point, it will probably take, assuming the NRC has issued their report or nearby close to that probably at least another 3 years to get a final answer out of the commission, so that will probably be about a 5- to 6-year time period. That is my estimate, assuming again they didn't terminate the office with prejudice.

Mr. SHIMKUS. Thank you very much. My time is expired.

I would like to recognize the vice chairman of the committee, Mr. Murphy from Pennsylvania.

Mr. MURPHY. Thank you, Mr. Chairman.

Mr. Kouts, I wonder if you could tell me a little bit of your background. You are an engineer by trade?

Mr. KOUTS. Yes, sir. I have two degrees in engineering, and I am also a licensed professional engineer.

Mr. MURPHY. And you have worked with the Department of Energy?

Mr. KOUTS. I joined the Department of Energy back in 1978 and I joined the program in 1985.

Mr. MURPHY. And you have been involved—when you say "the program," you mean the program with Yucca Mountain?

Mr. KOUTS. The Office of Civilian Radioactive Waste Management. I lived through just about all the siting challenges, everything else through the act, and I lived in the program or I was in the program during virtually its entire existence.

Mr. MURPHY. Are you familiar with the legislation that has been passed and into law regarding Yucca Mountain?

Mr. KOUTS. Very familiar.

Mr. MURPHY. You have read it?

Mr. KOUTS. Many times.

Mr. MURPHY. Have you found anything in there which set a standard in law which talked about social acceptance of sitings of this?

Mr. KOUTS. No, sir, I have read it many times, and I never found anything like that in there.

Mr. MURPHY. Are you familiar with the Department of Energy or anybody involved with any of these projects ever using that as a standard to override scientific or legal information?

Mr. KOUTS. Only the current Secretary of Energy.

Mr. MURPHY. You heard in the previous testimony multiple times related to their counsel and their Secretary of Energy saying that that was the standard they were going to use, and it reminds me of other standards they used when the White House talked about changing some of the other mandates and regulations that come up, that they would look at some other social aspects of this as well. But I am curious as we go through this if you have any idea of any standard in engineering at all where this is applied anywhere else in the universe that we are familiar with.

Mr. KOUTS. Well, no, sir, I am not, and I think the irony of all this as the Nye County representative represented, there is local support. There is acceptance of a repository there, assuming—and I would say appropriate local support because I think they are concerned about its safety. The bottom line is that just as Dr. Lyons indicated that the local community around Carlsbad would like it, well, I don't think the local community around Nye County is any different in that regard than Carlsbad. So again, I don't understand the standard, I don't know how it was applied. I wasn't involved in those conversations, so your guess is as good as mine.

Mr. MURPHY. But you had made some reference before to the term "consensus." Certainly one can find someone in any community that either the NIMBY principle applies or BANANA, which means build absolutely nothing anywhere anything. I am interested in the science and trying to find a safe place to put nuclear fuel. It is safe where it is now but not long term, if we are looking at long-term sites here too.

The Department of Energy describes Yucca as unworkable, and it is a 25-year stalemate. Do you agree with those terms?

Mr. KOUTS. I don't believe it has been a stalemate, sir. I think it has been a very contentious process, and I would deny that, but I don't believe it was at a stalemate.

Mr. MURPHY. Those 25 years weren't spent with just people wringing their hands, they were working on scientific information.

Mr. KOUTS. That is correct, sir, and we had a great victory in submitting the license application back in 2008, so I wouldn't look at that as a stalemate. Unfortunately, they truncated the licensing process but as I indicated in my testimony, I believe the Nation deserves an answer on Yucca Mountain.

Mr. MURPHY. And as far as you can tell through your knowledge and experience, that answer has not been forthcoming other to say they are looking for some consensus or social aspects on this but no other. You heard in my previous questioning of the DOE secretary that we have not seen any scientific, legal, any information out there of any way, shape or form which would contraindicate what has been forth as licensure up to this time?

Mr. KOUTS. The answer is no, and I will say that as long as I was principal deputy and acting director in the program during this Administration, I was never asked for any technical information regarding the site, so my assumption was that technical information was not part of the Secretary's decision-making process, and had anyone else in my program been asked for it, I would have known about it. So the bottom line is, to my knowledge the Secretary's decision was not a technical one, at least he didn't ask for any information from the program for it, and he must have used other criteria which again since I wasn't part of the decision-making process I can't comment on.

Mr. MURPHY. I thank you.

And with that, I yield back.

Mr. SHIMKUS. The gentleman yields back his time. The chair recognizes the ranking member, Mr. Green from Texas.

Mr. GREEN. Thank you, Mr. Chairman.

I appreciate the patience. I apologize to our witnesses. We actually had a markup of the full committee downstairs on a bill I was working on and also I met with the chair on a little pipeline from Canada legislation that we are working on, but I appreciate it. Obviously energy is really important where I came from, and I appreciate the opportunity a few weeks ago to come out to Yucca Mountain. I have supported it for my whole career in Congress, and it was good to see on the ground what was happening.

Mr. Kouts, in your testimony you mentioned the potential challenges with restarting the selection process for a nuclear waste storage facility. I have concern about that process, as I said with our earlier panel. You mentioned your disagreement and GAO's recommendation or independent commission and Congress should have final say. Do you also take issue with the Blue Ribbon Commission and their potential recommendations?

Mr. KOUTS. If you are asking my opinion about the preliminary recommendations of the Blue Ribbon Commission, I would use three words. I would say they are predictable. I would say they are disturbing and I would also say they are amusing, and let me try to explain why. Predictable in the sense that if you read the President's Executive Order, it is very clear that the President had

made up his mind that Yucca Mountain wasn't an option. He talked about in his order that the last 25 years has basically been unworkable—not unworkable, he used some other words—but it was a very clear charge to the commission about what his views were. So what came out of it was, Yucca Mountain obviously was not on the table and they want to restart the whole process, and that is the real troubling part of it because I don't think anyone at the commission really understands what it will be like for this country to go through another siting process for a repository. It was a gut-wrenching, very, very difficult time, not only inside the Department of Energy but outside the Department of Energy, and now as I indicated with the social media that we have and the opportunity for disinformation, it will be magnitudes more challenging than it was back in the 1980s.

And let me just finish with the amusing aspect of the preliminary recommendations is that it took so long for them to come up with their predictable, disturbing conclusions.

Mr. GREEN. Mr. Hollis, thank you for being here today, and again, thank you for your hospitality. We had a brief meeting there. You mentioned your desire to see Yucca Mountain proceed if the health and safety of individuals of the areas is protected. You mentioned resolutions passed by Nye County and other areas. Can you discuss the resolutions and further explain the position of your county?

Mr. HOLLIS. Well, the six resolutions, they are just asking the DOE, Department of Energy and the Nuclear Regulatory Commission to finish the process, let us finish the license application, and that is what we are supporting. We want them to finish their job. We can't make evaluation of the safety of Yucca Mountain without all the evidence, and we are asking for all the evidence, and the evidence is that the Nuclear Regulatory Commission has to follow the licensing application. It has to be completed before we will know. If it is unsafe, I will be the first one to stand up and say no. But if it safe, I will be the first one to say let us build it.

Mr. GREEN. I typically go with the folks who live in the neighborhood, and you are about as close as folks that live in the neighborhood as you can get.

Mr. White, in your testimony, you discussed the need to develop at least one interim storage facility, that these potential facilities could be a net savings to the Federal Government. You suggest one of nine potential locations where reactors were shut down. Can you further in detail on this suggestion and how could it help solve or ease the burden of our nuclear storage dilemma?

