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FISCAL YEAR 2017 NUCLEAR REGULATORY COMMISSION BUDGET WEDNESDAY, APRIL 20, 2016 House of Representatives, Subcommittee on Energy and Power, joint with the Subcommittee on Environment and Economy, Committee on Energy and Commerce, Washington, D.C.

The subcommittees met, pursuant to call, at 10:02 a.m., in Room 2123, Rayburn House Office Building, Hon. John Shimkus [chairman of the Subcommittee on Environment and Economy] presiding.

Present: Representatives Shimkus, Harper, Olson, Latta, McKinley, Kinzinger, Griffith, Johnson, Long, Ellmers, Flores, Mullin, Hudson, Cramer, Tonko, Rush, McNerney, Engel, Green, Capps, Welch, and Loebsack.

Staff Present: Will Batson, Legislative Clerk, E&P, E&E; Rebecca Card, Assistant Press Secretary; Tom Hassenboehler, Chief Counsel, Energy & Power; A.T. Johnston, Senior Policy Advisor; Chris Sarley, Policy Coordinator, Environment and Economy; Dan Schneider, Press Secretary; Peter Spencer, Professional Staff Member, Oversight; and Andy Zach, Counsel, E&E; Tiffany Guarascio, Minority Deputy Staff Director and Chief Health Advisor; Rick Kessler, Minority Senior Advisor and Staff Director; John Marshall, Minority Policy Coordinator; Jessica Martinez, Minority Outreach and Member Services Coordinator; Alexander Ratner, Minority Policy Analyst; Tim Robinson, Minority Chief Counsel; Andrew Souvall, Minority Director of Communications, Outreach and Member Services; and Tuley Wright, Minority Energy and Environment Policy Advisor.

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Mr. <u>Shimkus.</u> Let's call the hearing to order. If staff could close the door; staff, members take their seats. And I would like to recognize myself for 5 minutes for an opening statement. We want to welcome the NRC. Welcome for coming. Good morning and welcome to examine the Nuclear Regulatory Commission's budget request. Nuclear energy is and must remain a central component of our Nation's electricity mix. The NRC's role in overseeing civilian nuclear power reactors serves to ensure that nuclear energy will remain an integral part of our energy future. Thank you for all being here. I would like to add a special thank you to Commissioner Bill Ostendorff for his service on the Commission. This will be his last appearance before this committee as a Commissioner. I know that breaks your heart.

I appreciate Commissioner Ostendorff's willingness to speak up on the need for the Federal Government to fulfill its legal, I will add, obligation to dispose of spent nuclear fuel. You will be an invaluable asset to your alma mater, United States Naval Academy. Of course, they need a lot of help there, and as a distinguished visiting professor of national security. The next generation of military leaders will greatly benefit from your deep knowledge and expertise on national security issues. Good luck to you.

My home State of Illinois generates the most nuclear energy in the Nation. Nuclear energy is a major contributor to Illinois' economic wellbeing, and must continue to remain so. Our reliance on nuclear power plants also means my constituents and ratepayers

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throughout the State provide more funding to the NRC than any other State. Therefore, the agency's effort to right-size the organization and streamline efficiency is of great importance to me and my constituents.

This morning, we will examine the NRC's fiscal year 2017 budget request. I appreciate the initial steps the Commission has taken to reduce its budget to date, but the budget reductions thus far are inadequate. Yesterday, the House Appropriation's Committee considered the energy and water appropriations bill for the upcoming fiscal year. And I support Chairman Simpson's funding level for the NRC of \$936 million, including \$20 million for the Nuclear Waste Fund for Yucca Mountain activities.

This committee will continue to provide close oversight of the Commission to find further opportunities to increase efficiency and reduce the budget. Let me also be clear, these efforts will not compromise the safety of our nuclear power plants, nor will they prevent the NRC from fulfilling its mission to protect public health and safety.

Last Wednesday the Commission approved an additional \$30 million in reductions through rebaselining and prioritization efforts. I hope that the additional reduction in workload and responsibility will translate to a tangible reduction of NRC staff. However, just because the Commission has voted on these recommendations, Project Aim 2020 is not complete. As the Commission stated, and I quote, "It is important that the completion of the rebaselining effort and the other

Project Aim tasks be view by the NRC staff and stakeholders as the beginning and not the end in our goal to better position" -- "to be positioned to respond to the challenges of 2020 and beyond."

I would be remiss if I didn't express my dissatisfaction that once more, the Commission failed to include funding to continue consideration of Yucca Mountain's license application. This Congress, I have held a series of hearings to examine different issues associated with development of a comprehensive solution to disposal of used fuel. I will continue to advocate for a bipartisan solution that must include Yucca Mountain.

This committee has been persistent in its oversight to assure the NRC complies with the Nuclear Waste Policy Act. The courts directed the NRC to spend previous appropriated nuclear waste fund money. And I understand that funding will be nearly exhausted by the end of this fiscal year. I hope you are taking all the necessary steps to maintain the necessary expertise and infrastructure to continue consideration of the Yucca Mountain license application.

I look forward to hearing from the Commissioners today. And I thank you for your service. With that, I've ended my opening. Anyone want the last minute? If not, I yield back the balance of my time and I now yield to my ranking member, Mr. Tonko, from the great State of New York for 5 minutes.

Mr. <u>Tonko.</u> Thank you. Thank you, Mr. Chair. Thank you, Chair Shimkus and Chair Whitfield, for holding this hearing. And I want to

thank my good friend and cohost on our side, Congressman Rush, for joining with us. I also welcome Chairman Burns and Commissioner Svinicki, Commissioner Ostendorff, and the best to you, Commissioner, as you move forward, and Commissioner Baran for appearing before the subcommittees today.

We are here to discuss the Nuclear Regulatory Commission's fiscal year 2017 budget request of \$982.3 million, which reflects a decrease of some \$19.8 million below last year's enacted level. It is a decrease of \$73.7 million, and 279.7 full-time equivalent employees when compared to the fiscal year 2014 enacted budget. We know the electric utility sector is undergoing major changes. New technologies and markets are changing, grid management, deployment of distributed generation, and the relationship between our utilities and their customers. Nuclear power still accounts for a significant amount of baseload generation. And in some areas, it plays an important role in the mix of power supply, and to ensure the important concept of reliability.

But we must start to consider, seriously, how nuclear power will best fit into the new grid and sector structures that are emerging. Given the trends occurring in the nuclear industry, the Commission has undertaken Project Aim to find deficiencies and streamline the Commission. I understand the goals of Project Aim to right-size the agency in light of the ratio of decommissioning plants to new licenses while still continuing to meet its mission to ensure the safe operation

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of nuclear facilities and the protection of public health and the environment.

Some Project Aim reductions have already been included in the fiscal year 2017 budget request. Members on this committee have a wide range of views on existing and new nuclear power. But there is unanimous agreement that we need high standards for safety and enforcement of those standards. There is no compromising on that agenda. So I think it is fair that as the Commission's budget and staff is shrinking, we look at calls for expediting the licensing process very closely, and potentially with some skepticism, we must recognize the need for the Commission to be staffed and resourced at levels appropriate for carrying out its very critical oversight and safety missions, first and foremost.

In addition to changes in the utility sector, we must also pay more attention to those changes to the climate. Just reported, The New York Times yesterday, under the title of 2016 Already Shows Record Global Temperatures, according to the National Oceanic and Atmospheric Administration, NOAA, 2016 has been the hottest year to date with January, February, and March each passing the mark set in the year 2015. Out West, persistent drought will pose challenges to the nuclear industry, as most designs require significant availability of water. As a Nation, we will face water scarcity challenges, and nuclear plants' access to sufficient water and sufficiently cool water must be considered.

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Elsewhere, floods, hurricanes, and other natural disasters are becoming more and more common. These events can pose serious operation and safety challenges. Some plants may not have been designed or constructed with the frequency and magnitude of these events in mind. The nuclear industry is not immune to the threats of climate change. In the future, severe weather events will happen even more often.

So, I know I speak for many of us when I say the nuclear industry and the Commission need a concerted effort to put strong adaptation and resiliency plans in place to mitigate the effects of climate change.

Last month was the 5-year anniversary of Fukushima disaster. The Commission has worked on developing and implementing lessons learned, and expects a number of safety enhancements to be completed this year. Other longer term issues will be looked at in the years ahead. And I look forward to hearing what we have learned from this tragedy and what steps are necessary to ensure such a disaster never occurs here in the United States.

I look forward to hearing from all of you today about the Commission's efforts to guide the nuclear industry, and to guide it through the transition that is underway. Again, I thank you all for being here. And I yield back the balance of my time, Mr. Chair.

Mr. <u>Shimkus.</u> The gentleman yields back the balance of his time. The chair looks to the majority side. Seeing no interest, the chair now recognizes the ranking member of the Energy and Air Quality Committee, Bobby Rush, from the great State of Illinois, for 5 minutes.

Mr. <u>Rush.</u> I want to thank you, Mr. Chairman. And I want to thank all of the NRC Commissioners for being here today. I would also, Mr. Chairman, like to welcome back a former staffer from our committee, Commissioner Jeff Baran, who worked diligently in the past on a variety of issues with my office. Welcome back, Commissioner Baran.

Mr. Chairman, it appears that the NRC has fully embraced Project Aim, an initiative designed to significantly downsize the agency that has received much support from members of my colleagues here on Capitol Hill. Five years after the Fukushima disaster, Mr. Chairman, I want to make sure that we are not becoming overly complacent in our attitudes towards nuclear safety, and we are constantly being vigilant in our efforts to prevent a catastrophe from ever occurring here in the United States.

Mr. Chairman, in fact, the NRC request of fiscal year 2017 of \$982.3 million represents a decrease of \$19.8 million below the fiscal year 2016 enacted level. Additionally, Mr. Chairman, in the area of nuclear reactor safety, specifically, the NRC request of \$587.5 million to support activities at current nuclear facilities represents a \$1.7 million decrease from the fiscal year 2016 enacted budget.

Mr. Chairman, as part of the Project Aim initiative, the NRC has identified at least 151 activities to be reduced or cut out entirely, including discontinuing or delaying rulemakings, reducing travel, and, in some cases, reducing staff and/or their workloads.

Mr. Chairman, while I understand that many of my colleagues

applaud these deep cuts, I think it is important to understand the practical implications of making these decisions before we all start patting each other on the back.

Mr. Chairman, foolishness must never be the sum total of our frugality. With Illinois housing, more nuclear reactors than any other State in the country, my constituents, Mr. Chairman, want to be assured that the agency in charge of safety has all of the funding, all of the staff, and all of the resources it needs to do its job. To that point, Mr. Chairman, I understand that there are still currently 10 Tier 2 and Tier 3 items that remain unresolved from the NRC task force that was established following the Fukushima accident back in 2011. Some of these unsettled items that are still being evaluated by the Commission include various emergency preparedness activities and evaluation of natural hazards, among others.

So, Mr. Chairman, today, I look forward to engaging the Commissioners on these outstanding items, as well as hearing from them directly on the impacts of their proposed funding cuts on the overall safety protocols of the NRC.

Mr. Chairman, as we move towards a more sustainable, reduced energy economy, there is no doubt in my mind that nuclear power must play a vital role in our Nation's overall energy portfolio if we are to achieve these objectives. However, we must also, Mr. Chairman, continue to assure the American public that we have the best safety protocols and practices in place, and that the agency in charge of

overseeing these systems have all the resources that they need.

So I look forward to hearing from our Commissioners on these issues in more depth. And with that, Mr. Chairman, I yield back the balance of my time.

Mr. <u>Shimkus.</u> The gentleman yields back his time. And based on the two openings statements by my colleagues on the Democrat side, we also want to point out that if climate is a national debate, then the largest baseload generation of carbon-free energy is nuclear. And that has an important part of our debate in this portfolio. So I just want to raise that.

Now, I would like to, again, welcome the NRC. We are going to recognize the chairman first for five, and then I think 2 minutes each for the other Commissioners. And with that, Chairman Burns, welcome. You are recognized for 5 minutes.

