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FISCAL YEAR 2019 NUCLEAR REGULATORY COMMISSION BUDGET

TUESDAY, MARCH 20, 2018

House of Representatives

Subcommittee on Energy

Joint with the

Subcommittee on Environment

Committee on Energy and Commerce

Washington, D.C.

The subcommittees met, pursuant to call, at 10:15 a.m., in Room 2123 Rayburn House Office Building, Hons. Fred Upton and John Shimkus [chairmen of the subcommittees] presiding.

Members present: Representatives Upton, Barton, McKinley, Olson, Shimkus, Blackburn, Latta, Kinzinger,

Johnson, Long, Bucshon, Flores, Mullin, Hudson, Walberg, Carter, Duncan, Walden (ex officio), Tonko, Green, Doyle, Matsui, McNerney, Welch, Loebsack, Schrader, Kennedy, Cardenas, Peters, and Pallone (ex officio).

Staff present: Samantha Bopp, Staff Assistant; Daniel Butler, Staff Assistant; Kelly Collins, Legislative Clerk, Energy/Environment; Wyatt Ellertson, Professional Staff, Energy/Environment; Jordan Haverly, Policy Coordinator, Environment; Ben Lieberman, Senior Counsel, Energy; Mary Martin, Chief Counsel, Energy/Environment; Brandon Mooney, Deputy Chief Counsel, Energy; Mark Ratner, Policy Coordinator; Annelise Rickert, Counsel, Energy; Dan Schneider, Press Secretary; Peter Spencer, Professional Staff Member, Energy; Jason Stanek, Senior Counsel, Energy; Austin Stonebraker, Press Assistant; Madeline Vey, Policy Coordinator, Digital Commerce and Consumer Protection; Hamlin Wade, Special Advisor, External Affairs; Everett Winnick, Director of Information Technology; Andy Zach, Senior Professional Staff Member, Environment; Priscilla Barbour, Minority Energy Fellow; Jean Fruci, Minority Energy and Environment Policy Advisor; Tiffany Guarascio, Minority Deputy Staff Director and Chief Health Advisor; Caitlin

Haberman, Minority Professional Staff Member; Rick Kessler, Minority Senior Advisor and Staff Director, Energy and Environment; John Marshall, Minority Policy Coordinator; Alexander Ratner, Minority Policy Analyst; and C.J. Young.

Mr. Shimkus. Let's call this hearing -- meeting to order and I will recognize myself five minutes, when I find it. It's hidden in the back. Recognize myself five minutes for an opening statement.

Welcome to our hearing this morning as we examine the Nuclear Regulatory Commission's fiscal year 2019 budget proposal. The NRC's essential role in licensing and regulating nuclear facilities is of great importance to my Illinois constituents.

Illinois produces the largest share of nuclear-generated electricity in the country. Throughout the state, the commercial nuclear energy industry supports thousands of high-paying jobs, funds local school districts, and provides reliable, clean, baseload electricity around the clock.

In fact, a little over 75 years ago, Illinois was the site, at a lab under the University of Chicago's football field, where physicists and engineers first generated a self-sustaining nuclear chain reaction. We are proud to be the birthplace of nuclear technology.

While I do not have any commercial nuclear power plants in my southern Illinois district, I do represent the nation's

only uranium conversion facility located in Metropolis, Illinois.

In October, the plant's owner announced it was suspending operations at the site due to market conditions for uranium. We have a glut of uranium on the market and lingering low demand, in part due to the suspension of the Japanese fleet of nuclear power plants in the wake of the Fukushima earthquake -- tsunami seven years ago.

While there may not be an immediate fix to the uranium market, the most important policy to help my constituents return to work is a strong positive outlook for our nation's domestic nuclear industry.

To maintain a robust nuclear industry, Congress must consider the many different opportunities to provide a pathway to keep existing plants operational, while establishing the foundation for new nuclear energy deployment in the next decade.

While mining, converting, enriching, and manufacturing nuclear fuel is a necessity to support the front end of the fuel cycle, we are long past due to manage the back end of the fuel cycle.

As we do this, we have to recognize the uncertainty

about our used fuel commitments will continue to be a political albatross around nuclear energy development until the Department of Energy starts sending clear signals and reconstitutes its nuclear waste management organization.

I very much appreciate that last year the Commission, for the first time since 2010, requested funding to resume its review of the pending Yucca Mountain license application, as required by law.

While it is still incumbent on Congress to provide the funding, it is refreshing to see an administration that is committed to following the law.

As I have noted on many occasions, the NRC's independent review of the license will answer the safety and environmental impact questions the state of Nevada has raised.

To gain the public's confidence in nuclear energy, we must have a functioning nuclear waste management program. The Commission's strong legacy of effective and efficient regulation is another key component of public confidence.

However, the many pressures on the nuclear industry provide an opportunity for the NRC to reassess its regulatory process and flexibility.

The Commission's fiscal year 2019 budget sets the parameters for how the organization will steward its resources in a changing environment.

Last month, we heard a clear message of urgency. As your former colleague, Bill Ostendorff, succinctly pointed out, our civilian nuclear energy industry infrastructure is the underpinning of our strategic nuclear defense capabilities.

In fact, I went down and visited with Admiral Caldwell just last week and it was a great visit and I would encourage a lot of my colleagues to do that.

In turn, an agile regulatory regime that oversees the breadth of the nuclear supply capacity supports our national interests.

Mr. Ostendorff's testimony highlighted the critical need to advance a suite of nuclear policies to define our nuclear future and establish a durable program to sustain the industry for the next generation of nuclear leaders.

This morning we will seek some of those answers and I look forward to working with my colleagues on both sides of the aisle to address this critical issue.

And with that, I have a minute remaining. Does anyone seek time?

The chair recognizes the gentlelady from Tennessee for a minute.

[The prepared statement of Mr. Shimkus follows:]

**********INSERT 1**********

Mrs. Blackburn. Thank you, Mr. Chairman.

In my home state of Tennessee, TVA is leading the way with three nuclear plants and seven units capable of generating an average 7,800 megawatts of electricity each day.

Watts Bar, and I know you all are familiar with Watts Bar -- that's near the northern end of Chickamauga Reservoir in east Tennessee -- is the first new nuclear reactor built in the 21st century and supplies enough electricity for about 1.2 million households in the Tennessee Valley.

Watts Bar experienced its fair share of challenges and setbacks in the process to becoming operational. Unfortunately, we are seeing those challenges across the country, and without a reasonable modern flexible regulatory system the U.S. will continue to struggle to maintain existing plants, leaving little opportunity for new plants to come on live so -- online.

So it is essential that the NRC develop a more agile and responsive regulatory model equipped for today's changing energy industry and security needs.

And I yield back.

Mr. Shimkus. Gentlelady yields back the time.

Chair now recognizes the ranking member of the subcommittee, Mr. Tonko, for five minutes.

Mr. Tonko. Thank you, and good morning.

Thank you to both Chair Shimkus and Chair Upton for holding this hearing, and welcome back and thank you to our Chair Svinicki and Commissioner Burns for appearing before the subcommittees today.

And let me extend a special welcome back to Commissioner Baran, who served with distinction as a professional staff member of this committee for a great number of years.

So welcome to all of you.

The Nuclear Regulatory Commission's mission is to license and regulate the nation's civilian use of radioactive materials to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

This deed is no easy task and I want to put an additional emphasis on protecting health and safety.

Members on this committee have a range of views on existing and new nuclear power and I believe there is unanimous agreement that we need high standards for nuclear

safety.

So thank you to the Commission staff that had this awesome responsibility. We are here today to discuss the Nuclear Regulatory Commission's fiscal year 2019 budget request of $970.7 million.

This represents an increase of about $60 million compared to the fiscal year 2018 annualized continuing resolution level.

Much of this increase is being driven by the $47.7 million for activities related to the disposal of spent nuclear fuel and high-level radioactive waste.

Licensing activities related to the proposed Yucca Mountain Repository, which I am sure my colleague, Mr. Shimkus, was happy to see included in the request.

I would also note the budget request represents a decrease of 149 FTEs compared to the fiscal year 2018 annualized continuing resolution, with 123 of those FTEs coming from the Nuclear Reactor Safety Program.

Over the past few years, commissioners have appeared before this committee and provided updates on Project Aim, the Commission's effort to right size the agency in light of changes and trends occurring in the nuclear industry.

Without a doubt, the Commission has been streamlined. The budget has been reduced by about 13 percent and staff by over 500 FTEs since 2014. This has been a steady trend.

While I understand and appreciate the goals of making the Commission more efficient, continuing cuts at this pace is not a good way to -- for such an important and technical agency to run.

At some point, you are no longer capable of doing more with less. You just end up doing less, and safety is one place where doing less is nonnegotiable.

So I would caution against continuing to push reduction targets if we are approaching a point where critical commission functions such as safety inspection hours begin to suffer because if the Commission is unable to maintain essential personnel or replenish its aging workforce or hire additional staff with expertise in new technologies, it could be the public that does suffer.

And the industry will certainly suffer too with delays in licensing and review processes. The Commission must be staffed and resourced at levels appropriate for carrying out its critical oversight and safety missions.

I also wanted to mention that we have spent quite a bit

of time this past year discussing grid resilience, and Secretary Perry's notice of proposed rulemaking to FERC, which would have compensated power generators with 90 days of fuel on site, was rightly rejected, in my opinion.

I know there are many members that believe the nuclear industry is at a competitive disadvantage and nuclear energy production should be fairly compensated for its positive attributes.

We may disagree which of those attributes are most important. But in my view, the best way to ensure the existing nuclear fleet is on a level playing field is putting a national price on greenhouse gas pollution.

I would encourage the industry supporters in Congress to consider having that conversation.

Finally, I must mention that in just a few months without Senate action the Commission will lack a quorum. I hope we can all urge our Senate colleagues to take up the nominations before then.

I look forward to hearing from our witnesses today about what is next for the Commission and, again, I thank you all for being here and I yield back, Mr. Chair, the balance of my time.

Mr. Shimkus. Gentleman yields back his time.

The chair now recognizes the gentleman from Michigan, Mr. Upton, the chairman of the Energy Subcommittee, for five minutes.

Mr. Upton. Well, thank you, Mr. Chairman.

Good morning to everybody. My district, as you all know -- many of you know -- hosts three nuclear power reactors and I certainly represent a very highly-skilled hardworking nuclear workforce that I visit often.

All the men and women at the Cook and Palisades sites including engineers, electricians, professional security workforce indeed help provide clean electricity for thousands, tens of thousands, hundreds of thousands of Michigan households and I appreciate their dedication and I am proud of their positive impact on our community.

This Congress, the Energy Subcommittee has been examining the various economic pressures in our wholesale power markets. It has become clear that our nation's fleet of commercial nuclear power plants is at a critical juncture due to the increased competition among generation resources.

Complex electricity pricing rules, abundant natural gas supplies, and relatively stable energy demand have created

unprecedented market challenges for nuclear power generation and, consequently, some power plants are ceasing operation prior to the end of their licensed service period.

So as we consider the future of nuclear power generation, we should not forget the industry's invaluable benefits to our nation's national security interest.

The technological infrastructure of our nuclear industry supports the nuclear security posture of our nuclear navy, nonproliferation programs, and nuclear leadership over the safe secure operations of nuclear facilities around the globe.

And as we heard at a subcommittee hearing just last month, that position should not be taken for granted. A weakening domestic nuclear industry threatens our international credibility and our leadership.

The NRC plays a key role in shaping our nuclear future. The missions assures that our commercial industry operates safely. However, much of the NRC's regulatory framework was developed based on technologies and industry structures that were set up some 40 years ago.

In some cases, NRC's authority and process extends even further back to Eisenhower's Atoms for Peace program, an

enactment of the Atomic Energy Act of 1954.

Just as this subcommittee is examining how the Department of Energy's activities can be aligned with a 21st century energy outlook, so should the NRC consider how it can most effectively operate in a forward-looking manner.

Today's hearing offers the opportunity to hear how the NRC can adopt in changing industry dynamics and technologies in use. A more nimble energy agency can address these challenges and ensure its procedures do not become impediments to a robust industry and our national security interests.

I note that next week will mark the tenth anniversary of the service of Chairman Svinicki. She recently passed former NRC Chair Nils Diaz and now is the second longest serving commissioner in history, only trailing Commissioner McGaffigan's 14 years.

I should also note that nearly 40 years ago Commissioner Burns began his career at the NRC and rose through the ranks to become its general counsel prior to departing the nuclear energy agency. He returned to the U.S. when he was nominated and confirmed as commissioner in 2014.

So while he may not have the same tenure length, he

certainly surpassed the chairman in overall service with his organization. Thank you.

And thank you, Mr. Burns, for your dedication during your two years as chair. Among other improvements in the regulatory process the NRC implemented its Project Aim initiative by prioritizing and rebaselining its activities.

This allows reduced organizational costs which ultimately saves tons of money for Michigan ratepayers. Thank you again.

Also welcome back Commissioner Jeff Baran back to the committee. He was a counsel here, as mentioned earlier, and confirmed by the Commission.

Clean and safe and reliable nuclear energy has got to remain part of our nation's electricity portfolio. I look forward to exploring the policies and without objection, yield back the balance of my time.