Mr. WHITE. Well, there is a couple different aspects to that question. One of the things we are really concerned about is the fact that the program has not performed at all, you know, we have nothing, and we have nine sites around the country where there are shutdown reactors and many of those plants, for example, the Big Rock nuclear plant in Michigan, they have decommissioned that site as much as they possibly can. What is left on that 750-acre site is an independent spent fuel storage facility. It is just the dry casks sitting in a pit, so we cannot return that property to productive use, so we think that there could be some lessons learned if we could consolidate at least the fuel at those nine sites, those

nine shut-down sites, into one location, and it would achieve a savings because currently the customers and the utilities that own those sites are paying those costs continually despite the fact that they are no longer generating electricity at that site.

Mr. GREEN. You also discussed financing the disposal of nuclear waste in the nuclear waste fund. If the nuclear waste fund were not used for the purpose you discussed, what would alternative means be for financing disposal of nuclear waste? Because we know part of this came out of our ratepayers, including my area, and part of it came from just general revenue. Where would we the other funding?

Mr. WHITE. Well, that is a good question, and I don't have the answer to that. We agreed to what I call the deal where the customers would pay the cost. The beneficiaries of nuclear generation would pay the cost of the program. What we are frustrated by is we have paid and paid and paid and we have nothing to show for it, and I can argue that the customers paid for the design of the spent fuel pools at the reactors. We have paid for the reconsolidation when those pools filled because the Federal Government hadn't taken the waste. We paid again when that fuel was removed and put into dry casks. All the while we are paying for a federal program with nothing to show for it.

Mr. GREEN. I appreciate it. I know my time has run out. Mr. Chairman, no matter what happens with Yucca Mountain, we still need a nuclear waste disposal facility, and the President supports investment in alternative energy, and Secretary Chu actually gave testimony before our committee that we are unable to meet the President's goals if we do not invest in nuclear energy. Part of that is also finding a place to have a permanent storage, and this means we need to have it stored safely somewhere, and if not Yucca, then we don't want to have Members of Congress 25 years from now like we are saying OK, where are we going to put this, it is still sitting on these sites all over the country. So thank you for the hearing.

Mr. SHIMKUS. I thank my colleague, and now I would like to recognize Congressman Whitfield from Kentucky, who chairs the Energy and Air Subcommittee, so he is very knowledgeable on energy issues.

Mr. WHITFIELD. Well, I hope I can live up to your expectations, John.

Mr. SHIMKUS. I hope you can too.

Mr. WHITFIELD. Thank you all for being here. We really appreciate it.

I think it is very difficult myself to come to any conclusion except that this Administration is ignoring the law because the Nuclear Waste Policy Act of 1982 did set this up. In 2002, Yucca Mountain was approved as the site, and for this Administration to pull back its application for construction, authorization for construction before any decision has been made, it seems to me is violation of the law. Would you agree with that, Mr. Kouts?

Mr. KOUTS. Let me preface by saying I am an engineer who has read the act very many times but I tend to agree with the administrative law judges at the NRC who when they read the act could not find any basis for the Secretary to withdraw the application in section 214, which is the same section that tells them to submit it.

If there was a flaw in the license application, then I think the Secretary could pull it back and fix it and then resubmit it, but just to withdraw it with prejudice, in other words saying that it is never going to be submitted again, I certainly don't see that authority in the act.

Mr. WHITFIELD. And then obviously the NRC's construction authorization board agreed with that because they refused to allow them to withdraw the application, and that was in June of 2010, and so we have had one year for the commissioners to take this issue up and make some decision, and I think that anyone who has heard Chairman Jaczko testify would certainly walk away with the conclusion that he is simply dragging his feet, because one of the commissioners whose term is going to be expire maybe the end of this month and he knows that the appointment of the next commissioner will be voting with him, and yet to do that is violating the policy act.

So it appears, even a reasonable interpretation is, this is nothing but politics. And then I heard you answer Mr. Murphy and say you were the acting director of the Office of Civilian Radioactive Waste Management. So if the Secretary was going to withdraw this application, it would appear that he would come to you for some technical information and yet you testified he did not do so. Is that correct?

Mr. KOUTS. That is correct, sir. He did not.

Mr. WHITFIELD. And so if he didn't want technical information in making a decision to withdraw, what kind of information would he need to make a decision like that?

Mr. KOUTS. Well, if I could just give you my experience with the program, having been in it for 25 years, and again, I was a career SES, I was an acting director, and over the years I have been involved in lots of meetings and been told not to attend lots of meetings, and the ones I have been told not to attend are typically those that are among political appointees where they are going to discuss political issues. So my assumption was, since I was not involved in the decision-making process, that those types of discussions were going on. And we did not have a political for the program. There was not one appointed. So therefore there was no one from the program politically appointed by the President in those meetings but that is what my assumption was because I wasn't involved.

Mr. WHITFIELD. Well, I think the logical conclusion is that it was political. It was done to help Harry Reid. And the American people are the ones that are going to suffer from this. Over $15 billion has been invested already. Ratepayers for utilities are paying fees for this. Taxpayers are now legally liable to pay over $15 billion in judgments against the Federal Government because they cannot live up to the responsibilities of the policy act of 1982.

So it seems to me—and then you take the six counties closest to the repository, as Mr. Hollis has testified, actually support the Nuclear Regulatory Commission at least going through the process and making some final decision and have adopted resolutions basically to that effect. So I don't think there is any question that this is bad news for the American people, it is costly to the American people, taxpayers, and it is probably a violation of the Nuclear Waste Policy Act of 1982.

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

Mr. Kouts, I appreciate your testimony. I think the GAO analysis kind of supports your assertion. Yucca Mountain is the most studied place on the planet, and I think you were there for most of the studying.

I just want to remind the second panel that the record will remain open for 10 days. This hearing may be followed up by individual questions by my colleagues, so if you could then answer those and get those back to us as expeditiously as possible, we would appreciate it.

We will continue to move forward on addressing these disconcerting events that many of us question the legality of, and look forward to moving types of legislation that will help enter another voice of what the vast majority of representatives of this constitutional republic would like to do based on previous agreements and laws passed.

So we thank you for your testimony and appreciate your time. Members have 10 days to submit questions for the record. And with that, this hearing is now adjourned.

[Whereupon, at 5:00 p.m., the subcommittee was adjourned.

[Material submitted for inclusion in the record follows:]

FRED UPTON, MICHIGAN
CHAIRMAN

HENRY A. WAXMAN, CALIFORNIA
RANKING MEMBER

ONE HUNDRED TWELFTH CONGRESS

Congress of the United States
House of Representatives

COMMITTEE ON ENERGY AND COMMERCE
2125 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515–6115

Majority (202) 225-2927
Minority (202) 225-3641

June 1, 2011

The Honorable Fred Upton
Chairman
Committee on Energy and Commerce
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable John Shimkus
Chairman
Subcommittee on Environment and the Economy
2125 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Upton and Chairman Shimkus:

We are writing to express concern about the partisan nature of investigative practices being employed in the Committee's ongoing inquiry into the licensing process relating to the Yucca Mountain nuclear waste depository.

On Friday, Democratic Committee staff discovered that your staff had conducted interviews of at least four employees of the Nuclear Regulatory Commission without notifying the Democratic members or staff of the Committee. We also learned that an additional Committee interview was planned over the Memorial Day weekend. Minority staff immediately asked your staff for information about the interviews that had already occurred and asked to participate in the witness interview scheduled over the weekend. Your staff did not respond until Tuesday and has yet to agree to include the minority in future Committee interviews.

Yesterday, Democratic Committee staff contacted three of the witnesses. They told us that they did not request that Democratic staff be excluded from the interviews. In fact, one said she would have preferred that Democratic staff be present because she did not view this matter as partisan and does not understand why two sets of interviews are necessary.