STATEMENTS OF STEPHEN BURNS, CHAIRMAN, NUCLEAR REGULATORY COMMISSION; KRISTINE SVINICKI, NUCLEAR REGULATORY COMMISSION; WILLIAM OSTENDORFF, NUCLEAR REGULATORY COMMISSION; AND JEFF BARAN, NUCLEAR REGULATORY COMMISSION

STATEMENT OF STEPHEN BURNS

Mr. <u>Burns.</u> Thank you, Chairman Shimkus and Ranking Members Tonko and Rush.

Mr. <u>Shimkus.</u> Chairman, would you just check one more time. The light should go on, and if you can, pull it as close as you can.

Mr. <u>Burns.</u> Yeah. Thanks. Again, good morning, Chairman Shimkus, and Ranking Members Tonko and Rush, and other distinguished members of the committee. My colleagues and I appreciate the opportunity to appear before you today to give an overview of the NRC's fiscal year 2017 budget request and the agency's current regulatory activities. The NRC, of course, is an independent agency established to license and regulate the civilian use of radioactive materials in the United States, to ensure adequate protection of the public health and safety, to promote the common defense and security, and to protect the environment.

The resources we are requesting will allow the NRC to continue to carry out our important mission. Our proposed budget is \$970 million, and 3,462 full-time equivalent staff, excluding the office of the inspector general. The proposal represents a net decrease of nearly \$20 million and 90 full-time equivalent from the 2016 enacted budget. The 2017 request reflects a decrease of roughly \$74 million and 280 full-time equivalent employees from the fiscal year 2014 enacted budget. And the inspector general's component of the 2017 budget is \$12 million.

Consistent with the Omnibus Budget Reconciliation Act, our request provides for 90 percent fee recovery, resulting in a net appropriation of \$121 million. This is an increase of \$2 million over

2016 due to the inclusion of \$5 million in non-fee recoverable resources for advanced nuclear reactor technology. Our budget request reflects our continuing focus on our important mission, while continuing our Project Aim initiative. The Commission has concluded its review of the rebaselining paper, as the chairman noted, and approved a total savings of about \$41 million in 2017, of which about \$10 million is reflected in the President's budget.

However, we can't emphasize strongly enough that while we expect to be a smaller agency, as a reflection of workload reductions and efficiency gains, the need for the great majority of the services we provide the American people remains unchanged. And as we proceed, the agency remains mindful of the importance of its highly skilled technical staff, and the need to maintain our expertise. We must keep a focus on knowledge management as senior staff retire and new experts take their place.

I would like to highlight one area in which the Commission is -- that the Commission is attending to: improvement in our rulemaking process. The Commission has revised its processes to improve its understanding of and where possible to reduce the cumulative effects of regulation. The Commission is currently considering a proposal to establish a single unified approach to tracking rulemaking activities so the public and stakeholders have access to current information. We carry out our activities through two major programs: the Nuclear Reactor Safety, which includes both

operating reactors and new reactors, and Nuclear Materials and Waste Safety, consisting of fuel facilities, nuclear materials users, decommissioning and low-level waste, and spent fuel storage and transportation.

The 2017 budget request for the operating reactors business line supports the implementation of lessons learned from the Fukushima Daiichi Nuclear Power Plant accident in Japan. The requested resources support the continued implementation of the safety significant -- most safety significant Tier 1 activities, including continuing implementation of the orders on mitigation strategy, spent fuel pool instrumentation, and severe accident capable hardened containment vents. Resources will also support reviews associated with seismic and flooding hazard reevaluations. The bulk of the most safety-significant enhancements should be completed in calendar year 2016. And we expect to bring to closure our valuation of longer term Tier 2 and Tier 3 issues. We will inspect the work that has been done and ensure that plants maintain their progress. We strongly believe that the United States plants are better prepared for extreme events now than they were in 2011.

The budget request for the new reactors business line will allow us to begin review of a small modular reactor design certification application from new scale. The budget request includes \$5 million in non-fee recoverable activities to implement a strategy for developing the regulatory infrastructure for advanced non-light water

nuclear reactor technologies. We will hope it will help us to undertake licensing reviews consistent with the maturity and development pace of the technologies.

Again, members of the committee, it is a pleasure to be here, and we will be pleased to answer your questions. Thank you.

[The prepared statement of Mr. Burns follows:]

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Mr. <u>Shimkus.</u> Thank you. Now I would like to recognize Commissioner Svinicki for 2 minutes.

STATEMENT OF KRISTINE SVINICKI

Ms. <u>Svinicki.</u> Thank you, Chairman Shimkus, Ranking Members Rush and Tonko, distinguished members of the subcommittees for the opportunity to appear before you today. The Commission's chairman, Steve Burns, in his statement on behalf of the Commission has provided an overview of the agency's budget request, as well as a description of several ongoing activities that are central to carrying out NRC's important work. The NRC continues to implement safety-significant lessons learned from the Fukushima accident in accordance with agency processes and procedures, while maintaining our focus on ensuring the safe operation of nuclear facilities and the safe use of nuclear materials across the country. The past few years have been a particularly dynamic period for the NRC as an organization, and our staff has been addressing these challenges in a systematic fashion.

Our fiscal year 2017 budget request was developed concurrent with the ongoing implementation of our Project Aim initiative. Beyond the rebaselining effort discussed in Chairman Burns' testimony, the NRC continues to pursue improvements to our programs, processes, and procedures. The NRC staff is also developing guidance for the disciplined implementation of approved changes and for monitoring the

impacts of changes after they are implemented.

I thank you for your consideration of our budget request and look forward to your questions. Thank you.

[The information follows:]

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Mr. <u>Shimkus.</u> Thank you. And the chair now recognizes Commissioner Ostendorff. Again, thank you for your service, and you are recognized for 2 minutes.

STATEMENT OF WILLIAM OSTENDORFF

Mr. Ostendorff. Good morning, Chairman Shimkus, Ranking Members Rush and Tonko, and distinguished members of the subcommittees. I appreciate the chance to be here today. Chairman Shimkus and Tonko, thank you for your kind remarks. It has been an honor and privilege to serve on the Commission. Today is my twenty-sixth time to testify before Congress as a Commissioner. And I have always appreciated the respect and civility which you and both sides of the aisle have afforded this Commission. And I am very grateful for that.

I am in complete alignment with the chairman's testimony. I want to emphasize the deliverables that the chairman mentioned do not represent the end state for Project aim. Project Aim is not just a temporary exercise, but the beginning of a longer-term initiative.

I will make two very specific comments. First, the Commission's recent direction to our staff to seek Commission approval before embarking upon rulemaking activities is a significant step towards better efficiency and better stewardship of agency resources. Second, our budget request of \$5 million in non-fee billable resources to further develop our regulatory infrastructure for advanced non-light

water reactor technology. It is important for the long-term health of the NRC and the industry that we retain the ability to license new technologies.

In closing, I appreciate the chance to be here today, and I look forward to your questions.

[The information follows:]

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Mr. <u>Shimkus.</u> The gentleman yields back his time. The chair now recognizes Commissioner Baran. Welcome back. And you are recognized for 2 minutes.

STATEMENT OF JEFF BARAN

Mr. <u>Baran.</u> Thanks. Thank you, Chairman Shimkus, Ranking Members Tonko and Rush, and members of the subcommittees, for the opportunity to testify today. It is great to be back to discuss NRC's fiscal year 2017 budget request and the work of the Commission.

With respect to Project Aim, I have been very impressed by the willingness of the NRC staff to take a hard look at the work the agency is going and how we are doing that work. The NRC staff generated a list of 151 proposals that would reduce costs in the coming months. The Commission recently approved nearly all of those proposals. I think a large majority of these items make a lot of sense. But I have concerns about a number of them, including a few that would reduce inspection hours. In my view, Project Aim should not be about relaxing regulatory oversight of licensee performance and safety.

On March 22, I traveled to Fukushima Daiichi to take a firsthand look at conditions at the site. The scale and decades-long duration of the cleanup effort there are a sobering reminder of the need to learn and implement the lessons of Fukushima. Last month marked 5 years since the accident in Japan. It is a natural time to take stock of

where we are. I think it is clear that we have made significant progress, but still have a lot of work left to do.

Decommissioning is another important issue for NRC. In the last few years, five U.S. reactors have permanently shut down, and three more have announced plans to close in the near term. I see two main purposes for the decommissioning rulemaking effort that is now underway. And both are important. First, it will allow NRC to move away from regulating by exemption in this area. The exemption approach isn't efficient for anyone, and it provides no opportunity for public comment. And second, the rulemaking provides a chance for NRC and all of our stakeholders to take a fresh look at our decommissioning process and requirements. We need to thoughtfully consider stakeholder ideas with an open mind.

There are, of course, other important efforts underway at NRC. The staff is preparing for the first small module reactor design application expected later this year. The budget request also includes funds to ramp up NRC's efforts to prepare for advanced reactor designs that may be submitted further into the future.

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

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Mr. Shimkus. Thank you very much.

Now, I will recognize myself 5 minutes for the opening of the questions. And I will begin with Chairman Burns. I appreciate your efforts to identify and reduce the workload of the agency through the Commission's recent approval, and the vast majority of the proposals, including in the staff's integrated priority and rebaselining agency activities.

Will you please tell the committee the total funding reductions and reductions in full-time equivalents that were approved by the Commission?

Mr. <u>Burns.</u> Yes, Mr. Chairman. The full reductions in the rebaselining effort is on the order of about 40 to \$50 million. Actually, the number escape me. We have about \$10 million that is reflected in the reductions that came through the President's budget. And what we are suggesting since then is it is about another \$31 million. There is an additional \$8 million. That is how I get to my about 50 number that we really were reflecting on beyond fiscal year 2017 into the 2018 period. I would have to give you --

Mr. <u>Shimkus.</u> Well, I have -- maybe I can help. We have \$49 million and 185 FTEs.

Mr. <u>Burns.</u> Okay.

Mr. <u>Shimkus.</u> Of the FTEs that were approved to eliminate those activities, what are they doing now?

Mr. Burns. Well, some of those -- they may be involved in some

of the tasks. What we would be doing is reducing those FTEs. For example, we are seeking, as we did last year, early-out buyout authority for some -- for some staff in those areas. And then attrition would also address some --

Mr. <u>Shimkus.</u> So you are shifting some folks around waiting for the ability for --

Mr. <u>Burns.</u> Yeah. And we also -- I think we have also shifted in the technical -- some of the technical discipline's staffing to other offices where the technical work may be. But, I mean, this is -- it is an attempt to, I mean, in terms of real reductions, in terms of the number of staff where we see we don't need the staff anymore.

Mr. <u>Shimkus.</u> Thank you. This is still directed, next question to you, Chairman, but Commissioner Ostendorff mentioned in his opening statement about Project Aim continues to go forward. Obviously, it is labeled 2020. What is next on your goal as you look at Project Aim 2020? What is the next type of reorganization?

Mr. <u>Burns.</u> Well, I think we have adopted the notion it is Project Aim with -- originally it was called 2020. But I think, as Commissioner Ostendorff and my other colleagues have said, it is important that we keep a focus on this. So a few other things that are -- that would be coming to us, the EDO and our CFO have asked for a hard look at the corporate support offices. And in terms of looking at reductions there, we anticipate a merge -- re-merger of the new reactors office and the NRR office. And so those are highlights of

activities that come. But I think what I want to do, certainly as chairman, and talk to the EDO about this, is -- and as reflected in the Commission direction is inculcate this idea -- we need to look at ourselves in terms of how do we carry out our mission effectively in the most efficient way possibly.

Mr. <u>Shimkus.</u> And right back at you, again, on another question. Obviously, I am going to -- in previous testimony, we know that when you submitted your budget, obviously you didn't put in the money to finish the work on Yucca Mountain. And in testimony on the Senate side, your comment was, the question was asked by Chairman Alexander, your response was, It is the President's budget. So here is the question: How does your legal standing as an independent safety regulator comport with your comment that it is the President's budget?