[The prepared statement of Mr. Upton follows:]

**********INSERT 2**********

Mr. Shimkus. Gentleman yields back his time. Sounds like purgatory.

But having said that, the chair now recognizes the gentleman from New Jersey, the ranking member of the full committee, Mr. Pallone, for five minutes.

Mr. Pallone. Thank you, Mr. Chairman.

I want to thank you and our subcommittee ranker for holding this Nuclear Regulatory Commission oversight hearing on the president's budget proposal and I welcome Chairman Svinicki and Commissioner Burns.

Mr. Shimkus. Svinicki.

Mr. Pallone. And I got to watch it with you, huh? Svinicki. All right.

And Commissioner Burns, and I am particularly pleased to welcome back to the committee a distinguished former member of the Democratic staff commissioner, Jeff Baran.

Last year, I opposed Secretary Perry's notice of proposed rulemaking to FERC that would have undermined functioning electricity markets by tipping it in favor of nuclear and coal, and despite that opposition I continue to believe that a safe, efficient, and modern nuclear fleet should be an important part of our nation's effort to combat

climate change.

However, nuclear power and technology still have challenges to overcome. For existing units, it's critical that they be able to meet the safety needs of a post-Fukushima world, the security challenges of a post-911 world, and the financial requirements of a market with some of the lowest natural gas and renewable prices in history.

These prices -- these price pressures are contributing to the early closure of units across the country such as the accelerated shutdown of the Oyster Creek facility in New Jersey, and while Oyster Creek is very old and was due to close soon anyway, there are also newer plants capable of many more years of production that are threatened for closure because of these economic pressures.

And as a result, many states are taking action or formally considering action to preserve the operation of the nuclear plants.

The fate of these plants is up to the companies who own them, the governors, and the legislature of those states and others, and the courts, and those are the proper venues and players to make these decisions, not FERC.

Meanwhile, advancements in nuclear technology,

particularly in the area of small modular reactors, hold the possibility of a newer safer generation of nuclear power and I support the work that companies like New Jersey's Holtec are doing in this area.

The test for the industry is to show that such units can be brought online in a timely and cost effect manner, a question that continues to remain unanswered.

We also still need to address the storage and disposal of nuclear waste and the rapidly accelerating phenomena of decommissioned units.

The legislation authored by Chairman Shimkus that was overwhelmingly reported out of this committee last year is an important step towards dealing with that issue and I hope to see it on the House floor in the near future.

I believe there is an important role for nuclear energy to play in addressing global climate change. But I want to make perfectly clear that safety must come first.

This is a critical moment in time for the nuclear industry and its regulators, and I commend the Commission for its ongoing efforts to adopt the size and structure of the NRC to today's regulatory realities.

However, it's critical we ensure that the Commission has

the staff and resources it needs not just to carry out its mission but to carry out it well.

The job of the Commission is to regulate nuclear power for the benefit of all Americans, not just one industry or sector. So we must work together to find a way forward for nuclear energy without sacrificing safeguards.

So, again, I want to thank the commissioners for coming. I look forward to the testimony and I yield the balance of my time to Ms. Matsui.

Ms. Matsui. Thank you very much, Ranking Member Pallone, and I'd also like to welcome the commissioners for being here today.

I'd like to echo the ranking member's support for efforts to license an interim storage facility for spent nuclear fuel.

As this committee is aware, it's absolutely critical that we allow communities to redevelop shut down reactor sites by moving forward with a process to consolidate spent fuel.

The current storage reality is wasteful of taxpayer resources and detrimental to communities. We have all the efforts to build a permanent repository repeatedly stall.

But right now, we have a path forward to license a consolidated storage facility, meaning there is an opportunity to move the nation's spent fuel to one location.

I am pleased that the NRC has docketed two applications for interim facilities and that the Commission is requesting the funding necessary to evaluate both concurrently.

I look forward to hearing more from my commissioners about the NRC's work on the spent fuel storage licensing process.

Thank you, and I yield back.

Mr. Shimkus. The gentlelady and gentleman yield back their time? The answer is yes.

We now conclude with members' opening statements. The chair would like to remind members that pursuant to committee rules, all members' opening statements will be made part of the record.

We want to thank all our witnesses for being here today and taking the time to testify before the subcommittee. Today's witnesses will have the opportunity to give opening statements followed by a round of questions from members.

Our witness panel for today's hearing will include the Honorable Kristine Svinicki, chairman of the U.S. -- United

States Nuclear Regulatory Commission, the Honorable Jeff Baran, commissioner, U.S. Nuclear Regulatory Commission, and the Honorable Stephen Burns, commissioner with the U.S. Nuclear Regulatory Commission.

We appreciate you all being here today. We will begin the panel with the Honorable Kristine Svinicki, and you are now recognized for five minutes to give an opening statement.

Welcome to you all. We are glad to have you here.

STATEMENTS OF THE HONORABLE KRISTINE SVINICKI, CHAIRMAN, U.S. NUCLEAR REGULATORY COMMISSION; JEFF BARAN, COMMISSIONER, U.S. NUCLEAR REGULATORY COMMISSION; STEPHEN BURNS, COMMISSIONER, U.S. NUCLEAR REGULATORY COMMISSION

STATEMENT OF MS. SVINICKI

Ms. Svinicki. Good morning, Chairmen Upton and Shimkus, Ranking Members Pallone and Tonko, and distinguished members of the subcommittees.

I appreciate the opportunity to appear before you today to discuss the U.S. NRC's fiscal year 2019 budget request and related matters.

The funding we are requesting for fiscal year 2019 provides the resources necessary to accomplish our mission, which is to license and regulate the civilian use of radioactive materials to ensure adequate protection of public health and safety and to promote the common defense and security.

The NRC's fiscal year 2019 budget request, including resources for our Office of the Inspector General is $970.7 million, represents and overall increase of $59.8 million compared with the fiscal year 2018 as continuing resolution.

This requested increase in resources is largely tied to the proposed activities related to the licensed authority at the Yucca Mountain geologic repository for spent nuclear fuel and other high-level radioactive waste. Additional funding is also requested for further development of the regulatory infrastructure needed to review advanced reactor technologies and for additional work on accident-tolerant fuel.

The NRC proposes to recover $815.4 million of the requested budget from fees assessed to NRC's licensees. This would result in a net appropriation of $155.3 million with $47.7 million to be derived from the nuclear waste fund.

The 2019 request for our largest single budget the nuclear reactor safety program reflects an overall funding increase of $25.8 million but a decrease of 125 full time equivalent employees when compared to the 2018 annualized CR budget.

The 2019 budget request for the agency's other principal budget line, nuclear materials, and waste safety programs is $183.7 million and that reflects an increase of $46.8 million.

Again, this is principally attributed to the resources requested for the high-level waste program, as previously

mentioned.

In summary, the NRC's budget request reflects our continuing efforts to achieve additional efficiencies while carrying out our core safety and security mission but also preparing for future responses to current realities.

On behalf of the Commission, I thank you for this opportunity to appear before you and for your continuing support of our important public health and safety mission.

We will be pleased to answer your questions at the appropriate time.

Thank you.

[The prepared statement of Ms. Svinicki follows:]

**********INSERT 3**********

Mr. Shimkus. Thank you very much.

The chair now recognizes the Honorable Commission Baran for five minutes.

I am sorry. We are fighting over spelling back here so --

STATEMENT OF MR. BARAN

Mr. Baran. Chairman Upton, Chairman Shimkus, Ranking Member Tonko, members of the committee, thank you for the opportunity to testify today.

It's great to be back with my colleagues to discuss NRC's fiscal year 2019 budget request and the work of the Commission.

Chairman Svinicki provided an overview of NRC's budget request. I want to briefly highlight a few related efforts underway at NRC.

I will start with Project Aim, our multi-year effort to take a hard look at what work the agency is doing and how we are doing that work.

The goals have been to become more efficient and agile and to prepare for the future. The results of Project Aim in our very limited external hiring have been dramatic.

In just two years, NRC's workforce has declined by more than 12 percent. The agency started the current fiscal year with around 3,200 employees. That's about the same staffing level as in 2006, before NRC started to ramp up for the anticipated wave of new reactor applications.

When Project Aim got underway in 2015, the NRC staff envisioned that it would take until 2020 to match the agency's resources to its workload. But NRC was able to make progress much more quickly on getting to the right staffing level for our current and expected workload.

Going forward, we need to internalize an enduring focus on efficiency. For the agency's long-term health, we also need a stable pipeline of new talent through external hiring and an emphasis on maintaining the NRC staff's core technical capabilities and safety inspection activities.

As Chairman Svinicki noted, the NRC has launched a transformation initiative to identify any steps the agency should take to improve its approach to reviewing new and novel technologies such as advanced reactors, accident-tolerant fuel, and digital instrumentation and controls.

I think that's a good focus for the transformation team and appreciate that the team is doing a lot of outreach to stakeholders.

I look forward to hearing their thoughts and recommendations. There are many other important efforts underway at NRC including the implementation of post-Fukushima safety enhancements, the power reactor

decommissioning rulemaking, the review of the first small modular reactor design application, and oversight of construction at the Vogtle site.

We are happy to discuss these and any other issues of interest. Thank you, and I look forward to your questions.

[The prepared statement of Mr. Baran follows:]

**********COMMITTEE INSERT 4**********

572 Mr. Shimkus. Thank you.

573 The chair now recognizes Commissioner Burns for five

574 minutes.

STATEMENT OF MR. BURNS

Mr. Burns. Thank you, Chairman Shimkus. I also appreciate being here Chairman Upton, Ranking Members Pallone and Tonko, and distinguished members of the committee. Appreciate the opportunity to testify before you today.

I also appreciate Chairman Upton's kind words. I can tell you, 40 years ago at this point in time I had a big weight off my shoulders because I knew in my last semester of law school I had a job coming up in August. So that was saying.

I didn't actually expect I would stay in this field for 40 years, but it's been an interesting one. I've always enjoyed not only the legal issues but working with technical staff and others, both in our country and internationally.

I support the chairman's testimony this morning and agree that the funding we are requesting provides the resources needed to accomplish our safety and security mission while continuing to improve our efficiency and effectiveness as an agency.

As a number of you have noted, the NRC has undertaken some significant efforts over the last few years to improve

that efficiency and effectiveness.

Project Aim was a major part of those efforts. But additional improvements have included implementation of improvements to the NRC's rulemaking processes, to its budget formulation, to its fee calculations and billing, and also to agency staffing and workforce planning, although the vast majority of the specific tasks under Project Aim were completed and its spirit still endures and we are still working to continue to be an effective agency.

It's important not to lose sight, however, of the fundamental safety and security mission of the agency. We can always strive to perform better in that mission and to better risk inform our decisions. But that safety and security of the public must always be the central focus.

Having spent 37 years of my professional career with the NRC, I know there are times that when we have had to learn from our experience -- learn to do better and to improve our performances irregular.

But on the whole, I can say that I think we hit the mark the vast majority of the time in achieving a high standard of performance, and if anything, over those nearly 40 years I've come to the conclusion we never -- it's never good to say

we've always done that way -- let's do it more that way.

There's always ways, and I can think of times across my career where we've had to reset, think about how we are doing things, think about how we can do them better, and I think that's what we are doing under the chairman's leadership.

Over the past year, we've continued to hold the industry accountable through regulation and oversight, ensure the effective implementation of the lessons learned from the Fukushima Daiichi accident.

We focused on cybersecurity, worked effectively with our partners and the states to ensure the safety of our radioactive materials program and brought -- and sought improved performance by fuel cycle facilities.

At the same time, we've undertaken reviews of the first small modular reactors, submitted for design certification. We are implementing strategies to be better prepared for the review of advanced reactor, or Generation IV designs.

Credit belongs largely on a day-to-day basis to the work of our dedicated staff in achieving these accomplishments and I appreciate their day-to-day focus on ensuring adequate protection of the public.

Thank you again for the opportunity to appear before you

and I look forward to answering any questions you may have.

[The prepared statement of Mr. Burns follows:]

**********COMMITTEE INSERT 5**********

Mr. Shimkus. We thank you.

I will now begin with questions and I will start with -- recognize myself for five minutes.

So the first one will go to Chairman Svinicki and Commissioner Burns. First, let me thank you for your vote last summer to take the next steps to determine what is necessary for the resumption of the Yucca Mountain licensing process.

A few weeks ago, NRC staff had a public hearing to discuss what steps are needed to reconstitute the licensing support network, or LSN. The LSN is a database of licensing documents associated with the Yucca Mountain license application.

The NRC requested $30 million in fiscal year 2018 to continue its statutorily required review of the license application and $47.7 million for 2019.

Will you please describe what Commission-level decisions and guidance will be necessary when Congress appropriates funding to resume the NRC's adjudication of the license?

Chairman.

Ms. Svinicki. Thank you, Chairman Shimkus.

In broad terms, if funding is provided we need to begin

to rapidly put in place the infrastructure to resume the adjudication that was suspended some years ago.

