CONSENT-BASED SITING PUBLIC MEETING

Georgia Tech Hotel and Conference Center

800 Spring Street N.W.

Atlanta, GA 30308

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FULL TRANSCRIPT

Mr. Jim Hamilton. Good afternoon, and to those in earlier time zones via webinar, good morning. Welcome, and thank you all for being here today. My name is Jim Hamilton. I'm an advisor to the Department of Energy's Consent-Based Siting Team, and my role today is to help us all have an open and productive conversation.

To start off we have a few housekeeping issues to go over, and I'll run through those now. First off, from a safety perspective, we have six emergency exits in this building; or in this room: two behind me, two to your left, and two from where you came in. You should all have an information packet that you received when you checked in. It looks like this. If you don't have one, raise your hand and we'll get you one. Alright.

The packet contains a copy of today's agenda; speaker biographies; a contact sheet for further information; content from the informational posters that you see here beside you, or outside in the back, sorry; sample themes and questions for the small-group discussions, and I'll explain more about that later; an information booklet that the Department published about waste management and consent-based siting, and an evaluation form.

For those on the webinar, this information is also on the Department's website.

The Department would very much like to hear from you as to the design and implementation of a consent-based siting program for nuclear waste management facilities. To that end, we've designed today's agenda as follows: opening remarks by Governor Purdue; we'll then hear from Acting Assistant Secretary for the Office of Nuclear Energy, John Kotek; followed by four very excellent panel members who will share their thoughts and perspectives; a question-and-answer session lasting 45 minutes for the panel, and then a quick break.

Following the break, we'll have small-group discussions to dig more deeply into the issues around consent-based siting you heard this afternoon. And we encourage your participation in those discussions.

Following that, there will be a report-out session from those small-group discussions and then we'll have a public comment period and closing remarks. This public meeting is being streamed live and a copy of this stream along with a meeting transcript and a report summarizing your input will be on the Department's website shortly.

We hope to cover a good deal of ground today. We look forward to your collective interest and participation.

Again, thank you all very much for being here, either remotely or in person. And I want to turn it over now to Governor Purdue for his opening remarks. Governor Purdue.

Opening Remarks

The Honorable Sonny Perdue, former Governor of Georgia. Thank you, Jim. I may note that I'm ***former*** Governor Purdue; I served from 2003 to 2011, so I'm not responsible for anything now.

So, I would like to welcome you all to the After-the-Masters Party today and we're proud hosts, as you know, of the Augusta National here in Georgia and the Masters, one of the best golf tournaments there is, although tragic as it was for one young man yesterday afternoon.

But welcome: We are glad that you are here. Our purpose here today is to invite you all to inform the Department of Energy, the sponsor of this event, over what the process should look like, really, regarding what to do with our nuclear waste in this nation.

Now I come not really as a former governor, but my main claim to fame in this area; because I know virtually nothing about nuclear waste – and sad to say, many of the people who will be making ***decisions*** about this know very little about nuclear waste. But the fact is, I come with my main claim to fame as a former Chairman of the Planning and Zoning Commission in Houston County in middle Georgia, which was a very transitioning county, from agrarian, for 10 years, chairing that Committee.

What I learned from that was probably the best educational lesson I can learn for representative government. I learned how passionate people are about that great constitutional right of personal property. I also learned how passionate people are about their communities and what happens in their communities.

So I really view this issue – Secretary Kotek – as really a large planning and zoning decision – of how you design the process whereby what we decide – what all of us decide – to do with the nuclear waste that is scattered among the United States of America.

If you've ever been to a planning and zoning committee, you know that the "not in my backyard" is very prevalent, whether it's a landfill, whether it's a new subdivision or whether it's a new Walmart. Many people have disagreements about that. How do you accept those disagreements in a very respectful way, allowing people to express their opinions, and reach a consensus for the public good, is really what this group is about.

I applaud the Department of Energy, Secretary Moniz and Secretary Kotek, regarding their efforts to hear from you, and to learn from you, regarding what you think should be a part of the process of making these very decisions. We're not here to discuss or debate the relevance or the importance or the right or wrongness of nuclear energy and nuclear waste. You all in this room know that it's already here.

And I'm not willing, as a citizen with 14 grandchildren, to kick the can down the road, to the next, and the next, and the next generation. I believe it's up to us to resolve this and to do it in a way that's respectful,

that's trusting and that's enduring and sustainable. We don't need a short-term political decision that will be reversed or negated with the next election. We've got to have a commonsense, enduring solution – that's built, I believe, on ***consensus***, one of the words used for this meeting, on ***consensus***. You can have laws – we had planning and zoning laws, we had land-use plans; but it took people, flesh and blood, hearing out the respectful disagreements among citizens, all good citizens, all fine people, with differing opinions, about particular issues, to resolve that.

And that's what brings us together here today. In the United States of America today there's a lot of paralysis of decision-making. And this is a tough issue and there's no doubt about it. It's sort of a zero-tolerance issue. But the people in this room, as well as those other meetings across the country, I think can contribute to a guide and a process that can be transparent, that can be trustworthy, and it can be sustainable and enduring if we proceed with the right guiding principles.

How did I get involved in this from planning and zoning through the Governor's Office? I'm a member of the Bipartisan Policy Center in Washington. That's a group of people that came together with Senate Majority Leaders on both sides, trying to have respectful dialogue and discourse about some of the toughest, most intransigent problems of the day. And I was wonkish enough, as Ken will tell you, about energy and telecommunications and those kinds of things, just intellectual curiosity; about what do we do about tough issues that are not politically sexy? This may be politically explosive if you use the pun, but not a sexy issue. And frankly, when I was asked to engage in the Nuclear Waste Council, part of the Bipartisan Policy Center, I agreed to do that because somebody has got to do it. And former Congressman Norm Dicks and I are chairing a Nuclear Waste Council. We recently had the opportunity to travel to an area of the United States that knows a ***lot*** about this issue, and knew a lot more than I did; and they had done their due diligence. That's southeastern New Mexico and West Texas. Andrews County [Texas] and Lee County in New Mexico where a uranium enrichment facility is located as well as a storage facility, WCS, is located. And I learned a lot from those citizens there who had done their homework and they based their opinion and their decision over transparent, honest communication and discussion, assessing the risk and rewards of what these type of facilities would bring.

Today I would encourage you to speak respectfully, while many of you may come with hard opinions about this issue – that's okay; passionate opinions about this issue. Please don't demonize the person who doesn't come with those same discussions. ***Listen***, and ***learn***, and as we learn together, I'm confident that the Department of Energy will hear some guiding principles that will guide them as a responsible party in what do we do in dealing with this nuclear spent fuel, defense-related nuclear waste, located throughout the country.

And I'm hopeful for a productive session today; we're glad to have you here in our capital city. I hope you'll enjoy the day. Spend a lot of time here, spend a lot of money here, [Laughter] and have a great session. Thank you all for allowing me to welcome you here today. [Applause].

Mr. Jim Hamilton. Thank you, Governor. And now I'd like to introduce John Kotek, Acting Assistant Secretary for the Office of Nuclear Energy.

Moving Forward with Consent-Based Siting

Mr. John Kotek, Acting Assistant Secretary for Nuclear Energy. Thanks very much, Jim. For starters, we're going to open the meeting by showing a video that Secretary Moniz recorded that I think we have ready to go, am I right about that? Is that a no? [Laughter]. It's coming; bear with us.

We're halfway there. [Laughter].

We're going to give it one more shot and if this doesn't work, I'm just going to kick it off. Why do these things work well before the meeting starts, but they never work…but let's, I'll tell you what, thank you Secretary Moniz. All right? [Laughter and Applause].

With that auspicious start, let's talk about nuclear waste. So my name is John Kotek, I'm the Acting Assistant Secretary for the Office of Nuclear Energy in the Department of Energy. For those of you who don't know, the Department of Energy is the federal agency that has been charged with providing for the final disposal of spent nuclear fuel and high-level waste. We at DOE actually do most of our work through a system of national laboratories located throughout the country, including the Savannah River National Lab, which is just a couple of hours from here, some of you may be familiar with.

We are here today because we want to find a sustainable, durable, safe, long-term solution for the storage and disposal of spent fuel and high-level nuclear waste. We at the Department of Energy are committed to developing a process to site waste management facilities collaboratively; again, with states, tribes, local governments, other stakeholders. What we're doing here today is seeking your help. Right? We're at the beginning of a process to identify sites; we're not out looking for sites right now. What we're doing is we're trying to put together a process and we want your input in the development of a consent-based siting process that's fair and that's reflective of your input.

So at the end of the day we've have a long-standing challenge in the United States associated with finding a safe long-term solution for the disposal of spent fuel and high-level wastes. We want to hear your values, your perspectives, to help inform our process going forward. I'm going to assume that this is going to work. There we go.

So how did we get here? So, just a brief overview. We've used nuclear technology in a variety of ways in the United States. We've used it for power production; we've used it for national defense activities; we've used it for research activities.

On the commercial side, we've been using nuclear power to generate electricity for about 60 years. Nuclear provides just shy of 20% of the electricity used in the United States; here in the Southeast it's more like 25%. In the United States, 99 nuclear reactors in 30 states are used to produce electricity. They also produce about 2,000 metric tons of spent nuclear fuel each year, which needs to be stored and ultimately disposed of safely and for the long-term. All right?

Just briefly speaking, the nuclear fuel – for those of you who were here earlier, you saw that we had a mockup of nuclear fuel pellets and assemblies outside. That fuel is used in a nuclear reactor to generate heat. I won't go through the details, but if you want to talk about it later, I'd be more than happy to. That heat is used to boil water, generate steam, and generate electricity. The fuel itself that we're talking about dealing with is cast in solid pellets like the one you see over here on the right, put into long steel tubes

that we call cladding, are put into these fuel assemblies; a commercial nuclear reactor, depending on the design, will have between 200 and 500 of these assemblies in the reactor. They'll stay in a reactor for about five years generating electricity. When they're done, they need to be stored. When the fuel comes out of the reactor, it needs to be stored. It's very physically and radioactively hot when it comes out of the reactor, and so first we put it into wet storage in a pool; typically, it stays there for at least five years.

As the pools fill up at the reactor sites around the country, more and more of the older fuel is being put into dry storage like these casks you see here on the right. Roughly speaking, about two-thirds of the fuel in storage at commercial reactors around the country is in wet storage in these pools, and about a third is in dry storage, but as each year goes by, a higher and higher percentage of that material goes into dry storage.

We've also, as I mentioned earlier, had to provide for the safe disposal of waste arising from defense and other DOE activities. We've had a range of activities here, the Naval Nuclear Propulsion Program, for example, generates nuclear wastes. Some of you probably know that aircraft carriers and submarines in the U.S. use nuclear reactors and so we need to provide for the disposal of that material. Research and production reactors from production of the nuclear deterrent or for medical isotopes or for other applications have generated large quantities of waste, as of course has the weapons program itself. So we've got a variety of waste forms that are there that we need to deal with. We've got calcine waste which is waste from reprocessing and from production activity that happened in Idaho, which is where I live. We've got spent fuel that just comes out of a reactor that is being packaged or high-level wastes that are being solidified and are being packaged that will going to storage, and ultimately that needs to disposed of and this thing you see down at the bottom is vitrified glass wastes; again, a lot of the high-level waste like the waste generated at the Savannah River site as well as the Hanford site is being vitrified; being immobilized in a glass form; again, for storage and ultimately needing to be disposed.

Regardless of what we do in terms of the storage configuration for all this material, ultimately we need a disposal capability. And worldwide, the scientifically preferred method for dealing with this stuff for the long-term is deep geologic disposal in a mined repository; and we'll talk about that a little bit. Okay?

Okay, so we've got this 75,000 or so metric tons of spent fuel, we've got about 12,000,000 cubic feet of solids, liquids, and sludges, primarily from defense activities that need to be managed and disposed.

Where is this stuff? It's in most of the states in the United States. You can see here from the map whether it's commercial nuclear reactors, either operating ones, those in green, or those that have been shut down, that are in red, or defense waste sites or other DOE-managed waste sites; we've got spent fuel and high-level waste in storage around the country needing to be ultimately disposed.

As we think about moving forward with a system that includes both storage and disposal for waste, particularly compelling is the fact that we've got 14 shutdown power reactor sites around the country where reactor-operated spent fuel is generated, fuel is still in storage on-site; in some cases in pool storage, but more and more in dry storage. And in several cases, the reactor's gone, the turbine hall is gone, the administration building is gone; everything is gone except for the spent fuel. So as we move forward clearing out these shutdown plant sites and consolidating fuel into a storage facility ultimately leading up to repository disposal is one of the aspects of the program you'll hear us talking about here going forward.

So why act now? Right? We've been generating this waste for decades. We do get asked this question. Many of the folks in this room [were associated] with my service as Staff Director for the Blue Ribbon Commission on America's Nuclear Future which looked at this issue and they issued a report a little over four years ago.

There are a number of reasons for moving forward now. This waste has been produced, generating electricity for our benefit, and for a nuclear deterrent for our benefit; and I know some folks in this room are strong supporters of the use of nuclear technology and others who are not. Regardless of how you feel about it, this material exists. Okay? Even if you shut down all the commercial nuclear power plants today, you'd have something like 85,000 metric tons of waste needing to be dealt with. We need to provide for a solution for this material.

The taxpayer liabilities associated with dealing with this material are large and are growing. The government has already paid out $4.5 billion in settlements due to the government's inability to start receiving this waste as it was supposed to in 1998 as called for in the Nuclear Waste Policy Act. Those liabilities are projected to runs into the tens of billions of dollars. Funding to pay for the disposal of the commercial fuel has already been collected from rate-payers. Just about everybody in this room I would venture to guess has paid something into the Nuclear Waste Fund by virtue of the fact that there was a 10th of a cent per kilowatt-hour charge on nuclear-generated electricity set aside to pay for disposal of this waste, which was collected up until 2013. The government has entered into agreements with states to move this material out of those states; so lots of reasons to move forward, not the least of which is that we need to find a safe, sustainable storage and disposal solution for this material now; we've got the technology, we've got the resources to do it; we shouldn't leave the problem to future generations. I'm kind of building on what the Governor said earlier. Okay?

So how did we get to our approach for solving this problem? Well, as I mentioned, we have a long history of waste management efforts in the US. This is a bit of an eye chart; I think we've got this on posters outside if anyone's interested in getting a brief overview of the history here. I won't go through all of it, but, starting in the 1950s, the government was commissioning studies looking at what to do with this material; as you go through time, several attempts have been made to site facilities, all really using a top-down, government-driven, Washington DC-driven approach, trying to find locations, in particular states to store or dispose the stuff. They've all not worked out for various reasons, so here we are today trying to develop a process that can lead to a durable solution for the management of this material. Which is where we are now.