Mr. <u>Burns.</u> Well, thanks for the question. We ultimately -- we are the regulator. We have to make a decision one way -- on the application that comes before us. The difficulty that we are in is that we don't have an applicant that is sponsoring its application in front of us. We have done the work that we can do and --

Mr. <u>Shimkus</u>. But you are really not answering the question. The point being is you are an independent agency. You have requirements under the law. This is part of the portfolio of responsibilities, but yet, you don't request the dollars. And in a question, a comment, you say, Because it is the President's budget. It is not the President's budget. It is your budget. You are independent of the executive

branch. And so that is the issue I want to raise.

My time has expired. There will probably be some follow-up. But, you know, I am tired of agencies not following the law, especially when they are independent. And I yield back my time, and now turn to my ranking member, Mr. Tonko, for 5 minutes.

Mr. Tonko. And I thank the chair.

In the aftermath of the Fukushima tragedy, the Commission set a goal of completing its response within 5 years, as has been mentioned here this morning. We have passed that date. And while there is still more work to be done, there has been progress.

Chair Burns, can you please explain the tiered system for Fukushima Lessons Learned activities?

Mr. Burns. It -- excuse me. The tiered --

Mr. <u>Tonko.</u> Yes.

Mr. <u>Burns.</u> What the Commission did, and some of my colleagues who were on the Commission at the time adopted might want to add to my responses. The Tier 1 were considered -- those are the things where we saw the most safety benefit from -- and that is what we focused on first. And those are the things, particularly, that are coming to closure this year and into next year. The Tier 2, actually many of the Tier 2 items were absorbed into the Tier 1 activities, some of our rulemaking activities, the orders that were issued to licensees. The Tier 3 were considered longer term items. These are things worth looking at. Not clear whether ultimately there would be some new

requirement coming out of them. But it was deemed that those were things that could be looked at on a later period. The significant things, for example, the installing equipment to deal with these beyond-design basis events, the seismic and flooding evaluations, the spent fuel pool instrumentation. Those were the things that were in the first tier or deemed most significant.

Mr. <u>Tonko.</u> And then is it accurate then that Tier 2 and 3 items may also involve significant safety issues?

Mr. <u>Burns.</u> They involve safety issues, particularly from the standpoint that they are things that I think we thought needed to be looked at. Whether or not a particular requirement might come out of them, that -- I think that is left to be seen. And as I say with some of the Tier 2 -- or much of the Tier 2 was really absorbed into a lot of the initial activities.

Mr. <u>Tonko.</u> And, Commissioner Baran, do you feel more work needs to be done on longer term Tier 2 and 3 issues?

Mr. <u>Baran.</u> Yeah. My view is that NRC should do a thorough safety analysis for each open item that is a Tier 2 or Tier 3 item before deciding whether additional action needs to be taken in that area. The staff did this -- did a good job on some items, but I thought their analysis was insufficient on other items. A full analysis doesn't necessarily mean you are going to take additional regulatory action, as the chairman mentioned. But when someone asks me, you know, whether we fully examined all of the items identified as lessons of Fukushima,

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I want to be able to respond with an unqualified yes, not, Well, we didn't look at this as hard as I thought we should have. So I thought there were cases where the staff should have taken a harder look at it.

Mr. <u>Tonko.</u> One issue addressed by the Near Term Task force focused on reevaluating external hazards, that would include drought and extreme temperatures. As I mentioned in my opening statement, we are already seeing significant impacts from climate change. These hazards are expected to be worse in many parts of the country in the future. Commissioner Baran, do you agree with that observation?

Mr. <u>Baran.</u> I do. And I am actually very encouraged with how seriously the NRC staff is taking this Near Term Task Force recommendation to reevaluate external hazards. The Near Term Task Force recommended doing it every 10 years. And I think the staff is absolutely right that we need to be more proactive as an agency than we have been about getting additional scientific information, the latest scientific information, that could deepen our understanding of those external hazards. And I think you are exactly right that this reevaluation is going to be critical, particularly for climate-related hazards, like drought, or hurricane, or extreme temperature or flooding, where we cannot assume that the magnitude or the duration or the intensity of those hazards are going to be static in the future.

And so what the staff is doing right now throughout 2016 is trying to figure out, well, one approach is we could reevaluate every 5 years

or 10 years or 15 years. What they are looking at is can we do it on a more continuous pro-active basis to make sure that we are getting the latest information, considering that and making sure that if our understanding of the hazards change, or if the hazards themselves change, our plants are -- the plants we regulate are prepared for that.

Mr. <u>Tonko.</u> Okay. So that obviously, then, you think the Commission needs to do more in terms of requiring that pro-active forward look to potential hazards?

Mr. <u>Baran.</u> I think as an agency, we need to do better than we have been doing. The staff recognizes that. And they are working on the process to do a better job of that and be more pro-active and make it more of a routine part of what we do, gathering that information and incorporating that into our analysis. Right now, I think we consider information when we get it, but we are just a little too passive. We need to be more forward-leaning to get that information.

Mr. <u>Tonko.</u> Okay. With that, I yield back and thank you, Mr. Chair

Mr. Shimkus. The gentleman yields back his time.

The chair now recognizes the gentleman from Mississippi, Mr. Harper, the vice chair of my subcommittee. And you are recognized for 5 minutes.

Mr. <u>Harper.</u> Thank you, Mr. Chairman. Thanks to each of you for being here.

Chairman Burns, in February, the Commission provided a report to

Congress on Commission involvement in the early stages of rulemaking. This effort was conducted in a very timely manner and appears to be a well thought-out product. And I would like to ask you a couple of questions about this report.

Will you please provide a bit of background as to what prompted this effort and describe how this will increase efficiency in the Commission?

Mr. <u>Burns.</u> Certainly. Thank you for the question. Part of -- as we were looking at things, I think actually Commissioner Svinicki had gone back and identified a time, a period of about 10 years ago or so, at which the Commission decided to not be as involved at the early stages. And I think we were looking at that. We also got congressional direction in one of our reports last year. And I felt, as the chair, it -- we should -- before there was a final report on that, we should go forward and take a look at that, those types of things. And that is sort of how we got to where we are in terms of putting a -- more of a Commission imprimatur on the initial stages of the rulemaking process.

Mr. <u>Harper</u>. And, you know, that report did acknowledge that NRC changes over a decade ago eventually developed into a lack of discipline by the staff and their authority to initiate rulemaking. So the report is -- we would like to see that. But how can we assure that those long-term trends don't resurface in the future?

Mr. Burns. Well, I think that is the role of the Commission as

it -- as individual rulemakings come before it, or proposals is for us to take a hard look at why we might be going forward and making that type of judgment. I think that is -- the idea is that the senior leadership of the Commission -- at the Commission level would be doing that. So that is how I would see it going forward.

Mr. <u>Harper.</u> Has the Commission used this new process yet? And if so, was the supporting staff documentation adequate?

Mr. <u>Burns.</u> I don't think -- because I don't think we have had a particular proposal that has come in front of us as yet. I don't -- yeah. We haven't had that as yet.

Mr. <u>Harper.</u> We will ask that when it happens then. How about that?

The new streamline rulemaking plan will include a preliminary evaluation of the cumulative effects of regulation. What else is the Commission doing to address cumulative effects?

Mr. <u>Burns.</u> Well, part of that effort, which has been ongoing was initiated several years ago, asks that at the front end that there were -- that we have a better idea, make sure we have a good idea of what the impacts of adopting a particular rule are on the industry. And so, that when we are in the process of deliberating the rule, we have that in front of us. We have a better consciousness of that. I think that is probably the -- I would say the highlight of the significant things that we would do in that area.

Mr. <u>Harper</u>. The Commission directed the staff to address whether

the advisory committee on reactor safeguards should review the proposed rule. How would this recommendation as a part of the Commission's early involvement in the rulemaking affect the ACRS workload?

Mr. <u>Burns.</u> I am not sure I have a -- the ACRS is an important organization. I am not sure I have a particular impact as yet. The ACRS can help us in terms of providing -- it was created to provide this expert panel outside the Commission to advise it. And I think we can fold its recommendations into our deliberation.

Mr. <u>Harper.</u> You know, in 1980 Congress passed the low-level waste Policy Act providing a framework for States to voluntarily join compacts and then work within the compact to site a low-level waste disposal facility. While this merely addressed low-level waste, it provides relevant experience about a consent-based process for nuclear waste disposal. After the Act was passed in 1980, it wasn't until 1985 that Congress approved the compacts. And it was 1990 before a disposal facility opened in Utah, but only for class A waste, the lowest class of low-level waste. Congress didn't approve the Texas/Vermont compact until 1998, 18 years after the Act passed, many others in the history there. And in light of the limited success and lengthy process for consent-based siting for low-level waste, what gives you confidence that DOE will find an interim storage site for used nuclear fuel and have it operating 8 years from now?

Mr. <u>Burns.</u> I am not sure that we are particularly in a position to answer that. What --

Mr. Shimkus. They are an independent agency.

Mr. <u>Burns.</u> Well, that is right, Mr. Chair. We are not part of the consent development process either for the low-level waste compacts or this. The one thing -- what we have seen is we have seen interest in both an applicant in western part of the State of Texas and in eastern New Mexico who are interested in pursuing applications for independent consolidated storage sites.

Mr. <u>Harper.</u> I am over my time. And so I yield back.

Mr. Shimkus. The gentleman yields back his time.

The chair now recognizes the gentleman from Illinois. I want to note that the pesky Cubs beat my Cards last night. But the Blues took care of the Blackhawks. So we are even today and you are recognized for 5 minutes.

Mr. <u>Rush.</u> It is only the beginning of the season, Mr. Chairman. You have got a lot of hurt coming your way.

Chairman Burns, as you know, my home State, the chairman's home State is home to more nuclear plants than any other State. And our constituencies have some concerns when they hear that the NRC is requesting a \$20 million decrease in the budget for this year that would -- then the one that was enacted in last year's budget.

I want to ask you, Mr. Chairman, and each of the Commissioners, can you, for the record, as short of a guarantee, state that the NRC is doing its absolute best to eliminate any and all known threats to nuclear safety in this Nation?

Mr. <u>Burns.</u> I believe we are, Mr. Chairman -- or Mr. Rush. One of the things we do is we evaluate operating experience. We take into account information we have in terms of new analysis of, for example, in the seismic and flooding area, and we apply that experience in terms of looking at assurance of the safety of nuclear power plants. So I think that is something -- that is at the core of our mission to do that, and I think it is something we strive to do on a day-to-day basis.

Mr. Rush. Commissioner Svinicki?

Ms. <u>Svinicki.</u> Congressman Rush, I am confident that the NRC's experts are doing their best in the areas that you describe. And I want to note that although there is a small reduction in our operating reactor activity area in the fiscal year 2017 budget, those reductions are not principally attributable to Project Aim. They are attributable to work and issues that are concluding in fiscal year 2016, and there is not a need to request budget in fiscal year 2017 on some technical issues that will conclude this year. Thank you.

Mr. Rush. Commissioner Ostendorff?

Mr. <u>Ostendorff.</u> Yes, sir. I would agree with my colleagues. I will also add one other perspective from the international community. The Nuclear Energy Agency in Paris that is part of the OECD regime as well as the International Atomic Energy Agency, part of the United Nations, have both issued reports in the last year dealing with Fukushima issues. And our staff's review and the Commission's review of those two reports have not identified any issues that we did not

explore as part of the Fukushima lessons learned. And so I just give you that as a data point that the committee may not be aware of.

Mr. <u>Rush.</u> Commissioner Baran?

Mr. <u>Baran.</u> Well, Mr. Rush, I agree with my colleagues. Safety and security is our priority. It is our focus. It is our core mission. And when I evaluate a potential efficiency or potential cost savings, what I have at the forefront of my mind is we can't do things that are going to weaken our safety oversight. We can't do things that are going to erode the technical capabilities of the agency. And that is exactly the test that I apply when I am looking at those kinds of questions.

Mr. <u>Rush.</u> Commission Baran, in my opening statement, I mentioned 10 outstanding Tier 2 and Tier 3 items that remain unresolved from the NRC task force recommendations. Can you and any of the other Commissioners briefly discuss these unresolved issues? Also can you assure the public that these outstanding items pose no significant threat and they are actively being addressed?