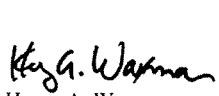
Excluding Democratic staff from Committee interviews of fact witnesses is inappropriate and inconsistent with Committee precedents. The practice denies nearly half the members of the Committee equal access to relevant information about the investigation. It wastes taxpayer

resources by necessitating duplicative interviews. And it calls into question the basic fairness and credibility of the Committee's inquiry.

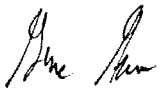
We recognize that there can be exceptional cases where a bipartisan interview could be problematic, such as an interview with a whistleblower who insists on confidentiality. But these circumstances are rare and do not justify the exclusion of Democratic staff from the NRC interviews.

We urge you to reconsider this practice and invite Democratic participation in future Committee interviews.

Sincerely,



Henry A. Waxman
Ranking Member



Gene Green
Ranking Member
Subcommittee on Environment
and the Economy

BLUE RIBBON COMMISSION
ON AMERICA'S NUCLEAR FUTURE

May 27, 2011

The Honorable Fred Upton, Chairman
U.S. House Energy and Commerce Committee
2125 Rayburn House Office Building
Washington, DC 20515

The Honorable John Shimkus, Chairman
U.S. House Energy and Commerce Committee
Subcommittee on Environment and the Economy
2125 Rayburn House Office Building
Washington DC 20515

Dear Representatives Upton and Shimkus,

At the direction of the President, the Secretary of Energy established the Blue Ribbon Commission on America's Nuclear Future and charged it with reviewing policies for managing the back end of the nuclear fuel cycle. We are serving as the Co-Chairmen of the Commission and have taken note of your recent comments about the Commission's work.

Your comments echo those we have heard from several members of Congress and from people across the country who believe the United States should not abandon the investment it has made in developing a proposed nuclear waste repository at Yucca Mountain in Nevada. As we have listened to testimony and public comment, we have been constantly reminded of the serious lack of trust that exists today in the federal government's ability to meet its waste cleanup obligations. The decision to withdraw the license application for the proposed Yucca Mountain repository has only increased this deficit of trust. Unfortunately, the longer our country fails to solve the nuclear waste problem, the greater the trust deficit becomes – with the U.S. government continuing to fail in its legal and moral obligation to take spent nuclear fuel and defense high level waste while the future of nuclear power as an option for electrical generation in this country is seriously jeopardized.

In a February 11, 2011 letter to the Commission, the Secretary of Energy states that "it is time to move beyond the 25 year old stalemate over Yucca Mountain" and "look for a better solution – one that is not only scientifically sound but that can also achieve a greater level of public acceptance than would have been possible at Yucca Mountain." The Secretary's view has been supported by many witnesses before our Commission

who believe Congress acted unfairly when it decided in 1987 to force the repository project on an unwilling host state.

We can and must do better to resolve this stalemate.

Feelings certainly run deep on both sides of the Yucca Mountain debate. The Secretary has made it clear that we are not a siting commission. We have been directed not to recommend specific locations for any component or facility of the U.S. nuclear waste management system. We will therefore not issue any findings on the merits of Yucca Mountain or any other site as a repository. Furthermore, we will not defend or oppose the Administration's actions regarding Yucca Mountain. What we will do is recommend a sound waste management approach that can lead to the resolution of the stalemate; an approach that neither includes nor excludes Yucca Mountain as an option for a repository and can and should be applied regardless of what site or sites are ultimately chosen to serve as the permanent disposal facility for America's spent nuclear fuel and other high-level nuclear wastes.

What we have endeavored to do is to learn from past efforts – both successful and unsuccessful – to site nuclear waste disposal facilities and other controversial facilities in the United States and abroad. While there is no reasonably foreseeable technology that could eliminate the need for a high-level nuclear waste disposal facility, progress on mined deep geologic repository programs—particularly in Sweden and Finland, but in other nations as well —has significantly increased confidence in the ability to identify acceptable sites and safely isolate long-lived wastes in deep, mined geologic repositories. Here in the United States, more than ten years of operating experience at the Waste Isolation Pilot Plant in New Mexico, which is successfully accepting and disposing of certain radioactive wastes from our nation's nuclear weapons program, show that nuclear wastes can be transported safely over long distances and emplaced securely in a deep, mined repository.

This doesn't mean the development of new facilities to treat, store and dispose of nuclear wastes is now or will ever be easy; the existing trust deficit must be overcome and care must be taken to develop an inclusive, transparent and publicly acceptable process to identify and investigate suitable sites, engineer a system that is compatible with the site, construct the facility properly, operate it to very high standards of performance and, when the time comes, close and monitor the facility to protect the health and safety of generations to come. But experiences in the United States and abroad leave no doubt that a repository can be developed if the political will exists to develop one.

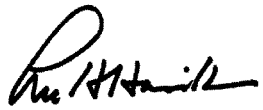
Our recommendations will build upon nearly thirty years of global experience in nuclear waste repository development since Congress passed the Nuclear Waste Policy Act in 1982. These recommendations will address the full range of problems that have hampered our ability to develop a successful waste management solution. We will

release a draft report in late July and we urge the Congress; electric utility ratepayers; federal, state, tribal and local governments; nuclear waste management professionals; non-governmental organizations and others in the United States and abroad to review and comment on our forthcoming report so the Commission might benefit from further input. We will weigh that input in developing a final report.

Our choice as a nation is clear: we can continue to fight the same battles we've been fighting for nearly 30 years, or we can step back and chart a new course that answers the challenge of putting the U.S. high-level nuclear waste management program back on a path to success.

We would be pleased to meet with you to discuss your views on the Commission's work. If you would like to set up a meeting, please contact our Commission Staff Director, John Kotek at (202) 460-2308 or at john.kotek@blueribboncommission.net.

Sincerely,



Lee H. Hamilton
Co-Chairman

Brent Scowcroft
Co-Chairman

cc: The Honorable Henry Waxman, Ranking Member,
U.S. House Energy and Commerce Committee

The Honorable Gene Greene, Ranking Member,
U.S. House Energy and Commerce Committee
Subcommittee on Environment and the Economy

The Honorable Steven Chu, Secretary
U.S. Department of Energy

Timothy A. Frazier, Designated Federal Officer
Blue Ribbon Commission on America's Nuclear Future
U.S. Department of Energy

SUSAN BRAGER
Chair

Board of County Commissioners

CLARK COUNTY GOVERNMENT CENTER
500 S GRAND CENTRAL PKY
BOX 551601
LAS VEGAS NV 89155-1601
(702) 455-3500 FAX: (702) 383-6041

May 31, 2011

The Honorable John Shimkus
Chairman
Subcommittee on Environment and Economy
United States House of Representatives
Washington, DC 20515

The Honorable Gene Green
Ranking Member
Subcommittee on Environment and Economy
United States House of Representatives
Washington, DC 20515

RE: Clark County's views on Yucca Mountain

Dear Chairman Shimkus and Ranking Member Green,

Thank you for allowing me to provide Clark County's perspective, position, and findings with regard to the proposed repository. Clark County is one of ten designated Affected Unit of Local Government (AULG) under the Nuclear Waste Policy Act of 1982, as amended in 1987. As I am sure you are aware, the Act authorized AULGs to conduct assessments of the economic, social and environmental impacts of the repository and transportation to it, and to make comments and recommendations to the Secretary of Energy.

