

Table of Contents

U.S. Senate Date: Wednesday, April 6, 2016

Committee on Environment
and Public Works Washington, D.C.

STATEMENT OF:	PAGE:
THE HONORABLE JAMES M. INHOFE, A UNITED STATES SENATOR FROM THE STATE OF OKLAHOMA	3
THE HONORABLE BARBARA BOXER, A UNITED STATES SENATOR FROM THE STATE OF CALIFORNIA	7
STEPHEN BURNS, CHAIRMAN OF THE U.S. NUCLEAR REGULATORY COMMISSION	13
KRISTINE SVINICKI, COMMISSIONER OF THE U.S. NUCLEAR REGULATORY COMMISSION	19
WILLIAM OSTENDORFF, COMMISSIONER OF THE U.S. NUCLEAR REGULATORY COMMISSION	21
JEFFREY BARAN, COMMISSIONER OF THE U.S. NUCLEAR REGULATORY COMMISSION	23

HEARING ON OVERSIGHT OF FY 2017 BUDGET REQUEST FOR THE NUCLEAR
REGULATORY COMMISSION

Wednesday, April 6, 2016

United States Senate

Committee on Environment and Public Works

Washington, D.C.

The committee met, pursuant to notice, at 10:02 a.m. in room 406, Dirksen Senate Office Building, the Honorable James Inhofe [chairman of the committee] presiding.

Present: Senators Inhofe, Boxer, Barrasso, Capito, Crapo, Boozman, Wicker, Fischer, Rounds, Carper, Cardin, Gillibrand, Booker and Markey.

STATEMENT OF THE HONORABLE JAMES M. INHOFE, A UNITED STATES
SENATOR FROM THE STATE OF OKLAHOMA

Senator Inhofe. I would like to begin by welcoming all four commissioners here. I appreciate it.

And I say particularly to you, Commissioner Ostendorff, I understand you are going to be going back to your previous duties, less strenuous, I would assume, teaching at the Navy Academy. You have had a great background in history and great contributions to this Committee. We will miss you. We will all miss you sitting out there.

By the way, right now there are two vacancies. Mrs. Jessie Roberson is one of them that has been nominated. These are partisan nominations, so that would be a Democrat slot. What we have always done in the past, we will attempt to do again now, is to pair with a Republican, and we are hoping we will be able to do that. We are in contact right now with the White House to try to accommodate that, because I would hate to have to try to operate with just three commissioners.

Barbara is here.

Senator Boxer. Good morning, Jim.

Senator Inhofe. Good morning, Barbara.

So, anyway, that is what our intention will be. And we are going to ask, also, as I did individually with you, since we have a vote at 11, that means we can stay here until 11:15. I

think if everyone stays within the time limit, that will work, and that is what we will be asking our members to do.

The NRC requested \$982 million in budget authority for fiscal year 2017, down slightly from fiscal year 2016. The NRC's safety mission is a critical one, but it accomplished its mission with significantly fewer resources in the past.

Following 9/11, the NRC's budget grew to address rising security concerns. Around 2006, it started growing to address growth in nuclear energy. Unfortunately, that growth hasn't been as robust as we thought. In fact, we have seen five reactors close in recent years, and at least three more will be closed by 2019. The NRC's budget remains significantly higher.

So what I am saying is we raised the budget anticipating greater activity out there, and that didn't happen. But it is very typical of a government agency to maintain that same size. So we have a chart. What I am saying is right here, if you look at the increases and then you look at the workload, the workload is going down, money is going up, and this is not the first time in government that that has happened. So I am concerned about this.

As a result of Project Aim, the NRC staff has proposed to the Commission an additional \$31 million in cost savings for next year. That is good, but that is not enough.

Now, back then I talked to Barbara about what happened in 1998. At that time we had actually gone four years without any oversight, and that is something that doesn't work. So at that time the stakeholders identified several areas for improvement in the Commission meeting and before this Committee, and I was there at the time and I remember it well.

Those recommendations were five: the timeliness and fiscally-responsible review of the licensing actions; stricter application of the Backfit Rule; the systematic application of a clear standard of safety significance in regulatory decision-making rather than vague terms such as enhanced defense-in-depth; more disciplined use of Requests for Additional Information, or RAIs; and the need for an objective, quantitative assessment of safety performance.