Mr. <u>Baran.</u> So going back to the conversation I was having with Mr. Tonko, there are a number of Tier 2 and Tier 3 items -- the staff did an analysis of all of those, and they submitted their recommendations for closure to the Commission. A number of the items were closed at that time several other items, there is work going on this year. And one of the items was the one I discussed with Mr. Tonko about how are we going to reevaluate external hazards. That work is going on.

And, you know, there are potentially significant safety issues in these Tier 2 and Tier 3 categories, which is why I think it is important that for one of those items, the NRC staff does a solid safety analysis to ensure that we have looked at the issue, we have evaluated whether there is something there that needs to be done, and have made a decision accordingly. You know, there were issues where I thought the staff could have done a better job on that. And I will give you one. And I guess I would put these in the category of we don't know whether the safety enhancement would have made sense, but I wanted to see a better analysis to really know.

And, so, one example I would briefly give you is just, every plant right now in the country is required to have what is called an energy response data system. And it provides real-time information to the NRC on various conditions at the plant, the reactor, the spent fuel pool, the weather conditions.

And in the event of an emergency or an incident at the plant, a natural disaster, this would be a mechanism for NRC to have real-time instantaneous data on what is going on at the plant. One of the lessons of Fukushima, and actually from earlier natural disasters is, well, ERDS, this Emergency Response Data System, it is an Internet-based system. And in the event of a natural disaster, it is not clear you would have the Internet connectivity anymore. You might lose this functionality. Well, what would that mean? Well, we could still get information. We would have to do it by phone. We would have to talk

to the operators at the site. And when we asked the staff well, what is the implications of that? The answer was, Well, you are probably getting updates every 20 minutes instead of instantaneously automatically every 30, 60 seconds. You are probably getting less information and it may not be as accurate.

So the staff took a look at this as part of the Tier 3 items, and they did an evaluation. And they looked at, Well, what would it take to do a backup system that didn't rely on the Internet? And their initial -- it was fairly preliminary. They looked at potential costs, and the costs were not enormous for at least the equipment itself. It was like -- in the order of like a million dollars for the whole fleet nationwide. The staff on that item decided they recommend closing it, not to take further action. And there wasn't really much of an analysis of the pros and cons. And for an issue like that where the costs are pretty modest, to my mind, the time you want to have the system functioning is when you have a natural disaster when you really need it. I wanted to see more of an analysis there. Is there a potential safety enhancement we could have made that would have made plants even safer? I wanted to see more on that.

Mr. Rush. Well, thank you, Mr. Chairman.

Mr. <u>Shimkus.</u> It was important to hear the final answer, and appreciate that.

The chair now recognizes a great Texan, Mr. Olson, for 5 minutes. Mr. <u>Olson.</u> I thank the chair. And welcome to all our NRC
Commissioners, especially Commissioner Ostendorff. It is your last time before this committee.

Our chairman failed to mention that he is a graduate of West Point. You are a graduate of Annapolis Naval Academy. He failed to mention that for the last 14 years, 14 straight years, our Navy has beat Army in football.

Mr. <u>Shimkus.</u> Really?

Mr. <u>Olson</u>. Just to set the record straight.

Mr. Shimkus. I didn't know that.

Mr. <u>Olson</u>. All seriousness, sir. May you have fair winds and following seas in your next endeavor.

Mr. Ostendorff. Thank you.

Mr. <u>Olson</u>. I want to thank you all for moving forward with the South Texas plant's units 3 and 4 in Bay State, Texas with the final safety evaluation report for a combined license for units 3 and 4. Thank you, thank you, thank you. As we say in Texas, much obliged.

My first question is for you, Commissioner Burns. In November, Dominion Power announced it would seek a second license renewal for its Surry Power Station. It would be one of the first American nuclear plants to obtain a second license, 20-year license, since -- first one ever. And I hope this is one of many. I want to know is the NRC ready for these next new applications? What specific progress has been made to prepare for a second license extension since our hearing last year?

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

all, what the Commission before I returned to the agency about a year or so ago, the Commission decided that the basic framework for license renewal that was in place for the first -- for the 40 to 60, the basic framework was sound and adopted that. Since then, what the staff has been doing and engaged with the industry and other stakeholders is reviewing the guidance -- there is this generic aging lessons learned report that helps in the review process. And that has been out for comment. I think the staff has gotten comments on that as resolving that. The announcement from Dominion, I think, puts the potential for the application a couple years down the road. So I would expect by that time this additional work on the guidance documents will be done, and I think we are ready to entertain those applications.

Mr. <u>Olson.</u> Great. Is NRC working with the Department of Energy on their research and development efforts to extend the life of our existing fleet of nuclear power plants? How closely are you working with DOE to extend our current power plants?

Mr. <u>Burns.</u> Yes. Thank you for that. We maintain a communication with DOE on some of the research that they are doing. That helps us and keeps us informed. So we have open communication with the Department of Energy. Obviously, we have different roles, but we are able to take that into account.

Mr. <u>Olson.</u> Any comments of the three Commissioners? Commissioner Svinicki, Captain Ostendorff, Commissioner Baran, about the issue of being ready for the new renewals, 20-year renewals?

Anything to add?

Mr. <u>Ostendorff.</u> I will just say that our staff has been looking at this for some time. The buried piping, buried cables, reactor vessel fluence from neutron exposure. All these different technical issues are well coordinated between -- as the chairman mentioned, between us and the Department of Energy. Also, we work with EPRI, Electric Power Research Institute, on these issues. And so I think we are in pretty good shape.

Mr. <u>Olson.</u> Okay. One further question. Commissioner Burns, last week, I was talking about 21st century nuclear power with the lead of our power company. I was talking about south Texas, obviously, being a Texan. He said that is the past. The future is small modular reactors. And I want to talk briefly about those reactors. They have unique safety features and designs that the NRC has not seen before. I am curious, how do you plan to make sure that these can have applications on time? You can get these things done quickly. Because these are new for the NRC. Any idea how you are going to get this done?

Mr. <u>Burns.</u> Well, yeah. I think this are a number of things that we are doing. First, what I would distinguish on some of the small modular technology is light water technology, like the South Texas plants and other plants that have been installed in the United States. And, in fact, we are going to get a design certification application from NuScale at the end of this year. It is -- and we have been working with them and make sure we have mutual understanding of expectations.

The other piece of this is the smaller -- sometimes small modular reactors may be referring to advanced reactor technologies that are non-light water reactors. There is experience in the United States with those. But longer term, what we are doing, and one of the things this \$5 million in our budget request would help us do is to continue engagement with those who are interested in those technologies, making sure we have got the right framework. Again, this is an area we work with DOE. So I think we will see where the interest goes on this. But I think it is something we can be prepared for.

Mr. <u>Olson.</u> Thank you. My time -- end by saying go Navy, beat Army 15 straight. I yield back.

Mr. Shimkus. The gentleman yields back his time.

The chair now recognizes the gentlelady from California, Ms. Diablo Canyon, for 5 minutes.

Mrs. <u>Capps.</u> Thank you, Mr. Chairman, ranking member, to our witnesses for appearing today and all your testimonies.

As was indicated by the chairman, and as some of you know, I do represent Diablo Canyon Nuclear Power Plant in San Luis Obispo, California. This power plant, which is owned and operated by PG&E, is the largest private provider of jobs in that county and a very important part of our economy as well as our energy portfolio. But Diablo also sits very close to two significant earthquake faults, the Hosgri and the Shoreline fault. The Shoreline, which was most recently discovered, actually lies only a few hundred yards from the plant.

Given the proximity to these faults, the potential for seismic activity and its impact on Diablo Canyon is ever present. This is especially true in a post-Fukushima era, as we recognize the dangers that seismic activity can pose.

As such, we have responsibility to ensure we are considering these risks when it comes to operating all nuclear plants as safely as possible. And I keep this in mind as we are due very shortly for relicensure of Diablo Canyon.

So my question, I am going to address this to you, Commissioner Baran, it was a pleasure to serve with -- to work with you on this committee in a previous lifetime of yours, can you please elaborate on the funding in the fiscal year 2017 NRC budget to implement the lessons learned from Fukushima Daiichi accident. How would this funding help to make nuclear power plants like Diablo Canyon safer?

RPTR DEAN

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[11:00 a.m.]

Mr. <u>Burns.</u> Sure. I don't have the number right on hand. I think it is in the order of \$15 million or \$16 million in fiscal year 2017 for the various Fukushima lessons-learned activities.

One of the key things going on -- and this is true at Diablo, but it is true for a number of sites across the country -- is the seismic reevaluation, looking at the latest information about seismic hazards affecting different plants. It is a longish process, you know. There was an initial phase where every plant was screened to determine whether a very detailed seismic probabilistic risk assessment needed to be done. Diablo is one of the sites where that is being done. I believe, for Diablo, that would be submitted by September 2017, and that analysis would be -- at Diablo or any other plant -- would be the basis for determining, are there any additional safety enhancements that would be necessary at a plant to address seismic hazards?

Mrs. <u>Capps.</u> Thank you. Ensuring that we are prioritizing safety and transparency is supremely important, and the safety of Diablo Canyon Nuclear Power Plant, all of the nuclear power plants across the country, is really the highest priority for plant employees, many of whom live in the surrounding communities, and all the communities in which these plants are located.

As such, this budget absolutely must prioritize safety, and we must institute the lessons learned from Fukushima and apply the best science in order to meet this need. In my district, and I am sure across the country, community stakeholders are very interested in being better informed and participating in the ongoing discussions surrounding nuclear power plants. However, it has come to my attention that sometimes community members feel they don't have the information to access and productively participate.

So I will start again with you, Commissioner Baran, but I would welcome comments from any of the rest of you on how the fiscal year 2017 budget supports increased transparency and facilitates stakeholder engagement and participation.

Mr. <u>Baran.</u> I would just briefly say I think it is less of a budgeting issue, and it is more about just a focused outreach on having good meetings with communities where they have an opportunity to express their concerns or ask their questions and have the staff ready. We are always trying to improve at this, really listening to those concerns, really focusing on the questions and getting good responses to community members who care about these issues. Some of the issues are really complicated and technical, and we have to do a good job of explaining it in a way that people can understand.

Mrs. <u>Capps.</u> Good.

Mr. <u>Baran.</u> And really taking their concerns to heart, if they have concerns.

Mrs. <u>Capps.</u> Thank you.

I have a few seconds if maybe, Chairman, or any of you would like to respond, either to the issue of the comparison with Fukushima and also the transparency.

Mr. <u>Burns.</u> Thank you, Congresswoman Capps. What I would note is there are a couple of opportunities coming up. I think in summer 2016, we would have our annual assessment meeting, have a townhall style meeting out near the site. And then also because it is related to the license renewal application, there is a public meeting to discuss the draft supplemental environmental impact statement roughly in September of this year. So I want to highlight those as examples.

I know, last year, you cosponsored a townhall out in the area which we were pleased to participate in.

So I think it is something, as Commissioner Baran says, we can continue to look for opportunities. I think also making sure that we give good information on our Web site and are responsive, hear from you and others in the community, are ways we can improve, so we can continue to work at that.

Mrs. <u>Capps.</u> Thank you very much. I yield back.

Mr. <u>Shimkus.</u> The gentlelady yields back.

The chair now recognizes the gentleman from Ohio, Mr. Latta, for 5 minutes.

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

And to the Commission, thanks very much for being here today.

On Monday of this week, Congressman McNerney and I introduced the Advanced Nuclear Technology Development Act, which would require the NRC and Department of Energy to address issues that are currently hindering the development of advanced reactor technologies, such as the need for a predictable risk-informed regulatory framework. The legislation would also codify the Commission's proposal, including the fiscal year 2017 budget request of \$5 million for the development of regulatory infrastructure for advanced nuclear reactor technologies that is not subject to the fee-based, which the NRC must recover from the NRC licenses and applicants.

If I could start, Commissioner Ostendorff, with you with a couple of questions, but, first, also just to follow up, thank you for your tenure at the Commission and wish you all the best in your future endeavors.