International experience supports the idea that a consent-based process to siting new nuclear waste management facilities is the way to go. I'll point out that our colleagues in Finland are the furthest along; they've got a site selected and approved by their regulator and they're about to enter into construction for their repository for commercial fuel. The Swedes are a little bit further behind; they've got a site chosen. The French as well. The Canadians have embarked on a consent-based siting process through which they received expressions of interest from more than 20 communities that are interested in potentially hosting a repository, so we're seeing that around the world, countries that have employed a consent-based siting process have had success in identifying communities that are willing to become willing and informed hosts for such a facility.

Here in the US, what we're doing is we're implementing the Administration's Strategy, which was issued in 2013. That Strategy builds on the Recommendations of the Blue Ribbon Commission on America's Nuclear Future, which were issued back in 2012. What that Strategy envisions is an integrated system for nuclear waste management. Let me walk you through what that looks like.

We're looking to develop a system that consists of one or more facilities for storage of spent fuel and potentially high-level wastes, although clearing out the shutdown plant sites of their spent commercial fuel is the main driver at the outset. We also envision development of repositories that at the end of the day you need; one or more deep mined geologic repositories. The WIPP facility in Southeast New Mexico, again, is an example of a deep-mined geological repository, although that's for disposal of a different type of waste. And then of course we need a transportation system that can allow us to safely move materials from where they're currently stored to storage and ultimately to disposal. Those disposal facilities could be for commercial fuel.

Also last year the President issued a finding that allows us in DOE to investigate the development of a standalone facility for the disposal of some of the defense waste inventory that we have, so as we get out and start implementing a consent-based process, we'll be talking to communities, states, and tribes about their interest in hosting one or more of the types of facilities that we've laid out here.

I talked about transportation – that will be a very important part of what we do; obviously, moving this material safely; again, to storage facilities and then to disposal facilities is of the utmost importance. We of course move materials like this today and an essential component of doing that safely is working extensively with states and with tribal governments to ensure that they've got the training and they've got the emergency preparedness and they've got the resources necessary to support the safe transport of this material. And so while consent-based siting doesn't apply to the transportation system, the need to move this material points to the need to work very effectively with states and tribes to ensure a safe transport of the material.

As I mentioned earlier, ultimately what we are leading to is a deep geological repository. Just a cartoon of what a disposal facility might look like is a ramp system here like they're envisioning in Europe or you could see an elevator-shaft system like they have down in WIPP to bring waste down to the disposal level. But we're talking about finding a geology that is suitable for isolating this material from people and the environment for many thousands of years.

Alright, so where do we go from here? Again, we're here today to listen to you all; to get your input. Alright? We're not at the stage where we're out looking for locations. This is really about designing a process. So we want to ***hear*** from local governments, we want to hear from communities, states, tribes, and other interested parties about what this process should look like so that we can ultimately get to a system that ensures safe and secure operations, that gains trust among stakeholders and adapts its operations and its approach based on lessons learned. Okay?

So what we intend to do in the near-term is to engage in these three steps. We want to start here today engaging with the public and interested parties on the elements of a consent-based siting process; we're going to use the input we received from you all, from webinars; other meetings that we have, from written comments in response to the Federal Register Notice we issued, to design a consent-based siting process

that will serve as a flexible framework for engaging with potential host communities and we're going to use that – the resulting consent-based siting process to work with potential hosts.

So again here today the most valuable thing we can get out of this is get your thoughtful input to these five questions. So you'll hear from me, you'll hear from the panelists, a little food for thought for the discussions and then we're going to break up into smaller groups for the facilitated sessions so we can hear your thoughts on what you think are the most important takeaways for us as we go off and design a process.

As I mentioned earlier, we've got several ways in which we are going to be receiving input; this meeting is just one of several channels through which we hope to receive input. The invitation for public comment, as I mentioned in the Federal Register; we plan on doing a public webinar, perhaps conference calls through the spring and summer and then also meetings with stakeholders as requested that will result in us issuing a summary of the input we've received and will also allow us to draft a consent-based siting process.

We've heard as we've gone [forward] that it's also going to be important for communities, states, and tribes to understand what's the target; what are we looking for? So we also intend later this year to issue preliminary siting considerations to provide a baseline for these siting discussions so that communities know whether they might have the type of site that might meet our needs.

We're also looking at hopefully providing a funding opportunity so that states, tribes, local governments, and others can apply for funds so that they can have the resources to investigate these issues on their own and come to their own conclusions about whether they might be willing to serve as a host.

I should say that we've requested $25 million in the Fiscal 2017 Budget that is currently before Congress. Both of the appropriations committees – the Energy and Water Appropriations Committees – that act on our budget requests; they are planning on meeting later this week, so maybe by the end of this week we'll at least have some sense as to how the appropriators have reacted to that request. And then as I mentioned earlier, ultimately step three is getting engaged with communities; maybe tribal governments to the extent they want to get involved, and states as to who might want to serve as a willing and informed host. Who's interested in learning more.

So we ask that you get involved. Thank you all for being here today. If after today, after participating in today's session, there are other things you want to offer up to us, send us an e-mail, visit our website, but keep the good ideas coming. We really appreciate your time and attention and look forward to hearing the rest of the discussion today. Thank you. [Applause].

Mr. Jim Hamilton. Thank you, John. We now have the privilege of hearing from four panelists who will bring their rich perspectives to this issue. Each of them will offer their own thoughts on the siting challenge. And we will proceed in alphabetical order.

First we'll have Professor Michael Elliott from Georgia Tech, followed by Mindy Goldstein from Emory, then Commissioner Bubba McDonald from the Georgia Public Service Commission and we'll wrap up with Rick McLeod from Savannah River. I'm not going to read their bios; it's all in your information packet but we're all grateful to be able to hear from them today. So, without further ado, Professor Michael Elliott.

Perspectives on a Consent-Based Process

Dr. Michael Elliott, Associate Professor of the Georgia Institute of Technology. So are we going to set the time? Thank you. Okay, so my name is Michael Elliott. I am a faculty member at Georgia Tech and my work is of two kinds. One is that I do what's called dispute systems design. I design systems for intervening into public disputes, and the second is that I actually do interventions; I'm a mediator. So the perspective I'm coming at is as somebody who's been working in the field of toxics and hazardous waste for a long time; working in communities and with companies, and with sources of waste and trying to bring those parties together.

One of the things that's very striking about that experience, and we've been through that experience over the last 20 or so years, is trying to figure out how to get the issues of toxics and issues of communities to being able to work together; some of the experiences that we've had from that is, first of all, that when you enter into a community, there are three fundamental kinds of problems that you're always going to face.

The first is that you're trying to site a facility in the presence of uncertainty. In the presence of risk. And the ways in which people are going to engage with those questions of risk and uncertainty are going to vary depending upon their particular perspective within the community.

The second is the stakes of these; the ways in which people conceive of the problem is generally pretty high. That they do not think of these things as small issues, but rather as issues that could potentially threaten their communities in fundamental ways, or could potentially provide certain kinds of advantages, depending upon how these things are structured.

And the third is what we call framing, and that is when you enter into a community, people are going to come at this issue from very different kinds of perspectives. And those perspectives are going to shape the way that they make sense of the challenge that they face. They're going to, for instance, shape the way that they conceive of issues like risk. So, that, for instance, people who have a more professional kind of engineering-oriented perspective, an expert perspective around questions of risk, tend to focus on things like expected outcomes; they tend to focus on the individuals within the community and how many of them are at threat; they look at risk pass, and things like that, while many people in the community tend to focus on things like variability of outcomes, the extreme outcomes, the potential for extreme outcomes, the kind of impacts on community as a whole and the fact that there's uncertainty in the system itself.

So in this, the kinds of exchange that you're looking for in order to produce consent-based decision processes, has to have a number of different characteristics. Some of those characteristics are fairly self-evident in the sense that it has to be evaluative in its format; in the sense that it has to be searching for the truth; but it has to be evaluative in a format in which the ways of knowing are actually different; that people come at this not just from the point of view of expertise, but also from experience, and that that experience is a valid part of the process of seeking truth in any particular point.

It has to do with normative kinds of issues; the issues of fairness have already been mentioned, but there are other kinds of normative issues about, for instance, the relationship between storage of waste and production of waste, which many people would like to separate completely, but the experience in hazardous waste is that those two issues were very difficult to separate. That as long as the issue was still

conceived of as whatever waste comes in we're going to store, that there was huge amounts of opposition to this and it was only when the communities got a sense that they could actually reduce the amount of waste, that it was a process not just of storing waste, but managing it in a kind of fuller sense, were they willing to in fact grapple with those. So the issue of normative functions is important.

The issues of a kind of expressive and subjective truthfulness; the notions that in fact it's not just about an objective truth but how one enters into that; the fact that it involves openness and that that's an interactional kind of process. And what I mean by that is not just openness to the solution of this particular piece of the puzzle, but in a sense this piece of the puzzle – the disposal – is tied to all the other parts of the puzzle; to some degree the issue of what the boundary of this is, is an issue which has to be addressed also in a consent process. And there will be real tensions around what the boundaries of the issue actually are and how this actually should be approached.

We get then into the question of designs of processes and there are fundamentally two kinds of processes that are consent-based that you can imagine.

One of them is stakeholder-based; the idea that in fact what you look for is all of the individuals; the types of individuals who are affected by the disposal issue, and you try in fact to put together a process in which you bring together very good representatives of those perspectives and try to work it out amongst a selected group of people who represent those perspectives.

And the second is to try to do it in a way that is actually quite representative of the communities in which you are engaging. And those representative processes by their very nature require many more people to be involved; many people who have less expertise and less involvement than you would find if in fact you do a stakeholder-based [approach]; and the issue will be how do you balance those? At some level you have to, for an issue like this, you have to have both of those because one of them in fact kind of works across a community, requires, for instance, that you seek out people who aren't normally involved in these kinds of issues and engage those kinds of individuals in these kinds of processes which in the end only increases the issues that have to do with how we frame it and how we make sense of it, and the other which of course involves the people who have been involved over a long period of time and for some of whom these issues have become deeply embedded in the kinds of stylistic ways in which we've debated.

So that ultimately is a question of who are involved, how we design it; but has very clear kinds of perspectives of dealing with risk, dealing with framing, dealing with stakes, and dealing with fact-finding. Thank you. [Applause].

Ms. Mindy Goldstein, Director of the Turner Environmental Law Clinic at Emory University School of Law. Hi everyone. My name is Mindy Goldstein. I'm a faculty member at Emory Law School and Director of the Turner Environmental Law Clinic. The clinic is a public interest law firm housed within Emory Law School and staffed primarily with the help of law students. Each year we provide about 4,000 hours of pro-bono legal assistance to environmental, nonprofit organizations. Some of this work has been representing organizations concerned with the environmental and safety risks associated with the generation, storage, and disposal of spent nuclear fuel.

While this work has certainly informed my views, I want to start by saying that the views I express today are my own; they are not necessarily the views of Emory University or my clients. And I realize that was

a really lawyerly way to start any talk [Laughter] and I'll try not to play law professor throughout the rest of this but I just wanted to get started with that and while I'm disclaiming things, I'm also going to be reading from my notes a little bit. That's because I think details are important in this conversation and I want to make sure that I get them right.

So I think we're sitting here today because siting a nuclear waste repository is difficult. And nuclear waste has the capacity to outlast human civilizations and the potential to devastate public health. Because of this, we've been unsuccessful in the past in siting nuclear waste repositories. I'd argue that the common denominator in many of these failures is that one, the federal government has failed to obtain consent from the host communities. And two, these communities have refused to be host facilities solely on the federal government's terms. I think we need to avoid repeating history and take these into account and learn from our past mistakes. We need to resist the urge to rush and create a process that gives host communities power, control, and a means to meaningfully consent.

I'm going to walk through what I think all of those are just a second, but before I do, I think there's two underlying principles that guide all of this; I believe John covered them, but just to reiterate, one is that spent nuclear fuel must ultimately be disposed of in a permanent geological repository. And two, we need to ensure that any interim or temporary storage solution does not become a permanent one. So my opinion is that the only way to do this is to link the site selection process for a repository with the selection process for [an interim storage site]. So, when I'm talking about consent it really does cover both.

So with that, I'll get started.

How can we avoid the mistakes of the past, and how can we ensure that host communities have power, control, and the means to meaningfully consent to hosting a repository? I believe that this requires consent to be marked by three characteristics. Consent must be informed; it must be voluntary; and consent requires control.

I'm going to focus on the third one, but briefly touch on the first two.

Consent must be informed. What that means is that both before selecting a site, or before seeking consent, we must establish clear technical criteria; clear standards for what site screening requires; clear standards for repository development and clear standards for radiation and environmental protection. Communities must know what they're consenting to before they can consent. This means consent will take time. It will take time to develop all of these standards and we must resist the urge to rush the process because of outside pressures. We must fully develop a plan or else we'll end up right back here again in not too long.

The second thing is that consent must be voluntary. And I think that circles back a little bit to the informed consent that I was talking about. But two things I'd like to point out is that consent should not be bought. There is a fine line between incentives and coerced consent. We need to acknowledge that line, and walk it carefully. At a bare minimum, I think that having clear standards in place before we seek consent will help avoid any conflicts. What we don't want is communities to feel pressured to consent because of any outside concerns.

A second thing is that consent should be durable. And what I mean by that is that this process is going to take time, and there should be ways out; at least in the beginning. We need to set a clear path for what

consent means; when host communities can withdraw and when they are bound by their commitments, so everybody knows where they're going into moving forward.

But the bulk of my suggestions today concern control. And the ability to enforce. I would say that states must have regulatory oversight authority, and authority over operational limits. Allowances for any recipient state to have such authority have been missing from previous efforts to site nuclear waste repositories. And I think that these missing things have been in part why these repository sitings have failed. States refused to host facilities solely on the federal government's terms.

So how do we give states power to regulate? This, like many other suggestions that I'm guessing you'll hear today, will require a change in our laws. Current federal law; specifically, the Atomic Energy Act, preempts almost all forms of state regulation over high-level radioactive waste facilities in general and radioactive nuclides in total. That means states consent to allowing a storage or disposal site are close to powerless to do anything if those sites fail, causing harm to their members of their community. It's up to the federal government to act.