You may have noticed that this Committee has either written or requested the Commission on all these subjects in the last year. It appears that many of the inefficiencies that plagued the NRC in the 1990s have returned, and that is what we have been talking about.

Back then, in response to congressional oversight, Chairman Shirley Ann Jackson held a meeting with stakeholders to delve into their concerns. She followed with a memo tasking agency staff with developing a plan to address those concerns and others raised by this Committee.

The Executive Director, Joe Callan, seized her challenge and his routine progress reports became legendary examples of the agency's self-improvement capability and responsiveness. All of this transpired under three months.

In 1998, in my first NRC hearing as subcommittee chairman, an industry witness testified: "Just as the industry has made a significant transition in the way it operates in a competitive market, the NRC must replace an outdated, ineffective regulatory framework with one that is objective, safety-focused, and responsive," and it did.

The nuclear industry once again faces challenges in the marketplace and, once again, the need for the NRC to be an objective, safety-focused, and responsive regulator is imperative, and, Chairman Burns, I urge you to take a page out of Chairman Jackson's playbook and tackle these challenges.

Senator Boxer.

[The prepared statement of Senator Inhofe follows:]

STATEMENT OF THE HONORABLE BARBARA BOXER, A UNITED STATES
SENATOR FROM THE STATE OF CALIFORNIA

Senator Boxer. Thank you.

I would like to welcome the commissioners here.

There are many important topics facing us, including implementing post-Fukushima safety improvements, ongoing efforts to cut costs, and the Commission's work on decommissioning reactors such as the San Onofre Nuclear Generating Station in my home State.

Today's hearing comes more than five years after the Fukushima tragedy. The people in Japan continue to suffer from the consequences of this disaster. It may be pleasant not to look at it, but we better look at it.

A study released in October 2015 and published in the Journal Epidemiology found that children living near the site of the Fukushima meltdown have been diagnosed with thyroid cancer at a rate 20 to 50 times that of children elsewhere. Also, in October, Japan's Health Ministry announced the first confirmed case of cancer in a Fukushima recovery worker. These reports do not inspire confidence.

Just last month, the Gallup Poll showed that for the first time a majority of U.S. adults, 54 percent, opposed nuclear power.

I have been saying over and over again since Fukushima, in order to earn the confidence of the American public and win them over, the nuclear power industry must do everything it can to avoid similar disasters; and so must you. That is why it is so critical to address post-Fukushima safety recommendations that were identified by the Fukushima Near-Term Task Force in 2011.

While I recognize that progress has been made on some of the recommendations, I remain concerned that not one, not one of the 12 Task Force recommendations has been fully implemented, and many have been closed without any action at all.

We will share with you this chart. Sadly, it is the same darned thing I held up months ago. What are you folks doing over there? You have a majority of the people against nuclear power for the first time in a long time. People believe nuclear should be part of the mix if it is safe.

So you have reports out of Japan; you had your task force tell you what to do. I will tell you, if the Congress did that, we would all be voted out if we were expected to take certain steps. I don't understand it. So I am going to ask you about it.

Now, in addition to this, the non-action over here, the Commission recently approved an NRC staff proposal to close out numerous lower priority recommendations without taking any

action to implement safety improvements. This approach ignores the serious safety concerns raised in the wake of Fukushima.

I am concerned that the efforts to reduce your budget would undermine safety if they are implemented carefully, those cuts. The staff recently provided the Commission with a paper outlining \$151 recommendations for cutting costs. Unfortunately, some of these recommendations would reduce or eliminate important safety initiatives, including new limits on inspections at nuclear plants.

If we want to convince the American people, again, that they are wrong on nuclear power, that it can be done safely, this is the worst way to go about it. I have heard. I don't get it. I really don't, in all sincerity.

The Commission has to live up to its mission "to ensure the safe use of radioactive materials for beneficial civilian purposes, while protecting people and the environment." One mess-up in any one of these power plants and it is over for the nuclear power industry. I hope everyone understands that, with this news coming out of Fukushima.

Finally, I want to highlight challenges at the two nuclear power plants in my home State. My people there are telling me they are very concerned that Diablo Canyon cannot withstand earthquakes that could occur in the area. Despite evidence in recent years of increased seismic risk at the plant, the NRC is

proceeding merrily along the way with the relicensing process for this plant and has failed to take action to address seismic safety concerns. My people are at a loss to understand it.