You have spoken on the need to examine the current regulatory framework to create more certainty for non-light water reactor technologies. Would you please describe the nature of your \$5 million proposal? And, for example, what is it specifically intended to address, and what is the expected timeline to develop that regulatory framework?

Mr. <u>Ostendorff.</u> Certainly. Thank you for the question, Congressman Latta. The proposal for the \$5 million for fiscal year 2017 would basically have us engaged in looking at other technologies that are being discussed in the industry vendor side of the house, would

have us participate in outreach activities, and also look at our particular regulatory requirements to ensure that we understand how a prospective application might fit into those requirements.

Let me give you one example that has been discussed earlier this year by our staff, by Dr. Jennifer Uhle, who is in charge of our New Reactors Office, and by others. That is, we are embracing now a phased approach to look at new technology in a way that would provide incremental feedback to a prospective vendor to break it down, not into just one package that comes in 3 years from now, but in year one, they have two major conceptual design issues they want to discuss at NRC. We are prepared now to provide that type of feedback and do it in a phased way to make it, quite frankly, easier but also recognizing the limitations of venture capital funding for new ideas and new projects. So that is one example of a specific regulatory adaptation we are ready to make that would be facilitated by the \$5 million funding if we receive it.

Mr. <u>Latta.</u> Chairman Burns, the Commissioner recently issued a construction permit for a new facility to generate medical isotopes. Would you please describe how the Commission approached the permitting process and if there are lessons learned that could be applied to the licensing of other non-power reactors or non-light water reactors?

Mr. Shimkus. I think he had a hard time hearing your question.

Mr. <u>Burns.</u> Could you repeat the question? I couldn't quite hear the --

Mr. Latta. Okay. Well --

Mr. <u>Burns.</u> I understand. I think you are asking about the SHINE application.

Mr. <u>Latta.</u> Well, right. So I guess, describe how the Commissioner approached the permitting process and if there are lessons learned that could be applied to the licensing of other non-power reactors or non-light water reactors.

Mr. <u>Burns.</u> Yes, thanks for the question. What it showed I think is some adaptability in terms of the agency looking at something that didn't quite fit, perhaps, the part 50 reactor framework and looking at -- that that was a good approach in terms of going forward with the licensing.

Now what they did is use what I will call the traditional two-step approach: construction permit, come back ultimately for operating license.

I think what that does -- the advantage of that two-step process was it allowed development finalization of design. What led us to go into the part 52 or one step was a concern about certainty and that type of thing. But I think where you -- it was a good example here where you had new technology, where it didn't quite fit the model, that we discussed it with the applicant. We found a place where it could go, and I think it has been successful in terms of getting through the construction permit phase. I don't know if any of my colleagues have anything else to add.

Mr. <u>Ostendorff.</u> One thing, a fine point, maybe 2-1/2 years ago, our staff came to us with our help -- with the help of our Office of General Counsel and said: This part 50, the way it is written would require perhaps some modification or change. They proposed that to the Commission. With the general counsel's help, we approved it, and it was dealt with.

Mr. <u>Shimkus.</u> If the gentleman would yield, it almost sounds like a design build type thing instead of the two processes -- current construction, you are kind of doing it together in the process. Is that true?

Do you understand design build in construction?

Mr. Burns. Yeah, yeah.

Mr. <u>Shimkus.</u> Where it is not a two-step? It is designing and building; in essence, one firm operating together in two different operations. No.

Mr. <u>Burns.</u> Yeah, I may not fully -- again, I think what it allows is there may be some finalization of the design for the final phase for the operating license, and that is -- but that allows them to go forward. It gave them some opportunity in terms of making a safety case, showing that the technology was viable, and some of the details in operation that can be dealt with in the second phase. I think that was the advantage of it.

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

My time has expired. I yield back.

Mr. Shimkus. The gentleman yields back time.

The chair now recognizes the gentleman form California, Mr. McNerney, for 5 minutes.

Mr. <u>McNerney.</u> I want to thank my colleague, Mr. Latta, for introducing with me H.R. 4797. Are you all familiar with that legislation yet? Have you had a chance to look at it?

Mr. <u>Burns.</u> I have had just a very brief chance to look at sort of the high points of it.

Mr. <u>McNerney.</u> Well, do you believe that the NRC can play an effective role in developing advanced regulatory technology? And in particular, would a memorandum of understanding with the DOE be helpful?

Mr. <u>Burns.</u> It could be. We have ongoing discussions with the Department, and we maintain awareness of what they may be doing in terms of assistance to new technologies. Again, we have a development role -- they have the development role; we have the regulatory role. But across that, I think we have good discussion and can work appropriately together.

Mr. <u>McNerney</u>. How quickly are some of these technologies being developed, the new advanced technologies?

Mr. <u>Burns.</u> That is a good question, because some of these technologies have existed. What we have not had particularly presented to us -- other than, say, for example, a small modular reactor, a NuScale, which is a light water reactor design -- we really

haven't had a lot of them presented to us. There has been some discussion. So I probably am not well-equipped to understand how far along they are on development. I think some are further along than others, quite honestly.

Mr. <u>McNerney.</u> One of the areas that the NRC may need to improve is -- I mean, we have already discussed licensing and outreach -- is technical preparation. And I see you have reduced staff by 90 folks. Were those done by attrition? I think you mentioned that some of them were anyway.

Mr. <u>Burns.</u> Some is attrition. Some we had an early-out buyout last year, so some were buyout as well.

Mr. <u>McNerney</u>. Do you expect to see additional reductions?

Mr. <u>Burns.</u> Well, yes, given the budget request for fiscal year 2017.

But what I say is what we try -- what we have to maintain awareness of and we keep a focus on is, where do we see the demands on in terms of our staff, in terms of workload? And we reach out to the industry to try to tell us, what do you think you are going to be putting on our plate? So that helps inform our planning process. And that is part of what we would be doing with this \$5 million, non-fee-based, in the fiscal year 2017 budget.

Mr. <u>Ostendorff.</u> If I may add to the Chairman's comment, Congressman, I think one very positive aspect of your legislation with Congressman Latta is the fact that it excludes from the fee-based work

on advanced reactor technologies. That is a very constructive and helpful change, because that has been a tension for us to have staff working on areas that are preparatory to receiving applications, so that is a very positive aspect.

Mr. <u>McNerney</u>. So how is the morale of the agency, seeing that you have reductions and will see additional reductions?

Mr. <u>Burns.</u> I think the overall the morale is pretty good. Before I retired, I had served in the agency 34 years before going to Paris and then coming back as a Commissioner. I saw, across the course of my career, those ups and downs, after Three Mile Island, the early 1990s, when licensing had been done.

This is a pretty resilient staff. It is a high-quality staff, very dedicated to the mission of the agency. Yeah, there are some uncertainties, but that is part of what I think our role is and senior leadership's role is, is to work on the morale. But, overall, I think it is good. I think that is reflected in our --

Mr. <u>McNerney.</u> I will ask a question that will make the chairman happy, I think. Are there any realistic paths for long-term storage of nuclear waste? Is there anything out there that we can hang our hats on that is realistic, given the politics?

Mr. <u>Burns.</u> Well, I will avoid the politics. But what I mentioned before, we have two potential applicants who -- I think we may get the one application this month and another one later on in the year.

Mr. McNerney. For high-level waste.

Mr. <u>Burns.</u> For high-level waste, consolidated storage of high-level waste. This is the one in western Texas and in eastern New Mexico. So we will see how that proceeds, but we have the authority to license --

Mr. McNerney. Yucca Mountain, is it completely dead?

Mr. Shimkus. You have been there. You have seen it.

Mr. <u>McNerney.</u> I want to hear what the Commission says. It looks --

Mr. <u>Burns.</u> I am not going -- I am not going to weigh in on that. Mr. <u>McNerney.</u> Okay.

Mr. <u>Shimkus.</u> But I will say DOE has no authority under current law to move on high-level nuclear waste anywhere but current law, which is Yucca Mountain.

Mr. McNerney. Okay. Mr. Chairman.

Mr. <u>Shimkus.</u> The chair now recognizes the gentleman form Ohio, Mr. Johnson.

Mr. Johnson. Thank you, Mr. Chairman.

And I thank the panel for being with us this morning. I want to talk about a little bit of a different topic. NRC has invoked the adequate protection standard to require a backfit in a provision of the draft rulemaking known as mitigating beyond-design-basis events. Now, by invoking adequate protection, NRC staff doesn't have to submit the rulemaking to the Committee to Review Generic Requirements, or

CRGR, make a determination of safety significance, or conduct a cost-benefit analysis. It appears that, in making this determination, NRC staff's draft regulatory analysis did not account for actions already required for licensees to comply with nor did the regulatory analysis appropriately justify the need for a backfit application.

So I am concerned that NRC staff's invocation of adequate protection in this situation is not warranted and, in doing so, undermines the credibility of the NRC and your principles of good regulation.

So, Commissioner Ostendorff, you have previously been vocal about the need for discipline, clarity, and reliability in the Commission's rulemaking process. Why is it important for the Commission to have a high threshold for requiring a backfit?

Mr. Ostendorff. Thank you for the question.

Let me just, if I can, talk very briefly about the overall experience from Fukushima issues. Along with Commissioner Svinicki, each of us has voted on 25 separate decisions associated with Fukushima regulatory actions in the last 5 years. Throughout that, we have looked very carefully at ensuring that we have adhered to our historic principles of adequate protection, which is a Commission decision. It is not something our staff decides. We are the only group that can decide adequate protection issues. If it does not meet the adequate protection threshold, then to move forward from a regulatory standpoint requires identification of a substantial safety enhancement that

passes a cost-benefit test. So that is the backfit piece you are talking about, Congressman.

And I would offer from my experience that the Commission -- I am drawing a line here -- the Commission decisionmaking, as a result from Fukushima issues, has adhered to the adequate protection standard and the backfit rule. The only -- it is not a --

Mr. <u>Johnson</u>. I don't mean to interrupt you, because I don't have a whole lot of time. But adequate protection, that is a qualitative assessment.

Mr. Ostendorff. That is correct. Yes, sir.

Mr. <u>Johnson</u>. That is not a quantitative objective assessment, like having to submit the rulemaking to CRGR. Correct?

Mr. <u>Ostendorff.</u> Yes, sir. But it is a qualitative decision by the Commission, not the staff.

Mr. Johnson. Right. Well, given that, though, is that the same standard of discipline and reliability on the rulemaking process when we do a qualitative rather than a quantitative analysis?

Mr. <u>Ostendorff.</u> I think the Commission takes this adequate protection notion very seriously. There is Supreme Court case law here, significant Commission precedent. I think the end result of the decisions, though it may not be as predictable as a quantitative analysis, I think the decision --

Mr. <u>Johnson</u>. Well, I am glad you said that, because if looking at the NRC's backfit rule, 10 C.F.R. -- I have got to get my glasses

on -- 50.109 provides that, before a new requirement can be added to an existing licensed facility, the NRC must demonstrate that the new requirement would result in a substantial increase in the protection of public health and safety, and that the direct and indirect cost of implementation for that facility are justified in view of this increased protection. How in the world can you meet that standard with a qualitative assessment rather than a quantitative assessment? How can you meet your own rule?

Mr. Ostendorff. Well, the --

Mr. <u>Johnson</u>. With simply a qualitative adequate protection standard?

Mr. <u>Ostendorff.</u> The adequate protection piece which you are -- you are not referring to. You are talking about the backfit -- there is the added protection that does not have the cost-benefit. Then --

Mr. <u>Johnson</u>. But your rulemaking, but the backfit rule requires that you do determine cost-benefit analysis.

Mr. <u>Ostendorff.</u> That is for something that is not at the level of adequate protection. So if something is required for adequate protection -- and we have had this with respect to the station blackout mitigation beyond-design-basis event rulemaking, as you referenced -- costs are not a consideration.

Mr. Johnson. Well, I guess when it comes to the backfit rule and requiring -- when it requires that facilities fund and pay for backfit

control technology, that the taxpayers would expect that we get that higher degree of certainty and cost-benefit analysis, because it is affecting the industry. It affects the industry. It affects jobs. But I have extended my time.