As you have mentioned, in preparation for that and under the court's remand to expend previously appropriated nuclear waste fund money, which we have at this point, I think, based on the monthly report we sent to you yesterday, a little bit under half a million left, we have looked at alternatives to reconstituting the document library that would support the evidentiary process in the licensing hearing and also we are undertaking a high-level real estate survey of facilities that might be available in Nevada to support conducting the hearings near to the facility, which is our policy.

Mr. Shimkus. Commissioner Burns.

Mr. Burns. I would agree with what the chairman said. I think the point she makes is essentially where we are at this is that -- at the point where the adjudicatory proceeding was suspended several years ago and that's the point to -- where we would begin again because the staff has done the safety evaluation reviews and the environmental reviews that they need to do up to date.

Mr. Shimkus. And let me go both to the same questionnaires. What are we doing to preserve the workforce

expertise that may be necessary to adjudicate the license?

Chairman.

Ms. Svinicki. That work -- that adjudication having been suspended so many years ago, candidly, the staff were, upon completion of the safety evaluation report and environmental work, reassigned to other duties, which was a way to keep them within the agency's span so that should funding be provided.

However, over the course of time, we have had some significant retirements, by my observation, of people that had long history on and knowledge of the project.

The good news is that with the safety evaluation report being concluded, I have asked if an expert was assigned and was fresh to the project, if they had the relevant scientific expertise, could they just acquaint themselves with the record, with the conclusions of their predecessors, and I am told that some experts view that they could possibly become conversant in as little as six months.

Mr. Shimkus. Great.

Commissioner Burns. That's fine.

Mr. Burns. I would align myself with the chairman's answer.

Mr. Shimkus. That's fine. Thank you.

Let me ask this question. Can -- Chairman, can you just stated, because we have new members of this subcommittee -- new members of Energy and Commerce -- so what was the basic conclusion from the safety and evaluation report, which you issued a couple years ago?

Ms. Svinicki. NRC's expert staff documented their conclusion that there were no safety or environmental impediments to the issuance of a license.

However, they did note -- and this is a construction permit license because this is two-step licensing -- they did note, however, that the applicant, the Department of Energy, lacks the water rights and they don't have clear ownership or title to the land, which is a requirement of our regulations. But those were the two impediments to issuing the license and they were not safety or environmental.

Mr. Shimkus. And those were some of the things we tried to address in our legislation, just for some of my colleagues. They also -- there's also a -- correct me if I am wrong -- there was also a statement that, if constructed and the facility -- long-term geological repository was in place, based upon current information or current knowledge,

that storage would be safe for a million years. Wasn't that a conclusion of the safety and evaluation report?

Ms. Svinicki. That was the conclusion of the expert staff.

Mr. Shimkus. Anyone disagree with that -- the rest of the panel?

Thank you.

With that, I think I will just yield back my time and recognize the gentleman from New York, Mr. Tonko, for five minutes.

Mr. Tonko. Thank you, Mr. Chair, and again, thank you to our witnesses for being here.

The mission of the agency is very critical. So it is important that we understand your resource requirements.

Some members may believe that the Commission has too heavy of a hand -- that burdensome regulations on the industry are hurting its competitiveness.

So to our Chair Svinicki, can you give us a sense of the types of major new rules the Commission has approved in recent years?

Ms. Svinicki. Well, to take recent fairly broadly, post-9/11 there was a suite of new security requirements that

were imposed and after Fukushima, although the regulations were not significantly modified, new measures were required for what we call severe low probability hazards, very severe earthquakes and floods and other things that were additional protections that were mandated at nuclear power plants.

Also in response to the cybersecurity threat against the United States in recent years, the NRC has instituted new cybersecurity regulations. So those are the major areas that come to mind in the last 10 years.

Mr. Tonko. And as it relates to licensees, have there been many major rules for new requirements on those licensees?

Ms. Svinicki. The areas I described did involve new rules. You know, major, minor -- I would say that the post-911 that was a major impact in the requirements.

Fukushima I would not describe as being a major impact, and the cybersecurity regulations are sincerely new regulations.

Mr. Tonko. Commission Baran, what's your sense? Is the Commission imposing many new and burdensome requirements on industry?

Mr. Baran. Well, I can give you a shorter-term

perspective. Commissioner Burns and I have been on the Commission now about three and a half years.

In that time, I can think of only three final rules that went into effect that involve any kind of new regulatory requirements.

Only one of those three rules relates to power reactors. That was a rule that involved a requirement for a licensee of a power reactor to let us know -- notify us in the event of a cyber event. That was not a -- it was a low-cost rule and one that I think is pretty clearly needed.

The other two didn't involve reactors at all. One had to do with medical uses and was something that, by and large, the medical community was very interested in having done and then the final one affected only a handful of materials licensees in the Caribbean. It had to do with meeting treaty requirements.

So since late 2014, three rules -- that's it. I would actually argue there are a couple of rules we should finalize that we haven't yet.

One relates to post-Fukushima safety enhancements. It's the rule on mitigating strategies that's been before the Commission for a while. That's a rule that's really the

culmination of years of work to enhance safety after Fukushima.

There's another rule that would assist in better preparing the agency for accident-tolerant fuel applications by having technology-neutral performance-based standards in place as opposed to the standards we have now, which are actually technology-specific.

We have particular technologies that are established into regulations. If you want to do something new and innovative, that's -- you're looking at an exemption to do that.

So it's been very limited over the last three and half years and I think there are actually a couple we should do.

Mr. Tonko. Thank you. And it seems to me that Project Aim has achieved its goals. I fully understand the need for the Commission to right size but, as I mentioned earlier, I am concerned about the consequences of continuing staffing reductions at this rate, moving forward.

Could anyone explain the potential impacts of further significant FTE reductions?

Ms. Svinicki. I would just respond, Mr. Tonko, that right now the budget we've submitted for fiscal year 2019 we

are confident does not have or cause a diminishment of our ability to carry out our safety mission.

When -- in my time on the Commission, we were once at a peak of slightly over 4,000 employees. Onboard strength -- the number reported to me yesterday, was just a few over 3,000.

So we have come down quite a bit since the days of the nuclear renaissance and I think the one thing that we are looking at is high fidelity in terms of our workforce planning.

This is something we pay a lot of attention to to make sure that as we have attrition we are not losing the core competencies that we need.

We are also very focused on training and development of staff so that they can fulfill future needs as staff retire.

Mr. Tonko. Right, and I appreciate that. That still seems like a huge cut.

I heard earlier, as Chair Shimkus talked about that expertise for Yucca Mountain, I know the Commission has an aging workforce and, similar to hiring the next generation of NRC staff, we are seeing new technologies including advanced reactors being developed and an increasing need for

cybersecurity.

So within those disciplines we have, you know, a concern also. I am guessing these changes require new expertise among the Commission staff. If hiring freezes continue and the next generation of Commission staff cannot be recruited, what is the potential loss of institutional knowledge?

Ms. Svinicki. We do not have -- although we have strict hiring controls in place, we do not have a hiring freeze in place. What we do is we look very closely at the core competencies of retiring staff and work to make sure we either have redundancy and/or are training people for the future. So we do monitor that closely.

Mr. Tonko. Mr. Chair, I yield back.

Mr. Shimkus. Gentleman yields back his time.

Chair now recognizes the chairman of the full committee, Mr. Walden, for five minutes.

The Chairman. Thank you, Mr. Chairman. I want to welcome our panel today. I was upstairs and we got an opioids investigative hearing going on. So I kind of have to bounce back and forth, as do some of my colleagues.

There's enormous potential with the development of small-scale modular reactors including from my home state of

Oregon in NuScale and I know NRC staff has met a significant milestone earlier this year when they determined that SMR design would not be required to meet certain offsite power requirements, which avoided unnecessary and unneeded regulatory planning.

So Chairman Svinicki, will you please provide an update on the status of NRC's review of the SMR design application and, to your knowledge, is NRC staff on track to meet its targeted 42-month review window including meeting the various milestones within the overall review period?

[The prepared statement of Chairman Walden follows:]

**********INSERT 6**********

878 Ms. Svinicki. Thank you, Chairman Walden.
879 As you note, the NuScale design was docketed for review
880 and although we are in early days and early months of that
881 review, the staff is proceeding on schedule with what we call
882 interim milestones of the review.
883 I've also had an opportunity to engage the applicant,
884 NuScale. They provided positive feedback that the NRC staff
885 is proactive on the other item you mentioned, which is the
886 resolution of the unique and novel elements of this design
887 and resolving anything that arises in terms of aligning our
888 regulatory framework and regulations with the new and
889 enhanced features of this design. So my observation is that
890 the review is proceeding according to schedule so far.
891 The Chairman. And are there outstanding policy issues
892 that must be addressed to successfully complete this
893 licensing process that you're aware of?
894 Ms. Svinicki. Yes, but I -- so there are policy issues
895 being resolved regarding both NuScale and small modular
896 reactors, broadly.
897 But those have high visibility within the agency. I
898 would assess that the NRC staff has scoped the universe of
899 those issues and there are policy resolution plans for each

of them.

The Chairman. All right. And what is the NRC's forecasted total cost to complete the NuScale design review and are you aware if NRC is currently performing with respect to the forecasted budget?

Ms. Svinicki. My previous answer had to do more with the schedule. I would need to take that question for the record. I am not sure of what our estimates are as far as cost or man hours expended.

The Chairman. Recently, the NRC staff implemented a new procedure to manage what are known as requests for additional information, or RAIs.

Are you aware if NRC staff applied this new RAI process to NuScale's SMR application? If so, can you speak to the number of RAIs relative to any comparable licensing action?

Ms. Svinicki. The new discipline around requests for additional information has been applied to the NuScale review and has been applied broadly throughout the agency.

A brief description would be that prior to requesting additional information from an applicant the NRC expert must identify the safety or environmental conclusion that is supported by that data and what that does is it ties the

request to the agency's underlying findings that we need to make.

NRC managers report that that discipline has really improved the efficiency and effectiveness of the request for additional information process and it is in place for NuScale, although I don't have a specific report on how it's affected the numbers of requests.

The Chairman. Yes?

Mr. Baran. Mr. Chairman, I would just add we -- I had a meeting last week with NuScale and this issue came up and what they reported to me was that they had kind of going into this process an estimate of how many of these requests for additional information they would likely have. But the numbers have been lower than what they anticipated. So it's going well now.

The Chairman. Oh. All right. Very good. Very good.

I had the opportunity to go to Idaho Falls with Chairman Mike Simpson and tour the INL lab there, too, and I know some of this may get built out there eventually. But the lab is doing amazing work in space nuclear fuel and their other missions. I was very, very impressed.

Chairman, one other question -- it's more rhetorical

than anything else but not hard to answer. You have served on the Commission with a full complement of five commissioners as well as four, and now three.

While the current setup allows the NRC to fulfill its mission, would you agree that a full slate of five commissioners as established in law allows for a more robust organization and diverse viewpoint and decision making?

Ms. Svinicki. Yes, and may I add my full-throated support for my optimism and hope that the Senate will act on the three qualified nominees including my colleague for reappointment. I hope that that happens before June 30th.

The Chairman. That would be a hint-hint from this body to the other that we'd like to see these commissions all fully -- I will call it staffed but fully filled with very competent people, and we've dealt with this out of this committee with other commissions that are still waiting for nominees upstairs.

In fact, the DEA it's an acting administrator. We don't even have anybody nominated to be the administrator of the Drug Enforcement Administration. And so it's something that I think we share -- that robust full-fledged commissions are good things.

So with that, Mr. Chairman, thank you for your leadership on these nuclear issues and other energy environment issues and I would yield back the balance of my time.

Mr. Shimkus. The gentleman yields back his time.

The chair recognizes the gentleman from Texas, Mr. Green, for five minutes.

Mr. Green. Thank you, Mr. Chairman. I would like to thank the chairman and ranking member or holding today's hearing on the NRC budget.

The NRC does important work and it's essential we have a body adequately funded for their mission. While the budget is the focus of today's hearing, there's a few other policy I would like to focus on as well.

It's been 33 years since Congress passed a nuclear waste policy act and we still haven't a permanent or interim storage facility, cheating ratepayers out of billions of dollars in collecting fees and leaving utilities holding the bag for thousands of gallons of nuclear waste.

This Congress needs to pass -- enact legislation authorizing the creation of more than one interim storage facilities while we work with states and agencies toward

opening a permanent geological repository.

My questions -- Chairman Svinicki and commissioners, thank you for being here today. Approximately 90 percent of your budget comes from annual fees assessed to the NRC licenses. Is that correct?

Ms. Svinicki. Yes, that's correct.

Mr. Green. As some of the older nuclear sites continue to shut down, do you expect a strain on the budget's -- Commission's budget for the loss of revenues from these fees?

Ms. Svinicki. Yes. As the mathematics work, as we -- the number of operating reactors declines, the fixed costs of the regulatory program are spread amongst fewer licensees. Therefore it does have an effect of increasing the burden on each remaining operating reactor.

At some point, mathematically that reaches a point that it would be very difficult to support.

Mr. Green. I know the chair and the commissioners are in a different issue but -- or concern. Do you think -- do you support opening of an interim storage facility?

Ms. Svinicki. Our Commission, because we are the safety and security regulator, would be policy neutral on whether or not the nation should move forward with an interim storage

facility.

We would be the independent arbiters of the safety of that facility through issuance of a license.