And at the San Onofre Nuclear Plant, which is closed permanently, there are many concerns about public safety during the decommissioning process. As I stated at our October hearing, I disagree with NRC's approval of exemptions to emergency planning requirements. Why would you do that with so many people living so close to this plant?

Because of this exemption, the plant's operator will no longer be required to maintain detailed plans for the evacuation, sheltering, and medical treatment of people residing in the 10-mile zone. This is troubling. You know how populated the area is, and there are thousands of tons of extremely radioactive spent fuel remaining at the site and millions of people, millions living in close proximity.

So, in closing, and I will close in 10 seconds, you cannot be a rubber stamp for exemptions from the nuclear industry. That is not your job. That is counter to your job. And I think you owe it to the citizens of my great State and the Nation to make safety your highest priority.

Thank you.

[The prepared statement of Senator Boxer follows:]

Senator Inhofe. Thank you, Senator Boxer.

Without objection, I want to enter into the record this article from Platt entitled Nuclear Safety Upgrades Post Fukushima Cost \$47 Billion, a very complimentary article to you folks.

[The referenced information follows:]

Senator Inhofe. Mr. Chairman, if you would begin. And I am going to ask you all to try to stay within your time.

STATEMENT OF STEPHEN BURNS, CHAIRMAN OF THE U.S. NUCLEAR
REGULATORY COMMISSION

Mr. Burns. Thank you, Chairman Inhofe and Ranking Member Boxer and other members of the Committee. We appreciate the opportunity to appear before you this morning to provide an update on the fiscal year 2017 budget request and the agency's current regulatory activities.

As we said, the NRC is an independent agency established to license and regulate the civilian use of nuclear and radioactive materials in the United States, and ensure adequate protection of the public health and safety to promote the common defense and security, and protect the environment. The resources we are requesting will allow the NRC to continue to carry out our important mission.

The proposed 2017 budget is \$970 million and 3,462 FTE, full-time equivalent staff, excluding the Office of the Inspector General. The proposal represents a net decrease of nearly \$20 million and 90 FTE from the fiscal 2016 enacted budget. The request reflects a decrease of approximately \$74 million and 280 full-time equivalent employees from the 2014 enacted budget.

The inspector general component of the 2017 budget is \$12 million.

Consistent with the Omnibus Budget Reconciliation Act, our 2017 request provides for 90 percent fee recovery, resulting in a new appropriation of \$121 million. This appropriation is an increase of \$2 million compared with the 2016 enacted budget due to the inclusion of \$5 million in non-fee recoverable resources for advanced nuclear reactor technology.

Our 2017 budget request reflects our continuing focus on our important mission, while continuing our Project Aim initiative. We are concluding the review of the re-baselining paper that outlines an additional 150 activities that could be eliminated or reduced without an impact on safety, for a savings of about \$41 million in 2017, of which \$10 million has already been reflected in the fiscal year 2017 President's Budget request.

We cannot emphasize, however, 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 that we provide the American people remains unchanged. 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 want to highlight one area the Commission is attending to: improving our rulemaking process. The Commission has revised its processes to improve its understanding of and, where possible, to reduce the cumulative effects of regulation. In addition, the Commission has recently directed the staff on a proposed plan to better define and enhance the Commission's role in the early stages of rulemaking, before significant resources are expended.

The Commission is also considering a proposal to establish a single unified approach to tracking rulemaking activities so the public and stakeholders have real-time access to current information.

We carry out our safety and security activities through two major programs: nuclear reactor safety, which includes operating reactors and new reactors; and nuclear materials and waste safety, consisting of fuels facilities, nuclear materials users, decommissioning and low-level waste, spent fuel storage, and transportation.

Our request in the operator reactors business line represents a decrease of \$1.7 million from the 2016 enacted budget.

These resources we request will help with implementation of lessons learned from the Fukushima Daiichi accident in Japan. The requested resources support the continued implementation of

the most safety-significant, or Tier 1, enhancements that were identified after Fukushima, including implementation of our orders on mitigation strategies, spent fuel instrumentation, and severe-accident-capable hardened vents, and completion of the mitigation of beyond-design-basis events rulemaking.