Mr. Ostendorff. If I can ask the opportunity --

Mr. <u>Shimkus.</u> Talk quickly, quickly.

Mr. <u>Ostendorff.</u> If I can ask the opportunity to come back with Congressman Johnson, either in the context of a question for the record or come by to brief in the office, I would be happy to do that.

Mr. Shimkus. Great. Thank you very much.

The chair now recognizes the gentleman from New York, Mr. Engel, for 5 minutes.

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

I thank our guests for coming here. As this panel knows, the Indian Point nuclear power plant in New York just outside my district is operating under two expired licenses. Applications to renew these licenses are currently pending. Serious people have serious concerns about the safety of this aging and troubled plant located only 24 miles from our Nation's largest metropolitan area, which, of course, is New York City.

In 2015, Indian Point suffered seven major malfunctions: pump and power failures, a transformer explosion, radiation leaks, a fire, and an oil spill. In early 2016 this year, enhanced levels of radioactive tritium were found in the water of three monitoring wells

near the plant, including one well with the radioactivity level increased by 65,000 percent. Then, last month, the plant operator found that 227 of the 832 core baffle bolts -- these are the bolts that keep the inner walls of the reactor core from coming apart -- were either missing or impaired, degraded by the high levels of radiation inside the reactor.

For these and many other fundamental reasons, I have believed for a long time now, and the Governor agrees with me, that the reactors at Indian Point should be shut down. Indian Point's relicensing applications have been pending for years, and yet you have been unable to reach a decision.

Your budget request includes a \$1.7 million cut in funding for activities at operating nuclear reactors, which includes the review of pending license renewal applications nationwide. Will this budget request help or hinder your timeline for reaching a decision on Indian Point? And when do you think we can expect that decision? Anyone who cares to answer.

Mr. <u>Burns.</u> Thank you, Congressman, for the question. Our budget provides for the anticipated license renewal work we have. So it is not a reduction to defer license renewal work. My best understanding of the status of the applications, the renewal applications, is that there is a supplemental environmental impact statement that would be issued in 2016 or September 2016. The baffle bolt issue that you have alluded to is a matter in litigation

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before -- as part of the renewal proceedings, so that may impact where that goes. But I would, again, the next -- the other document I expect is this supplemental environmental statement, which would be in September of this year.

Mr. <u>Engel.</u> So you don't feel that the budget impedes any decision that will be made?

Mr. <u>Burns.</u> No. I do not.

Mr. Engel. Okay. Let me ask one other question. I have so many questions, but let me just say, about Indian Point, before we leave: I just think it is a disaster waiting to happen. I never called for the closing of it, frankly, until we learned that, prior to the tragedy of September 11, 2001, one of those planes flew right over the Indian Point plant on its way to ramming into the World Trade Center. And that really made me look, and I have come to the conclusion that this plant should be shut down.

Let me ask a question about cybersecurity, because I think it is important. This also happened just outside of my district: The Department of Justice recently indicted seven Iranian hackers for their role in a cyber attack on a dam in Rye, New York. Terrorists and hostile foreign actors are looking for vulnerabilities in our infrastructure every day, so we have to be vigilant about these threats.

When it comes to securing our Nation's infrastructure, we need to consider whether we incorporate adequate safeguards against cyber attack, and we need to consider whether the right people are evaluating

this question.

So let me ask, when licensing new reactors, do you consult with the Department of Homeland Security to ensure that these facilities are hardened against cyber threats? Have you consulted with DHS about potential cyber threats to Indian Point? Anyone who cares to answer that.

Mr. <u>Burns.</u> I will do it. I think one of my colleagues may want to add to it. We do consult with the Department of Homeland Security, and also the NRC has had, for about 6 years or so, rules that apply to existing power plants with respect to maintaining cybersecurity. It is within what we call our design-basis threat. One of the things, the differences between the dam in New York and Indian Point and other nuclear plants, is basically the air gap between the essential systems, safety systems in the plant. My understanding is this dam was actually connected to the Internet, which is not something that is allowed for the essential safety systems within the plant.

So we have some requirements. There is some additional work we expect licensees to do in the coming year. But you are correct: it is something we want to keep a focus on. And I think we are trying to do the responsible thing on cyber.

Mr. <u>Shimkus.</u> The gentleman's time has expired.

The chair now recognizes the gentleman from Missouri, Mr. Long, for 5 minutes.

Mr. Long. Thank you, Mr. Chairman.

Chairman Burns, as part of the agency's efforts to identify low-priority activities, NRC staff identified nine rulemaking activities to be discontinued. Can you enlighten us and tell us what the considerations were that went into the staff's recommendations?

Mr. <u>Burns.</u> I think what the staff was focused on is whether those rules -- essentially whether they added value in terms of the regulatory scheme. I am not sure whether the Commission -- I am blanking as to whether the Commission has completed its deliberation on that paper. When I look at it, I think, from my standpoint, most of those are matters that I think -- I thought that we don't need to continue proceeding. But I think what they looked at is, again, whether or not it added a particular value in terms of our regulatory footprint or assuring safety or security on certain matters.

Mr. Long. Will the Commission encourage staff to expand this level of scrutiny to all regulatory actions as well as maintain the scrutiny into the future?

Mr. <u>Burns.</u> Yes, I think the Commission will maintain that scrutiny. That is part of the reason for the reintroduction of the Commission's review of rulemaking or proposals at the outset to assure there is Commission endorsement at least at the exploratory stage of going forward. So I think that is an important part of our effort there.

Mr. Long. In early June, your staff will cohost for the Department of Energy a second workshop to discuss developing advanced

nuclear technologies. Will you please describe the purpose of these workshops? For example, what is on the agenda, and what are the goals of these workshops?

Mr. <u>Burns.</u> I might give you the particular agenda, provide you that for the record. The purpose --

Mr. Long. The purpose, yeah.

Mr. <u>Burns.</u> The purpose of the workshops has been really to reach out to this community of -- that has an interest in potentially pursuing the advanced reactor designs and try to give them information about us, the NRC; us hearing from them about what their concerns are, how we might address them; and also hear from the Department of Energy in terms of DOE type of initiatives, DOE research and the like. So the first workshop was very successful, and I think we are looking forward to the next one. I know I have talked to John Kotek at DOE regarding it and --

Mr. Long. Any ah-ha moments or takeaways you can relate from that first workshop?

Mr. <u>Burns.</u> Well, I think the one, again, is this understanding in terms of the phased approach, what we call the phased approach or topical approach, to looking at the designs and how that -- from the standpoint of the potential vendors -- how that helps them in terms of their need for venture capital and to some assurance that you are not just going down a trail that leads to a dead end, that there is, you know, you have got some idea of where you are going with the

particular technology.

Mr. Long. Okay. Thank you.

I have got some extra time. I don't know if Mr. Flores would like for me to yield. He usually has several questions.

Mr. <u>Flores.</u> I have got several. I will take your time.

Mr. Long. All right.

Mr. Flores. I thank the gentleman for yielding.

And, Mr. Chairman, thank you for holding this hearing.

Chairman Burns, I really appreciate the NRC's efforts to right-size itself in light of the fact that the nuclear industry is not growing nearly like all of us would like it to in order to address environmental issues. But I am concerned that, while the NRC talks about trying to right-size itself, it does some things that sort of take your breath away. For instance, 2 days before the end of fiscal year last year, they signed a \$20 million contract for new office furniture. Well, let me read it: acquire office systems, conference rooms, and ancillary furniture.

That is \$5,500 per employee. That is just amazing. So, at a time of increased budget scrutiny throughout the agency, how is that kind of a contract justified? Do you replace every person's furniture?

Mr. <u>Burns.</u> Well, I am not sure it is replacing every person's furniture. What we have been doing is we have been reducing the footprint of the buildings that we are in at White Flint. And part of that contract is to restack the buildings to get more employees into

the White Flint 1 and 2 buildings and reduce our footprint in the third building.

Mr. <u>Flores.</u> How do you -- most taxpayers, hardworking American family taxpayers have seen their family finances get worse off in the last 8 years. How do we justify this to the taxpayers?

Mr. <u>Burns.</u> Well, our budget has been reducing over the last few years. The fact of the matter is we do need infrastructure to accommodate our staff that we do have. Again, I would be pleased to provide more detail for the record on this particular contract.

Mr. <u>Flores.</u> I just say that it looks bad; 2 days before the end of the fiscal year, to sign a \$20 million contract just really has a bad odor to it.

Yesterday, the House Appropriations Committee approved the fiscal year 2017 energy and water appropriations bill and set NRC funding at \$936 million. And \$20 million of that is for the nuclear waste fund for Yucca Mountain activities. This funding level seems to be the right fit when you look at the NRC's projected workload, and it still allows it to fulfill its mission. Are you working with your senior leadership team, including the executive director of operations, the chief financial officer, and the chief of human resources officer, to develop a plan that will fit the NRC's operations to fit that budget?

Mr. <u>Burns.</u> Yes. We worked with our EDO and CFO and our OCHCO director to assure that we implement the budget that we get. What I

have identified is, from the President's budget, which was the 970, excluding the IG, is that we have identified through the Project Aim Initiative about \$31 million in additional cuts, which brings us down. I haven't fully understood or looked at the House mark. I would say we would have -- we need to analyze that some. I would have some concerns, but there may be areas in which we can accelerate some of the additional savings we identified in Project Aim into the following fiscal year. But we work, I think, very hard and very responsibly in implementing those whatever budget mark comes out in the end.

Mr. <u>Flores.</u> In looking at your budget request for fiscal year 2017, we note, as you said a minute ago, that you reduced your budget request from \$990 million, excluding IG, to \$970 million, but three-quarters of those savings came from the Integrated University Program, and that is the spending on basic research that provides the seed corn for future advanced nuclear reactor technology. It seems to me like we are hurting ourselves in the future by the way the NRC designed its budget. We ought to be maintaining those investments and taking that from the other less essential areas. Don't you agree with that?

Mr. <u>Burns.</u> Well, this is an area in which, in terms of the Integrated University Program, where the administration has preferred to consolidate those into other STEM programs, and as a result, the President's budget does not reflect that. What has happened over the number of years now is that when that is appropriate, the agency has

been responsible about integrating that into its programs and

effectively carrying out the program.

Mr. Flores. Okay. Let me close --

Mr. Burns. -- we have taken real cuts.

Mr. <u>Flores.</u> Let me close my time by saying that the basic research is the seed corn for the future. That is not the area that we need to be cutting.

Thank you. I yield back.

Mr. Shimkus. The gentleman yields back his time.

The chair now recognizes the other gentleman from Texas,

Mr. Green, for 5 minutes.

Mr. Green. Thank you, Mr. Chairman.

I thank the chair and ranking member for holding this hearing. And I want to welcome the Chairman and Commissioners.

I also welcome back our former Energy and Commerce staffer, Jeff Baran.

The Nuclear Regulatory Commission is an important agency. To look forward to the future, we need to assess our energy mix in the country. We must not overlook the importance of the nuclear power industry. Nuclear power is carbon-free and capable of providing base-load power, but the industry faces economic uncertainty. The nuclear power industry deserves a clear path forward, and the NRC provides a crucial role in determining that path.

Chairman Burns, on November 15, the White House announced a plan

to expand nuclear energy opportunities to the U.S. The Gateway for Accelerated Innovation in Nuclear, GAIN, was to provide the nuclear community with access to a broad range of opportunities and capabilities across the government complex.

Mr. Chairman, what role did NRC play in the development of GAIN?

Mr. <u>Burns.</u> Well, thank you for the question. The NRC itself did not develop the GAIN initiative. However, we have a role. I attended the White House Summit on Nuclear Energy and spoke at it. One of the things that we did was this engagement that we talked about here, that the budget request would cover, is being a place where you can contact and make sure you understand the NRC processes to have a discussion point with respect to that, because all of these technologies, ultimately, if they are going to be put into commercial use are going to require an NRC license. So that is our relationship to the GAIN initiative.