The Clark County Board of County Commissioners has passed numerous formal resolutions in opposition to the repository since 1985. This opposition is based on the steadfast opposition of our residents, consistently measuring 70% in annual surveys. Clark County, at approximately 8,000 square miles in size (roughly the same size as New Jersey) is a highly developed tourist economy that depends for its economic well-being upon the willingness of visitors to visit and recreate in the Las Vegas Valley. Many are not aware that the

internationally famous "Las Vegas Strip" is actually within Clark County's jurisdiction. The billions of dollars in gaming revenues from the Las Vegas Strip provide the economic engine for the entire state. At 2 million residents, Clark County encompasses 75% of the state's total population. Clark County already has a major investment in creating and maintaining a safe environment that will continue to inspire the trust and confidence of visitors. Any significant perturbation that makes visitors less willing to visit the region has an immediate adverse impact on employment in the hotel and restaurant industry and on all retail establishments that depend on visitor spending. At this moment, Clark County is suffering much higher job losses and foreclosures than other parts of the country in the current recession. In fact, residents are so concerned about additional damage to property values that a recent survey showed 88% concern over property values, up from 80% in previous years. Clark County also suffered billions in lost income from the events of 9/11 when prospective visitors perceived a risk to their safety. Over 15,000 employees lost their jobs from that event, which took place nearly 3,000 miles away. It has also been documented that New York City's economy recovered faster than Clark County's in the months after 9/11. A visitor survey conducted two months after 9/11 revealed that 50% of our tourists would not come back to Las Vegas should an accident involving high-level radioactive waste occur in the area. Immediately behind the entire length of the Las Vegas Strip are I-15 and the Union Pacific Railroad, which are the two main methods of transport of high-level radioactive waste and spent nuclear fuel identified in the Yucca Mountain transportation EIS.

While many of the public's concerns revolve around transportation and related public safety impacts, the proximity of the repository to Clark County is also a concern. The proposed repository, while located in Nye County, is only 90 miles away from Las Vegas. The nearest Clark County town, Indian Springs, is only 45 miles away from the repository site, and is primarily supported by rural volunteer fire and emergency services. Clark County and Nye County share transportation infrastructure, and our two counties have mutual aid agreements for public safety support. Further, Nye County does not have the medical facilities needed to support injury or radiation contamination to workers or the public. Clark County's University Medical Center possesses the only Level 1 trauma unit and the only Critical Care Burn Unit in the region. If, for example, a transportation accident involving a tour bus and a truck which was transporting spent fuel were to collide, all accident victims would become the responsibility of Clark County for medical care and coroner services, if needed. Further, a study conducted by the Rand Corporation in 2007 ranked Las Vegas 9th in terms of risk from terrorism.

As a world-renowned tourist destination, we are well aware that negative media associated with any incident involving the transportation, storage or disposal of nuclear waste would likely deter visitors and cause extensive economic damage to our business community. The economic losses from reduced tourism to Japan due to the recent events at the Fukushima nuclear plant are only beginning to be calculated, and are a caution to our community. It is not surprising that Clark

County residents have long seen the Yucca Mountain Project as a potential threat to a normally thriving economy, and the Board of County Commissioners has concluded that the Yucca Mountain repository poses an unacceptable risk to the County's economic welfare. Annual community surveys support Clark County's impact assessment studies with regard to stigma-related impacts to tourism and property values. In fact, the Department of Energy's (DOE) final Environmental Impact Study on Yucca Mountain acknowledged the potential for such impacts after DOE was unable to refute our findings.

By contrast, several of the other affected counties, representing approximately 3 percent of Nevada's population, have long been economically depressed and have understandably supported projects that hold the prospect of jobs and incomes for their citizens and revenue for their jurisdictions, including the proposed Yucca Mountain Project. Although health and safety concerns remain uppermost, the prospect of economic development has been a continuing factor in their interest in the repository program.

Clark County has primarily devoted the resources provided by Congress under the Nuclear Waste Policy Acts of 1982 and 1987 to monitor the siting process, identify potential impacts, comment on siting activities, and conduct public outreach. County acceptance of its oversight responsibility has helped assure our citizens that impacts were being identified and would be brought forward as concerns at appropriate times throughout the process. Our residents have relied on us to communicate concerns regarding the technical, scientific and environmental aspects of the Yucca Mountain program. Our residents also supported us in using oversight funds to bring forward focused, relevant contentions into the licensing proceeding. The NRC's Construction Authorization Board judge panel accepted 14 out of our 16 contentions, which focused on compliance with NEPA, public health and safety, and long-term repository performance.

In our more than 25 year experience, we have also encountered problems with the continually "moving target" of regulations, requirements, standards, and policies that seemed to evolve in a "shrink to fit" fashion whenever the DOE was unable to meet whatever standard was being applied. This approach, where the DOE appeared to employ a "Decide/Announce/Defend" approach to managing the program, has led to trust and credibility problems which made it difficult to manage from an oversight perspective.

The Blue Ribbon Commission on America's Nuclear Future has given much attention to the non-technical challenges of siting a repository, and particularly to the difficulties of operating in an environment where trust and confidence are lacking. The overwhelming evidence provided in testimony before the Commission has revealed that the Department of Energy has failed to inspire confidence and has forfeited the trust of Nevadans. This finding has led to the recommendation that an independent federal corporation should be entrusted

with the responsibility for implementing future nuclear waste storage and disposal programs. We support this approach, no matter where a repository is ultimately located. We, as an oversight agency, and the residents we have represent, have little confidence that the DOE has the capacity to deliver a repository program that promotes public confidence, addresses community-level issues such as public health and safety and security, and instills a long-term safety culture in the operation of such a facility.

Should you require additional information or supporting documents, we would be happy to provide them at your request.

Sincerely,

Susan Brager

Susan Brager
Chairman
Board of County Commissioners
Clark County, Nevada

cc: The Honorable Fred Upton
Chairman
Energy and Commerce Committee

The Honorable Henry A. Waxman
Ranking Member
Energy and Commerce Committee

Nevada Congressional Delegation

Board of County Commissioners

Irene Navis, Program Manager

NYE COUNTY RESOLUTION NO. 2011-21

A RESOLUTION OF THE NYE COUNTY BOARD OF COMMISSIONERS RESOLUTION SUPPORTING COMPLETION OF THE NUCLEAR REGULATORY COMMISSION'S REVIEW OF THE YUCCA MOUNTAIN LICENSE APPLICATION

WHEREAS, the Nuclear Waste Policy Act of 1982, as amended, ("Act") selected Yucca Mountain, located in Nye County as the only site to be characterized as the nation's first high-level radioactive waste repository; and

WHEREAS, Congress in July 2002, in accordance with provisions of the Act, as amended, overrode Nevada's notice of disapproval; and

WHEREAS, Yucca Mountain was designated to be the site for development of a permanent repository for United States spent nuclear fuel and defense high level radioactive waste; and

WHEREAS, the U.S. Department of Energy ("USDOE"), in accordance with the Act, submitted a License Application (LA) to the Nuclear Regulatory Commission (NRC); and

WHEREAS, that LA, in accordance with NRC regulations, was accepted for review by the NRC; and

WHEREAS, the USDOE has since requested withdrawal of its submission of the LA "with prejudice"; and

WHEREAS, the request for withdrawal has been denied by the Atomic Safety and Licensing Board (ASLB) and challenged in Federal Court; and

WHEREAS, the Commissioners of the NRC have not issued a final ruling on their review of the ASLB decision that USDOE does not have the legal authority to withdraw the Yucca Mountain license application; and

WHEREAS, the nation needs to move forward on the established NWPA strategy that provides for the permanent storage of spent nuclear fuel and high level waste; and,

WHEREAS, the Nye County Board of Commissioners (Board) recognizes that further delays in the development of a permanent geologic repository will result in significant public expenditures and potentially jeopardizes the future expansion of nuclear power production and energy independence; and

WHEREAS, the Board is convinced that until such time as the NRC completes its review of the LA, Nye County, the State of Nevada and the nation will be denied a scientific and technical determination of the potential of the Yucca Mountain repository to be built and operated safely and successfully; and

WHEREAS, Nye County adopted Resolutions 2002-7, 2002-22 and 2004-25 defining the County's involvement as the site county for the nation's geologic repository for spent nuclear fuel and defense high level waste,

NOW THEREFORE, it hereby is resolved as follows:

1. The Yucca Mountain licensing proceedings should be restarted and the NRC should complete a thorough and detailed review of the License Application; and
2. If upon completion of the license application review by the NRC staff and the licensing proceeding before the ASLB, the conclusion is that the Yucca Mountain repository can be constructed and operated safely, Nye County reaffirms our prior resolutions and supports such construction and operation consistent with these prior resolutions ; and

APPROVED this 15th day of March, 2011.