For a state to meaningfully consent, I think this needs to change. Because consent requires the ability to ensure that what you consented to is what actually happens. And what most communities are consenting to is safe storage at disposal facilities. So to this end and just quickly what I would argue is that the Atomic Energy Act – we need to remove the exemptions for radionuclides for just the federal government and to amend the Atomic Energy Act to allow EPA and states to have authority. This authority should probably come under RCRA and the Clean Water Act. This would require a bit of work. It's not an easy fix, but I think it's something that must happen in order for states to meaningfully consent. And I'm happy to talk later about how that was done at the WIPP facility and at other examples across nuclear waste storage.

Quickly, I know I'm almost out of time. Consent requires a little bit more than of all of this. I've been talking for the most part about states consenting, but of course states aren't the only ones who need to consent; we need to consider other communities, local governments and areas where we are crossing geopolitical lines or boundaries; we need to look at interstate agreements to kind of collectively come to terms with some of this stuff.

So I will talk about all of this later with any of you all. Thank you. [Applause].

Mr. Bubba McDonald, Jr., Vice Chair of the Georgia Public Service Commission. John, I apologize. That's about what we've gotten for many years, lip-service. Having been raised in Georgia, here in the South, I was taught at an early age to be positive, to be a southern gentleman. So I will open these remarks by saying thank you for your presence. We're here to discuss some very important issues and thank you for bearing with me.

I know that we are in the pecking order where we are because when the governor spoke and when John spoke, the clock wasn't running. [Laughter]. The clock has started running when the panelists get up here to say a few remarks, but I had black hair with this discussion started many years ago [Laughter], and when we started talking about disposable nuclear waste and really down the line it's time for the Department of Energy and Congress to bring closure to this. In light of the recent closings of several

nuclear plants there is no repository that is set forth to receive the contracts that have already been written.

Georgia rate-payers have invested over $1.3 billion in the Nuclear Waste Fund. And it's only right that our constituents should get an annual report of how much is in that fund and how much interest has accrued in that fund so that when there is a time down the road, and I probably I won't have any hair at that time, but when something does happen, that we'll be able to recognize it in a very fiscal manner, as we do in most issues.

We're in the process in Georgia here of building two new nuclear plants, 1,100-megawatt plants. We've got to know where we're going down the road better than where we've come from. And we've got faith, and we've got confidence that this is going to happen. The only thing I wanted to happen was to happen before either the people of George retire me or I retire myself in 2020. But with that said, in business, I've been a businessperson all my adult life, it's always been my policy to live up to any contract, whether it was home mortgage, a business loan, or a badge contract; to live up to what I signed for. And that's all I ask of Congress and the Department of Energy. Live up to your contract that you signed for. So that we will know, we'll have an understanding, we'll have a road or direction for consent-based, we'll have a direction of positive policy of what we can make a foundation to build from.

The Nuclear Regulatory Commission noted in 2002 that it determined that Yucca Mountain could be used for a nuclear disposal project. However, the NRC staff did not recognize issuing construction authorization because of some of the outstanding issues. What better reason to move forward with consent-based siting than that? Let's get started with something.

It also needs to be said that any site under consideration, as was discussed earlier, should, for consent-based siting, the Department of Energy at a minimum must include state public utility commissions and other state and local officials. These two entities are responsible for the cost and the safety of anything nuclear-related within its boundaries along with other state agencies such as our own Environmental Protection Division.

Another concern, since the Department of Energy has decided to move forward with a separate repository for defense waste – does this mean that it will not consider the states input in siting the process for defense waste? As already stated before, each state must be an integral part of any process of siting nuclear waste if the state is under consideration, whether the waste is commercial or government.

In short, when I would explain to a club, a civic club, an organization, and would look at who the audience was, and tried to best describe what I wanted to say to them, and how what we're doing now as far as nuclear waste is concerned, I feel like we have nuclear waste as a pinball in a pinball machine. It's bounced around scoring points here, points there, have flippers down here to send it back up to another level, clicked around, clicked around, scoring points, but it also ends up in the receiver only to be lifted up again and shot out and started all over.

That's where we've been. That's the circle we've been going around for time and time again. We just need to get on with the program; we need to be very frank, very positive; there needs to be winners and losers; we can't be political correct in everything that we do; we have to take responsibility; we have to take pride in what we're doing and we have to do the job that we've been asked to do.

So folks, Department of Energy, Congress, all of us that are participants in it – let's get together, there is common ground out there; there is common ground that if we have to keep it in our pools in our states, then let us plan for that; let us go ahead and when it comes the time to put in casking, and when it comes time to put it somewhere else, let's go ahead and do that; or if we're going to move it, let's have a transportation policy; or if we're going to have some consent-based siting, let's have one, and let's start the program. Thank you very much. [Applause].

Mr. Rick McLeod, Executive Director of SRS Community Reuse Organization. I don't think it was alphabetical; I think I got the short straw, following Commissioner McDonald as well.

A little clarification: I'm not quite as eloquent as our legal expert on the panel, but a little disclaimer. I'm not from the Savannah River site. Actually, I'm with the Savannah River Site Community Reuse Organization. We're a 501(c) (3) nonprofit. We are one of eight across the DOE complex, so we were set up, like several were across the complex, looking at diversifying the economic base related to the Savannah River site. So we're designated as a reuse organization by the Savannah River site.

I have 22 bosses, 22 board members, half of them are from Georgia and half are from South Carolina. The reason being that a third of the workforce at the Savannah River site live in Georgia, but work at the Savannah River site, so I have geographic focus on Columbia and Richmond Counties in Georgia, as well as Aiken, Barnwell, and Allendale Counties in South Carolina.

We've been looking at this issue for a number of years. We actually put out in 2013 a Comprehensive Fuel Cycle Study. And our position really has not changed since then until now. We had a group – some of our board members, and also folks from other organizations in the local area participated in that study and have input to the study.

And what we determined was that interim storage really is not a viable economic engine for us to really look at. However, as discussed during John's talk, the whole process is made up of different components. And at their first meeting in DC, one of those first components they mentioned was research and development, which we haven't heard a lot about. But it was quoted then that ultimately R&D is the foundation for all technical work and movement forward on storage, transportation and disposal. And we believe that that's an area that we might be able to play host to. Again, we're not interested in solely interim storage and our governor has also expressed that same issue; and when I say that governor, that would be the South Carolina governor.

Furthermore, we're in agreement with her that DOE needs to have a functional disposition plan if South Carolina is going to accept additional nuclear materials, especially for R&D, or if we host an R&D effort at the Savannah River site. We already have, or DOE has, two sites that have already expressed interest in interim storage. But those sites, if you know much about them, currently do not have all of the resources, or capabilities to do the R&D efforts that we may have at the Savannah River site, including Savannah River National Labs.

So there's a lot of R&D that needs to be done. Some of that has been discussed; high-burnup fuel; we need to look at casks; we need to look at transportation – all that needs to be put into this process; does that come first? Does it go in parallel with the other process? So that's why we're here today is to try to bring that up as an objective that needs to be talked about and the DOE needs to consider.

But we would also like to be part of the restrictions or incentives if we were to participate, and we brought in spent nuclear fuel – would that come from the orphan sites or would that come from commercial utilities currently in South Carolina or possibly Georgia? And then if we were, then is the possibility to satisfy the South Carolina governor, that waste would then go out of state to the interim storage facility that would be built and processed? Or would it go to Yucca Mountain or some other disposition plant? So we would have to have a disposition plan to participate in that process.

We've seen problems with consent-based, when it's not followed. I know John doesn't like to bring these up, but we have the deep borehole, which was a research project, which kind of stopped due to consent-based, and then also his home state of Idaho has not quite followed through with some of their research studies as well, due again to consent-based.

So this means that a host community that is interested in participating in upfront R&D needs to do the independent analysis, education, outreach that John mentioned in his funding slide talking about having those dollars available for communities to endeavor into those areas.

So the proposed DOE grant should also be available to other communities that want to be involved in some aspect of interim storage, but not necessarily be the host site. And that's mine. [Applause].

Mr. Jim Hamilton. Thank you panel members; that was great on two fronts. One, lots of substance, and we're one minute ahead of schedule, so I appreciate that.

We're now going to move to questions and answers from the audience to any of the panel members here. We've got two wireless microphones roving the room here, so if you have a question, raise your hand and we'll get you a mic. I'd also like to note that for those on the web stream we will be taking questions from you online, so submit those and I'll get the questions forwarded up to me and we can ask the panel members those questions.

For those in the audience, as we begin the question-and-answer period, all I ask is that you'd begin by identifying your name and your affiliation, if any.

And again, the goal here is a conversation around issues the Department should consider around consent-based siting. What do you think is important for them? How can this dialogue inform that process?

So with that, questions from the audience for now? We've got one here, and we'll give you a mic right away; and then you're second and you'll be third.

Facilitated Public Discussion with Panelists

Commissioner Dan Schinhofen. Hi, my name's Dan Schinhofen, I'm Nye County Commissioner. Nye County is in Nevada. We are the host county for the nation's repository by law. Nye County has been a partner with DOE for years; before that, we were partners with DOD. And we look forward to working with you and working through a consent-based process.

Back when a plane dropped the first atomic bomb on our county and we had 1,000 tests, there was no consent. We did it because it was a national security issue. And that's what I'd like us to focus on; this is a

national security issue. Something that was brought up is that we shouldn't rush into this. Thirty years and $15 billion; we have a site. Again, moving forward with the consent for a future site – good idea. You're starting over again, you're looking at another 30 years. So we have a site, and I'd like you to consider not ignoring us anymore. I noticed on the slide that you had up there, "DOE-Managed Sites"; there wasn't a dot in Nevada.

We have Area 5, which is a low-level waste site, where recently our governor did sit down and talk with the Department of Energy to allow U-233 and U-235 to be stored in our county in a 20-foot trench. But our current governor says Yucca Mountain is not safe; but that's safe.

Now back in 2002 the governor did by law object and by law it was overridden by Congress and in 2008 the license was put forward – the NRC didn't reject it. The license was pulled back by DOE.

Since then, the NRC did release a Safety Evaluation Report which doesn't show any safety issues. So if we're going to move forward and be responsible, let's call this what it is. A national security issue. Let's finish up the project we started. Why do we continue to look at consent-based moving forward? Otherwise I think we're going to get analysis paralysis. And thank God that we didn't have a consent-based process back then, or we wouldn't have a nuclear industry now.

I've got other comments – I just wanted to hand in our comment sheets – and I don't really have any questions. We did consent four years ago when the Blue Ribbon Commission first brought out its Recommendations. And now it seems Recommendations hold more power than the weight of the law. So we have consented, and we haven't been talked to. Thank you.

Mr. Jim Hamilton. Thank you.

Mr. John Kotek. If I could…I don't know if this is on. Can you all hear me out there? One way or another? Alright. Good.

Thanks for that. We're not of course at the point where we're looking for sites or volunteers. We have not ruled anybody in or out at this point.

With respect to the maps, just to clarify. The dots on the map show the locations of spent fuel and high-level waste storage facilities, so that's the reason you don't see Nevada on there; you don't see New Mexico on there either for that reason. But certainly, we've got very important operations there in New Mexico and some other states. But thanks for that.

Mr. Jim Hamilton. All right, we've got one here. And just as a point of clarification, there's a public comment period at the end of this, so if you want to ask questions now, that's great, and then there is a 30 minute session at the end for public comments to address [interrupted from floor] – no worries, thank you very much.

Mr. Lou Zeller. My name is Lou Zeller, I'm Executive Director of the Blue Ridge Environmental Defense League. We have members and chapters in six states from Virginia, North Carolina, South Carolina, Tennessee, Alabama, and Georgia.

My question I guess is directed toward Professor Goldstein – you mentioned about the changes in the Atomic Energy Act to remove the exemptions on allowing states to have control perhaps under the

Resource Conservation Recovery Act, the Clean Water Act, and other rules. Some of the states that I just rattled off are so-called Dillon's Rule states, so local control would be pretty much a nonstarter in a state such as Virginia; we've run into these problems. Has anyone that you know delved into how that could work, or is it too early in the process?

Professor Mindy Goldstein. Thanks, Lou. So to get Dillon's Rule and Home Rule states, they really have a lot to do with whether local governments can pass specific laws or ordinances and then whether or not the state can preempt them. So I think that comes into play, for sure.

But if you have Clean Water Act or RCRA authority, what that allows is that in the event of an environmental harm, the state can come in and kind of regulate. So a good example of that is at WIPP. So in 2014 there were a series of accidents. Before WIPP was sited, New Mexico fought quite hard for RCRA authority and after the accident in 2014, New Mexico used its RCRA authority to withdraw – put a hold on the permit until the site could be cleaned up and required the state to come in and do investigations before they would allow it to operate again. So I think that's an example of how having the federal government and a state work together using existing environmental laws is helpful.

I should also say that under these environmental laws there are citizen-suit provisions. So citizens can play an active role in ensuring that the laws are enforced. Does that answer your question?

Mr. Jim Hamilton. We'll get you a mic back.

Mr. Lou Zeller. Yes, partially, thank you, very good. But then within Home Rule contexts, you have counties where a site might be considered under this consent-based process. What would the county's role be under the Home Rule as you stated it; or what's also known as the Dillon Rule. Is there a possibility there?

Professor Mindy Goldstein. I think there's a possibility but I certainly think that's something that needs to be looked into and I would say that what you'd want is very clear requirements going forward before any community consented. They would want to know what the local community's authority is, what the state's authority is, what the federal government's authority is and how those three interact and relate and who gets to preempt whom.

I'd also say that whatever is decided on should be ratified by Congress and signed by our President. That's one of the best ways to ensure that folks don't go back on their word – it's a lot harder to get Congress to change its mind than a single agency or a single community. So that's another kind of thing that you can build in and that's another lesson we learned from WIPP where they have their Act ratified and signed.

Mr. Jim Hamilton. Great. We've got one over here. And then you sir, and then over there.

Ms. Karen Patterson. My name is Karen Patterson; I'm from Aiken, South Carolina. I was trying to fly under the radar, because I'm here as a private citizen but I have to confess that I'm the Chair of the South Carolina Nuclear Advisory Council. And just a point of anecdotal history: One of the slides asked "Why now?" Well, in the 1960s my parents had friends who worked at Los Alamos and I remember sitting at a dining room table and hearing Dr. Davis say that the only thing wrong with nuclear energy is we don't know what to do with the waste. I was in high school; I am retired. To me that is "Why now?"

I agree with Mindy that it needs to be deliberate and thoughtful. But slow is not part of what we need. We need to get this done. So my question is – I've been watching nuclear waste at the Savannah River site for 20-some years at this point. We've come to the conclusion that the way Congress funds EM programs is not conducive to getting these jobs done. Having to go back every year to get funding for a project that is going to take decades is counterproductive, so nobody has addressed what I think is an elephant in the room, which as Mindy said it's hard to get Congress to change their mind. I think we need to raise this to a national level; you know; so that states that have waste that may want waste are involved. But I think the whole nation needs to be involved because what my personal opinion – without Congressional funding changes, no state is going to want to participate in this process.