Mr. Green. Okay. With the Yucca Mountain permanent storage issue being what it is, what would be the benefit of opening an interim storage?

Ms. Svinicki. Well, again, not as a policy view of our Commission but as a practical matter it would take sites that have permanently shut down and other locations that are storing a lot of spent nuclear fuel and it would move it into one safe and secure location.

But that's not a policy view of our Commission. It's simply an observation.

Mr. Green. Do you believe the private industry could be capable of safely and responsibly operating an interim storage facility under supervision?

Ms. Svinicki. Well, we will reach that determination if either of the two contemplated a storage location should move forward with the licensing again.

The Holtec site in New Mexico is under our review right now and the Waste Control Specialists location in Texas has been suspended at the applicant's request. However, there is

some signal that that may move forward under new ownership.

Mr. Green. Current, those two applications you mentioned for consolidated member storage facilities have been submitted.

I have to admit both of those storage facilities geographically are fairly close to each other -- I think maybe even share the same strata in west Texas and southern New Mexico.

NRC -- one is in Andrews County and one is in Lee County in New Mexico. Where are these applications currently at process? I know you told -- said the one in Texas temporarily suspended, although there's been a huge amount of investment, I think, in both of them.

Ms. Svinicki. Yes. The Holtec facility in New Mexico has been submitted. We have docketed that application, which means that we've assessed that it is complete for purposes of review.

So we've begun the review of that application. We were at the stage of reviewing the WCS Texas location. However, the applicant asked us to suspend.

There is an acquisition of that company now ongoing. The new owners have indicated that they will be giving us

some communication in the near future about the potential resumption of that.

We don't know if that would be asking us to resume what we had in house or if they're going to modify or somehow have a revised approach.

Mr. Green. Thank you.

Mr. Chairman, I have no other questions but I know you and I and a number of people share frustration that decisions were made in the '80s that have been put off now until a new century and, hopefully, this Congress can actually move that ball down the road, so to speak, or either that, change the field. So but Congress needs to do something, and thank you for calling this hearing.

Mr. Shimkus. Chairman thanks the gentleman.

The chair now recognizes Chairman Upton from Michigan for five minutes.

Mr. Upton. Thank you, Mr. Chairman, and I would start off by saying in Friday's New York Times on the front page there's a story that's headlined "U.S. Says Hacks Left Russia Able to Shut Utilities."

The first sentence of that story reads, "The Trump administration accused Russia on Thursday of engineering a

series of cyber attacks that targeted American and nuclear power plants and water and electric systems and could have sabotaged or shut power plants off at will."

So my question is what can you tell us in a nonclassified answer that relates to the story specifically? Can you tell us if they were penetrated in a safety-significant consequence?

I would note that the story continues to stay -- to say that Russian hackers had not -- had not leapt from the company's business networks into the nuclear plant controls. Is that still accurate? Can you give us that assurance?

And what role does the NRC have with these -- in hearing about these situations? What technical expertise concerning power reactors is relevant that you might be able to share with us this morning?

Ms. Svinicki. Thank you, Chairman Upton, and respecting the open setting, I would state that the NRC's role is that we are fully integrated with the FBI, the Justice Department, and the other agencies that made the announcement last week.

These were matters known to us prior to them being publicly released on Friday. Our role is not the security of the electricity grid as a whole. We leave that to our

colleagues at the Federal Energy Regulatory Commission.

In terms of the penetrations, of course, as the committee is well aware through its work on cybersecurity, the attacks -- the cyber attacks against the United States are persistent and serious and the U.S. government Interagency, including the U.S. NRC, are involved in constant monitoring of the sophistication of these attacks -- of the success -- but even the attempts. There's a lot of monitoring of the unsuccessful attempts.

It is true that corporate networks at U.S. nuclear utilities were probed as was described in the announcements. However, safety systems at operating nuclear power plants were not penetrated.

This is principally due to the fact that these systems are isolated from the corporate systems and that provides a measure of, if you will, air gapping of that and you'd have to leap over that, which is technologically, at least to date, not possible to do.

Mr. Upton. Thank you.

The NRC sends the Senate Environment and Public Works Committee a monthly status on NRC's licensing activities, staffing and related information. Would you be able to send

that report to us as well?

Ms. Svinicki. I see no reason why --

Mr. Upton. Yes. That's an easy one.

Ms. Svinicki. -- we would not provide that. I am surprised that we are not. But yes.

Mr. Upton. And in January NRC executive director of operations initiated a transformation effort with a focus on identifying transformative changes to NRC's regulatory framework, culture, and infrastructure.

And as you know, Chairmen Walden, Shimkus, and I wrote recently to express our interest in this initiative and we appreciated your timely response to the letter, which was received yesterday. This NRC effort appears centered on new and novel technologies including in the areas of digital instrumentation and controls, accident-tolerant fuel, advanced reactors, big data, et cetera.

Yet, the benefits of these new technologies require a change in how NRC executes its mission and ultimately regulates the nuclear industry.

I understand that the NRC staff will be providing recommendations and strategies for implementation to the Commission in May.

Ms. Svinicki. Yes, although I am aware that they've received in excess of, I think, 500 or 600 proposed transformation initiatives.

So if the staff were to need additional time to synthesize and prepare a set of recommendations for the Commission, just for myself I would be supportive of that. I think they've been kind of deluged with good ideas.

Mr. Upton. Thank you. Thank you.

I yield back.

Mr. Shimkus. Gentleman yields back his time.

The chair now recognizes the ranking member of the full committee, Congressman Pallone from New Jersey, for five minutes.

Mr. Pallone. Thank you, Mr. Chairman.

My questions are of Mr. Baran. In her written testimony, the chairman notes that while the fiscal year 2019 budget request represents a proposed increase in funding for the Commission overall, most of that increase would go towards activities related to the Yucca Mountain project and reviewing advanced nuclear technologies.

Though I am not looking to quarrel with the increased focus on these articular programs per se, I am concerned

about what those choices mean for other activities that I believe must be priorities for the Commission.

So Commissioner Baran, I understand that NRC recovers the majority of its budget through fees and I have some questions about the proposed fees and what it means for staffing at the NRC.

First, I am concerned by the sharp drop in full time employees at the Commission and what this means for safety. Do you believe that the Commission has the amount of employees it needs to do its job well, not just adequately?

Mr. Baran. I think the -- I think most of the cost-cutting measures we've implemented to date over the last few years make sense.

But I would echo Mr. Tonko's point. I don't think any further steep reductions would sustainable. Going forward, I would like to see our funding and FTE levels stabilize.

I think we need to be careful that we are not so focused on cutting costs that we do erode the technical capabilities of the agency or our inspection activities.

Mr. Pallone. Okay.

And a second question is, is the current 90 percent fee structure putting undue pressure on the Commission's budget

because of the shrinking number of nuclear plants and the economic pressure the industry is facing due to competition?

Mr. Baran. Well, as Chairman Svinicki noted earlier, you know, in theory, if you have fewer operating plants that that increases the amount each remaining operating plant would have to cover.

Mr. Pallone. And she actually said that at some point it would be unsustainable.

Mr. Baran. Yes. We haven't -- we haven't gotten to that point yet and in large part because of Project Aim we have seen our costs come down over the last few years. So fees have not gone up over the last few years for power plants. They've gone down, actually.

But at an extreme, if there were a large number of plants that shut down, you could have -- you could have an effect there where it would -- it would be a challenge.

Mr. Pallone. But you're saying, as she did, that that's, you know, something that could happen but you don't see it happening in the immediate future?

Mr. Baran. It has not happened to date and I don't see it as something that, you know, we are worried about right now.

Mr. Pallone. All right. Thanks so much.

I yield back, Mr. Chairman.

Mr. Shimkus. Gentleman yields back his time.

The chair now recognizes the chairman emeritus, Joe Barton from Texas.

Mr. Barton. Well, thank you. More importantly, I am the current vice chairman, such as that is.

Mr. Shimkus. I stand corrected.

Mr. Barton. Well, I will take both. I think they're both complimentary.

My question is a basic question. I am looking at the -- at the briefing book and it says that you get $804 million in fees. What portion of that is supposedly going into the high-level waste fund to help dispose of high-level nuclear waste?

Ms. Svinicki. None of that amount. Again, the Yucca Mountain related activities are all funded from the appropriations from the nuclear waste fund and we have to execute and keep that money in budgetary purposes. It is executed and outlaid separately from the fee collection.

Mr. Barton. So the $804 million are operating fees from the existing reactors. Is that correct?

Ms. Svinicki. Yes. Those are invoiced directly from the NRC to the utilities and then we receive the payments from them.

Mr. Barton. And the -- and the fee that the utilities pay to help dispose of high-level waste if we were ever to license one that's a separate fund and a separate amount of money in addition to these other fees?

Ms. Svinicki. Yes. It was separately enacted in the Nuclear Waste Policy Act of 1982. The Department of Energy established one mil, which is a thousandth of a cent, I think, for per kilowatt hour charge that ratepayers paid in their utility bills and I think that that was then provided -- it was collected by utilities provided to the U.S. Treasury.

Mr. Barton. And how much of that, Madam Chairwoman, has been collected over the history of its collection? Do you know?

Ms. Svinicki. Many tens of billions. But I would have to respond with a precise figure. Of course, the fee is in suspension now because the U.S. utilities went to court and said in the absence of progress on the disposal site they asked for relief and the collection of that fee has been

suspended for some years now.

Mr. Barton. So it's accrued as a contingent liability but it's not actually been collected from the utilities. Is that right?

Ms. Svinicki. You know, I am not sure of the court's treatment of that in their decision. I know that they offered the relief of the suspension of the collection of the fee.

I don't know if the liability continues to accrue and upon resumption of activity on Yucca Mountain if that would be then re-imposed on the utilities. I am not sure.

Mr. Barton. Now, you're aware that we passed a bill that's languishing, I believe, in the Senate that would change the law and it would allow for licensing of a high-level waste permanent repository but also it would allow temporary storage to also go forward?

Mr. Shimkus. If the gentleman with respect it's languishing in leadership, not the Senate.

Mr. Barton. Oh, I thought we had passed it in the House.

Mr. Shimkus. Not on the floor.

Mr. Barton. I stand corrected. I can't blame that on

the Senate then.

Mr. Shimkus. You can blame it on leadership.

[Laughter.]

Mr. Barton. I will.

But Chairman -- Subcommittee Chairman Shimkus has been laboring, you know, very heroically to get some money appropriated so we could actually begin the review and hopefully the license of a permanent waste repository.

I believe that's about $130 million. John, is that right?

Mr. Shimkus. I am sorry?

Mr. Barton. How much -- how much are we asking for to actually let high-level waste be reviewed -- $150 million, $130 million?

Mr. Shimkus. Well, in the fiscal year 2018 it was $120 million to DOE and $30 million to NRC, and then in fiscal year 2019 it's $47.7 million for the NRC and another $120 million for DOE, I believe.

Mr. Barton. It's fun to ask questions of the subcommittee while you guys are out there. Shows what a good subcommittee we have.

In any event, my question to you, Madam Chairwoman, does

the NRC support Chairman Shimkus in his effort to actually get some real money appropriated so we can proceed with the review of a high-level waste permanent repository?

Ms. Svinicki. The NRC has requested funding in our budget for fiscal years 2018 and 2019 to resume these activities.

Mr. Barton. So that's a yes.

Ms. Svinicki. But we -- as an independent safety regulator we have not taken a policy position on the pending legislation.

Mr. Barton. Well, I take that as a yes.

I am going to yield back, Mr. Chairman.

Mr. Shimkus. Gentleman yields back his time.

The chair now recognizes his gentleman from Pennsylvania, Mr. Doyle, for five minutes.

Mr. Doyle. Thank you, Mr. Chairman. I want to thank you and the ranking members of the committee for holding this hearing today.

As many on this committee know, I am a strong supporter of nuclear energy. I am greatly concerned by the dramatic increase in plant retirements or announced retirements in the last few years.

Prior to three plants retiring in 2013, no reactors had retired since 1998. We then faced another round of retirements and are now staring down eight more announced retirements starting in October 2018 and through the summer of 2025.

These retirements represent a loss of reliable and affordable electricity and family-supporting jobs, and it's not like the demand for thousands and thousands of megawatts these plants provide disappears.

As the Energy Information Administration explains, the vast majority of this lost generation has been replaced with either coal or natural gas and it seems very likely that that trend will continue into the future.

As I said at our nuclear infrastructure hearing in February, it's imperative that we maintain or even bolster our nuclear fleet here to adequately address climate change and I hope our committee pursues greater action on the issue in the future.

Chairman, let me -- Madam Chairman, let me ask you and I want to follow up on one of the responses that you provided on an important question from Representative Green regarding the NRC's fee structure.

There are bipartisan legislative proposals in both the House and Senate that provide a backstop for fees that NRC could collect from each plant.

I would think that with increased appropriations if necessary this would provide greater certainty to your agency as well.

Otherwise, I fear the NRC may face the situation where the dramatic drop in plants from which you can collect fees jeopardizes your agency's ability to generate a sufficient operating budget without being overly draconian.