NYE COUNTY BOARD OF COUNTY COMMISSIONERS:

Gary Hollis, Chairman

ATTEST:

Sandra "Sam" L. Merlino, Nye County Clerk
And Ex-Officio Clerk of the Board

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DOC # 420130
04-21-2011 10:26 AM
Official Record
Recording requested By
CHURCHILL COUNTY COMMISSIONERS
Churchill County - NV
Joan Sims - Recorder
Page 1 of 2 Fee
Recorded By JS RPTT
420130

RESOLUTION NO. 06-11

CHURCHILL COUNTY BOARD OF COMMISSIONERS
COUNTY OF CHURCHILL, STATE OF NEVADA

RESOLUTION SUPPORTING COMPLETION OF THE NUCLEAR REGULATORY COMMISSION'S REVIEW OF THE YUCCA MOUNTAIN LICENSE APPICATION

WHEREAS, the Nuclear Waste Policy Act of 1982, as amended, ("Act") selected Yucca Mountain, located in Nye County, Nevada as the only site to be characterized as the nation's first high-level radioactive waste repository; and

WHEREAS, Congress in July 2002, in accordance with provisions of the Act, as amended, over-rode Nevada's notice of disapproval; and

WHEREAS, Yucca Mountain was designated to be the site for development of a permanent repository for United States spent nuclear fuel and high level radioactive waste; and

WHEREAS, the U.S. Department of Energy ("USDOE"), in accordance with the Act, submitted a License Application (LA) to the Nuclear Regulatory Commission (NRC); and

WHEREAS, that LA, in accordance with NRC regulations, was accepted for review by the NRC; and

WHEREAS, the USDOE has since requested withdrawal of its submission of the LA "with prejudice"; and

WHEREAS, the request for withdrawal has been denied by the Atomic Safety and Licensing Board (ASLB) and challenged in Federal Court; and

WHEREAS, the Commissioners of the NRC have so far failed to review the ASLB decision that USDOE does not have the legal authority to withdraw the Yucca Mountain license application; and

WHEREAS, the Chairman of the NRC unilaterally directed the NRC staff to terminate review of the LA without ruling on the ASLB decision; and

WHEREAS, with NRC's failure to act in a timely manner with respect to the ASLB decision, the Federal Court of Appeals for the D.C. Circuit will schedule and hear challenges to USDOE's authority to terminate work on Yucca Mountain and withdraw the Yucca Mountain LA; and.

WHEREAS, the nation needs to move forward on the established strategy to provide permanent storage of spent nuclear fuel and high level waste; and,

WHEREAS, the Churchill County Board of Commissioners (Board) recognizes that further delays in the development of a permanent geologic repository will result in significant public expenditures and potentially jeopardizes the future expansion of nuclear power production and energy independence; and

WHEREAS, the Board is convinced that until such time as the NRC completes its review of the LA, Churchill County, the State of Nevada and the nation will be denied a scientific and technical determination of the potential of the Yucca Mountain repository to be built and operated safely and successfully; and

WHEREAS, we are a nation governed with respect for laws we impose on ourselves,

NOW THEREFORE, it hereby is resolved as follows:

1. That absent changes to the Nuclear Waste Policy Act, as amended, NRC should complete

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420130 04/21/2011
003 of 3

a thorough and detailed review of the Yucca Mountain License Application.

APPROVED this 20th day of April, 2011.

BOARD OF COUNTY COMMISSIONERS
COUNTY OF CHURCHILL, STATE OF NEVADA

By: _____
Norm Frey, Chairman

ATTEST:

By: _____
Kelly G. Helton, Churchill County Clerk
And Ex-Officio Clerk of the Board

Churchill County
Agenda Report

Agenda Item: Appointment Time: 1:35
Date Submitted: April 7, 2011 **Agenda Date Requested: April 20, 2011**
Time Requested: 5 minutes

To: **Board of Churchill County Commissioners**
From: **Rex Massey**
Subject Title: Resolution 06-11 Supporting Completion of Yucca Mountain License Review

Type of Action Requested: (check one)
(___) Resolution (___) Ordinance
(_X_) Formal Action/Motion (___) Other – Informational Only
Does this action require a Business Impact Statement? Yes ( ) No (X)

Recommended Board Action: Approve Resolution 06-11 Supporting Completion of the Nuclear Regulatory Commission's Review of the Yucca Mountain License Application.

Discussion: Churchill County is a party to the licensing proceedings for Yucca Mountain. The Obama Administration is attempting to terminate the project without changing the Nuclear Waste Policy Amendments Act. The Atomic Safety and Licensing Board has already ruled that DOE's petition to withdraw the Yucca Mountain license application is not allowed by Law. As a result, the licensing proceedings and the Yucca Mountain project are at a political stalemate with the outcome being uncertain. Long delays in the licensing process could diminish the ability of parties to achieve a full review of the license particularly with respect to contentions which directly affect Churchill County and other parties. Completion of the license application review will ensure that all parties have a full, fair and complete review. Congress and the President can then select the best course of action in terms of developing a repository.

Fiscal Impact: None

Explanation of Impact: NA

Funding Source: NA

Prepared By: Rex Massey Date: March 26, 2011

Reviewed By: _____ Date: 04/11/11
Brad Goetsch, Churchill County Manager

_____ Date: 4/11/11
Craig Mingay, Churchill County Civil Deputy Attorney

_____ Date: 4/11/11
Alan Kalt, Churchill County Comptroller

The submission of this agenda report by county officials is not intended, necessarily, to reflect agreement as to a particular course of action to be taken by the board; rather, the submission hereof is intended, merely, to signify completion of all appropriate review processes in readiness of the matter for consideration and action by the board.

Board Action Taken:
Motion: Approved

	Aye/Nay
1) Carl Erquiaga	X
2) Pete Olsen	X
	X

Pamela J Moore
(Vote Recorded By)

The submission of this agenda report by county officials is not intended, necessarily, to reflect agreement as to a particular course of action to be taken by the board; rather, the submission hereof is intended, merely, to signify completion of all appropriate review processes in readiness of the matter for consideration and action by the board.

Churchill County
Agenda Report

Agenda Item: Appointment Time: 8:55

Date Submitted: April 7, 2011 **Agenda Date Requested: April 7, 2011**
Time Requested: 5 minutes

To: **Board of Churchill County Commissioners**
From: **Rex Massey**
Subject Title: Resolution 06-11 Supporting Completion of Yucca Mountain License Review

Type of Action Requested: (check one)
(___) Resolution (___) Ordinance
(_X_) Formal Action/Motion (___) Other – Informational Only
Does this action require a Business Impact Statement? Yes ( ) No (X)

Recommended Board Action: Approve Resolution 06-11 Supporting Completion of the Nuclear Regulatory Commission's Review of the Yucca Mountain License Application.

Discussion: Churchill County is a party to the licensing proceedings for Yucca Mountain. The Obama Administration is attempting to terminate the project without changing the Nu ' ar Waste Policy Amendments Act. The Atomic Safety and Licensing Board has already ruled that DOE's petition to withdraw the Yucca Mountain license application is not allowed by Law. As a result, the licensing proceedings and the Yucca Mountain project are at a political stalemate with the outcome being uncertain. Long delays in the licensing process could diminish the ability of parties to achieve a full review of the license particularly with respect to contentions which directly affect Churchill County and other parties. Completion of the license application review will ensure that all parties have a full, fair and complete review. Congress and the President can then select the best course of action in terms of developing a repository.