Mr. John Kotek. I guess I'll start with that. Thanks Karen. It's good to see you again – sorry you're not under the radar. With respect to your specific point – yes, and that's both the Blue Ribbon Commission and the Administration's Strategy points to the need to get the nuclear waste management organization assured access to the funding that's been set aside for this purpose and I think it's been pointed out that there's more than $30 billion in the Nuclear Waste Fund and being able to access that funding to make good on the federal government's responsibilities to implement this program is an essential part of a long-term durable solution to the problem.

Mr. Jim Hamilton. Commissioner.

Commissioner Bubba McDonald, Jr. I think that part of it goes back to what I was talking about. If we had a true audit of what the consumers have placed into the Nuclear Waste Fund and why it was collected and what it was collected for and then respond to that. As far as I know, John you might correct me on this, it's in some bond somewhere, or in some drawer somewhere up in the clouds; that we can't find out what it is; how much it is – and when you think about having to reeducate over and over – you know our political system; we have members of the U.S. House of Representatives that are elected every two years. We have to go through a reeducation process every two years to get people to understand what the issue is and how important it is. And it's just passed down – the can has been kicked down the road and because there has been no concrete plan that we have X amount of dollars and we're going to spend X amount of dollars over the next 10 years to do this like we would do a bridge project or an interstate highway project where you know where you're going to start; you know where you're going to end, and you know how much you're going to spend. [Applause].

Mr. Jim Hamilton. Alright.

Professor Michael Elliott. I'd actually like to say something about – there's a couple of different questions that have alluded to the fact that consent processes are slow. I'd argue the opposite. I think the reason we are where we are now is because we have ***not*** engaged in a consent process; that the kind of objections we find reemerging every time we try to site this is because there is no national dialogue that's taken place on how, for instance, we should be doing this; what criteria should be in place before we try to do it. There's been an expediency of trying to identify a site and then try to investigate that particular site rather than figuring out what the criteria and how all that works beforehand.

So there is a hierarchy of consent that's needed and the consent partially is about how this thing should be organized, what the process should look like and then how it should be applied in particular situations.

So, we saw the same thing when we were starting to deal with the hazardous waste issues. There was a series of crises that erupted; there was no community in the United States that wanted to site one of these facilities and for a shorter period of time but it was well over 15 years that the debate was largely about how we get people to conform to the way states thought it should be. There were a number of states that had processes in place trying to preempt local control. And none of them succeeded. And it really wasn't until the dialogue became a wider dialogue around the issue about hazardous waste, not just its disposal, but also its production and how that interacted, that we finally got progress on this, and we got progress in ways that today mostly those issues are dealt with, and they're dealt with in ways that communities accept.

So there's a different perspective but it's one that says consent is ***really*** important in democratic processes to move these issues forward and we were talking about something as important as this, I don't see how you can do it without consent.

Mr. Jim Hamilton. Thank you. Rick?

Mr. Rick McLeod. Just quickly, I guess the last real DOE consent process was the Waste Isolation Pilot Project, WIPP, which is in New Mexico. That took 10 years. So I understand. I guess it's all relative. It's like the joke about the turtle that got mugged by the two snails. The officer came up and said, "What happened?" "Well, it all happened so fast." [Laughter]. So it's all relative to which perspective you take. I think it is a really very protracted, long process and I hope DOE does not focus so much on the process; gets into the weeds and it actually looks at what are the steps. I don't know how any host community could not sign on to a binding agreement without having some special purpose, independent organization – they're not going to sign on to DOE, we've been burned too many times in host communities, so when you look at this process, I hope John you and your staff go back – what are the steps, is R&D the first step? Is the independent organization the first step? Do you need to set up incentives first in the process? Do you start the outreach and education that you mentioned earlier? We need the steps before you can actually get into the weeds of the process.

Mr. John Kotek. Yes. Thanks for that; and that of course is a big part of why we're here today is to get your input as to what the steps should look like. To the Chairman's comment – we do have an accounting of the Nuclear Waste Fund balance. I've heard from several quarters that it's hard to find, so we'll look at ways to make it a little more readily available. We've heard that recommendation and taken it to heart, so thanks.

Commissioner Bubba McDonald, Jr. Does that include the interest?

Mr. John Kotek. Yes.

Commissioner Bubba McDonald, Jr. Can we get that on an annual basis?

Mr. John Kotek. Oh, the report?

Commissioner Bubba McDonald, Jr. Yes.

Mr. John Kotek. We're trying to figure out the right way to do that, but we've heard the request. Thank you.

Commissioner Bubba McDonald, Jr. Thank you.

Mr. Jim Hamilton. Alright. I've got one there, and then there, and then give me a second; we've got some people on the webinar who are also asking questions; we're going to try to find a way to include them, and if you've not typed in your webinar question yet, now is your opportunity. Sir.

Mr. Gary Harris. Thank you. Good afternoon. My name is Gary Harris. I'm Managing Director for the Center for Sustainable Communities but I also have a nuclear background, about 30 years of nuclear energy. I have worked at some 80 facilities in this country and around the world in engineering operations, plant support, training, etc. I also wore another hat back in the day. I worked for a manufacturer for nuclear fuel storage and transport. But now I'm working a little bit in the community.

And I came here because I saw the connection between community engagement and community organizing and making sure communities were engaged and understood the importance of siting a nuclear facility within the boundaries of their neighborhoods. So my first question is – and again, just looking at the audience here, and having driven down 80 access roads to commercial nuclear facilities, I was concerned that the audience here doesn't really reflect those communities and therefore this consent process may not have voices at the table which reflect those neighborhoods which would be affected.

So my first question is all about meaningful engagement. How do we make that happen? How do we make sure that those communities are engaged in this process? That we have multiple stakeholders at the table; faith-based institutions, academic institutions, etc.

And also, this is really all about environmental justice and I haven't heard that term lifted up yet. So how do we make sure that there are not disproportionate impacts in lower-income communities? A lot of these facilities will be again down those access roads, sited in those rural communities, lower-income, minority communities, etc.

Next, how do we prevent the godfathers of the industry from turning this into a regulatory process and taking this over, i.e., INPO, NEI, NRC, and the key suppliers, like NIC, NAC International – how do we prevent them from taking over this process? And moving it more towards their agendas? And not what the community needs? That's a real concern of mine.

And then finally, there's lots of models out there for community engagement. We have the EPA here; they have a collaborative problem-solving model – how are we looking at those success stories and making sure that those are contained in the consent-based process? Again, hoping that this is going to be a community-driven process and not one driven by the industry.

Mr. John Kotek. So thanks for that. Just a couple of reactions. If I could for starters – hearing from affected communities of course is extremely important – if you haven't met Kara Colton yet, Kara, raise your hand [Laughter]. [She's] with an outfit called the Energy Communities Alliance. Its organizations like that that represent communities that host, in her case, DOE facilities. We talked about the range of ways we're getting input – it's meeting with groups like that that helps us really ensure that we don't miss those voices because you're right, those are essential.

To the environmental justice question – getting to the point where we have willing and informed hosts, right? With free and informed consent by those communities is what we're driving towards, so I don't

think we use the terminology, but I think that's consistent with what you're getting at and I'll ask the other panelists if they've got other reactions to what you just said.

Commissioner Bubba McDonald, Jr. Well, one of the things that I would like to say is that of course community is represented here in this room because I'm here. And I'm elected by people from all over the state of Georgia and I made my ways known very well in my last election of November 2014 when I made it very pointed that I'm pro-nuclear. I fared real well politically in the county where two new nuclear plants are being built today. And even though my door is open at the Commission – I've got friends in this room right now that are 180° different from me as far as position on nuclear energy, but yet I listen to them; they have an opportunity to come in my office anytime they want to, and they can scold me – and they have – and they can scold me when they want to scold me, but they haven't change my mind ***yet***, but because of the fact that I do represent the 10 million people in Georgia – that they are represented in the room.

Jim Hamilton. Michael?

Professor Michael Elliott. Yeah, I have a perspective on that.

If you look at the siting processes that emerged after the early 1980s around hazardous waste treatment facilities, there was a very clear pattern. The clear pattern was in fact that they tended to be located in communities of color that were lower income. And that was true in Georgia. That we had Taylor County was the preferred site, and where it was going to be located in Taylor County was an African-American community. So these are real issues, and they're not issues that necessarily get addressed at the level of the state. They are embedded in communities and those communities need to have a voice in that process.

Now the question I think is that what does that voice look like? Because we're dealing with a national issue that we're not going to talk about a large number of these facilities and therefore the stakes associated with each of these facilities can be quite high. And what then does the really local voice mean in that process? Because ultimately that voice cannot be activated until there's already a site being proposed at which point you're fairly far down the process. So I think that the issue that you raised is a really significant one, it's not just about hearing, it's also about responding and how that happens and representative government is an important piece of that, but so is participatory democracy.

Mr. Jim Hamilton. Mindy? Did you want to say something Mindy, or not?

Professor Mindy Goldstein. I mean I did, but I thought he did such a good job that I didn't have much to say except for environmental justice, obviously plays a big role and we've been struggling as a legal community for a while to figure out how to make environmental justice claims cognizable. Right? We don't have any statues on the books right now – we have executive orders that mandate that our government, or federal government, take these concerns into account. But those haven't been taken so well, and what we need to do better it is figure out what a real voice means and how you have access to meetings and how your voice gets heard and how we can ensure that the response is given and we also have to decide when does the community get to say "no" and when does "no" mean "no," right? How many times do folks have to keep getting asked? Those are all important questions that we need to think through.

Mr. Jim Hamilton. Thank you, Mindy. Rick?

Mr. Rick McLeod. Not an answer, but more questions for John to go back with. What does community mean? If you look at it, what does stakeholder mean? Where does stakeholder end? So what is the host community – how large is that? Do the stakeholders include the entire state? So where do we stop with this consent-based; and I know it doesn't get to the environmental justice issue, but it's something that they're going to have to wrestle with or we're going to have to comment on and tell them what our definition of stakeholder is or what our definition of local community is. To have consent, what does that really mean, and do you need it for the entire stakeholders – where? Is it two states? Is it one state? That's an issue I think that needs to be defined.

Mr. Jim Hamilton. Okay. Thank you Rick. We've got one here, and then two in the back. The woman with the scarf first, and then the second one. Thank you.

Mr. Chuck Bernhard. Thank you. My name is Chuck Bernhard. I'm a consultant and I'm here on my own dime. I've had the pleasure of working with some of these folks before. By way of background, I was the Vice President of the Chamber of Commerce in Odessa just south of Andrews when WCS was being put together. Then I was the Director of the Carlsbad Department of Development, so I can claim 15 years in this area of the country where they proceeded with nuclear-based activities.

I can tell you that part of the success there was education. Now, the primary driver though was economic development and jobs. But the people did take time to get educated, and to determine, "Is this something that we really want?" And I think what they came to was, "Hey, the risk is lower than we thought and here's a great opportunity." And my gosh, look at that area today. Topped up by Urenco, which is our nation's largest centrifuge facility for uranium enrichment. So, just two comments. Rick, you're wrong it wasn't 10 years it was 11 years; so the point is that even at WIPP which was decided by the Blue Ribbon Commission as an example of a consensus-based approach. It took 11 years longer than was projected. Consent-based – I was there. It wasn't always consensus, there was a lot of pulling and tugging, it wasn't like everybody held hands and sang "Kumbaya" around WIPP – it was quite a challenging process.

In that regard, there was another comment made, and I think Mindy made it, about sustainability, transparency, etc. Any of you that know WIPP know that it has had problems lately. And one of them was a release back in 2014. And we're dealing with that now. And I think one of the factors behind that incident was – there was a group that was overseeing the opening of WIPP called the Environmental Evaluation Group. They were a pain in the butt to us who were trying to get the site open, but they often brought up good points and some of the improvements they suggested helped make that facility successful.

Well guess what, when WIPP opened, they were gone. So there was no ongoing entity to check the operational integrity of WIPP and I would suggest that's a lesson learned; that in whatever we do there needs to be an oversight body in whatever state, community is the host: they need to have ongoing oversight.

So this is a multidimensional issue; I think it's really important; it's great to see a turnout here like this. I think the panelists have all given us really good suggestions. Now the challenge is to put it into a plan for action because we really can't wait on this issue much longer.

Mr. Jim Hamilton. Thank you. I've got a woman in a scarf back there and then you – sir, you are second. Here we go.

Ms. Mary Olson. This waste, no matter what, is intergenerational. I've had my job for 25 years. I'm Mary Olson, Nuclear Information and Resource Service, and when I started in with this stuff there was an Office of Civilian Radioactive Waste Management and that leads me to my question because in order to participate further today I kind of need to hear a little bit more.

The office that is hosting this is clearly committed to fission, and we're not here to discuss that, but this stuff will become an ongoing fixture of our environment, our society, our roads, our communities, if our nuclear future does continue as it is billed to be our future. Nuclear energy was the word I was looking for, BRC was the Blue Ribbon Commission for America's Nuclear Future, so it becomes an ongoing thing, not a one-off, right? So if we're talking in those terms, what are the next steps towards that process? I thought the BRC said we should get DOE out of this picture, and I think that's the one point that the Bipartisan Policy Center here in Atlanta a year ago, two years ago, I think everybody in the room got up and cheered on that idea, so what is your next steps in this picture? And I will make a comment later but I just am kind of dumbfounded that we're here doing this right now and I need to understand it better.

Mr. John Kotek. Yes, and thanks for that. And certainly the Blue Ribbon Commission recommended that a new independent organization; an independent single-purpose organization be set up to implement this mission. That recommendation was embraced by the Administration's strategy – you may remember that the BRC recommended a government-chartered corporation; the Administration's strategy points to a either a government-chartered corporation or an independent federal agency is the right way to go over the long-term. The Blue Ribbon Commission Report also said there are things that DOE can and should do leading up to, and hopefully in anticipation of Congressional action – and that's what we're trying to do, which is receive input from you all on what the process ought to look like, but it still remains that the recommendations of the Administration's Strategy that Congress act and establish an independent organization to implement this program.

Mr. Jim Hamilton. Thank you. Sir? And then, you're second, and then Steve is third.

The Reverend Charles Utley. Good afternoon, Charles Utley here, with the Blue Ridge Environmental Defense League. I'm from the Augusta area, across the waterways from the Savannah River site.