I think many could see this as becoming a downward spiral. Chairman, let me ask you, do you think our committee should pursue or consider changing the NRC's fee structure to make it more sustainable both for the NRC and the individual plants?

Ms. Svinicki. Our Commission hasn't established a position on this. But speaking as a 10-year member of the Commission and answering for myself, I would note that the potential wave of retirements is noticeable and appreciable, and although I don't know at what point the number of operating reactors has diminished so far that the 90 percent fee recovery is not sustainable, I think that the predicted

number of potential shutdowns does make this a timely issue for the Commission and the Congress to engage on a dialogue on this -- on this matter.

Again, the 90 percent recovery is a provision of law. So if it something that looks like it is having an unintended consequence or an unsupportable effect, it would be, in my view, appropriate for the Commission and your committee to examine the question.

Mr. Doyle. Okay. Thank you.

Let me ask you some efficiency questions, too. Your testimony highlighted the NRC's recent announcement establishing of a transformation team that would, in your words, seek to identify potential transformative changes to the NRC's regulatory framework, culture, and infrastructure.

Do you have a time line as to when we could expect those proposals and what type of changes can we anticipate?

Ms. Svinicki. Transformation is meant to encompass not just a small easily-implementable change, which we are terming more an innovation than a transformation.

The team that's been chartered to look at the proposals I believe has in excess of 500 or 600 proposals now pending. Those come from both inside the agency. But they've also

engaged broadly on transformative and innovative organizations.

So the Commission is scheduled to receive a set of recommendations in May. But I think that the amount of proposals that have been generated may make the staff want to have a little more time to evaluate those and then we would take the proposals that they -- and recommendations they make to us out of that process and consider those after we receive them in May.

But, again, I am trying maybe to signal a little bit of opening for relief with the staff. I think it would be difficult for them to look at 500 or 600 ideas in the amount of time that they have.

Mr. Doyle. Yes, I can appreciate that.

Mr. Chairman, thank you. I am going to yield back my time.

Mr. Shimkus. Would the gentleman yield his last 26 seconds?

Mr. Doyle. Yes, sure.

Mr. Shimkus. When the -- when the payments are made to utilities based upon the nonperformance of the government, where does that money come from? Do we know?

Ms. Svinicki. This is perilous, because this is my memory of the court's decision. I thought they suspended the collection from the ratepayers --

Mr. Shimkus. They did.

Ms. Svinicki. -- so that the utilities are not receiving any revenues because their request of the court was to be allowed to suspend the recovery of it from consumers.

Mr. Shimkus. Anyone else can answer that.

Mr. Baran. You're talking about the litigation piece?

Ms. Svinicki. Oh. Oh.

Mr. Shimkus. Right.

Mr. Baran. That comes from the judgment fund.

Mr. Shimkus. And the judgment fund --

Mr. Baran. Is taxpayer funds.

Mr. Shimkus. Okay. Thank you. With that, I thank my colleague.

Chair now recognizes the gentleman from Texas, Mr. Olson, for five minutes.

Mr. Olson. I thank the chair, and welcome to our three witnesses.

This first question is for you Chairman Svinicki, and you, Commissioner Burns.

Last August, the NRC issued a press release announcing it was going to conduct a review of, quote, "past administrative regulations," unquote, to find any that are outdated or duplicative.

That was supposed to start in the fall of 2017. However, I haven't heard anything about that since then. So my question is will either of you talk about first why reviewing these regulations is important for an industry that is struggling, and number two, is there an update on time we can inspect this report and move forward?

Chairman, you first, ma'am.

Ms. Svinicki. I will begin. Thank you.

I think that the voting has moved along on that proposal and I believe that mine may be the lagging vote to complete the Senate -- I mean, the Commission's deliberation on the matter.

It is still under review by the Commission in terms of the Federal Register notice and other underlying things that would kick off that review. So it is still contemplated and I suspect it would move forward in the coming months.

Mr. Olson. Mr. Burns, do you want to add something to that, too?

Mr. Burns. Yes. What I would add, one of the things that -- this was an issue that came to my attention when I was a chairman and how it came up is, you know, drop-in visits from utilities, interactions I had at conferences and things like that, and it's -- the question of there may well be in terms of some of the administrative reporting requirements going of the structure of them, for example, that might be more efficient, and I think that's what we are intending to look at.

The example would be -- and I can't pull, unfortunately, out of my head right now maybe a good example -- but the idea was we are asking particular reporting requirements in an age -- like, when I began at the agency we didn't work through the internet.

We worked through -- fax machines was the technology of the, you know, of the day. So some of those types of things -- how you can report -- you know, what you need to report.

It's not that reporting is bad or doesn't need to be done but, you know, can you do it more efficiently, you know, through electronic communication -- are there duplications and things like that. That's the type of thing I think I would like to get at.

Mr. Olson. Thank you.

The final question is for all three of you. There have been some situations where disagreements between headquarters and the NRC region have resulted in NRC being unable to make timely decisions to provide necessary certainty to licensees.

In one case a licensee chose to shut down the reactor because headquarters in the regions were at an impasse. What's the process for resolving these disagreements between headquarters and the regions to ensure that timely decisions are made and the licensees are provided regulatory certainty?

Ms. Svinicki. The NRC is obligated to provide clarity and give timely decisions. We are also obligated to implement a cohesive and coherent program across the United States so that a regulatory outcome in one region would be the same outcome in another region.

Like any large organization, this requires very effective and continuous communications between the agency's very senior executives, the Commission, and a faithful execution of our regulatory framework across the country.

Are we perfect? No, although I don't -- I don't recognize the specific incident you allude to.

This is something that both our inspector general and

the Government Accountability Office occasionally audit for us and we do look at the consistency of the findings and regulatory outcomes across the country.

But there are a lot of inspectors and a lot of individuals in the loop. Again, the basic process is escalation through management, through executives and the agency, and then coming to one unified decision.

Mr. Olson. Mr. Baran, very quickly, I have 48 seconds left to add something to her -- the chairwoman's comments.

Mr. Baran. No, I think she covered it very well.

Mr. Burns. I agree.

Mr. Olson. Okay. And one final point of observation.

Chairwoman, congratulations. Your Michigan beat my University of Houston Cougars in the NCAA finals -- going to the Final Four. But they'll play another Texas team and pretty quick you will hear from Mr. Flores about his Aggies. So I yield back.

Ms. Svinicki. Thank you. I wondered if I might hear something while Chairman Upton was in the room but --

[Laughter.]

Mr. Shimkus. Oh, I hope the gentleman's yielding back his time.

Mr. Olson. I yield back.

Mr. Shimkus. The chair thanks the gentleman.

The chair now recognizes the gentlelady from California I would like to personally thank for all her work on this issue for five minutes.

Ms. Matsui. Thank you very much, Mr. Chairman.

As I outlined earlier, I am extremely supportive of efforts to transfer our country's civilian-spent nuclear fuel to a consolidated storage facility. Communities across the country including those near the former Rancho Seco Nuclear Generating Station in Sacramento County have been waiting decades for a spent fuel storage solution.

And I have to also thank Chairman Shimkus' willingness to work together on these spent fuel issues. We were able to make real progress as his Nuclear Waste Policy Amendments Act moved through this committee and I continue to support our compromise that was included in the bill.

Chairwoman Svinicki -- is that right -- can you please tell us more about the consolidated interim storage facility licensing process generally? What do you look for in an application? How is it evaluated?

Ms. Svinicki. Thank you for that question,

Representative Matsui.

As you noted in your earlier remarks, the agency -- the NRC -- has two -- one current and one suspended review in front of us for the development of consolidated interim storage facilities.

There is a facility contemplated in New Mexico and the contractor is Holtec. We have docketed that application for review and the review is ongoing.

In general, it's our estimate that it would take approximately three years to conduct this type of review. We have some experience. In the 1990s, there was a similar proposal of private fuel storage in Utah.

However, we issued the license as an agency but the facility was never developed. But, again, to return to the -- to the two active contemplated facilities, the first is the Holtec facility in New Mexico.

The other is in Texas and it is Waste Control Specialists. That review was suspended at request of waste control specialists. Their company is undergoing a merger or acquisition.

I am not -- so it may be an acquisition. The new owner, although that process is in -- is ongoing, has indicated that

they will be making a communication to the NRC regarding that suspended review.

We don't know exactly what form that would take. They, of course, have the option of modifying or withdrawing that and submitting something different.

So if they were to just ask us to reactivate the review that is suspended, that is something that could be more readily done.

If they want to modify or significantly alter the proposal, then we would just have to wait to see what our estimate of the time to review it would be.

Ms. Matsui. Okay. If you take the first step there, what are your next steps in the licensing process if you restart this?

Ms. Svinicki. The general process involves both a comprehensive safety review and a separate team of environmental experts will conduct a review of any environmental impacts of the facility or the proposed action.

Those proceed in parallel tracks and so there is some synergy and expertise between those two teams and we develop a safety evaluation report and then an environmental review and those are the basic products that come out of our review.

We are looking for no negative impacts on public health and safety and in accordance with storage and transportation regulations that we have that are very well established.

Ms. Matsui. Can you outline some of the differences between the facilities envisioned by the two applications?

Ms. Svinicki. I think, in general, they are very similar, much more similar than they are different, and there may be some differences in the way that they've structured how they intend to operate or the fuel that they would take. But I would need to respond with those details, for the record.

Ms. Matsui. Okay. Certainly.

And as I said earlier, I am pleased to see that you requested adequate funding to be able to consider both the WCS and the Holtec license request in fiscal year 2019.

It's critical that we move forward with both licensing process at the same time in order to maximize our chances of really reaching a viable interim storage solution that reduces the burden on taxpayers.

What constraints on licensing are you facing at your current funding level?

Ms. Svinicki. I would -- you're correct that we have

requested funding in fiscal year 2019 for two reviews. I would also note that although we do not have an enacted level for fiscal year 2018 yet we do have funding in there for two as well.

Even though the one is suspended, we were -- we provided a budget flexibility so that if it were resumed we would be able to begin that in the current fiscal year.

So there is -- we are not aware that we have any shortfalls in those requested amounts.

Ms. Matsui. Okay. Fine, and thank you very much and I appreciate -- I yield back.

Mr. Shimkus. Gentlelady yields back her time.

The chair now recognizes the gentleman from Ohio, Mr. Latta, for five minutes.

Mr. Latta. Well, thank you very much, Mr. Chairman, and thanks to our commissioners for being with us today.

The NRC's fiscal year 2019 budget request includes about $10 million to develop the regulatory framework for advanced nuclear technologies.

While the NRC is required to recover about 90 percent of its budget from fees charged to licensees, the Commission is allowed to request certain funding to be appropriated by

Congress outside of the fee base.

Though I would note the Advanced Nuclear Technology Development Act, which I sponsored and was unanimously passed by the House in January of this year, provides -- or last year, excuse me -- provides for this funding to be exempt from the fee recovery base.

Similar to that provision, in my legislation NRC's budget request for this funding in previous years provided for a direct congressional appropriation.

Would any of you like to address why the source of this funding from off the fee base that's subject to fee recovery has changed from the previous years?

Ms. Svinicki. Thank you for that question, and I realize that Congress has indicated a willingness to provide direct appropriated funds instead of recovering this from the fee base.

I would observe that in -- perhaps commensurate with the continued work that we are doing on advanced reactors it is our projection that in fiscal year 2019 we may have actual submittals of designs for review.

And so some of the thinking about having it be in the fee base is that we do try to allocate and recover costs from

a company if the costs are directly attributable to that company.

So in fiscal year 2019 is the earliest date at which we think we may have a company come in with an actual design submittals.

Mr. Latta. Okay. Just to clarify -- just to make sure of that, so that you would support the -- my legislation which would amend the underlying statute to clarify the source of the funding to develop a regulatory framework for that advanced nuclear technology?

Ms. Svinicki. Our Commission has no policy view but as a member of the Commission, not as chairman, I would indicate that the funding that is provided off fee base has been, I think, advantageous because it -- developers will come in and engage the NRC if they know that they're not going to receive an invoice every time they want to come in and learn more about the regulatory framework or perhaps float a concept of a design attribute that they're worried that we would never license.

And so Congress' support of money off the fee base I think is generating a regulatory efficiency because the technology developers are more likely to come in and get

early regulatory engagement and I think it's also helping us that when we get a design we'll know a lot more about it.

Mr. Latta. Thank you.

Use of the digital instrumentation and control, or digital I&C technology, is of growing importance for the current nuclear fleet and the next generation of reactors.

This technology can enhance safety, reliability, and efficiency while replacing obsolete analog components. Many licensees are not pursuing modifications that implement digital technology due to uncertain regulatory approaches and associated challenges.

For new plants the uncertainty creates risk of -- risk the promise of advanced digital I&C systems will not be accomplished.

To address these issues, industries has formed a digital I&C working group to engage industry experts with the NRC staff to resolve high-priority technical issues, improve the regulatory infrastructure, and facilitate efficient implementation of DI&C projects.

Madam Chairman, in reality, as a number of our nuclear reactor facilities have passed four years of operations, much of the technology still being used in these facilities can be

dated back to World War II.

Do you believe that updating these systems and components to digital technology is important to sustaining these facilities?