Mr. <u>Green.</u> The Government Accountability Office reported to Congress the typical NRC light water reactor application costs in the range between \$50 million and \$75 million, and it takes an average of 41 months. Industry reports state that a new small modular reactor application should be submitted to NRC by the end of the year. If NRC receives a small modular reactor application in December, do you anticipate the same cost and timeframe as reported by the GAO?

Mr. <u>Burns.</u> I believe the costs -- and these are, basically, the licensing fee costs -- are similar. We can check on that for the

record. In the timeframe, I think, again, we are looking at -- about that same type of timeframe, about a 3, 3-1/5 year timeframe for the review. We had an engagement with NuScale over the last couple of years, which I think helps in terms of when they do submit their application at the end of the year, that will help us go through efficiently.

Mr. <u>Green.</u> Currently, the NRC has two licensing paths, according to the Code of Federal Regulations, titled part 50 and part 52. In the Commission's view, which licensing path is more appropriate for the small modular reactor technology?

Mr. <u>Burns.</u> Well, part of it depends on how the vendor or a particular applicant is going to approach the agency. For example, NuScale is using the part 52 process because they want to get a design certification, which then can be referenced by individual applicants. And we have indication of interest at least by one, this Utah, UAMPS, I think, organization, that they may do that. So, ultimately, somebody who will actually site and will operate the plant will need a license from us.

But what NuScale is doing is they want to get the design certification, which then can be referenced anywhere in the country where somebody might wish to try to site the plant.

Mr. <u>Green.</u> My understanding is, if the applicant pursues part 52 licensing, exemptions would be required. Are these exemptions identified and worked on in the pre-application process?

Mr. <u>Burns.</u> Actually, I am not particularly aware of the exemptions, but that I would expect as part of the discussion between the staff, the pre-application discussion. I might be or staff may be able to provide more granularity.

Mr. Green. If you could have them get back with us.

In January 2015, the Texas Commission on Environmental Quality sent a letter to the NRC requesting clarification on the State's authority to license the disposal of Greater-than-Class C low-level that may contain transuranic waste. In its response 15 months later, the NRC said it would have to further examine the issue.

Chairman Burns, can you share with the committee what the current status of the Texas inquiry is?

Mr. <u>Burns.</u> What the Commission decided was to have the staff develop some of the technical basis, looking at some of the technical issues related to that. And I believe they are coming back to the Commission at some point this year, maybe midyear. I may be wrong about that, but that would help inform further discussion with the State regarding whether the licensing would be done directly by Texas or by the NRC.

Mr. <u>Green.</u> Mr. Chairman, I have some questions on that application, and if I could submit them?

Mr. <u>Shimkus.</u> Yes.

Let me ask unanimous consent that there are 10 days for members to submit questions for the record.

Mr. <u>Green.</u> Thank you.

Mr. Shimkus. Without objection, so ordered.

The chair now recognizes the gentleman from Illinois, Mr. Kinzinger, for 5 minutes.

Mr. Kinzinger. Thank you, Mr. Chairman.

And thank you all for being here today and your continued service to the country.

Before I ask my questions, I would like to thank all of you and your staff for your help on draft legislation that I sent over last week that would reform some of the NRC processes currently in place. I welcome any technical expertise that you can provide on this draft and look forward to continuing to work together on this endeavor.

Mr. Chairman, last September, I asked you about the current status of efforts to update an outdated management directive, last revised in 1989, that guides the budget development process. As I pointed out last year, the NRC inspector general found 3 years ago that the Commission had an incomplete planning, budgeting, and performance management process, resulting in a budget formulation that doesn't match up in its formulation and execution. Seven months ago, you expressed optimism that this directive would be in place to develop your fiscal year 2017 budget. What is the current status of this directive?

Mr. <u>Burns.</u> The Commission has approved the set of management directives that would encompass this issue. There are some changes

that we have asked our CFO to make before issuing them as final to reflect some of the marks in the appropriations bill in terms of the control points that were put in. So I expect that could be done very soon.

Mr. <u>Kinzinger.</u> So you think it is on track then. While we are discussing the budget for fiscal year 2017, your agency is already starting to prepare the budget justification for fiscal year 2018. Do I have your assurance that the new management direction will be approved and fully in place -- do you expect -- by the fiscal year 2018 development process?

Mr. Burns. It should be, yes.

Mr. <u>Kinzinger.</u> And then you also raised the issue of reexamining current legal restrictions for foreign ownership or control of nuclear facilities in September. We live in a competitive global marketplace, and we are seeing many leaders in nuclear technology and operations take their business elsewhere. This is very -- I mean, I have folks that produce part of reactors in my district. I have four nuclear plants myself and five repositories for spent fuel. Do you think policymakers should reconsider how this current restriction is structured?

Mr. <u>Burns.</u> As I said last September, I think it is worth -- it is something worth taking a look at. It basically applies to -- the foreign ownership, control, and domination provision applies to reactors or utilization facilities and production facilities, so

primarily think about commercial reactors in that sense.

We still have the ability to protect national security through other provisions of the act, so I think it is something that is worth taking a look at.

Mr. <u>Kinzinger.</u> What are some of the considerations that you think should be examined as part of that? You kind of touched on a little bit, but --

Mr. <u>Burns.</u> I think one important thing is, to the extent that we do have an important responsibility in terms of security and national security as well as the physical security of facilities, I think that is an important issue there.

The question is, is that, as you indicate, in a global market, which the nuclear has certainly become, is there a value added for that provision? I think that is the primary question.

Mr. <u>Kinzinger.</u> You think a study, would that be -- if we did a study -- beneficial to you, beneficial to policymakers on that provision, the impacts, everything else?

Mr. Burns. I think that could be useful, yes.

Mr. <u>Kinzinger.</u> That is all I have, Mr. Chairman.

I yield back my minute.

Mr. Shimkus. The gentleman yields back his time.

The chair now recognizes, if he wishes to take it, the gentleman from Virginia, Mr. Griffith -- I know, but he has been here for a long time. Do you want to go last, or do you want to go now?

Mr. <u>Griffith.</u> I can do whatever.

Mr. Shimkus. You are scheduled to go now if you want to go now.

Mr. <u>Griffith.</u> All right. Then I guess I will go now.

Mr. Shimkus. The gentleman is recognized.

Mr. <u>Griffith.</u> Thank you. I appreciate you all being here today.

Chairman Burns, as the guardian of the backfit rule, the Committee to Review Generic Requirements, CRGR -- always hate keeping up with those initials -- but CRGR embodies the spirit of the NRC's principle of good regulations. However, following a change installed over a decade ago, the Committee to Review Generic Requirements, CRGR, has asserted its authority with less and less frequency, particularly in formal reviews of NRC actions.

I understand that the NRC staff is currently developing a proposal for how and when CRGR reviews regulatory actions. I would ask you to encourage the staff to broaden their proposal and to consider, additionally, potential structural changes to the CRGR membership to provide greater ownership and attentiveness for CRGR members and to ensure the committee operates truly independently.

Now I got all of that out, and I would like for you to just comment on it, in general. But I also would like for you, at some point in your response, can you commit that you will pursue a thorough review of the CRGR?

Mr. <u>Burns.</u> Yes. Thank you. Nuclear has lots of acronyms, don't we?
My understanding is the staff is to provide us a copy of its review I think sometime in the early summer, late spring or early summer, with respect to its review. I will take -- and I think my colleagues will take -- a close look at that to look at, you know, in terms of how the CRGR is performing its function, is it providing a value added that was conceived of when it was I think originated in the 1980s? So I can commit to doing that. I want to see what the staff comes up with. That is one of the reasons in the paper or our approval of the revisions to rulemaking that we ask to see that before making it -- taking further steps.

Mr. <u>Griffith.</u> I appreciate that. I hope they will take the broader look. Now maybe it is just a change in culture that needs to occur, but if it does need to have a change in membership or in their outlook, I hope you all will look at that as well. Would anybody else on the panel like to respond to that? Ms. Svinicki? Everybody is pretty much in agreement. All right.

I am going to switch gears completely. One of the large drivers in escalating the cost of the NRC was its mismanagement of office space in the past. Will you please update the economy on the status of your housing strategy and what that will mean for your agency's budget in the upcoming years? Again, Mr. Chairman, if you could answer that.

Mr. <u>Burns.</u> The details of the actual impact on the budget I may have to provide for the record. We have basically reconsolidated the staff that had been -- spread out primarily in the first and second

buildings. We have issues -- not issues, but we have negotiations about -- ongoing in terms of the lease in the second building. We are reducing the footprint in the third building.

One important thing we have there is the Emergency Operation Center, but more of the staff is moving out. I would be pleased to provide for the record a more granular picture of what I think that means for budgeting going forward.

Mr. Griffith. If you could, I would appreciate that.

I will tell you that I represent a district that has some economic issues, a district with many attributes, but the coal industry in particular has been hurting. It used to have textiles and furniture and tobacco. You can imagine that there is a lot of empty space in my district and would ask you just to take a look, if it is something that doesn't have to be in D.C. and can operate using the modern wonders of the Internet, you may want to look at not just my district but central Appalachia and other areas that are facing some economic problems, because we have a lot of space that is really cheap that you could rent and house some folks in, but I do appreciate you looking at that very much. Thank you.

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

Mr. Shimkus. The gentleman yields back his time.

The chair now recognizes the gentleman from Oklahoma, Mr. Mullin, for 5 minutes.

Mr. Mullin. Well, if we are lobbying for them to move, I want

them to move to Oklahoma. We have a lot of space there too. Oil and gas is kind of hurting right now.

Anyway, I appreciate everybody being here.

Chairman, thank you for holding this hearing.

My questions, Chairman Burns, are all going to be directed to you. We can allow whoever wants to jump in at any given time. However, I know your brain has to be hurting. You have been on the hot seat for a while.

As you know, Chairman Burns, five reactors have shut down in recent years and at least three more closures are expected in 2019. In spite of this, the budget of the Office of Nuclear Reactor Regulation as grown 10 percent since 2012. In both 2014 and 2015 fee recovery rules, the NRC has accounted for the reactor closures and resulting loss of these fees by simply billing the remaining reactors to make up the difference.

A statement that was put out: The permanent shutdown of the Vermont Yankee reactor decreases the fleet of operating reactors which subsequently increases the annual fees for the rest of the fleet.

My question, Chairman Burns, and to the rest of the Commissioners for that, is this a fair way to structure fee collections? Does it cost more to inspect fewer? I mean, wasn't the fee set up -- the idea of the fees to be able to be adjusted for the amount that you had to take care of, the workload?

Mr. <u>Burns.</u> Well, the fact of the matter is that the fees are going

down, and they are about \$300,000 less per unit than they were a couple years ago. What does happen when they transition out --

Mr. <u>Mullin.</u> Then why was the statement said that that increases the annual fee for the rest of the fleet? That was a statement that you guys put out?

Mr. <u>Burns.</u> Well, the fact -- what I am saying is the overall impact is that there is a reduction. It is true that if you have a reduction in the overall number of operating reactors in the fleet because, by law, we are required to --

Mr. <u>Mullin.</u> How has it gone down when the corporate support cost has gone up \$97 million over the last 10 years --

Mr. <u>Burns.</u> -- corporate support costs, and we have been reducing corporate support costs. That is what is reflected in our rebaselining. That is what the charge is with our--

Mr. <u>Mullin.</u> Chairman Burns, you said they are reducing, but I am reading right here that they went up 47 percent over the last 10 years. How is that reducing?

Mr. Burns. We have reduced corporate support costs.

Mr. <u>Mullin.</u> How?

Mr. <u>Burns.</u> How?

Mr. <u>Mullin.</u> Because they have increased \$97 million. How is that -- I am not saying that I am the best in math, but I sure understand cost increase. And I am looking at a 47-percent increase over the last 10 years. So you just explained to me how you are saying it is reducing

when we are seeing it going up, and yet we are inspecting a lot less.

Mr. Burns. Well, I am not sure we are inspecting less.

Mr. <u>Mullin.</u> Well, you have had five factories shut down in recent years. You have at least three more closures expected in 2019. That is inspecting less.