My question is more of a concern without a consent that would be inclusive. What I mean by that – we can't build anything that any state would be willing to take if we're considering continuing making our waste. What are you going to do? You know, we get a state to say, "OK, I'll take what you have." But then we also through the rear are going to build, as McDonald said, two more new ones, okay? You're building more, no one is going to sign a consent – and I agree with you, environmental justice; they're not at the table; they're being told what to do, and so yeah we need to address that because that is – and I spoke with the Blue Ribbon Commission and I helped write the environmental justice bill with President Clinton so I'm quite familiar with it. The idea is that until we have something that is permanent that everybody can buy into, state, local, and community, then it's not going to work because as someone said earlier, my problems are different from yours. I have more exposure than someone else; however, we need to do something with the problem. But we can't build on the problem if we don't have a solution to the problem.

My solution to the problem is "Yes, I'll give. If you want it, be with it. Okay?" [Laughter]. But I want you to understand too that you make sure that your community wants it along with you and not just you. So that would be the main thing.

So therefore I want to say. Let's do an inclusive thing – bring everybody to the table. Everyone should know what's going on. I shouldn't have to go back and try to redeliver what should be given – let me say something. It was hard really to find out how this meeting was going to go. As early as this morning, I was still en route to Atlanta trying to find out the nuts and bolts. Even today, that shouldn't have happened. And what I'm saying, make it transparent – somebody mentioned transparency; make it transparent so we ***all*** can participate in this structure because it depends on – and by the way, to everybody, I had a brand-new grandbaby born this morning [Applause]. I want that baby to have life and not have to keep paying that bill.

Commissioner Bubba McDonald, Jr. I'm glad you said grandbaby. [Laughter].

Mr. Jim Hamilton. Thank you for that – very much. We've got one in the back, and then Mr. Nesbit.

Ms. Susan Corbett. Hi, my name is Susan Corbett. I live in West Columbia, South Carolina. I'm here today as a spokesperson for the South Carolina Chapter of the Sierra Club which has about 5,500 members and thousands of other supporters, and I also serve on the Citizens Advisory Board for the Savannah River site.

I have a couple of questions. I drove over here from Columbia this morning on some pretty bad roads. South Carolina is becoming notorious – even our governor has gotten called out on it – but the roads look pretty good over here in Georgia, by the way, at least what I saw; so congratulations for that. But we know that we have a national crisis infrastructure-wise – roads and bridges – and we're talking about entertaining the idea of moving this waste not once, but twice, along bad highways, bridges, railroad links, along a lot of transportation routes, so my question is a two-part question: don't we need to give some thought to putting a lot of money into improving infrastructure along the way and shouldn't we be looking at consent for those communities that are on these transportation routes? If they're going to be cast on the sidelines as thousands and thousands of truckloads of some of the most dangerous material in the world goes by their homes and communities, shouldn't they be engaged and give consent for this waste being transported through their communities?

Mr. John Kotek. I guess I can start with that. The infrastructure comment I'll take as a comment, obviously. We need to ensure that whenever we're moving materials – it's principally by rail that we're looking at moving commercial spent fuel, just so folks know, although there may need to be some road or even barge shipments to get to railheads depending on the situation at a particular plant.

As for consent. I mean there's no consent for the transportation element of this as there is for the siting of the storage and disposal facilities. What happens there, of course, is that it's the state and tribal governments that have the responsibility to plan for and train, be prepared for shipments going through their states, so to the extent that folks have concerns about route selection, or shipment inspections, or emergency response training; those are the types of things that we will be working with state agencies and tribal governments on and I encourage you to provide your comments both to us and to them as appropriate when it pertains to the shipment aspect. Are there any other…?

Mr. Rick McLeod. Did Chuck leave? I guess he left. He left, but one thing with the WIPP on my mind; whether it was 10 years or 11 years, I guess it's all relative. [Laughter]. But one of the things WIPP did on their incentives talking about infrastructures and bad roads: With WIPP being built in New Mexico, they actually used the incentives money to increase or have their infrastructure for road systems built. They built several new highways as related to it. So as you comment on incentives or think about consent-based – what are the incentives? Isn't that one of them? Is that something a host community could ask for? Money could go to the highway fund? Can we ask that every citizen, if South Carolina were to host one, which we said we're not interested; but if they were, would every citizen in South Carolina, and since we've got Georgia right across, every citizen didn't have to pay federal income tax as long as the waste stayed in the state? I think that would generate a different consensus then having just this waste wants to come. [Laughter]. So incentives and how you deal with incentives, and the infrastructure is one of those that you can talk about, but I say that's a big process that is going to have to be decided.

Mr. Jim Hamilton. Alright. Thank you.

Commissioner Bubba McDonald, Jr. You need to take one thing into consideration. It's been a proven fact and thank you for your comments about Georgia roads, but as I said earlier, if you tell people what you're going to do, and you tell people what the results are going to be, and you tell them how much it's going to cost, and then you do it, and then you're getting ready to do something else, people have trust and confidence. To the gentleman who wonders why we would build two more new nuclear plants somewhere, and produce more waste; well, we go back to the federal government that we should trust. If we can't trust our federal government, then who are we going to trust? We have a contract. The Department of Energy gave us a contract years ago. That would tell us where the process was going to be. Then, just like with the expansion of the ports in Savannah that's going to impact Carolina and Georgia, our Department of Transportation has a projected $2 billion truck-only road from Macon, Georgia through Atlanta. Trucks only. And that's to take and enhance what's going to happen at those ports down there, but it's a plan, and it's going to work.

Mr. Jim Hamilton. Thank you.

Professor Michael Elliott. I would add that the problem with transportation is that it's very distributed. Right? Depending on where these get sited, thousands of communities could be affected in one way or another. I think the issue of consent about the criteria for how things should be moved is a national issue and there ought to be careful consideration of how the transportation system is designed, and the storage while it is in transport, the supports for communities that might be affected as you go along; those things can be dealt with as a national issue, but ultimately if you have every single community having a say about whether something can go through their community or not, ultimately, I can't see how that could possibly work.

Mr. Jim Hamilton. Thank you, Michael. Steve?

Mr. Steve Nesbit. Hello?

Mr. Jim Hamilton. You're good.

Mr. Steve Nesbit. Okay. Steve Nesbit with Duke Energy. My company operates 11 nuclear power plants and we also have a permanently shut down plant in Florida. The plants we operate are in South Carolina

and North Carolina and we've been running them since 1970 and generated a lot of nuclear electricity; emissions free at that. I wanted to point out a couple of things and then I've got a question.

We have collected from our electricity customers nearly $2.5 billion in the course of that time and turned it over to the federal government for nuclear waste management and we have got nothing in return. So to the gentleman who was concerned about the nuclear industry taking over this issue, I'd say maybe that would be a good thing.

With that being said, another point that came up earlier was about local control and regulation. I think there might be a misunderstanding there. Our plants do operate under Environmental Protection Agency laws and permits and those permits are issued either by the federal government or by the state government, depending on the sharing of jurisdiction there, but it is not a situation whereby we are regulated only by the NRC. We are regulated by all the applicable regulations.

And that kind of gets to my question to Ms. Goldstein. So you suggested that one of the three things you talked about was changing the rules a little bit so that there would be local control through regulation.

As a company that operates under that regulation, we're very concerned about what we call "duel regulation," were you have multiple people telling you what to do, so you can't figure out how to do anything. But with that being said, that suspicion aside, have you or has anyone developed specific language or amendments either to the Atomic Energy Act, the Nuclear Waste Policy Act, or something like that, or is that more of a concept at this point? I'm curious if there's anything more specific about that.

Professor Mindy Goldstein. Yeah, so a few things about all of that. So one, just to clarify we're talking about repositories and disposal sites and not operating plants. Right? So all those kind of sets of regulations are going to be slightly different depending on what context you're talking about all of this in. And two, the fact that a plant can be governed both by state and federal governments working together is ***not*** unique; in fact, nuclear power is the unique kind of situation – every other energy production source has managed to figure out the combination of the two.

But as far as is there a suggestion for amending the Atomic Energy Act and the Nuclear Waste Policy Act? Yes. This issue is not new, and it's gone before Congress quite a few times. I think the most recent suggestion came out in 2013. It was not drafted by me. But it's pretty good. I'd like to take credit for it. But yes this idea is not new by any means. Have to talk to specifics with you maybe later. I don't think everyone here wants to get into this the super, super, nitty-gritty, or you can take one of my classes. [Laughter]. You're welcome.

Mr. Jim Hamilton. Did that answer your question, Steve? All right I've got a question from the webinar and I'm going to read that and then I've got one there and then one there and one there and that should probably take us to the break. Alright? Are we good?

From Donna Gilmore: Is John Kotek aware that the existing thin one-half-inch canisters cannot be inspected and the manufacturer, Holtec, said that it's not feasible to repair them. Sanonofresafety.org.

Mr. John Kotek. I guess I'm not familiar with the specific concern that's being raised. I know certainly the Nuclear Regulatory Commission has rules that govern the safe storage of fuel at reactor sites so let me

commit to look into that a little bit more. I'm paying a visit out to that community here in a couple of months and would be happy to engage on that specific technical question a little bit further down the road.

Mr. Jim Hamilton. Great, thank you. I've got three. So Kent, and then the gentleman there in the blue and over there at the end.

Mr. Kent Cole. Kent Cole, NAC International. NAC is one of the companies that is a provider of safe, secure, spent nuclear fuel storage, dry storage. And we're a participant with one of the organizations that has put forward a license application to the NRC to site a consolidated interim storage facility.

A couple of comments and then a question. Of course, what we're trying to do with this – one of the objectives in our timeline – is to try to meet the timelines in the Department Strategy document to operate a consolidated interim storage pilot facility by 2021. So my first question is how does this consent-based siting process, and where we are today, align with that timeline, and then the second thing really for all the panelists is this being pursued as a private enterprise envisioned potentially to be a privately-owned and privately-operated facility and I'm interested in comments from the panel panelists on how the consent-based siting process differs or applies to private facilities versus government-owned facilities from your different perspectives. Thank you.

Mr. John Kotek. I'll start with the question on timing. You pointed to the Administration's Strategy on the 2013 date. Of course, the statement in the Administration's Strategy is predicated on there being Congressional action.

On the other elements of the Strategy that require a change in the law to move forward, we haven't seen that yet. So at the time we were thinking it would take about eight years from the word "go" to get to a pilot facility and about 12 years to get to a larger-scale consolidated storage facility. I think those are reasonable time frames; but at least based what I'm hearing, particularly from those entities that have private initiatives that they're potentially pursuing, that they'd like to see some change in law for there to be more certainty regarding the Department's ability to enter into contracts and pay for services so I think there's still some work that needs to be done on the Congressional front before we deliver on that.

Mr. Rick McLeod. I'll take a stab at that. At the private facility in the community DOA has a stipulation in the DEAR which is a contracting mechanism called a Community Commitment Plan and I would strongly suggest any private venture that is looking at interim storage – look at that in detail and actually develop a Community Commitment Plan where some of the proceeds, in this case, a lot of the contractors will give their award fee toward workforce education, economic development, back into the community so that the private entity does not retain all of those profits and you're actually there being a guest of the community, so you really need to take care of the community and understand the community and participate at the local level.

Professor Michael Elliott. So the normal negotiations on siting are with private entities. It's actually much more rare to negotiate over a government facility. This is an issue of course, because of the length of time in which the nuclear waste remains an issue, the whole question about how private corporations maintain things over time and their durability and what happens if they in fact fail is obviously something that would have to be integrated into that. I would think that the consent processes ought to be fairly parallel – that how one thinks about achieving or siting a facility with government ought to be similar to

how one thinks about it in a private setting and the issues will be somewhat different, because on the one hand the government can change its mind and it's hard to bind it; on the other hand, companies don't necessarily have the financial resources to follow through on their commitments and so issues about the continuity and other things will become more problematic.

Mr. Jim Hamilton. Great. Thank you. I've got two more questions left. One, and then two.

Mr. Clay Channell. Hi, my name is Clay Channell and I work for Southern Nuclear Company and I am responsible for the spent nuclear fuel storage program; the dry cask program for the states of Georgia and Alabama. My question is for you, John. I have a question regarding these interim sites; both the pilot sites and the two proposed commercial sites and if those were to go into effect, we may or may not require a change in the law for that if it were to happen without a repository, but regardless of that, if they did get shipped to an interim site, how do you view ownership of the fuel, and the cost of the transportation both to the interim sites, storage at the interim sites, and then transportation to the ultimate repository? Because, certainly, as someone responsible for the safety of the fuel, and the safety of the public, here in the states of Georgia and Alabama, and also concerned with keeping our rates, and our costs of our rate-payers as low as possible, we would certainly – we would certainly want to protect our rate-payers from having liabilities and costs associated with that transport to those interim sites. I wanted to see your comments and where you view the DOE ownership of the fuel there in that process.

Mr. John Kotek. That's an important question that we're in the process of receiving input on – is that transport and storage paid for out of the Waste Fund, is that appropriated dollars; obviously, as I mentioned earlier, we're paying several hundred million dollars a year out of the Judgment Fund to pay for storage at sites around the country so we see a good rationale in terms of reducing the overall burden to the taxpayers to moving forward with consolidated storage, but the specific question you asked for were looking for input on. So I would appreciate hearing your thoughts on that.

Mr. Rick McLeod. Where there is also a kind of simple answer for that too, it's like whether it's intrastate or interstate. You know, when it's interstate, you've can't have each state having a different policy. So it really goes back to the concept of the federal government saying we are going to take the nuclear waste to a permanent site. So then to do that, the best way to handle that of course, is FOB shipping point. Then that closes from one state arguing with another state the policies that you have to go through another five years of work. Put it in one source, take one responsibility, and then you got it.

Professor Mindy Goldstein. Just to be clear though, right now the policy is for the federal government to take it and dispose of it permanently. And I think that we need to be very careful on severing the storage and disposal process and one thing we should probably take into account is that if all the stuff gets consolidated, and stored and DOA takes care of all of it, where is the incentive to then dispose of it and where are the private companies that sort of generated this waste coming into play? So I think it's an important conversation to have, and a meaningful conversation to have, and I would urge us to have the conversation together with the conversation about a permanent repository.

Professor Michael Elliott. And one can look at parallels around hazardous waste and the fact that you dispose of it at an off-site treatment area that did not in fact relieve you of the responsibility to make sure that it was maintained safely. And anything that would look like the corporation's losing its responsibilities to maintain this thing safely would probably have lots of questions associated with it.

Mr. Jim Hamilton. Thank you, Mike. We've got one more question, and then we're going to wrap it up.

Ms. Becky Hardesty. Hi, my name is Becky Hardesty. I'm here from the public, but I've worked in the utility industry for 35 years and I'm very pro-nuclear, so don't take this the wrong way.