Ms. Svinicki. Yes. The obsolescence issues in the supply chain are very real and it is not only important, I think it will be essential for the NRC to develop a working framework for the adoption of digital I&C technologies.

Mr. Latta. Thank you.

Commissioner Burns, do you believe there is an obligation to acknowledge potential safety benefits with increased usage of digital controls and how do you view these benefits can be represented in NRC's regulatory regime?

Mr. Burns. Yes, I would agree that the newer digital controls have benefits. I've seen that from when I've gone to power plants in terms of areas where they have been able to implement it.

What we have to do, which I think -- what our chairman was alluding to is we need to keep on our staff in terms of working with the industry in terms of getting over some of the humps, if you will, that are sort of -- become some barriers toward better integration on some of the -- some of

these systems.

I think we are seeing it in the new -- you know, the new technologies. It's been a lot in terms of, as you noted, the retrofitting onto what were originally analog systems and getting more digital systems in there.

But it's something I am certainly in favor of us continuing to work on.

Mr. Latta. Thank you very much.

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

Mr. Shimkus. Gentleman yields back the time.

Chair now recognizes the gentleman from California, Mr. McNerney, for five minutes.

Mr. McNerney. I thank the chairman, and I thank the commissioners for your work.

Last year, Secretary Perry issued a proposed rule that power plants have -- that have long-term fuel storage have a financial advantage over those that don't. That was overturned by the FERC.

Do you think that was a good idea, each one of you, given the financial crunch that nuclear plants are facing? Starting with the chairman.

Ms. Svinicki. Our Commission was not involved in that

and we are not economic regulators like our colleagues at the Federal Energy Regulatory Commission.

Candidly, even as a personal matter, this is outside my realm of expertise.

Mr. McNerney. Secretary?

Mr. Baran. This is -- this is pretty far outside NRC's mission here. We leave this to FERC.

Mr. Burns. Right.

Mr. McNerney. Okay. Well, the next question was do you think the traditional nuclear power plant is viable, moving into the future, you know, in terms of economics? Do you think they're going to be viable?

Ms. Svinicki. My understanding, again, and I don't have access to any proprietary business information. I read the same reporting as others do.

But some of the units in the regions where they operate are operating at kind of breathtaking losses and are not economic.

Others operate in other markets in the country and have other regulatory rate recovery mechanisms -- that they are profitable. So it appears to be a very geographic situation.

Mr. McNerney. Okay. That's interesting.

Do you think the new technology is going to be more economic than the older technology like the small modular reactors? Any --

Ms. Svinicki. It's difficult to say by their design attributes. They appear to preliminarily offer certain efficiencies but I think the competitiveness of this technology in the market is dependent on natural gas prices and other things into the future that I am not really even expert on.

Mr. McNerney. All right. I will change the subject.

You know, local buy-in is critical, in my opinion, for nuclear waste -- a repository -- for a nuclear waste repository.

How much chance is there for a local buy-in in Yucca Mountain? Whoever wants to answer that.

Mr. Shimkus. The gentleman needs to define local.

Mr. McNerney. Well, I would say the state of Nevada. Is that state of Nevada going to tolerate moving forward with the Yucca Mountain storage facility?

Ms. Svinicki. Well, again, we are the independent licensing body that would make the ultimate determinations on issuance of a license.

So the state of Nevada, many Nevada counties and also California counties are parties to that licensing proceeding and we are the quasi-judicial body over that. So I don't -- I think it's perilous for us to opine on that.

Mr. McNerney. Okay. Well, in my opinion, again, complete transparency is absolutely necessary for a long-term storage repository to be accepted.

What is the NRC doing to make sure that there's transparency in these sorts of deliberations?

Ms. Svinicki. Well, I would note that the adjudicatory proceeding has, gosh, I think maybe two dozen admitted parties -- that those proceedings are all conducted publicly. There are over 300 specific challenges issued that will be adjudicated when that -- if that -- if that is funded and that adjudication occurs.

So, again, that is a public licensing proceeding where all of these matters in contention or challenged would be litigated in a very public forum.

Mr. Baran. I would just add, if the adjudication resumes I think it's essential for NRC to hold the hearings in Nevada close to where many interested stakeholders are located.

That's been NRC's longstanding policy that if you have a contested adjudication that it be held, you know, as close as to the vicinity of the -- of the proposed facility.

There's, obviously, very high public interest in this -- in this proceeding if it were to resume. So my view is it's very important that those hearings be held in Nevada.

Mr. McNerney. Are there any other sites around the country that are being considered and if there are, are you reaching out, you know, in advance to get local interest and buy-in?

Mr. Burns. No, because the law requires us to consider the Yucca Mountain application. That was the consequence of the 1987 Amendments Act, which focuses on Yucca. So we are not authorized to go look at other sites, at this point.

Mr. McNerney. But wasn't the -- wasn't the Nevada site also held up -- I mean, if you're allowed to do it by law elsewhere and you're not allowed to do it in Nevada, what choices are there?

Mr. Burns. No, the Waste Policy Amendments Act 1987 directed the NRC and I think also DOE to focus on the Yucca Mountain site.

So that's why our -- the efforts that have gone on that

eventually led to an application in the mid-2000s focused on Yucca.

Mr. McNerney. I yield my time Mr. Chairman.

Mr. Shimkus. They are correct. The gentleman yields back his time.

The chair now recognizes the gentleman from Illinois, Mr. Kinzinger for five minutes.

Mr. Kinzinger. Thank you, Mr. Chairman, and I want to thank all of you for being here. Thanks for being at our hearing.

You know, I think it's unbelievable that we are still talking about Yucca Mountain years and years later, and people's opposition to it is based on witch science, you know, and concerns and it's the law and it's the right thing to do and anyway -- but my district is home to four nuclear power plants, in Byron, Braidwood, Dresden, and LaSalle. It's the most of any district in the country.

Meaning, that the work you all do is vital not only to the safety of these communities but also to my constituents who work in these plants, pay their utility bills, and, especially in Illinois, rely on nuclear power to power their homes and businesses no matter the weather. Fifty percent of

power is, in fact, nuclear in Illinois.

H.R. 1320, which I sponsored with Representative Doyle, includes language to control corporate overhead costs and keep them in line with other federal agencies.

I am concerned about a lack of transparency and accountability in the corporate support budget proposal because these costs are passed along to ratepayers including my constituents through charges that the NRC licensees -- charges to the NRC licensees.

Specifically, the fiscal year 2019 budget requests an increase of $1.5 million for corporate support, even though staff is decreasing by 108.

The justification states the increase is a result of salary and benefit growth, increases for ITS at management, operations, maintenance, and security of core IT systems, and targeted investment and development and modernization efforts.

However, there's no details or support in the budget. To the chairman, can you explain in more detail why there's an increase in corporate support costs?

Ms. Svinicki. Thank you, Representative Kinzinger.

In general, you have described the areas that are

causing the increasing and if we have not provided a detail perhaps we can work with your staff after the hearing to provide some fuller supplementing detail on this.

I would note that the cost of living -- the percentage increases that have been funded in general agencies have been asked to find those within existing budgets.

Also, as our workforce gets smaller it tends to be older employees do stay with the agency and they received certain higher levels of seniority.

Also, the benefits part of salary and benefits for every federal employee with increases in health care costs there is some escalation in that figure year to year due to rising health care costs.

Also, the NRC does have, as part of government wide IT modernization, we have some unsupported platforms for various agency IT systems.

I know we report to other committees of the House regarding our overall IT modernization and also the securing of those systems against cyber threats and there are increasing costs throughout the government related to those matters.

I think in general those are the nature of the expenses

that caused the increase in the fiscal year 2019 budget.

Mr. Kinzinger. I see. I just think -- you know, the important point I want to make is, obviously, continue to take tangible steps to maintain discipline on that, as you know.

It's Congress' responsibility to regularly review statutory authority and, when appropriate, to make updates reflecting our changing world.

For example, the outlook for global nuclear power is fundamentally different from when Congress first allowed the use of peaceful atomic energy in 1954 or established the NRC in 1974. Congress hasn't completed a comprehensive reauthorization of the NRC in over 30 years.

To the chairman, are there legacy provisions including the foreign ownership control or domination restrictions or the required advisory committee or reactor safeguards that warrant revisiting by Congress?

Ms. Svinicki. As a general matter, it is useful to revisit a statute, although I would note that I continue to be impressed with the wisdom that is enshrined in the Atomic Energy Act.

I think for a statute as old as it is there was a lot of

foresight on having, you know, technology, flexibility, and things like that.

But there is the many intervening decades of experience in the United State nuclear power program in general. The technology is understood at a vastly deeper level now and there are also many, many operating reactor years and decades worth of experience.

So I think that relooking at what the smart individuals in the 1950s thought is probably a worthwhile endeavor.

Mr. Kinzinger. Thank you.

I think it's important to note, you know, we've -- I think the United States is losing or has lost its edge in nuclear power and we've given it to other countries and that's a big problem and something that I think we need to address wholeheartedly.

And lastly, to Commissioner Burns, are there other areas Congress should examine, given the state of nuclear energy today, in your mind?

Mr. Burns. Going back to your question on the Atomic Energy Act, I appreciate in your bill you noted a couple areas where I thought were worth looking at in terms of foreign ownership in a mandatory hearing.

I agree with Chairman Svinicki. One of the, I think, the beauties of the Atomic Energy Act is the flexibility that allows the Commission to adapt over time.

So there's some of these that are legacy provisions -- mandatory hearing provisions, for example just because I was doing some research earlier this year on it. It was really actually a punishment of the Atomic Energy Commission for a lack of transparency.

It actually imposed it both at the construction permit and operating license level and it was because the AEC wasn't transparent about its licensing. I think we've come a long way since 1957 and then 1962 on that.

Mr. Kinzinger. Thank you, and I yield back, Chairman.

Mr. Shimkus. Gentleman yields back his time.

Chair now recognizes the gentleman from Vermont, Mr. Welch, for five minutes.

Mr. Welch. Thank you very much, and I thank the commissioners.

My concern that I want to address is decommissioning. In Vermont, Vermont Yankee, located in southern Vermont right on the Massachusetts and New Hampshire border, was one of the first -- I think the first merchant plant to be

decommissioned.

So we are sort of at the tip of this spear addressing the combination of issues between the industry that has to shut that down and the local and state communities that want to have a say in the process.

And over the course of the last couple of years, Senator Sanders and Senator Leahy and I, on behalf of Vermonters, have been raising some questions that we want included in rulemaking.

One, the lack of state and local stakeholder involvement in the decommissioning process is a concern.

Two, the questionable uses of the decommissioning trust fund such as for spent fuel management is a recurring issue at the Vernon plant.

Three, the reality that the use of safe stored decommissioning procedure will effectively delay the cleanup in the redevelopment of the nuclear site for decades is a big issue for us. We'd like to put that place back into operation, sooner rather than later.

And then four, the reduction of emergency planning functions during periods when spent fuel remains are in spent fuel pools. That's an ongoing concern.

That's an issue for us in Vermont. But as more and more plants are going offline, that's going to be an issue for them as well.

And the questions that I wanted to start asking about were on the rulemaking process and in the initial phases of this it appeared that the NRC in fact was paying attention to many of those concerns that I just cited but there's been a tug of war in the process, and the industry concerns appear to me, and I think to Senator Leahy and Senator Sanders, to be paramount.

They want flexibility on some of the safety issues but they really are resistant to the four issues that I mentioned.

So that's of real concern to us, and not just to us, because this, as I mentioned, is going to be relevant for all these other plants that are going to get decommissioned.

So I will start, Madam Chair, with you, if you would. Do you believe that state and local stakeholder concerns should be considered on equal footing with those of the industry and believe that a final decommissioning rule that codifies regulatory and safety exemptions that industry has requested but don't address concerns over the use of the

decommissioning trust fund, the local input in the post-shutdown rules would be problematic? We'd like both included.

Ms. Svinicki. Congressman, thank you for this question, and you and the people you represent have been very, very active in the rulemaking process.

The stage we are at right now is that the NRC staff has developed a regulatory basis and they will begin the process of developing a proposed rule to come before our Commission.

My approach as a member of the Commission is to look at the totality of the public comment record, and I don't look at who sent the comment.

I look at the underlying matter that the comment is raising and I look to make sure that the agency is responsive to that comment.

So I don't want to prejudge where I would be on a proposed rule that hasn't come before me yet. But as part of my review I will certainly look at that.

Mr. Welch. No, I understand you can't prejudge it. But we'd really want some assurance that the local concerns have a seat at the table. That's really the bottom line of what we want, and there's a tug of war because the industry

concerns are sometimes different.

They want to get out sooner rather than later, and the local community wants that property back in service and, obviously, concerned about the decommissioning fund.

Mr. Baran, can you tell me what opportunity state and local stakeholders will have over the coming year to weigh in on the decommissioning rulemaking?

Mr. Baran. Sure. Well, the main opportunity -- they had -- there have been two periods of public comment to date, and ask the chairman mentioned, we got a couple hundred comments.

I looked at them all and you're right -- states and local governments are very engaged on this issue. They want to be heard. The next big opportunity will be when the proposed rule is prepared.