The bulk of the most safety-significant enhancements for post-Fukushima should be completed in this year, calendar year 2016. We expect to bring to closure our evaluation of the longer term Tier 2 and Tier 3 issues. We will inspect the work that has been done and ensure plants maintain their progress. We strongly believe that the United States' plants are better prepared for extreme events now than they were in 2011.

On a related note, the NRC recently issued letters to the Nation's commercial operating plants about their 2015 performance. While the vast majority fully met safety and security performance objectives, three reactors at two sites, Arkansas Nuclear and Pilgrim, were deemed to be in the fourth or lowest performance category.

To wrap up, we have requested in our budget to cover some new reactor activities, including the review of the small modular reactor design expected from NuScale, and we have asked for \$5 million in non-fee activities to cover development image structure for advanced reactors.

I thank you for the opportunity to appear, and we would be pleased to answer your questions.

[The prepared statement of Mr. Burns follows:]

Senator Inhofe. Thank you, Mr. Chairman.

Commissioner Svinicki.

STATEMENT OF KRISTINE SVINICKI, COMMISSIONER OF THE U.S. NUCLEAR
REGULATORY COMMISSION

Ms. Svinicki. Thank you, Chairman Inhofe, Ranking member Boxer, and distinguished members of the Committee for the opportunity to appear before you today at this hearing on NRC's fiscal year 2017 budget request and associated matters. Our Chairman, Stephen Burns, in his written 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.

I thank the Committee for its consideration of our budget request. In the interest of time, I will ask if I may submit my brief oral statement for the record.

Senator Inhofe. Without objection.

Ms. Svinicki. Thank you.

[The prepared statement of Ms. Svinicki follows:]

Senator Inhofe. Commissioner Ostendorff.

STATEMENT OF WILLIAM OSTENDORFF, COMMISSIONER OF THE U.S.
NUCLEAR REGULATORY COMMISSION

Mr. Ostendorff. Good morning, Chairman Inhofe, Ranking Member Boxer, and distinguished members of the Committee. Chairman Inhofe, thank you for your kind remarks. It has been a distinct privilege to serve with this group of people for the last six years.

I am in complete alignment with Chairman Burns' testimony. I will make two specific comments.

First, as mentioned by the Chairman, the Commission's recent decision to provide direction to the staff to seek Commission approval before embarking upon rulemaking activities is a significant change and a major step towards improving efficiency. Second, our budget requests \$5 million in non-fee billable resources to further develop our regulatory infrastructure to review advanced, non-light reactor technology applications. It is very important for the long-term health of the NRC and the nuclear industry that we retain the ability to license new reactor technologies.

In closing, I completely agree with Chairman Inhofe's comment that these oversight hearings are of extreme importance. Thank you.

[The prepared statement of Mr. Ostendorff follows:]

Senator Inhofe. Well, thank you very much and, again, good luck at the academy.

Commissioner Baran.

STATEMENT OF JEFFREY BARAN, COMMISSIONER OF THE U.S. NUCLEAR
REGULATORY COMMISSION

Mr. Baran. Chairman Inhofe, Ranking Member Boxer, members of the Committee, thank you for the opportunity to testify today. It is a pleasure to be here with my colleagues 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 questioning look at what work the agency is doing and how we are doing that work. The NRC staff has generated a list of 151 proposals that would reduce costs in the coming months. The Commission is deliberating on those now. I think the vast majority of these items make a lot of sense, but I have concerns about several items, 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 22nd 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 five 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, as the Chairman mentioned. In the last few years, five U.S. reactors have permanently shut down and three more have announced plans to do so 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. 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, a number of other important efforts underway, including small modular reactors coming up, and the proposal for advanced reactor funding. We are happy to discuss these and any other issues of interest.

Thank you, and I look forward to your questions.

[The prepared statement of Mr. Baran follows:]

Senator Inhofe. Thank you, Commissioner Baran.

I will begin, and I have three questions, all three for Chairman Burns. The first two questions just require a yes or no answer, and I think you may be already starting in on the areas that I am going to suggest here. The last one you will probably want to elaborate just a little bit.