But I think we are kidding ourselves when we say that we're looking at this in a realistic manner. We won't let you build a house, a school, a prison, or anything without a waste disposal system, yet we continue to build these nuclear power plants without forcing them to have a nuclear disposal system. All right? We need to go back to the needs – my boss taught me a very important thing and that's, "I'm up to my backside in alligators. I need you to feed the alligators." We need to push this responsibility all the way down to the consumers.

A gentleman mentioned earlier about wanting to be able to do this and people having all of this stuff readily available to them at any given point in time. You flip a switch, the power comes on. Why? Because we have a nuclear power plant that supplying that. In World War II, we did this testing because we had a need. We have a need, we have more gadgets now that any one person can carry in their pocket at any given point in time. They all run on electricity. If you can't supply the electricity, they don't get their iPods, they don't get their iPads, it goes all the way down to the children and these people who want this technology but they don't want to pay for, or develop, or store, nuclear waste. You can't have it both ways.

And I think it's very important for us to educate that – push all those alligators all the way down to the bottom level. Your kids want this? You have to address it. If you want this? We have to address it. Let that need feed all the way up to the community; up through us and get the community involved in how we do it. We have a lot of very highly educated people here today, but I guarantee that as the gentleman over here mentioned, a lot of these people aren't being heard – they don't have web access, they don't have phone access in their areas, and we're making decisions for them. We've got to get community groups together. We need to have town hall meetings; we need to get the customers educated in what it is they're asking for, not just from an electric level, but also from – how do you deal with the waste that goes along with that? How are we going to address getting that amount of community involvement with and get that need pushed up?

If you don't approve those development plans for nuclear power plants, I guarantee you those construction companies are going to be throwing a holy rolling fit. They want to build their nuclear power plant, but without that approval for a waste disposal system, how are you going to do it?

One of the communities I lived in in Illinois – you don't build a school, you don't build a subdivision, without having the infrastructure behind it. Yet we're letting these big companies – nothing against Duke, I work with you all the time – but how do we continue to build these plants without having the infrastructure underneath it to support it?

Mr. Jim Hamilton. Thank you very much.

Mr. Rick McLeod. Jim, can I touch on that just briefly?

Mr. Jim Hamilton. Twenty seconds.

Mr. Rick McLeod. You have to realize there is a law currently that has been on the books that has a repository. It's called Yucca Mountain. So don't put this all on the utilities that says this is theirs – they have to come up with a disposal mechanism. That has been already decided; it's been acted on by Congress, but now we have rescinded that. We're in a community where we have 8,000 canisters of vitrified waste that was supposed to go to Yucca Mountain, could go to Yucca Mountain, that could go tomorrow, but because our government has decided that Yucca Mountain now is no longer viable. That is the disposal method. We had it already. We need to act on the law and make Yucca Mountain, go ahead and open it up, and we can have interim storage and Yucca Mountain. There is no reason that we could not have had both. So it's a disservice to say that there's not a mechanism in place. There is.

Mr. Jim Hamilton. Alright. Thank you very much Rick. Thank you audience members, thank you panel members for your excellent presentations today. Can we have a round of applause for them please? [Applause].

Okay, we're now headed into the break. I need you for 2 minutes so I can give you a little bit of a foreshadow of what happens. Is there going to be a slide up here with that right now?

Before we go to the break, we're going to break for 15 minutes; we're going to come back for some small-group discussions. Give me 2 minutes to walk through this please.

When you come back – and this is sort of the meat of the meeting here. You're going to self-select around tables. So 8 to 10 or 10 to 12 people. The goal of this discussion is for you to collectively dig deeper on the issues you've heard about this afternoon. Each table has an independent third-party facilitator and their job is to help you have a productive conversation. Can I ask those facilitators to identify themselves? Raise your hands? So when you come back from your coffee break, they'll be there with the chart, paper and stuff ready to have a conversation; or help have a conversation.

There are no prescribed topics for this discussion. But in your packet is a piece of paper with some guiding themes and ideas to help kick-start that conversation.

At the end of that one-hour period is going to be a report-back session summarizing the small-group discussions. These will then be condensed into a summary report of this meeting. Our Chicago meeting two weeks ago; the summary report is going to be posted on the Department's website this week. So we're going to maintain a level of transparency and dialogue and feedback.

And from the webinar, for those on the webinar, we've learned that live feeds of small-group discussions does not make for good television. So we're going to pause the live stream until we come back from the report-out session following the group small-group discussions.

So, it is 2:56 PM now and we're going to be back here now at 3:15 PM sharp. We're going to start on time. And the live webcast will start in 75 minutes from now Eastern Daylight Time.

Anything else I need to raise right now? If not, 15 minutes back. Thank you very much for your time.

Small Group Discussion Summary Session

Mr. Jim Hamilton. So thank you all for your engaged and thoughtful dialogue over the last hour. As we're all frantically trying to reposition flip charts, now comes the best part, because now we're going to be able to hear collectively what we've all been working on for the last little bit.

So we're going to go around the room, each facilitator is going to report back on the experience of that table and some of the lessons and observations, and those sorts of things, so about 3 minutes per facilitator, three or 3 and a half, and we're going to try and wrap it up at the end and then move into our public comment period. Fair enough?

Take it away Bill.

Facilitator 1 [Bill Olson]. Thank you. Thank you. So the group I worked with was in the back of the room. Good participation, and they identified about nine or ten things, and then they combined some of them. So we got it down to four. You'll only really see three of them up here at the moment.

The first one is all about the community itself. The community, or the county, as appropriate. And there's two aspects here, really. First of all, the community needs to be aware that it needs to be fully educated and aware of what's going on here. What are the risks? And educated – what's happened in the past, that could include their awareness of other things nuclear, whether it's production, storage, use in power plants and they want some assurance that there will be progress towards not only getting the approval for the sites, but the ongoing maintenance and management of that site. So a big focus on the community; the county itself.

Secondly is the consent-based siting process must be site-specific. It cannot be one-size-fits-all. So it should be a site-specific process. They're all sorts of areas to take into account. For instance, what is their awareness or education? What facilities are already there, or in the area? What opportunities might be unique: R&D, development, economics, fuel conversion – what is the experience, again, in the other areas of nuclear, "all things nuclear," my group liked to call it; and what are the jurisdictional issues, if any, what are the politics, if any, what is the stability to stick with and execute that plan? So site-specific.

The third area boils down to trust. It boils down to trust. And here's where the group talked about – it's not just consent, it's ***earned*** consent, it's not ***assumed*** consent. You can't take an area and say they're going to approve this no matter what, so earn that consent, prove it, and then have trust that DOE will stick to the plan. And they said and maybe not DOE; maybe this might be an area where it might need to be an independent agency that is somehow related yet independent from DOE that will implement this. So trust became a big aspect.

The fourth one – they liked how it connected the dots. Opportunity. So in this area, so once you put a site, or consider a site, and maintain that site for perpetuity, this opens up all sorts of opportunities, and this should be included in the consent-based siting process. So that opportunities could be – if you have a site here, here's the good things that might happen. One of the ones that brought up in addition to R&D and fuel conversion was for the university of that area could become a center of excellence, and roll that out for the benefit of the community. So they really saw opportunities and not just the technical aspects that should be included in the site-based process.

There were a few other areas that they did touch on. They got ***really*** specific. These will be in the typed report, but boiled down to those four: focus on the community; focus on what's very site-specific for the community; trust with DOE or the agency, and finally, opportunities. Thank you. [Applause].

Facilitator 2 [Janice Neitzel]. Thanks, Bill. I'm Janice, and we had a very lively discussion in our group. We came up with one of the most important issues being a bottom-up grassroots approach, so in that spirit, our chart is bottom-up. So we have overarching issues such as the benefits, responsibilities, timeliness, and ownership.

Then we thought completely defining the issue was the next most important piece – framing the challenge so that it's understood by local citizens.

Third, we thought most important was the effective process design – building on proven models, oversight and accountability models, such as NEPA, and making sure those are workable and effective in the process design.

Lastly, we came up with meaningful community engagement and education. The process driven by a broad group of stakeholders, not by industry, but including industry. And full integration of communities and understanding how our community boundaries are defined.

Facilitator 3 [Frank Scarpaci]. Hello, I'm Frank. [Applause]. Thank you. We had a very lively discussion at this table. We came up with three of the top considerations; sorry, I have a little bit of a sore throat.

The first is establishing technical criteria and standards for interim storage and deep geological site, and it must be in parallel with the consent-based siting process.

The second is establishing an independent, separately funded organization for nuclear waste. Yes, so that's number two.

And three, we liked that this is really short, that funding just needs to be fixed. That means what will the funds be used for, how will they be tracked and so on and so forth. So, thank you. [Applause].

Facilitator 4 [Leigh Ann Rodgers]. Hi, we had a good discussion as well with lots of differing opinions, and these are the four ideas they asked me to share in no particular order.

But the first one is the ability to create enforceable agreements at the local, the regional, and the state levels – and this one actually come up at several different points, and it just kept coming back that we need enforceable agreements at all these levels.

The second one is that the process and the criteria may be different for repository versus consolidated interim storage. So some thought needs to be put into what those processes would be and they may look very different for the different types of storage.

The third one is the DOE needs to provide more parameters before a group receives money (and that's a dollar sign) to ensure that there are serious considerations. So the thought here was that before money is put out for this step-I process, that there may be some communities that are eager to receive the funding for that, but may not necessarily be seriously ready to take it to level II, so really thinking through and

vetting through to ensure that people and communities that are in the step-I process are very serious about moving forward and finding out more.

And then the fourth one was that the DOE and the industry need to show that they are trustworthy and come up with a believable consent-based process. So there was a lot of conversation around past history, and changes and sometimes they're being political environment changes, and Administration changes, and just things that happened in the past to create a sense or a lack of trust with some people. And the idea of involving people at all levels, and different points of view, and the conversations like this to kind of health support that, so people do feel more trustworthy and that they can support the process. Thank you. [Applause].

Facilitator 5 [Chip Cameron]. We discussed a lot of issues. And I don't know if we reached too much agreement, but I guess I'll start with this quote, "Say what you do, and do what you say." And that's connected to the point that our table felt that there should be a new organization to implement this process. That notwithstanding the great efforts that DOE is doing now, that there's a lot of mistrust with DOE and the simplest thing would be to have a new organization, okay, at some point.

Secondly, there was a lot of skepticism about whether there was a real commitment here to developing a process. One word that was used is "maybe" or the term "maybe I'm too jaded at this point to believe that some type of effective process is going to come out of this effort." That's tied into people around the table saying we need a broader process that involves more involvement of communities; more involvement of average citizens. We couldn't really come up with any specifics about how you would do that process, but I think there was a belief, and I'm looking at my colleagues here, that there was a belief that some type of additional process would be needed. Some type of collaborative process. Someone raised the example of how they developed the health care system in California. And a lot of you may be gasping and fainting over that, and I don't know anything about how they developed the health care system in California, but there was somehow a feeling that there needed to be a broader involvement.

Related to that I think was – we're spending all this effort on developing a process to look for volunteers if that's the right way to say it. There are two efforts now, one in Texas, Waste Control Specialists, who is coming into the NRC with the license application for an interim storage facility. Eddie Lea County over in New Mexico plans to do the same thing. Are we really squandering the opportunities by not focusing on those two sites and doing all that we can to try to promote that?

And we started out with using the term "we should look at all liabilities" which people defined as all the risks and the negative impacts and then broadened that to benefits that – that has to be done and communities have to be involved, and we had the good professor at the table and he raised the point that you have a problem here with the benefits of this are widely distributed across the society, but the costs are really focused on a few places, so how do you try to get that involved with the process?

So we went a lot of places, and we're still on the bus I guess, so that was our conversation. [Applause].

Facilitator 6 [Brandon Allen]. Alright, so our table here; we had a couple of dozen different areas of comments and we refined or boiled this down to three areas.

Number one was education. So they felt that education is really, really important and specifically to the community where the site ends up. Make sure there's a lot of outreach; make sure that is proactive

education, not just, "Hey, what you want to know?" But sending out the information. Building a plan; having a communication plan; establish the plan, and execute the plan. Make sure that the education is balanced, so it's all sides with representation from all sides, so that the people feel like the information they're getting is accurate and it's unbiased.

We've got a lot of [the letter] "i's" here. So we have this three "i"-process and there's actually two more. The three "i's" the table came up with were: inform, involve and integrate. So as it relates to the community, inform them and let them know the risks, the benefits; all of the issues. Involve them. Make sure they're part of the process, and integrate them as well, so, "Hey, you're part of the community, we're putting your site here; this is what it means to you," and the other two "i's" were inclusive. Make sure that all the voices get out; maybe communities of color or where they've not been so inclusive in the past; make sure you reach out to those folks and get their opinions and do it with integrity. So there's some issues around maybe a lack of trust, so the integrity will help.

The second area was voluntary. Make sure that the community feels that they've not been rushed; they've not been pressured nor bribed into the process. And they feel like it's their decision, right? So the communities where these places land have got to feel that it's a decision that they own.

And the last piece here is that it's actually a culture of safety. But we threw science and sustainability in there as well; so making sure that that overall feeling that we're watching out for your safety. There is science involved here; we're not just guessing, and that it's a sustainable and a long-term solution. [Applause].

Facilitator 7 [Susan Nurre]. Okay. It's kind of nice going toward the end because we've heard a lot of things that we also talked about. One of the things that we talked about was that the public needs to know. And there's a lot of talk about we need to communicate the risks and the benefits. We're taking it up a notch. We want people to know when meetings like this happen. We want people to know if there's a town hall, what is the reason, the incentive, the value to them as a homeowner, as a person that works…why should they go to those meetings? So obviously at those meetings we want them to learn about the risks and benefits and all of that, but we wanted to go even higher.

We also felt like there is a problem with trust and we believe that a new and independent agency would need to run this process and that there is a lack of trust at this state and at the federal government level and that we talked about going back to our younger days, how do you build trust? We talk about how easy it is to go away. How do you build trust? So some of the things we talked about were, you know, trust is built on actions, your track record. Well, a new agency isn't going to have a track record, so we looked at some of the other things that they could be doing. And a lot of it is going back to the local level. Start building trust there. Because those are the people that the community knows. They may or may not like them, but they know them. So they've got a track record at home, you then you can start building on that as you're working into the agency.

There was some concern about – it seems like the decision has been made for the ***outcome*** of the process being a pilot interim storage, permanent repository; and the question is are we building a process to back into those and would it be better to consider alternatives that would be – we talked about one alternative having the interim storage be where the material is currently held. So just a question about is that something that can be considered.