Fiscal Impact: None

Explanation of Impact: NA

Funding Source: NA

Prepared By: Rex Massey Date: March 26, 2011

Reviewed By: _____ Date:_____
Brad Goetsch, Churchill County Manager

_____ Date: 3/28/11
Craig Mingay, Churchill County Civil Deputy Attorney

_____ Date: 3/28/11
Alan Kalt, Churchill County Comptroller

The submission of this agenda report by county officials is not intended, necessarily, to reflect agreement as to a particular course of action to be taken by the board; rather, the submission hereof is intended, merely, to signify completion of all appropriate review processes in readiness of the matter for consideration and action by the board.

Board Action Taken:
Motion: _____ 1) _____ Aye/Nay
2) _____ _____
_____
_____

_____
(Vote Recorded By)

The submission of this agenda report by county officials is not intended, necessarily, to reflect agreement as to a particular course of action to be taken by the board; rather, the submission hereof is intended, merely, to signify completion of all appropriate review processes in readiness of the matter for consideration and action by the board.

ESMERALDA COUNTY RESOLUTION NO. 11-R-05

A RESOLUTION OF THE ESMERALDA COUNTY BOARD OF COMMSSIONERS SUPPORTING COMPLETION OF THE NUCLEAR REGULATORY COMMISSION'S REVIEW OF THE YUCCA MOUNTAIN LICENSE APPLICATION

WHEREAS, the Nuclear Waste Policy Act ("NWPA") of 1982, as amended, ("Act") selected Yucca Mountain, located in Nye County, Nevada as the only site to be characterized as the nation's first high-level radioactive waste repository; and

WHEREAS, Congress in July 2002, in accordance with provisions of the Act, overrode, the State of Nevada's notice of disapproval; and

WHEREAS, Yucca Mountain was designated to be the site for development of a permanent repository for United States spent nuclear fuel and defense high level radioactive waste; and

WHEREAS, the U. S. Department of Energy ("USDOE"), in accordance with the Act, submitted a License Application ("LA") to the Nuclear Regulatory Commission ("NRC"); and

WHEREAS, that LA, in accordance with NRC regulations was accepted for review by the NRC; and

WHEREAS, the USDOE has since requested withdrawal of its submission of the LA "with prejudice"; and

WHEREAS, the request for withdrawal has been denied by the Atomic Safety and Licensing Board ("ASLB") and challenged in Federal Court; and

WHEREAS, THE Commissioners of the NRC have not issued a ruling on their review of the ASLB decision that USDOE does not have the legal authority to withdraw the Yucca Mountain License Application; and

WHEREAS, the nation needs to move forward on the established strategy that provides for the permanent storage of spent nuclear fuel and high level waste; and

WHEREAS, the Esmeralda County Board of Commissioners ("Board") recognizes that further delays in the development of a permanent geologic repository will result in significant public expenditures, the incurring of great liability, and potentially jeopardizes the future expansion of nuclear power production and U.S. energy independence; and

WHEREAS, the Board is convinced that until such time as the NRC completes its review of the LA, Esmeralda County, the State if Nevada and the nation will be denied a scientific and technical determination of the potential of the Yucca Mountain repository to be built and operated safely and successfully; and

NOW THEREFORE, it hereby is resolved as follows:

1. **The Yucca Mountain licensing proceedings should continue and the NRC should complete a thorough and detailed review of the License Application.**

APPROVED, PASSED AND ADOPTED by the Esmeralda County Board of Commissioners this 5th day of April, 2011

ESMERALDA COUNTY BOARD OF COUNTY COMMISSIONERS:

Nancy Boland, Chair

Dominic Pappalardo, Vice Chair

William Kirby, Board Member

ATTEST:

La Cinda Elgan, Esmeralda County Clerk of the Board

APPROVED AS TO FORM:

Arthur Wehrmeister District Attorney

///

Resolution No. 2011-5

LANDER COUNTY BOARD OF COMMISSIONERS

BOARD OF COUNTY COMMISSIONERS
COUNTY OF LANDER, STATE OF NEVADA

RESOLUTION SUPPORTING COMPLETION OF THE NUCLEAR REGULATORY COMMISSION'S REVIEW OF THE YUCCA MOUNTAIN LICENSE APPICATION

WHEREAS, the Nuclear Waste Policy Act of 1982, as amended, ("Act") selected Yucca Mountain, located in Nye County as the only site to be characterized as the nation's first high-level radioactive waste repository; and

WHEREAS, Congress in July 2002, in accordance with provisions of the Act, as amended, over-rode Nevada's notice of disapproval; and

WHEREAS, Yucca Mountain was designated to be the site for development of a permanent repository for United States spent nuclear fuel and high level radioactive waste; and

WHEREAS, the U.S. Department of Energy ("USDOE"), in accordance with the Act, submitted a License Application (LA) to the Nuclear Regulatory Commission (NRC); and

WHEREAS, that LA, in accordance with NRC regulations, was accepted for review by the NRC; and

WHEREAS, the USDOE has since requested withdrawal of its submission of the LA "with prejudice"; and

WHEREAS, the request for withdrawal has been denied by the Atomic Safety and Licensing Board (ASLB) and challenged in Federal Court; and

WHEREAS, the Commissioners of the NRC have so far failed to review the ASLB decision that USDOE does not have the legal authority to withdraw the Yucca Mountain license application; and

WHEREAS, the Chairman of the NRC unilaterally directed the NRC staff to terminate review of the LA without ruling on the ASLB decision; and

WHEREAS, with NRC's failure to act in a timely manner with respect to the ASLB decision, the Federal Court of Appeals for the D.C. Circuit will schedule and hear challenges to USDOE's authority to terminate work on Yucca Mountain and withdraw the Yucca Mountain LA; and.

WHEREAS, the nation needs to move forward on the established strategy to provide permanent storage of spent nuclear fuel and high level waste; and,

Whereas, the Lander County Board of Commissioners (Board) recognizes that further delays in the development of a permanent geologic repository will result in significant public expenditures and potentially jeopardizes the future expansion of nuclear power production and energy independence; and

WHEREAS, the Board is convinced that until such time as the NRC completes its review of the LA, Lander County, the State of Nevada and the nation will be denied a scientific and technical determination of the potential of the Yucca Mountain repository to be built and operated safely and successfully; and

WHEREAS we are a nation governed with respect for laws we impose on ourselves,

NOW THEREFORE, it hereby is resolved as follows:

1. That absent changes to the Nuclear Waste Policy Act, as amended, NRC should complete a thorough and detailed review of the Yucca Mountain License Application.

0260570 Book: 621 Page: 267 04/13/2011 Page: 4 of 4

APPROVED this 24th day of March, 2011

BOARD OF COUNTY COMMISSIONERS
COUNTY OF LANDER, STATE OF NEVADA

By: _____
Steve Stienmetz, Chairman

ATTEST:

By: _____
Sadie Sullivan, Lander County Clerk
And Ex-Officio Clerk of the Board

Board of County Commissioners
Nye County
Pahrump, Nevada

Pahrump Office
2100 E. Walt Williams Drive
Pahrump, NV 89048
Phone (775) 751-7075
Fax (775) 751-7093

June 28, 2011

The Honorable John Shimkus
Subcommittee on Environment and the Economy
2125 Rayburn House Office Building
Washington, DC 20515-6115

Subject: Questions for the Record, regarding Subcommittee on Environment and the Economy Hearing of Wednesday, June 1, 2011 titled "The Department of Energy's Role in Managing Civilian Radioactive Waste"

Dear Congressman Shimkus:

It was my distinct pleasure to appear before you at the above referenced subcommittee hearing. I appreciate the work you are doing and appreciate having had the opportunity to present testimony on behalf of Nye County and the other rural Nevada Counties that support completion of the license application process for Yucca Mountain.