Mr.<u>Burns.</u> Yes. We have 100 operating nuclear power plants now. We have a larger number of decommissioning plants, and we have four units that are being constructed that are also inspected during the construction phase. So that is what the workload is in terms of the reactor fleet. The fact of the matter is, as I said and --

Mr. Mullin. So then explain how costs went down --

Mr. <u>Burns.</u> -- I would be pleased to provide for the record, is that the fees, the annual fees for the reactor fleet, is going down. The fact of the matter is our corporate support costs are going down.

Mr. <u>Mullin.</u> Well, the facts that I have, they are not showing that and including the statement I will read again that you will increase annual fees to the rest of the fleet. That is a statement that you all put out. And the fact is that I am reading here that we did research on that that says the corporate costs have gone up \$97 million. I feel like I am repeating myself, because I am not figuring out how this is taking place. If you are saying they are going down, they have increased \$97 million, 47 percent cost increase over 10 years, and that you guys said that -- you, you all -- you said that you are going to increase the annual fees, then you are going to have a lot

to explain to me and show me, which evidently we can't do in 30 seconds, of how this math is adding up, because I am not following it.

Mr. <u>Burns.</u> Well, I would be pleased to provide that for the record --

Mr. <u>Baran.</u> Could I add just a little bit of context that might help?

Mr. <u>Mullin.</u> Please.

Mr. <u>Baran.</u> If we are talking about the timeframe of 10 years ago, that was right before -- that was during the period of ramping up for what we thought were going to be a large number of new reactors. So there is no question that there was a period of time where the NRC budget was going up. We are now on the other side of that hill. We are on the other side of that mountain in the budget coming down. And so when the Chairman is talking about the decreases, he is talking about fiscal year 2015, fiscal year 2016, fiscal year 2017, as the agency is matching the resources to the workload we really have today that is coming down.

Mr. <u>Mullin.</u> In 2015 is when the statement come out that said that you were going to increase annual fees.

Mr. <u>Baran.</u> It was talking about the pool of reactor fees. You have two trends that are kind of pushing in opposite directions. One, it is true that the smaller the fleet, the smaller the number of units that have to cover the cost. On the other hand, the costs are also coming down. And so the total fee amount is coming down. It is shared among a smaller number of operating reactors. You have kind of trends

going against each other and canceling each other out in that regard.

Mr. Mullin. Thank you, Mr. Chairman.

Mr. Shimkus. The gentleman's time has expired.

The chair now recognizes the gentlewoman from North Carolina, Mrs. Ellmers, for 5 minutes.

Mrs. Ellmers. Thank you, Mr. Chairman.

This has been a lengthy hearing. And I thank the panel for being here with us today.

Chairman, I will be asking the questions mostly of you, but I am more than happy for any of the rest of the Commissioners to add any input as we go along. Following your appearance before the committee last year, you stated in your response to questions for the record that the Office of Nuclear Reactor Regulations, NRR, was, quote, "conducting an initiative to review and evaluate the existing reactor license amendment process with the goal of reinforcing current expectations and best practices, including examining potential implications that staff turnover on licensing reviews may add to the process."

My question is, can you please provide an update on the status of this initiative?

Mr. <u>Burns.</u> Yes, thank you for the question. Essentially, within the senior management in the Office of Nuclear Reactor Regulation has continued to focus on this with monthly briefings on performance in the area, continued attention by staff to adherence to the basic procedures, and I think that goes to your point particularly

about potential staff turnover and, you know, the need to develop and inculcate into new staff the right processes and procedures. Part of that is focusing on requests for additional information and assuring that they are focused and relevant. The office issued some guidance last year and, I am actually informed, I think within the last day or so issued some additional guidance to address some of these issues. So I think, you know, I commend the office staff and the senior management there to keep a focus on this, because I think that is important. That is how we can carry out what we need to do as a safety regulator in an effective and an efficient way and achieve the safety reviews that we need to do.

RPTR YORK

EDTR ROSEN

[11:57 a.m.]

Mrs. <u>Ellmers</u>. So you would basically say, then, that on a regular basis, the Commission is reviewing the staff recommendations?

Mr. <u>Burns.</u> What the -- some of the staff guidance is guidance that they can issue on themselves. I haven't seen this most recent guidance. I think I probably will.

Mrs. Ellmers. So it is periodically when recommendations --

Mr. <u>Burns.</u> Periodically. And part of it, I think it is the day-to-day management of the office. If you have got procedures, this is how you do a licensing review. This is how -- you know, this the where it is appropriate to ask questions. You got to train your staff to do that.

Mrs. <u>Ellmers</u>. Were the NRC licensees able to provide input to the NRC staff as they developed this initiative?

Mr. <u>Burns.</u> I am not sure of the answer to your question. We have a lot of engagement with the industry on a lot of our processes. So I would be surprised if the -- you know, what we have heard, kudos and complaints, haven't been taken into account by staff in the guidance.

Mrs. <u>Ellmers</u>. So what I will ask, then, is over the following days, you know, I think we have 5 or 10 days of time, if you could provide maybe just some input to the committee on that. Does anyone else on

the panel want to, or have knowledge of -- okay.

Mr. <u>Ostendorff.</u> I wanted to comment. Thank you for the question. To the extent that you are getting at licensing backlog --

Mrs. <u>Ellmers</u>. Yes. That is basically my next question.

Mr. <u>Ostendorff.</u> Well, let me make two comments there. One, we are in a much better place today than we were 2 years ago. Bill Dean, who leads our Office of Nuclear Reactor Regulation has made significant strides. Not there yet. But the number of backlog items is significantly down.

And, two, for those items that are in a queue, so to speak, we are engaging with industry to get their sense as to what is the highest priority.

Mrs. <u>Ellmers</u>. Okay. So more of a prioritization. Do you have a number? I mean, do you know what the number of backlogged --

Mr. <u>Burns.</u> I think the backlog, it had been around 100 licensing actions a couple years ago. And it is about 24 now. The other good thing is -- progress is that the -- their basic goal is to complete 95 percent of the requests within a year. And through the first half of this fiscal year, I think we are at 94 percent. So I think that is a good progress.

Mrs. <u>Ellmers</u>. I just have a couple of seconds left. And I would like to ask this question on behalf of the Harris Nuclear Power Plant. You know, they have invested significantly over the past years on many different initiatives. And my question to you is, is there a process

in place for them to be accredited for some of the advancements that they have made adjusting to, you know, the regulations and the regulatory process?

Mr. <u>Burns.</u> Well, I think they are given credit for what they implement. Again, if there are things that they are doing that need to -- they need to do or are approaches to meeting NRC regulatory requirements, we certainly inspect that, we acknowledge that. They may choose to do other things as an operator from -- either from a business perspective, or because they think from a safety perspective, some other actions might be appropriate.

Mrs. <u>Ellmers</u>. Okay. Thank you. And I thank you, Mr. Chairman, for this time. Thank you to the panel.

Mr. Shimkus. The gentlelady yields back her time.

I want to ask unanimous consent to enter Chairman Upton and Chairman Whitfield's opening statement for the record. Without objection, so ordered. We did talk about the 10 days already, and ask unanimous consent on that.

[The prepared statements of Mr. Upton and Mr. Whitfield follow:]

******* COMMITTEE INSERT *******

Mr. <u>Shimkus.</u> And before I close, I would like -- Chairman Burns, I know that in a discussion with Chairman Inhofe, you agreed to do, which I think is pretty exciting, this public meeting with stakeholders in the next 3 months as your predecessor, Chairman Shirley Jackson did in 1998. Have you started doing any planning on that?

Mr. <u>Burns.</u> Well, part of what I am looking at is exactly what Chairman Jackson did. So I am trying to scope out right now -- it has been preliminary -- scope out the nature of what the meeting was. I know I had some concerns to make sure we have a broad range of stakeholders. So I am hoping over the next few weeks, that I have a better -- I will have a better sense of what this might look like.

Mr. <u>Shimkus.</u> Great. I just -- you know, I kind of think it is a good idea, and I don't know the whole scope of it either, but I think it would be interesting.

So Mr. --

Mr. <u>Tonko.</u> A couple things.

I would like to ask unanimous consent for our ranking member, Congressman Pallone, to put a statement into the record.

Mr. Shimkus. Without objection, so ordered.

[The prepared statement of Mr. Pallone follows:]

******* COMMITTEE INSERT *******

Mr. <u>Tonko.</u> And if I have a little bit of time, I will actually get to the questions I wanted to about the Texas application.

I started earlier about the disposal of the greater than class C low level that may contain waste. Fifteen months later, the NRC says it has to further examine it. Can you share with the committee what is the current status of the State of Texas inquiry on that class C? I know it is probably the only application in the country there. So --

Mr. <u>Burns.</u> Yeah. So -- I mean, as you indicated, we had a communication back with the State. I think I have not spoken -- I think Commissioner Ostendorff had actually met or spoken to the State representatives. And he might be able to --

Mr. <u>Ostendorff.</u> So, yes. Commissioner Baran and I visited the Waste Control Specialist site in Andrews back in January of this year. We invited the Texas Council on Environmental Quality Commissioners and their technical staff to join us, and they did. We had a very rich discussion. We discussed the NRC response back to the State of Texas. And the State of Texas representatives we dealt with were not surprised by our response. They were pleased that we agreed to work with them to discuss technical issues on the basis to move forward. It was a very constructive meeting.

Mr. <u>Tonko.</u> Well, our committee as a whole, you know, at one time back in the 1980s we had a plan to have a long-term nuclear waste facility, and decision back then was Yucca Mountain. And the other agreement was that we were going to have these interim storage

facilities that would take it from all our plants that are now storing it on site. And would this be the first interim storage site that would be permitted if it finally gets done?

Mr. <u>Burns.</u> Well, it wouldn't be the first one that was actually permitted. The NRC had licensed a site in Utah, but that project did not go forward. What we are able to do is, we are authorized to look at and evaluate the applications. As Chairman Shimkus noted, the question about the relationship, the Department of Energy probably involves some legislative changes. But we would -- if the applicants come forward as we expect them to do, we would review the -- we would review those applications and make a determination with respect to the, you know, the technical, environmental aspects of the site.

Mr. <u>Tonko.</u> Okay. So you anticipate regulatory changes would be necessary to allow the State to license the GTCC waste facility?

Mr. <u>Burns.</u> Yeah, but that -- yes. That is one of the questions is, and why we are going to the getting at the staff technical basis because there is some questions about whether or not Texas or whether it is a -- there is some -- there is some interpretive issues with respect to the existing legislation about the license-ability by Texas versus the NRC, or as the Federal Government.

Mr. <u>Tonko.</u> Well, and at that time location years ago I was a State legislator in Texas when we -- there was a permit that the State issued for low-level facilities. And, again, the community out there, the Member of Congress actually has legislation, Congressman Conaway, and

I guess from sitting on our committee, you know, we would like to see -- you know, we have these nuclear power plants that are holding that storage on their own, and the agreement was, and, of course, the Supreme Court decision also makes it difficult. But ultimately, you get an interim storage, and hopefully, someday get a permanent storage. And, you know, but as I know -- I don't know of anywhere in the world, whether it be France or Sweden or anywhere else that has actually a permanent storage, long-term storage. So but that doesn't mean we don't need to continue to work for it. And, again, with the agreement that was made, you know, 40 years ago now maybe almost that, you know, we would have these interim storage facilities like this. And hopefully it would be in different parts of the country also ultimately having a permanent storage.

So thank you, Mr. Chairman. I yield back.

Mr. Shimkus. The gentleman yields back his time.

Again we want to thank you for coming. We know it has been a long morning. Again, thank you for your service. And obviously, Commissioner Ostendorff, I know this will be something you will regret, not getting a chance to come up here and spend a couple hours with us and -- but we do -- we are excited about your future. Thank you. You all have been going a great job. I think the rebaselining, the relooking at that, I know we got nitpicky on a lot of things. You would expect that from public policy guys and in a budget hearing. So thank you for being available and accessible, and we look forward to working

with you. And I will adjourn the hearing. Thank you.

[Whereupon, at 12:08 p.m., the subcommittees were adjourned.]