We talked about changes in laws to support this process as well as the local controls that we talked about earlier. And we had some discussion around environmental justice. As was talked about earlier. And we talked about it. One thing that was brought up was to make sure that when we're talking about environmental justice, and we're talking about communities of color or low-income, lower-education; that we don't reverse this completely and not think about, and not even allow those communities to be considered because even though we want to be careful with this, we want to make sure that we're looking at all the different factors; we want to make sure that we don't just go, "Oh, we don't want to just be looking at these types of communities, we want to make sure that everybody is heard and everybody is considered."

And I think that is all. [Applause].

Facilitator 8 [Wayne Pendle]. So for sake of time, I'll just say ditto. [Laughter]. But our group did come up with some similar themes and I want to quickly let you know what those are.

The first thing they said, and to go with what Susan had just articulated, the need, and they really wanted to go on public record in saying this, the need to establish as quickly as possible a non-DOE entity to perform these tasks. That because there's not a track record with that group, one of the suggestions was that that entity would be doing this – what we're doing today, potentially. That process. But certainly the execution of that process needs to be done outside of the DOE. To accomplish that. And part of what the group suggested that those tasks be that they do was this idea of communicating to the local community this idea of benefits and risks. And some of the benefits that I asked them, what would those be, this facility might bring the ability to have broadband access to a community that doesn't have it. Or an improving of roads. Or be able to fund new schools. Or research and development. Those are just some brainstorming ideas that were thrown out. But ***that*** entity would be responsible for communicating some of those, as well as the risks involved in that as well.

They would be seen as trustworthy and credible, and knowledgeable and accountable. That they would partner with elected officials, to hold town hall meetings, to ensure that the public was informed; to really be able to work at that state and local level to ensure that a site selection process was certainly fair and equitable and had that community's well-being in mind. So that was, as the Blue Ribbon Commission reported, that was certainly something that was probably the highest-energy topic that was discussed. The creation of that.

To go with that; this idea – I'll jump to the last one that came in the middle, was this idea of this contract issue. That true consent means that there is a contractual agreement that is established. At the local level, with that entity, but then at the state – could be state legislation would be put on top of that to ensure that the commitments that were made in that contract were followed through, because this is a multigenerational issue; that as communities change, there needs to be something binding in place that is sustainable. So that was a piece that needed to be worked in the process early on in the consent-based process.

And then finally, and I think we've heard this from all of the groups, this idea of a mechanism for community oversight. That there would be something in place, not quite sure what that something would look like to the group, but there would be something that would go through a verification and validation process that the things committed to in the contract – and people said this too in your group – that we're

walking the walk and talking the talk. There's something there to validate that process. And that had the idea and there was a lot of discussion around community well-being. And how this affects everyone in that community. So certainly a group outside DOE to accomplish the executive part of this. The execution phase. But through binding agreements, have that local oversight into this, and they felt like those three were a very powerful combination to increase the trust and credibility that's lacking today with this nuclear waste issue. Thanks. [Applause].

Mr. Jim Hamilton. Thanks very much for that. So, sitting back and listening to all of this, I come away with sort of five kind of themes. We heard a lot about trust; we heard a lot about an inclusive process; we heard a lot about education, but I think education goes multiple ways; it's not just a one-way street, it's more like a mutual sharing thing; and consent and transparency. And those are all sort of "what's," like this should happen, this should happen, this should happen, I get that; I understand that, and I appreciate your thoughts.

Just try this and bear with me for the remaining seven minutes.

Put your hat on of this new organization. You are now part of the new organization that is going to be implementing this. Moving from the "what you should do" to the "how you should do" question. How would you, or we collectively, behave to earn that trust? How would we be inclusive? What behaviors would we implement to develop that learning to earn that consent to be as transparent as we are advocating for?

So, you know, we have six or seven minutes, we've got two microphones here, and if you feel like you want to offer a suggestion more on the verb; I'm not opposed to the noun, but the verb; how we get somewhere. This is an opportunity: We've got senior officials from DOE; we've got a lot of peers in the room here; we've got new friends; we've got new lots of new friends on the webinar; are there issues or areas where you would like to see a little more of the "how" talked about? And if so, we've got a few minutes here to enable that conversation to take place. And we've got microphones, and we'll see where this goes. Thank you for your patience and your faith. Let's go.

Mr. Chuck Bernhard. Okay, once again, Chuck Bernhard, I'm a consultant; I formally was assisting the community of Carlsbad in getting WIPP open.

I think you have an immediate challenge, and an opportunity to demonstrate the consent-based approach on the re-opening of WIPP.

Mr. Jim Hamilton. Okay, I'm just asking that you turn and face the audience, as it's just not me here, it's everybody here.

Mr. Chuck Bernhard. Okay, I think they have an opportunity to demonstrate the consent-based approach on the reopening of WIPP. My own opinion is that the incidences at WIPP have cast some doubt upon the DOE; upon the process; upon the diligence, that goes into preparing waste to be disposed; and I believe – and I'm in the minority – but I believe that it's going to be a battle. When we got WIPP open, we had everybody pretty much on the same sheet of paper. The state, the DOE, the policy-makers, the community. My sense is that there is strain in that system right now.

I would say to DOE, "Put your money where your mouth is." Let's see how you do it on the reopening of WIPP and make sure that's done right.

Mr. Jim Hamilton. Okay, thank you very much. Got a comment down here and then one over there.

Ms. Mary Olson. Mary Olson, Nuclear Information and Resource Service. DOE: You missed the boat. The Blue Ribbon Commission could and should have been a more diverse group. You chose purely nuclear-power advocates. You did not include the full range of this conversation. And you still are not doing that in terms of the design that we heard the professor at this table talk about.

If you actually want an outcome that is going to hold, you have to include a much broader range of people in the ***design of the design***.

And I'm not right now going to fill in the blank of what you're designing because my community is diverse and I represent them, and I can't fill in that blank. When I make my comment, that will become a little more transparent. But if you in fact had included, as Tom Cochran and others urged you to, some of the dissenting community in the Blue Ribbon – we might be having a different meeting today.

Mr. Jim Hamilton. All right, thank you Mary. We've got time for one or two more. Is there a mic we can give her?

Ms. Karen Patterson. I'm Karen Patterson, from Aiken, and I too am a consultant. Consultants ***never*** reinvent the wheel. So I don't really have a "how" but I do have a place maybe we could start to look. I do realize that Sweden and Finland are very different countries from this one, but they are further along in this process that we are, so maybe if we study what they have done, we would get some good lessons learned that we can work from.

Mr. Jim Hamilton. All right, any final thoughts on the "how?" If not, we can move into our public comment period.

Alright, thanks very much for your input, we appreciate it. That was great.

Okay so now it's a quarter to the hour and we're going to move into our public comment period. I've got nine people signed up on the public comment sheet. And if you divide the math, that half an hour divided by nine people; we're looking at about two-and-a-half to three minutes per person. I've got Tim in the back, and Tim's got two pieces of paper, a yellow one and a red one. When he raises the yellow one, you've got a minute left and when he raises the red one, it's time to pass the mic to the next person. Thank you in advance for your cooperation on this.

The way we've designed this is that the folks who want to make a public comment come to the front; there's a microphone here for you; you can face the audience and you've got your two and a half minutes to make your statements. I've got, in the order that was signed up, Louis Zeller, from Blue Ridge, Gary Harris and Susan Corbett and I will remind people of their next statements; followed by Steve Nesbit and Rod McCullum.

So we're going to get Louis Zeller to start. Is the mic on for Mr. Zeller? Here we go.

Public Comment Period

Mr. Louis Zeller. [Guitar music – Mr. Zeller begins to sing].

"Well, the power man came up to our house

Said he had some big plans

He'd make us a nuclear power

If we'd just sell him our land

He said we would have a bright future

It would be so very safe

Just two things he didn't mention – big bills and nuclear waste

Well my daddy said not to waste nothing, back when we had nothing to waste; that's what they're giving us – nothing; nothing but nuclear waste.

Well the government man came to see us

He said we will help you poor slobs

We got us a government program

Going to give everyone jobs

These jobs last more than a lifetime

Excitement is flying in space

Just two things he didn't mention – big bills and nuclear waste

Well, my daddy said not to waste nothing, back when we had nothing to waste, that's what they're giving us – nothing; nothing but nuclear waste

Well, they started pasting up posters

Til they run out of paste

This slick talk and pictures in color

The wonders of nuclear waste

Well some of us folks have been wondering

How dumb do they think we can be?

If they don't want waste in their back yard

Should I let them dump it on me?

Well, my daddy said not to waste nothing, back when we had nothing to waste. That's what they're giving us – nothing; nothing but nuclear waste.

One more time: Well my daddy said not to waste nothing, back when we had nothing to waste, that's what they're giving us – nothing; nothing but nuclear waste." [Applause].

That song was written by a friend of mine in 1986, it was Wel Settleman, when we were fighting the Office of Civilian Radioactive Waste Management and the Crystalline Repository Project. We've been fighting for 32 years. We're not tired. We're not even winded. Thank you. [Applause].

Mr. Jim Hamilton. Thank you Mr. Zeller. Gary Harris, you've got a tough act to follow, my friend. [Laughter].

Mr. Gary Harris. [From audience] I yield my two minutes. [Laughter].

Mr. Jim Hamilton. Alright. Okey-dokes. Thank you very much. Thanks, Gary, I appreciate that. Susan Corbett from South Carolina Sierra Club followed by Steve Nesbit of Duke.

Ms. Susan Corbett. Thank you all, Susan Corbett. I'm speaking today on behalf of the South Carolina Chapter of the Sierra Club. The Sierra Club has long been opposed to nuclear power. We are still opposed to it. We just think that in this day and age there is a much better way to generate electricity and the national club is in favor of phasing out nuclear power plants as soon as possible and moving to 100% renewable energy. There's numerous road maps out there how to do it, and we believe we can do it and we're working for that.

We are opposed to interim storage; generally speaking. We just think dragging this stuff around the country twice at great taxpayer expense is crazy; and not to mention the transportation issues and risks to the public. I'm sure there's a few exceptions where it needs to be moved – and if that's the case, it should be moved to the closest nuclear facility, and not dragged across the country.

We think we should get busy locating the permanent repository and put all of our efforts into that and move it once.

Now, fairness. What's fair? Well, let's see, what's fair about all the world's plutonium being dumped into my state, South Carolina? What's fair about the Barnwell Nuclear Waste Dump leaking into the groundwater and the company that owns it basically denying and refusing to obey the Appeals Court ruling to clean it up? What's fair about my utility putting a cap of 2% on solar power so that we don't have a true free-market for electricity in our state? What's fair about leaving the stuff for future generations? I don't think there's anything fair about any of this, so I'd be hard-pressed to find anything fair about any of these processes.

I certainly think that we do not want to repeat the mistakes of Yucca Mountain. We need to get the world's top geologists in here. That should be the first thing that happens is to determine where there are formations in this country that actually meet the criteria; not the other way around. We're not going to try to create the criteria once we get in there. That's the first thing that needs to happen. Before we even go to

a community, we need to find out what places are geologically stable. They don't have any magma chambers underneath, volcanoes, earthquakes, water tables – we need to decide where those places are.

As far as paying communities. If we're going to offer money, that money should go in the very beginning so communities can bring in experts from both sides of the issue to educate their communities. Not just one side of the issue – all sides of the issue. You should hear from dissenting voices. Health specialists on both sides of the issue. They should truly educate themselves, and they should do it at the Department of Energy's expense, at the taxpayers' expense. So they can make a truly informed consent, not one that is industry-biased.

And also there is a lot of other things that will be in our formal comments, but we are also very concerned about the issue of dry cask canisters. At the Fukushima event, the spent fuel was in very robust thick-walled canister systems; I think it was an Areva system maybe, or a German system, and it did not contribute to the accident.

But in this country we have gone to a thin-walled, cheaper version; only 1/2 inch to 5/8ths inch stainless steel cask. We are very worried – the NRC has not proven that they cannot crack. They may crack, they may leak and we think that's an issue that must be addressed immediately before we go any further with talking about dry cask storage. Thank you for your time. [Applause].

Mr. Jim Hamilton. Thank you Susan. Steve Nesbit from Duke and then Rod MacCollum from NEI, followed by Chuck Bernhard.

Mr. Steve Nesbit. Thanks for the opportunity to make some comments. I want to start by agreeing with Susan that the country needs to establish a geologic repository for used fuel and high-level waste.

First and foremost the government needs to follow the existing law and continue the Yucca Mountain licensing process. That's a facility that has been evaluated by an independent safety authority and found to be safe and capable of containing used nuclear fuel and radioactive waste for 1 million years.

Also, by doing so it will establish the credibility that it needs to go forward in the siting and the commissioning of other radioactive waste management facilities. Because, without that, how can you believe the government's going to follow through with the consent-based siting process, and actually do what it says is going to do?

Second, we need a dedicated, managed management entity for used fuel and radioactive waste management. A lot of people talked about that. I'm not going to say anything further. I think it's all been said.

Third, we need clear and understandable safety and environmental standards. Those are actually well in place for consolidated storage facilities. The NRC regulations are clear and they make sense.

However, for a generic repository, if the government decides it wants to develop another repository in addition to Yucca Mountain, there are no good usable, understandable generic standards and the government should take the initiative to establish them.

Fourth, in a consent-based siting process, I think the government needs to make a clear statement to the public on what it's looking for so that people have an understanding of what they're being asked; what are the costs; what are the benefits; and then can have a reasonable dialogue.

And lastly, I want to say that whatever process is followed, I think it should not preclude those companies and localities in states that come forward to volunteer to site facilities, whether they be consolidated storage facilities or repositories or whether they be in Texas, New Mexico, Nevada, or elsewhere. Those kind of efforts should be encouraged. Thank you. [Applause]

Mr. Jim Hamilton. Thank you, Steve. Rod?

Mr. Rod McCullum. Thank you. I'm Rod McCullum of the Nuclear Energy Institute. We've already been referred to here. We are the trade association of the commercial nuclear industry in this country. A lot of what I would've said I think has already come out in these flipcharts which you see right here. I just want to take this moment to emphasize one thing that is very important to us. And it's good to see you all participating, because this issue is very important to us, as an industry.

But the notion is of "earned consent." It's our experience having operated over 100 nuclear plants for over 40 years in this country, and lots of other nuclear facilities, consent is not a political arrangement. It's not something that can just be simply given. It's not piece of paper signed by people who may or may not be reelected. Consent is something you have to earn. We do that at our facilities every day. It's in how we are safe. It is in our safety culture. It's the way we are citizens of our communities. It's been talked about how areas around nuclear plants have such great schools and there is a reason for that.