The attachment is my response to your additional Questions for the Record.

Thank you for your time and consideration.

Sincerely,

Gary Hollis, Chairman
Nye County Board of County Commissioners

GH/ep

Enclosure: Subject QFR

cc: Nye County BOCC
Nye County Manager
Nye County NWRPO (Darrell Lacy)

Answers of The Honorable Gary Hollis to Questions Posed by the Honorable John Shimkus

Subcommittee on Environment and the Economy
"The Department of Energy's Role in Managing Civilian Radioactive Waste"
Wednesday, June 1, 2011
Questions for the Record

The Honorable John Shimkus

1. **What steps has Nye County taken to assess and monitor the safety questions and issues generated by the Yucca Mountain project?**

Answer: The Honorable Charles Gary Hollis

The Nye County Board of County Commissioners established a Nuclear Waste Repository Project Office to protect the interests of Nye County citizens regarding the Yucca Mountain Project. One of the ways this was accomplished was through the County's Independent Scientific Investigations Program (ISIP). Funding for the ISIP was provided through cooperative agreements with DOE and oversight funding under Section 116 of the Nuclear Waste Policy Act (NWPA). NWPA Sec. 116 states that "the Secretary [of Energy] shall make grants to the state of Nevada and any affected unit of local government for purposes of enabling such State or affected unit of local government . . . to engage in monitoring, testing, or evaluation activities with respect to site characterization programs with regard to such site."

The first Nye County borehole was drilled at Yucca Mountain in December 1995. Nye County boreholes were used to look at the unsaturated zone for gas sampling, and the saturated zone for ground water pressure and temperature monitoring. Nye County installed instruments to measure temperature, pressure, humidity and wind speed within the Exploratory Studies Facility tunnel and the Enhanced Characterization of the Repository Block drift. These measurements were used to characterize the air being used to ventilate the tunnel which could potentially impact the performance of the repository, as well as to evaluate worker safety.

Nye County's flagship science program is the Early Warning Drilling Program (EWDP). Under EWDP, funded under a cooperative agreement by the DOE, 40 boreholes and wells were drilled (over 45,000 feet total) and completed south of Yucca Mountain. These boreholes and wells were used for data collection to characterize and evaluate hydrogeology south of Yucca Mountain and are intended to serve as a future monitoring system. The EWDP addressed the origin of spring deposits, the geology and hydraulic properties of volcanic rocks and valley-fill sediments, ground water recharge, and ground water flow

patterns. Other investigations included aquifer testing to determine aquifer storativities and transmissivities; tracer testing to determine groundwater flow and transport characteristics; a water level measurement program; and a surface runoff sampler network. The combined results of these tests provided a detailed understanding of groundwater flow down gradient (south) of Yucca Mountain, which was not previously well defined by DOE investigations. Other tests included water chemistry for Safe Drinking Water Act analyses, and surface geophysics to learn more about the geology between existing wells. All activities were conducted under an NRC approved Quality Assurance Program, which allowed the Department of Energy to incorporate the results of Nye County's scientific investigations into their license application and environmental impact statement.

In addition to the ISIP and EWDP, Nye County's scientific and technical subject matter experts reviewed all aspects of DOE's work. They concluded that, based on Department of Energy and Nye County information, Yucca Mountain could be constructed and operated safely.

The results of Nye County's science investigations are published in a number of reports that are included in DOE's license support network. Nye County's data and reports are available on the Nye County website: www.nyecounty.com.

The Honorable John Shimkus

a. **What if any, conclusions has Nye made concerning the various scientific, engineering, and safety issues raised by DOE's plans for the project?**

Answer: The Honorable Charles Gary Hollis

With the knowledge and understanding gained through our ISIP and EWDP as well as our subject matter experts review of the materials, we have concluded that with regard to licensing; "*Provided that the concerns raised by Nye County in its contentions [filed today] are addressed and satisfied by NRC's inclusion of appropriate conditions on construction authorization, Nye County believes that the repository will be constructed and operated in a manner which adequately protects the residents of Nye County and the public from radiological releases and exposures.*"

The Honorable John Shimkus

2. **What would you want the Committee to understand about DOE engagement with the communities during development of Yucca?**

Answer: The Honorable Charles Gary Hollis

Until the current administration made its unilateral decision to stop the Yucca Mountain Project, DOE and Nye County were constructively engaged in all matters associated with the project. The most important thing the Committee needs to understand about DOE engagement with Nye County and other communities in the vicinity of Yucca Mountain is the absolute necessity to involve these communities in the process as plans for the construction and operation of the repository are developed and implemented. The NWPA provides for oversight, involvement in the licensing process and a funding mechanism for affected units of local government, this needs to continue. The only way local government can afford to participate is if we receive funding in the annual appropriations process. Each and every aspect of the repository program and its supporting infrastructure including transportation should be based on "best business practices" to the extent practicable. In general we would expect the people who work at Yucca Mountain to live in Nye County and the businesses and industry necessary to support the repository program to be located in proximity to the repository. Construction and operation of the repository and rail and roads to support transportation should be leveraged to maximize local and regional economic development.

a. **Was Nye always supportive of the process? If not, what changed?**

Answer: The Honorable Charles Gary Hollis

Until DOE made its unilateral decision to abandon the requirements of the Nuclear Waste Policy Act and halt the Yucca Mountain Project, Nye County always supported the siting and licensing process because Congress defined it in Federal law. Nye County maintained a neutral posture until the site was officially designated in July of 2002. Once designated, Nye County viewed and continues to view Yucca Mountain in the context that it is the "law of the land." At that point Nye County could no longer remain neutral and is now resolved to be "actively and constructively engaged" with DOE. We are resolved to protect the health, safety and economic well being of our citizens and environment, maintain oversight of the program to ensure the repository operates safely and securely, and that economic development opportunities are maximized to the extent practicable.

STATE OF MICHIGAN
RICK SNYDER
GOVERNOR
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
PUBLIC SERVICE COMMISSION
STEVEN H. HILFINGER
DIRECTOR
MONICA MARTINEZ
COMMISSIONER
ORJIAKOR N. ISIOGU
CHAIRMAN
GREG R. WHITE
COMMISSIONER

June 17, 2011

The Honorable John Shimkus
Committee on Energy and Commerce,
The Sub-Committee on Environment and Economy

Dear Chairman Shimkus:

Thank you for providing me the opportunity to testify before the House of Representatives Committee on Energy and Commerce, Subcommittee on the Environment and Economy hearing which was held on June 1, 2011, on behalf of the electricity ratepayers of this country, the Michigan Public Service Commission, and the National Association of Regulatory Utility Commissioners. I further want to thank you and Energy and Commerce Committee Chairman Mr. Fred Upton for the leadership you have provided on this matter.

Attached are my responses to the additional questions from the testimony I gave at the hearing.

If you have any questions, please do not hesitate to contact me by telephone at (517) 241-6185 or by e-mail at WhiteG3@michigan.gov.