The Commission will vote on a proposed rule and that'll go out for public comment, and that'll be the first time that stakeholders will have an opportunity to look at what is it that the agency is proposing to do and what is their reaction to that.

Mr. Welch. All right. Thank you.

Mr. Burns, thanks for your work over the years. This

basic request that our communities have to be at the table as a full and equal partner?

Mr. Burns. I would agree with what my colleagues have said. I think as we -- as the proposed rulemaking comes before us, one of the things I am going to look at is some of those process issues as well as, you know, the substantive issues about, you know, what does safety demand, and assuring that we have clarity on things like, you know, the decommissioning trust fund -- trust funds.

You know, it's interesting. We had a good meeting I think about a year or two ago. We had -- one of the representatives from the Citizens Advisory Committee from Vermont was there and her -- heard her there.

Some of these things, I think, will be regulatory solutions. Some of them are going to be the interactions within the states themselves. But I do think it's important that the voices are all heard.

Mr. Flores. [Presiding.] Gentleman's time has expired.

Mr. Johnson, you're recognized for five minutes.

Mr. Johnson. Thank you, Mr. Chairman. I thank the commissioners for being with us today.

The last time that you were here before this committee

two years ago I expressed concern then about the regulatory creep associated with what is known as application of the back-fit rule.

This authority is one of the most powerful regulatory tools at NRC's disposal, which is why it is critically important, in my view, that the Commission is vigilant about the staff's use of the back-fit rule.

So in regards to the committee to review generic requirements, since your last appearance here, NRC was in the process of providing new guidance to what is known as the CRGR -- the Committee to Review Generic Requirements.

This committee, composed of senior NRC staff, is intended to review these back-fit requirements, which are regulatory requirements imposed on all nuclear power reactors.

So Commissioner Burns, under your leadership as chairman, CRGR was directed to update its charter and revise its review procedures. Has CRGR issued its revised charter and, if so, what are the principal updates to the document?

Mr. Burns. Yes. I believe that they have. I am not familiar with all the details of it but, clearly, at the time one of the things that I was looking for -- and I had the

support of my Commission colleagues at the time -- was to reinfuse some vigor in the CRGR process, also to provide some more consistency across the agency, particularly in the staff because on a day-to-day basis that's where things are going to happen about consistency in the back-fitting process.

Mr. Johnson. And you are still --

Mr. Burns. But we can -- we can -- we can probably provide for the record, you know, the specific things that would help your -- answer you.

Mr. Johnson. Okay. Yes, please do. You are still the leader -- I mean, the chairman of the CRGR, right?

Mr. Burns. No, no. I am not the -- actually never been the chair. The head of the CRGR is a staff -- a senior staff executive.

Mr. Johnson. How often do they meet?

Mr. Burns. I don't know how often. Ed Hackett, who is deputy director for research, is the current chair of the CRGR.

Mr. Johnson. How do they report to you guys on what their status is, as the commissioners?

Ms. Svinicki. They report to the executive director for operations but they also provide routine reporting on the

number of their activities.

They may meet as needed to review a proposed regulatory measure. But, again, we can provide greater clarity, for the record.

Mr. Johnson. Okay. Thank you.

Chairman Svinicki, what are the next steps for CRGR to enhance its role to review and approve, or disapprove, staff's proposed back-fits?

Ms. Svinicki. Since the Commission last appeared before you, Congressman, and engaged on this issue, the agency's return to greater adherence and fidelity on back-fit moved far beyond the CRGR.

Although we have undertaken the measures that you described, it became apparent in the reviews ordered by the executive director for operations that comprehensive retraining was needed of agency staff.

That has been conducted and, again, we are not changing the back-fit rule. It was -- we realized that with the amount of staff growth and staff turnover we had had that we needed regular training on adherence to the back-fit rule and there will even be, I believe, a wave of follow-on training that is going to occur.

So there certainly has been a higher spotlight on adherence to back-fits since we last appeared before you.

Mr. Johnson. Okay. All right.

Recent guidance from Office of General Counsel, which has been endorsed by the Commission, states that when the NRC staff identifies back-fitting it should first consider whether one of the adequate protection exemptions apply to the back-fit in question.

So, Chairman Svinicki and Commissioner Burns, given the maturity of the NRC's regulatory framework, would you agree that situations requiring imposition of back-fits should be relatively rare and would typically require significant new information indicating that a safety issue is not adequately addressed by the Commission's current regulations?

Ms. Svinicki. As a member of the Commission, I am in agreement with that statement. That would be, I think, a reasonable description of the maturity of adequate protection determinations that have been previously made.

However, there can't always be new knowledge, as you note, and so I would say, as a member of the Commission, any time the staff is contemplating an adequate protection exemption to the back-fit rule that gets my attention very

closely for the reasons you state.

Mr. Johnson. Okay. All right.

Mr. Chairman, I yield back.

Mr. Flores. The gentleman yields back.

Mr. Cardenas, you're recognized for five minutes.

Mr. Cardenas. Thank you very much. Appreciate the opportunity to have this discourse, Commissioners.

My question is to whichever commissioner wants to answer the question regarding the potential elimination of 149 full time equivalent employee positions.

If that were to take place by the design of the Commission, if that's a fact, would the -- would there be more or less scientists involved, going forward, than are today, overall?

Are we talking about positions that are in the science arena or the technical folk? Are we talking about tertiary positions?

What would -- where would the crux of those 149 or so positions come from?

Ms. Svinicki. There is -- let me begin by stating there is no contemplated involuntary separation or reduction of employees that we contemplate now.

The figures may have to do with -- if they arise from the fiscal 2019 budget. We have areas of work that are completing this year and so it really isn't individual employees that are on board right now.

The figures vary up and down, depending on the licensing work that we project to have before us in the 2019 budget. So it is not that we've identified positions for elimination.

Mr. Cardenas. Okay. So we are talking about positions that are basically having to do with the work structure in the past and present and going forward, and a better structure for the department?

Ms. Svinicki. Yes, that's correct.

Mr. Cardenas. Okay. Thank you.

Aside from that, how is the department doing when it comes to recruiting today's technical folks that the department needs to fill the positions that would be ongoing? How is that environment today?

Ms. Svinicki. Well, I will say that you identify, I think, one of the greatest challenges for federal agencies and that is making certain that we are preparing ourselves for the future by bringing in the promising new entrant recent college graduates.

Again, under a declining workload for our agency we are not as active out with colleges and universities and recruitment. We do that only on a very, very targeted basis as we have attrition of people from positions.

So we are, over time, becoming an organization that has more senior people at higher pay grades and we do pay attention to making sure that we are at least bringing some newer employees into the pipeline.

But, again, our work in general has been declining and the opportunity to do that has been less.

Mr. Baran. I would just add, you know, in a two-year period the number of employees we had at the agency dropped by around 12 percent, which is a really dramatic decline --

Mr. Cardenas. That is.

Mr. Baran. -- for just a couple years. That was largely the result of attrition. So we have a certain number of people who are retiring each year, moving on, and pairing that with very, very limited external hiring during those years.

Going forward, for the health of the agency we are going to have to have some extra hiring.

Mr. Cardenas. Okay.

Mr. Baran. We are going to need to bring new talent to the agency. That's true for any organization. It's fine to have a period of a couple years where we just through attrition shrink pretty significantly. But for our long-term health, we are going to have to make sure we bring in new talent so that we have the capabilities we need five, 10, 15, 20 years in the future.

Mr. Cardenas. There is no question that there's probably not an industry in America that isn't affected by the Baby Boomer retirement bubble that we are going through right now.

But at the same time, when I was in college I was an engineering student. By the time I got my degree, I had done some internships with various great, great organizations that actually went out there and recruited students like myself.

Are you able to focus on that kind of recruitment or, unfortunately, is it kind of like a hodgepodge of trying to pull together a little bit of resources to do so? Or is it a concerted effort to recruit some of that great talent out there -- that new talent?

Ms. Svinicki. I will note that we do continue to have a summer intern program. We get engineers and scientists and I

believe maybe even have some legal interns or law clerks opportunities to prepare for the future.

Again, it is commensurate with the projections that we will continue to have a declining workload. But I think, as Commissioner Baran notes, we continue to recognize the importance of having younger employees come into the pipeline.

Mr. Cardenas. Okay. Well, to the benefit of all of us who represent literally different parts of the country with different makeups, Mr. Chairman, if we could get a report from the Commission on the program and how local communities can enlist and making sure that young people -- young talented folks can actually apply to this -- these kinds of programs or, for example, the campuses that you are already involved in or the campuses that you'd like to be involved in or the campuses that you'd like to be involved in -- if there's some kind of blueprint or something that the -- again, every single member here represents a different part of America and I am sure that we would like to make sure that the young talent from our communities certainly have an opportunity to enlist their talent with your organization.

Ms. Svinicki. I think we can certainly provide more

specifics for the record.

Mr. Cardenas. Thank you, Mr. Chairman.

I yield back.

Mr. Flores. The gentleman yields back. I will recognize myself for five minutes.

I thank the panel for joining us to day and to follow up on Mr. Olson's initial comments regarding the men's and women's Sweet 16s, I am proud to report my district has more teams than the others with four.

Anyway, let's get down to business. New technologies provide great promise to increase safety and performance from nuclear reactors while also affording increased efficiency and improving economic competitiveness.

One of the critical path resources to get from here to there, though, is the NRC's qualification of advanced fuels and I am concerned that our advanced nuclear community will be stifled at the outset if there's not clarity and predictable -- predictability with respect to time lines for innovators and investors to have certainty that the NRC will allow new fuel compensation and design.

So Chairman Svinicki, what is the NRC doing to consider fundamental issues associated with qualifying advanced fuels?

Ms. Svinicki. Thank you for the question, and this is a growing area of work for the industry and for our agency as a result.

To begin with, in order to qualify a new fuel type, developers have to be able to have access to performance data, meaning if you have got new materials, new alloys, and new configurations you need to be able to put what are called lead test assemblies in nuclear power reactors so that you can then harvest those as kind of samples and you can take performance data.

We do have a number of utilities right now that either have inserted lead test assemblies for new fuel types or are in the process of developing -- documenting the safety of doing so. So that exploration of these lead test assemblies and development of the underlying data for new fuels is currently underway.

Mr. Flores. Okay. Thank you.

Commissioner Burns, given your long experience with NRC and your having had a front row seat for seeing technological advances, would you please describe your expectations with respect to having a predictable path for advanced fuel development?

Mr. Burns. I would echo what -- much of what the chairman said.

I think the -- part of it for us too is assuring that the regulatory process is in a state that allows that to go forward.

I will give a recent example. I think the staff, with respect to the ability of utilities to start testing advance or accident-tolerant fuels in terms of just the process of getting some lead test assemblies in there has clarified its guidance and that's gelled and those are the types of things. And in addition to the technology aspect, which is extraordinarily important, of course, that will help the process along.

Mr. Flores. So you have talked about the real-world testing and existing reactors. What sort of advanced modelling and simulation and computational tools do you have to predict the behavior of these advanced fuels?

Mr. Burns. I would have to defer to the staff and maybe the Board unless the chairman wanted to add.

Ms. Svinicki. The NRC does not have as many tools as the U.S. Department of Energy. So as a result, our experts in these areas have begun discussion with the Department of

Energy regarding what tools they have and to what extent they could be made available for us to use in making safety determinations, going forward.

Now, as an independent safety regulator we will want to have some measure of independent or confirmatory analysis that we will do. But it may be that the tools can be utilized by us to do that confirmatory work.

I would say that those discussions are somewhat at the beginning stage.

Mr. Flores. Okay. Thank you.

My district includes College Station, which is the home of Texas A&M University. The Aggies have an outstanding nuclear engineering program and it partners with both the NRC and the Department of Energy to help train the next generation of nuclear engineers through congressionally-funded education programs principally through the Integrated University Program, or IUP.

Unfortunately, once again, the NRC budget zeroes out this critical program. If that's the budget that ultimately comes to fruition -- I don't think it will be but if it does, where do you -- where do we train the workforce of the future without the IUP?

Chairman Svinicki.

Ms. Svinicki. I will respond by stating that the Commission's failure to include that in the budget is so that our budget will adhere to administration policies regarding programs such as this.

Having said that, I will state that we have derived great value from when Congress has provided funding. We have executed that program I think with a lot of energy behind it and made good use of the funding that Congress has provided previously.

So it is not any indication on the value of it by this Commission.

Mr. Flores. Okay. That's helpful.

My expectation is that Congress will continue to fund that program because, as you have stated, we've had good results in terms of an advanced nuclear workforce.

I yield back the balance of my time.

Mr. Duncan, you're recognized for -- oh, I am sorry. Okay.

Mr. Hudson, you're recognized for five minutes.

Mr. Hudson. I thank the chairman and thank the witnesses for being here today. Thank you for the good work

you do.

I represent Fort Bragg, the largest military installation in the world. I understand the importance of making sure that our troops have the necessary resources they need for the battlefield.

A 2016 report from the Department of Defense's Defense Science Board concluded that, quote, "There is an opportunity for expiration of the use of nuclear energy applications at forward and remote operating bases and expeditionary forces," end quote.

These applications would result in first of a kind of a deployment opportunities similar to how the Navy's deployment of nuclear reactors helped drive the construction and commercialization of existing fleet of nuclear power plants.