So if there is to be any process that is to be successful in achieving consent, it has to be a process that earns consent. It can't be consent on paper, even on brightly covered paper with lots of markers on it. And how do you get to that? Well, it's going to take time, and one might argue with DOE's history that it's going to be hard. You know that's why I think you see a lot of the calls for a new organization, and we support a new organization.

Whether it's DOE or a new organization, you have to ask yourself one question. Given everything that goes into earning consent, and how hard that's going to be, do you really want to go back and start again from square one? We have a process in Nevada for Yucca Mountain; that was a process that was very public; involved the communities and the state. Nye County is here because they consent; they consent because they were able to do their own independent scientific research, the Nye County Early Warning Drilling Program funded by DOE.

Now the state of Nevada has not consented. The state of Nevada has filed over 200 contentions in an existing licensing process. Here's the opportunity to earn consent there.

DOE could fight those contentions. But right now they're pretending that the process does not exist. That certainly does not earn consent. But DOE could simply fight those contentions; they would earn no consent. There was a facility called PFS in Utah where the applicant did prevail over the state, and guess what, they still didn't get to build that facility.

But if DOE engages in good faith negotiation over those contentions, some of Nevada's concerns translate into R&D programs that address Nevada's questions that turned Nevada's universities and other

institutions into centers of excellence, now you're beginning to earn trust. I would tell you having been involved in many nuclear licensing processes, and these involve the communities and states and other agencies – NRC's licensing process is because there is that adjudicatory phase – there's an opportunity to intervene and be heard in court.

They lend themselves to consent and I would say don't throw out the three processes already underway. Finish the Yucca Mountain licensing process. Either you will either earn consent by doing that if you're negotiating in good faith, or you will not.

If you don't, yeah, you should be looking at other things, too. But also realize that there's two other interim facilities that have been mentioned in Texas and New Mexico. They are also in licensing processes. One of those – both of them have had experiences with earning consent. Now, New Mexico has been tested; how they respond to those accidents will test them as to whether or not they still have consent there or not. WCS in Texas has disposed of a lot of material safely. They've been good citizens of that community. They have provided economic opportunity for that state.

So there are places out there – all three places – you have a certain amount of consent equity already. You may have to be looking at some square-one options here; we understand that; in fact, that gives you credibility because you're telling people in Texas and New Mexico and Nevada that, "Hey, if we can't earn your consent, you're not still the only thing on the table." That really lends credibility to it.

I would just urge DOE to get that notion of earned consent into everything you do, and let's not go back to square one unless we absolutely have to because I'm working down was shut-down plants now, and there's a lot of communities that aren't consenting to being nuclear waste storage facilities right now and those communities are going to have a bigger and bigger voice as more plants shut down, and there are more plants scheduled to be shut down, so really focus on earned consent. I hope we can talk about that more. Thank you. [Applause] [In response to audience inquiry for website: www.nei.org.].

Mr. Jim Hamilton. Thank you, Rod. Okay, we've got Chuck Bernhard, followed by David Blee, then Charles Utley and we'll wrap it up with Mary Olson.

Mr. Chuck Bernhard. Thank you for this opportunity to participate and be part of this public hearing. I have to just say off the top of my head that I agree with my friend from NEI about a lot of the things he said, especially about earning consent. My background once again is I was the Manager of the Department of Development at Carlsbad, New Mexico from 1987 to 1993; really part of a group that had to go get an Act of Congress to enable WIPP to open. It was called the Land Withdrawal Act of 1992. And so I got to see a lot of the actors involved in this process and I was like Forrest Gump; I just happened to be at the right place at the right time and I really got to see how this is all done.

Also, prior to that I was the Vice President of the Chamber of Commerce in Odessa, so I got to see WCS in its early days, so I speak from a little bit of experience, and I actually wrote a paper on this, that I hope would be beneficial to our industry as we go about this and it was published I guess a few months ago by the Waste Management Symposium in their Proceedings for 2015 and it was about how we go about siting facilities in the future.

And just for your edification – I like to reduce things to a singular formula. I call this the four "p's" of siting a facility like this.

First, it's a place. Obviously, you've got to have a place. And per our earlier discussion, I think it should be a volunteer place. I don't think this realistically – this type of activity cannot be forced on a community. It just ain't going to happen. And I think we have an example in North Dakota recently where Rugby, North Dakota and Pierce County up there all of a sudden found out, "Oh, we're going to have a demonstration site for nuclear waste." And DOE had to go backwards on it and now they're looking for a different site.

Second "p" is process. Place, process. We need to define process, and I think we've come a long ways today on defining the elements of that process.

Package. Third "p." A package is a package of incentives. What can the community expect? Can we get – do we have faith that the government is going to carry through on that package, and I think that needs to be independently monitored, just like the safety of the site.

Finally, the hardest part, as we all know, is political alignment. How do we get others aligned around this goal? Not easy. We've done things that are much more innocuous, like the supercollider. Well, what happened to that? We can think of a lot of projects like that – that we just couldn't come together on.

So those are just some items for you. The paper is going to be available, if you'd like, and I thank you for the opportunity. [Applause].

Mr. Jim Hamilton. Thank you Charles. David Blee, Charles Utley and then Mary Olson.

Mr. David Blee. Sure, well thank you everyone for participating today. We appreciate invitation to be here. I represent the US Nuclear Infrastructure Council, we're focused on new nuclear and involvement in the supply chain internationally; as such, we're very focused on the resolution of the back-end of the fuel cycle, which is critical to the future of certainly new nuclear and the sustainability of the supply chain.

I just like to focus on a few general observations that I think were missing from today's handout and discussion. I think one is to put this in perspective. Over 50 years of nuclear energy generation, really nearly 60, you arguably could fit all the spent fuel on 100 acres, so this is not a high–volume in terms of the magnitude of the issue.

In terms of transportation, it would take about one shipment a week to transport this stuff to a central repository, and so that's out of three million hazardous waste shipments a year.

With respect to the experience of safely stored in the U.S. outside the reactor since the mid-1980s already around the world, more fuel has been transported than is currently actually sitting in pools or outside plants in the US, so the transportation experience without harm to the public has been carried out safely, so the track record is great there.

The other thing is that we hear a lot certainly in the song, about waste, it being a waste. It's actually a resource, potentially. If you see a doubling of the world nuclear fleet, to 800 reactors, as along with the Chinese, with the growth in Asia, along with what will be needed here in the U.S. to meet our clean energy goals, you're looking at a potential of recycling. You could actually be sitting on a resource in these communities where right now in the US in the spent fuel there is enough, if it was recycled, to power the nuclear fleet for another 10 to 20 years. So again, this is not necessarily waste, it's a resource.

I also would look at the – in terms of the timeline here that is the history of nuclear waste management – is missing a couple of things. One is since in the 2010 to 2015 period, as we mentioned, the NRC has found that spent fuel could be stored at Yucca Mountain for 1 million years. They have adopted safety evaluation reports. I think it's worth noting that they're near completion of an environmental impact statement. And I think they're about ready to deal with the contentions.

You've heard today that three communities have come forward and said they would consent to, or close to consent, for putting an application in to either an interim or a repository, and then there have been votes in the Congress, roughly 300 to 100 repeatedly to put money for this program to move forward, so I think those are important to remember that this all hasn't been a vacuum in the last five years.

That said, we think it's urgent and imperative to move forward. This is critical to the environment. Nuclear energy provides 60% of our covered free electricity; it's critical to our global competitiveness. Hundreds of thousands of jobs and it's also key to US energy security. And it's critically important to US nonproliferation efforts internationally.

So, great to see some positive momentum here, and we look forward to working with you to resolve this issue. [Applause].

Mr. Jim Hamilton. Thank you, David. Charles Utley, then Mary Olson.

The Reverend Charles Utley. Good afternoon. And I know it's getting late in the afternoon, and I'm about ready to go and as I know you are too, because as they always tell me, that you can't consume or take in more than that large muscle you're sitting on. [Laughter.] And I know you've been on it quite a while.

So I'm going to be very brief in what I've got to say. And that is because I live it. I live it every day. I'm down in Burke County, Waynesboro, Georgia, where you'll find people who are not vocal because they are afraid. And this consent must consider those type people because it's in their backdoor. They know that they'll get a phone call saying, "Why did you show up at the meeting?" Well; my boss, I don't have to report to him. Because my boss is not them. And therefore I want to speak on their behalf because it's an imperative that you understand that they don't have what you think everyone else has. And I heard someone say earlier there is still a digital divide and I'm a pastor down in the community; a lot of my parishioners – they don't have cable, they don't have satellite; the only satellite they've got is my big mouth on Sunday morning. [Laughter].

But the other thing we must realize is that there is this group of people who are afraid when it comes to letting the government do anything for them. And you have to realize that they depend on the parishioners looking to the pastors; looking for the elected officials; looking to DOE, and when they get disappointed on those levels, trust is gone. So we must build in transparency. We must invite them in, and we must take it to a level where they can understand it.

Don't go in there trying to tell them how to plant beans now, you need to go in and tell them what you're talking about when you're talking about parts-per-billion. Because they have no idea what you're talking with parts-per-billion. Break it down to them so they can participate in these types of discussions and then we'll have a consent of the people and not from the government driven down. Because if you get it from the government driven down, you would learn it like I did. My parents told me, "Don't go by the

Savannah River site, don't drive through it because it's government property, you're going to be killed, and there's nothing we're going to be able to do about it." That was what I was taught. It was a bomb plant. It was nothing but a bomb plant.

So therefore I'm saying to each of you as we make these plans, as we go forward with them, be inclusive, invite those who are able to participate, to participate. But whatever you do, make the legislation, if you're making it, in your own backyard. Thank you. [Applause].

Mr. Jim Hamilton. Thank you, Charles. And our final public comment will be from Mary Olson.

Ms. Mary Olson. My name is Mary Olson. I'm with Nuclear Information and Resource Service. We work for a non-nuclear energy policy. And I'm actually beginning to say a non-nuclear climate policy as well.

I have been serving personally communities that have been subject to forced siting for the last 25 years and I am interested and open to the idea that there's another way to do this. I don't feel like we're there yet; in part because my board actually shifted gears probably 10 to 15 years ago now. When I first got my job, what we'd say is, "Stop making this waste." We still say that. "Stop making this waste." If you have a hole, stop digging. But about 15 years ago, we started with some positive advocacy of steps we support. And we do not get heard. We present them over, and over, and over, and we continue to not be heard. So I'm going to try it one more time.

And these are opportunities to work together. Honestly. Our first question is – is the waste leaking now? If the waste is leaking now, let's do something about that. From our perspective, fuel pools are leaking in many locations and a fire would mean massive leaking. So we would like to unload those pools ASAP.

Now we hear there's problems with the containers, so we want to say let's get the best containers we can and let's work together to figure out how to ensure that they can be inspected; that there are ways to mitigate problems; that the steps that we have outlined in a document called HOSS, or Hardened On-Site Storage, also called the Principles for Safeguarding Nuclear Waste at Reactor Sites; there are about six points in that document; I didn't actually manage to get it in my hand, but one of the keys is that the waste be hardened once it's in dry storage; that it be monitored in real time and that there be community oversight and that interim storage is happening today and it continue at the reactor sites.

Get that? HOSS means Hardened On-Site Storage. Not consolidated storage.

So then the next issue is, yeah, this stuff does have to be moved, but we'd like to see it moved once. To where, or for what purpose, we're ready to hear that conversation. I need to correct, from my perspective, or add to the record on Yucca Mountain because the Department of Energy does ***not*** say it can meet the million-year standard – it says it can meet the million-year standard at Yucca Mountain if after the repository is closed, titanium drip shields are put in by robots. That is the only way that site would meet that million-year standard, and I defy this room to stand up and say they know how that would a) be done or b) or how it would be paid for.

So finally, I want to say that we need information at all levels. And clearly, one last piece that many of you do not know or understand, is that biologically we are different based on gender. And every single step of this nuclear process is impacting females on this planet to a much greater degree than males. And

until you get down in the weeds of that level of impact, how the ***hell*** can you say we can consent? Thank you. [Applause].

Mr. Jim Hamilton. Thank you Mary. Thank you all the commenters. We're on the home stretch now, so we're wrapping things up.

I'd like to turn it over to Mr. Andrew Griffith, the Associate Deputy Assistant Secretary for Fuel Cycle Technologies, to offer his closing remarks.

Closing Remarks

Mr. Andrew Griffith, Associate Deputy Assistant Secretary for Fuel Cycle Technologies. Thank you, Jim. And on behalf of Secretary Moniz, John Kotek, and the entire Consent-Based Siting Team, I want to thank you all for your participation today. The inputs you've provided us have been exactly what we've been looking for. We recognize that we don't have a fan club here. You could think that we might be disappointed by or discouraged by some of the comments we've received, but actually I think we're ***encouraged***.

What we believe we have ahead of us is a way of developing a process that's going to be enduring. It's going to provide a durable solution to a very, very challenging problem. You've discussed it, I think, in a lot of detail today. We believe that the solution lies in having an integrated waste management system that includes interim storage as well as ultimately the objective is disposal. We believe that's the way of isolating this waste from humans and protecting future generations. And we believe the technology exists today that can do that in a way that protects the workers, the public, and the environment. We just have to be responsible in executing.

We heard today that there are some key things that we need to consider going forward. Including the Administration's Strategy about forming a separate entity to oversee and manage this effort. We're totally on-board with that; the challenge is getting there; getting to that point, as it does require legislation from Congress. It does require actions outside of our control.

But we believe it's so important that we have to get started today. We can't wait for that other entity to form. And so we're doing that; embracing those values that you've shared with us today, and that we've heard elsewhere, including the trust issue. We get it. We have to earn your trust. No question about it. Absolutely essential.

And so we're working every day to do that. We have to be transparent. We have to follow through on our commitments. And we have to get it right.

And so with that, I'm personally encouraged; I think the whole team is behind this effort. We're embracing these values. We want to go forward. We know we've got a tough job out there. But I think we're up to it, and with your help, I think we'll get there, so thank you very much; that's all I have. Thanks Jim. [Applause].

Mr. Jim Hamilton. Thank you Andy; thank you panel members; thank you audience, both here in Atlanta and on the webinar. Thank you logistics team. Personally, I'm grateful for all your participation and your hard work reflected by the flip charts and your thinking and it means a great deal.

Don't forget to pass in your completed evaluation forms. We use these to make subsequent meetings more effective.

This wraps up the formal part of the meeting. The webinar will now close. For those who wish to join the poster sessions in the back, please do so; we invite you now.

Thank you again. We are adjourned. Have a good evening. Safe travels. [Applause].