Respectfully,

Greg White
Commissioner

Cc: Honorable Fred Upton
Mr. Todd Harrison
Mr. David McCarthy
Ms. Carly McWilliams
Ms. Katie Novaria
Mr. Peter Spencer

Follow-Up Questions for Commissioner Greg R. White,
Regarding His Testimony On Behalf Of NARUC before Congress
Subject: The Spent Nuclear Fuel Issue
Hearing Date: June 1, 2011

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1. **How much money has been paid by Michigan consumers into the Nuclear Waste Fund? So far, have they gotten anything in return?**

The Michigan Public Service Commission (MPSC) estimates Michigan's electricity consumers have paid in excess of $760 million dollars into the U.S. Nuclear Waste Fund. With the withdrawal of the Yucca Mountain license application by U.S. Department of Energy (DOE), it is my view that Michigan's electricity consumers have received nothing in return for the money paid into the fund.

2. **Do you agree with the Nuclear Regulatory Commission's (NRC), Atomic Safety and Licensing Board (ASLB) that DOE does not have the authority to withdraw the license application for Yucca Mountain, largely because the Nuclear Waste Policy Act requires it to be filed with NRC?**

The National Association of Regulatory Utility Commissioners (NARUC) joined as an intervener with Aiken County, South Carolina, the State of Washington and several individuals in suit against the U.S. DOE in the U.S. Court of Appeals for the District of Columbia Circuit on that very point. The MPSC supports that action, and as such, takes the position that the U.S. DOE does not have the authority to withdraw the Yucca Mountain license application from the NRC.

3. **As a Michigan utility rate regulator and before that as Commission professional staff, have you followed the annual fee adequacy reviews by DOE? Do you believe the DOE's apparent position to continue requiring consumers to pay into the fund when the Department requests no appropriations to use the fund for its intended purpose is justified? Do you think it's legal?**

I have, in fact, followed the DOE's fee adequacy reviews over the years. With the Administration's expressed intent to terminate the development of Yucca Mountain for a repository, DOE has no alternative disposal plan. Therefore it does not know what it would cost and consequently it cannot assess the adequacy of the fee. For the previous FY 2011 DOE budget as well as the current request FY 2012 no appropriations were requested from the Nuclear Waste Fund, yet DOE rejected the proposal by NARUC to suspend the fee payments citing an earlier Office of Management and Budget (OMB) pronouncement that "all fees are essential." The DOE position appears to be more a matter of fiscal policy that is not supported by the fee adequacy assessment review that DOE has used previously. Therefore, the DOE has not justified its position to continue requiring consumers to pay into the fund.

4. **You say in your testimony that "the collection of fees from ratepayers, via the utilities for payment into the Nuclear Waste Fund, is the only component of this program that has ever worked as intended." But do you think it was Congress's intention that the fees be collected from our consumers and the Administration recommends to Congress that they not be spent for their intended purpose?**

The Blue Ribbon Commission (BRC) on America's Nuclear Future has produced some draft reports that address the erosion from the intent that the Nuclear Waste Fund serve as a trust fund for the exclusive use on disposal-related activities, but has become dysfunctional by having no correlation between fees collected and appropriations each year. Committee Ranking Member Dingell has referenced this as the systematic diversion of the surplus fee revenue. It is also my view that such diversion is not at all the way Congress had intended for the Nuclear Waste Fund to work.

5. **Commissioner White we understand your desire to see justice done and public safety served by moving spent fuel away from reactors and the population around them and to get the U.S. government to accept possession and stewardship as the law requires. But do you think we will select, characterize, and develop an interim spent storage facility away from the reactors and away from Yucca Mountain any faster than we could be using Yucca as current law provides?**

It is hard to tell what further delay the pause in the Yucca license review would have if the decision were made to resume with repository development at Yucca. I believe Mr. Christopher A. Kouts addressed a time estimate to reconvene the review. The last "best achievable" schedule that DOE published under the prior Administration would have had the first deposits of waste made to a repository in the 2020 timeframe. DOE once did a study that showed a possible interim storage facility might be ready in seven years. The BRC draft recommendations include developing one or more central interim storage facilities, seemingly because the Commission has been told Yucca Mountain is not an option and they believe successfully finding a new site will take patience and flexibility to gain public acceptance.

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COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEE ON ENVIRONMENT AND THE ECONOMY
JUNE 1, 2011 HEARING QUESTIONS FOR THE RECORD

QUESTIONS FROM CHAIRMAN SHIMKUS

Chairman Shimkus. Q1. Are the steps taken by the Administration a step forward to solving the nuclear waste problem or a step backward? Please explain why in your response.

Mr. Kouts. A1. If the Administration's actions stand, it will have essentially obliterated the existing policy construct that has existed since 1982. As such, the Administration's steps, if sustained, will have moved the Nation back nearly 30 years.

Chairman Shimkus. Q2. You suggest GAO's estimate of decades delay from this termination is "notional"; what is your best estimate of how long the delay might be?

Mr. Kouts. A2. There are many variables to be considered in providing such an estimate: the timeframe for new authorizing legislation; the timeframe for a new regulatory framework; the timeframes for site screening, site characterization, site approval and eventual site licensing and construction; the success of legal challenges to all the above; the availability of funding; the potential for political intervention at any point along the way; the impact of social media on the credibility of the overall effort; how capable or inept the implementing organization will be over the entire timeframe; and the National commitment to follow through with a policy over many years. As a baseline, Yucca Mountain, assuming it was not terminated and was adequately funded, could have been operational approximately 40 years from the original Nuclear Waste Policy Act of 1982. Unless a National crisis requires more immediate action, given all the above mentioned variables and additional ones that perhaps cannot be foreseen today, if the Administration's termination of the Yucca Mountain Project is allowed to stand and the entire process is to begin anew, it my belief that the earliest a U.S. repository could begin operations would be substantially beyond the 40 years that Yucca Mountain would have taken, if at all.

Chairman Shimkus. Q3. DOE testimony seems to support the so-called "consensual" siting of nuclear waste facilities should be pursued. This concept is being explored by the blue ribbon commission and seems to have worked in Europe in certain instances. Do you believe consensual siting can be successful in the United States? Please explain why?

Mr. Kouts. A3. The European experience is not really relevant to the U.S., since the political structures in Europe are so different from ours. Siting is the most difficult challenge in this area. The U.S. experience has shown that local community support is achievable, however, once the political structure of the State is engaged, strong opposition is encountered, just as in the case of Nevada. As I indicated in my testimony, in my discussions over the years with the Directors of repository programs abroad, they have consistently expressed their concerns that, due to the very

long timeframes repository programs take to develop, any political consensus at the beginning can evaporate with one election, just as it has in the U.S. with Yucca Mountain. Accordingly, it is my belief that any consensual initial agreement will become adversarial over the many years it will take a repository project to develop. To support that contention, it should be noted that the State of Nevada passed Assembly Joint Resolution No. 15 on February 26, 1975, supporting the siting of a geologic repository on the Nevada Test Site under certain conditions. The State of Nevada is the only state to have ever passed such a resolution.

Chairman Shimkus. Q4. Some believe we should pursue interim storage facilities instead of repositories. Won't the siting be relatively easier than siting a repository? Please explain why?

Mr. Kouts. A4. The challenge in siting interim storage facilities is the issue of meaningful progress on the repository, to assure that the interim storage facility will not become a de facto repository. Without a near term repository in development, the fear of the permanent nature of the interim storage facility will effectively kill any interim storage project. In my view, the Administration's termination of Yucca Mountain effectively eliminated the possibility of siting an interim storage facility until a repository is well under development.

Chairman Shimkus. Q5. Based on your experience with development of a repository for high-level waste and spent nuclear fuel, if there is one piece of advice you could give the Committee on how to address this difficult area, what would that be?

Mr. Kouts. A5. In my experience, I found there is no silver bullet to address this issue. At the end of the day, implementing a National policy in this area requires steady, consistent, national leadership over many, many years. Given the substantial investment this Nation has made in the Yucca Mountain site and in the policy that has been supported by every prior Administration since 1982, I believe the Nation deserves a final and definitive answer from the NRC licensing process.

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