However, for these advanced technologies to be successful -- successfully deployed, the NRC's regulatory regime and approved processes must be predictable and disciplined.

One example of how the NRC manages what are known as requests for additional information, or RAIs, NRC staff uses RAIs frequently during its regulatory review and GAO has noted the process can be time consuming and costly.

GAO reported the NRC staff and licensees identified two weaknesses in the RAI process -- first, a gap between NRC's expectations and licensees' understanding of license application content, and second, staff departure from RAI guidance, which my result in redundant or unrelated questions and lead to additional time and resources required for licensees to address RAIs.

Following GAO's review, NRC has updated its guidance including increased management review and, as with the Office of Nuclear Regulatory Regulation efforts to conduct onsite audits or a public meeting to reduce the number of RAIs.

Chairwoman, I would like to ask you a few questions with respect to RAIs. How is NRC ensuring that staff are following the guidance? For example, is NRC tracking data on RAIs and, if so, has the new guidance reduced the number of RAIs?

Ms. Svinicki. Thank you for the question, Congressman.

There has been a focus on the discipline of the RAI process. In addition to the measure you noted, which is perhaps meeting with an applicant and getting greater clarity so that we could just completely reduce the need for certain questions to be asked, we also have instituted what are

called job aids and they are kind of checklists that are used by reviewers.

And when it come to RAIs, that job aid mandates that they have to identify the regulatory determination that is supported by the request for additional information, meaning if you're going to ask this question, what of the necessary findings does it feed into.

And in some ways, there is enhanced management review. But a job aid such as that basically forces someone to take that into consideration. So it builds the discipline into the process and the staff has thought of these measures which, again, I think are really helpful to both the analysts that are adhering to the new discipline on RAIs and they kind of keep the system in check.

So it's those. But there is, as you said, enhanced management review as well.

Mr. Hudson. Thanks a lot.

Can you provide updated RAI tracking information to the committee?

Ms. Svinicki. I know we have been working to begin to collect that and I am not sure how many months of data we have now. Could I provide to the record either data or a

status updated on getting those tracking systems in place?

Mr. Hudson. That would be much appreciated.

Do managers in the Offices of the Nuclear Regulatory -- Reactor Regulation and New Reactors review additional rounds of RAIs, as GAO reported was the agency's intent?

Ms. Svinicki. I believe that that is still occurring. I don't know to what extent. As we get the job aids and other measures in place, in may be that there isn't as much need for the direct review because, again, the checklists and process are basically forcing the new -- the new accountability and discipline. But we can provide that for the record.

In early stages there was management review of all subsequent rounds.

Mr. Hudson. I appreciate that, and I would be very interested in knowing what you found during these reviews in both offices.

So thank you very much for that.

Mr. Chairman, unless any other witnesses would like to chime in -- great. Well, thank you very much, Mr. Chairman. With that, I yield back.

Mr. Flores. The gentleman yields back.

Mr. Duncan, you're recognized for five minutes.

Mr. Duncan. Thank you, Mr. Chairman, and I thank the panelists for being here as long as you have.

One thing about being a junior on this you get to go last. All the groovy questions have been asked already so we are going to reach into our tool chest here.

First off, I want to encourage my friends over in the United States Senate to confirm a great South Carolinian to the NRC and that's David Wright, and would be a great addition to the NRC.

I want to lend my voice to -- Mr. Shimkus and others have talked about Yucca Mountain and a need for a long-term stable storage facility for nuclear waste.

They have 40 years' worth of nuclear waste sitting at the Oconee nuclear station on the beautiful shores of Lake Kilwee, and that's just one nuclear reactor or nuclear power plant in the country that has nuclear waste stored onsite either in dry cask or wet cask storage.

And we could throw in Savannah River site, Hanford, Idaho Flats, Oak Ridge, and all these things where we have waste coming out of the environmental management efforts there.

They need to go somewhere, too. Vitrify it, put it somewhere for long-term stable storage.

I want to talk about VC Summer a little bit. We had a -- one-half of all the new reactors under construction in the United States happen to be happening in South Carolina at DC Summer and seven, eight years into the project the rug gets pulled out from under and the construction stops.

And, you know, I wonder how we as a nation will be able to go forward with nuclear power generation and new nuclear reactor construction after VC Summer.

How are you going to incentivize investors to put that kind of money up and the tens of years that take and the tens of billions of dollars in investment just for the permitting and licensing before you even get into the construction?

How are you going to encourage investors to go that length, knowing that seven, eight into the investment the rug could get pulled out from under them and they lose that investment?

Now, they couldn't foresee the bankruptcy of Westinghouse and, you know, there were a lot of unforeseen things that kind of led into it, I guess.

But I am concerned about the future of nuclear energy

and I will assume since you're all in NRC you all support nuclear power production. Would that be a safe assumption?

It's a yes or no question. Do you support nuclear power generation?

Ms. Svinicki. Well, we have to maintain objectivity in our independent safety and security licensing determinations. But I would note, as a degreed nuclear engineer, I didn't choose to go into the field because I thought poorly of the technology.

But that's not as a member of the Commission where, again, I have to step back from a view on advancing the nuclear power program or not. We have to be policy neutral on that.

Mr. Duncan. So, Madam Chair, last year at VC Summer you all had a number of NRC staff assigned to that project. Do you remember how many were assigned?

Ms. Svinicki. Well, the onsite presence was five inspectors who were at VC Summer full time. They were supported by both in our Atlanta Region 2 office by supplemental inspections.

Our theory or our approach to having Georgia and South Carolina where the two projects were located is that out of

our Atlanta base we could surge the deployment of the inspectors for the different expertise.

So they kind of supported out of a common pool. I am told, though, that the resourcing overall was 40 full time equivalent positions.

Mr. Duncan. Right.

Ms. Svinicki. So that would be kind of people on a fractional basis out of Atlanta and headquarters and the five at the site.

Mr. Duncan. Right.

So you have asked for an increase in the budget and the New Reactors office has significantly reduced workload, claims a 13 percent reduction in staffing and yet you ask for an increase of $4 million in funding.

How do you explain that contradiction?

Ms. Svinicki. Well, we could provide, I think, additional details for the record. But it would do with -- as you note, there is a decline such as the termination of the Summer project. But we do forecast that we will have increasing work on advanced reactors.

We are very engaged with that community and in fiscal year 2019 we may have first submittals for designs to review

of advanced reactor concepts.

Mr. Duncan. I guess for my constituents they look at half the reactors that were under construction in this country, the VC Summer and that project shut down. You had 40 people there and they've got to be reassigned somewhere, maybe with NRC. I get that. But you're asking for an increase, going forward.

I understand what you're saying about looking at future technologies. That leads into my next question.

I am a strong advocate for small modular reactors. I've done a lot of research into molten salt reactors and I hope those are the technologies that you're looking at because there's energy poverty in the world.

U.S. could be a leader in this. Right now, we are getting our butts kicked by Russia in the construction of nuclear reactors around the globe.

So I hope that new technologies do come online and you guys expedite the approval process of that and we can get more nuclear production online.

Ms. Svinicki. We'll just mention on molten salt technology is recognizing that we don't have a lot of experts conversant with some of these different reactor types.

We recently -- we worked with Oak Ridge to develop a training course that we brought in house at NRC. We sent 90 of our folks through that training on molten salt reactor technology and I was pleased that the staff included not just scientists and engineers but also lawyers and others that will have to have some kind of conversant knowledge of these new technologies. So we are working very much on the capability.

Mr. Duncan. Okay. I thank you, Mr. Chairman. I yield back.

Mr. Flores. Gentleman time is expired.

Mr. Carter, you're recognized for five minutes.

Mr. Carter. Thank you, Mr. Chairman. I apologize, bouncing back and forth. We had another subcommittee meeting at the same time.

Madam Chair, if you don't mind, instead of butchering your name, can I just call you Madam Chair? Is that okay?

Ms. Svinicki. That's fine, but I do have a pneumonic. I happen to be a vegetarian and I did live in Idaho and my Idaho friends are okay with it.

But if you think of the terms finicky like a finicky eater --

Mr. Carter. Finicky.

Ms. Svinicki. -- if you say Svinicki and so that's kind of --

Mr. Carter. Swinicki.

Ms. Svinicki. -- that's the best pneumonic I can think of.

Mr. Carter. Swinicki?

Ms. Svinicki. Svinicki, with --

Mr. Carter. Finiski. I am from south Georgia. We talk in Geechee so I'm -- you know, I am just sorry. I --

Ms. Svinicki. I don't think I am making it any better.

Mr. Carter. I don't think so.

Madam Chair -- Madam Chair, I want to talk about accident-tolerant nuclear reactor fuels. From what I understand, this is a game changer. Potentially, it could be, and it's something that I guess came out of the accident in Japan and through research they've come up with this.

You know, I represent southeast Georgia near Plant Vogtle where we are currently building the two reactors and I am glad that they're -- that they're following up on that and they're -- they've decided to complete that project instead of abandoning it.

But at the same time, Southern Company just recently accounted that at Plant Hatch, another nuclear facility near there, that they are actually going to be loading the lead test assemblies for what is known as the accident-tolerant fuels, or ATF, if you will, and that this was a first for the industry.

So my question is what do you think about them? Is this a potential game changer, the ATFs?

Ms. Svinicki. Well, as you know, the loading of the lead test assemblies at Hatch is among the first in the nation.

We have some other proposals that we know utilities will be inserting assemblies, and accident-tolerant fuel is a generic term. There are various fuel vendors that are developing potential new fuels that fall under that heading. And this is the first step is to collect the performance data from the lead test assemblies at Plant Hatch and other locations.

If the concepts prove out and the materials perform as predicted which is, again, needs to be demonstrated, these fuels will have the ability to retain what we call source term and behave better in certain severe accident conditions.

So you would have the potential for a diminished consequence off the reactor site should a low probability accident occur. So that's the --

Mr. Carter. So, potentially, it could be a game changer, potentially?

Ms. Svinicki. It can be safety improvement.

Mr. Carter. So let me ask you, are you -- is the NRC changing any of their licensing approach to be ready for this -- for the use of this -- for these fuels?

Ms. Svinicki. Well, again, our regulations accommodate things such as lead test assemblies. Fuels have been developed and qualified in the past.

So I think that we expect that that same framework can be utilized for the qualification of accident-tolerant fuels. It'll just be something that if new issues emerge or there are materials that have unexpected behavior, we'll have to work closely with the applicants to understand their plans for resolving that.

Mr. Carter. So you believe you could use existing DOE codes? You wouldn't have to come up with new codes?

Ms. Svinicki. We are engaged with discussion in DOE to learn the codes and tools that they have and to see if those

could be utilized for our confirmatory analysis.

Mr. Carter. Okay.

Mr. Burns, Mr. Baran, thank you for having pronounceable names. But I wanted to -- I wanted to as you about Plant Vogtle.

As you know, there's been a lot of problems down there, particularly in the permitting. And it's been such a drawn out process that, you know, we've actually had -- Toshiba and Westinghouse, you know, went bankrupt -- went out of business as a result of this.

And I just want to know what the NRC can do to speed up the permitting process. I mean, obviously, we all want safety but at the same time not all of the blame goes on NRC for the permitting process.

But some of what they are -- were concerned about was the permitting process and all the hoops that they had to jump through in order to get things permitted.

Mr. Burns. Thank you, Congressman, for the question.

The interesting thing is to reflect back on the licensing process used, which is essentially adopted as a reform proposal in the late 1980s -- the Part 52 process.

The advantages were enhanced standardization, so greater

certainty. But the issue was in terms of some -- you know, in terms of some design changes and things as you went on, I think that's a lesson learned from it.

I think one of the things we are working through with Southern now is on the confirmatory items called ITAAC. These are those last, in effect, a checklist when you're getting ready for -- toward operation and in terms of how they can be consolidated.

So, if anything, I think there are lessons learned there. I think we are trying to take those to heart. One of the things I would say too is going back, as you look at -- you had a design that wasn't fully certified.

While the applicant was coming in with the application for the license they had to wait for Westinghouse to get through it.

That's a little bit different than, I think, the expectation of how the process would work. But, again, where I think we have some learning on some of these things in terms of changed processes once the license is issued and I think we are seeing some of that applied, particularly as we go into the -- so the advanced reactor technology because I would say.

Mr. Carter. Well, I hope they're -- I hope -- as you say, I hope there were lessons that were learned because we don't want this happening again. We need nuclear energy.

I am a proponent. I am an all-of-the-above and I believe this is clean fuel that we need and we just need to learn our lessons from what was, obviously, you know, some serious mistakes that were made along the way.

Thank you, Mr. Chairman. I yield back.

Mr. Flores. Gentleman's time has expired.

Seeing that there are no further members wishing to ask questions of the first panel, I wish to thank all of our witnesses for being here today.

Before we conclude, I would like to ask unanimous consent to submit the following documents for the record. There are none.

Pursuant to committee rules, I remind members that they have 10 business days to submit additional questions for the record and I ask the witnesses to submit their response within 10 business days following the receipt of the questions.

Without objection, the subcommittee is adjourned.

[Whereupon, at 12:27 p.m., the committee was adjourned.]