First of all, I referred several times to the then Chairman Shirley Jackson. When she testified before this Committee, this would have been 1998, the time that I have been referred to, I am quoting now: "The NRC has been the subject of a number of external reviews, some of them sharply critical. Whether or not one agrees with these criticisms, we believe that they are worthy of careful consideration. The Commission invited a number of these stakeholders, including some of the harshest critics, to engage in a roundtable discussion open to the NRC staff, the press, and the public. As anticipated, the meeting provided the Commission with beneficial insights, including a range of perspectives on the strengths and weaknesses of NRC regulatory programs and policies."

Chairman Burns, would you commit to holding a stakeholders meeting within the next three months?

Mr. Burns. Yes, I would be willing to do that. I do meet with stakeholders across the spectrum.

Senator Inhofe. Good.

Mr. Burns. But I would be willing to meet with --
Senator Inhofe. I appreciate that.

Now, following the 1998 hearing, Chairman Jackson tasked the NRC's executive director with action on a set of high-priority tasks identified in the stakeholders meeting, the one that we referred to, and by this Committee. The executive director responded in less than a month with a plan to address an issue that had been raised.

Chairman Burns, would you commit to task your executive director and report your progress to this Committee let's just say every couple months?

Mr. Burns. Yes, I would do that. I want to consult with my colleagues, the fellow commissioners, and provide some direction. I think we probably can get some other ideas --

Senator Inhofe. Would any of the other three commissioners object to this request that I am making? All right.

And lastly, Chairman Jackson's single most important reform was to transition the agency from subjective, inconsistent assessments of nuclear plant safety to the current reactor oversight program, which is based on objective, measurable performance indicators. However, I understand there has been some of the staff backsliding on this.

So, Chairman Burns, how will the Commission exercise its oversight of the staff to ensure the reactor oversight process is not compromised by undue subjectivity?

Mr. Burns. We have been engaged with the staff on the reactor oversight process. There are some aspects I think they are looking at. They are engaging with stakeholders now on that. I would expect the Commission to be informed about that. To the extent that there are changes that require Commission endorsement or approval, that those be provided to us and we have an understanding what the different viewpoints are. So I think as part of our normal process we would do that.

Senator Inhofe. Okay. I have another minute and a half. Anyone want to comment on that, of the other three commissioners?

Mr. Baran. I would just add that I think the staff takes very seriously the rigor that we have right now in the reactor oversight process; they are very conscious of that. So it is something that the Commission is focused on, we are talking with the staff about, but I think it is something that the staff is very clear that they want to maintain the rigor of the reactor oversight.

Senator Inhofe. You know, when I say it could be that reports we have gotten are not all that accurate, but we

understand that there has been some resistance to that, and I would just ask you to do what you can to eliminate that.

Any comments on that?

Ms. Svinicki. Chairman Inhofe, I agree with the Chairman and Commissioner Baran. The Commission has been engaging rather actively with the staff as they develop any proposals to modify this process. Although there may be modest adjustments that are within their authority to make if something has a significant impact to the program, I am certain that the Commission would want to put its imprimatur on that.

Senator Inhofe. Okay. And let me be clear. Our situation today is not analogous to what it was in 1998. In 1998, having gone four years without an oversight, that was a pretty extreme time. I thought this is not the case now, but there are some indicators that there has been a more relaxed attitude than there should be.

Thank you very much.

Senator Boxer.

Senator Boxer. Thank you so much. I want to follow up on this meeting with stakeholders.

How do you define stakeholders, Mr. Burns?

Mr. Burns. I think that was our members of non-governmental organizations, members of industry, licensees that can be local groups.

Senator Boxer. Community groups?

Mr. Burns. It is a wide variety.

Senator Boxer. Good. Because this is not just a meeting that the Chairman is asking for you to have with the industry; it is the industry, it is the nonprofit groups, it is the community groups, is that correct?

Mr. Burns. That is correct.

Senator Boxer. Good. That is good.

Mr. Burns. And part of what I do, for example, I am meeting with an NGO tomorrow on some of their concerns. I meet with a lot of people.

Senator Boxer. Good. That is good. Well, to me it is not about a lot of people; it is about stakeholders, you know. And I agree meeting with stakeholders, as long as it is everyone, and meeting with them at the same time is critical. It builds confidence all around.

And specifically on that, I would like to arrange a meeting with you and the stakeholders in San Onofre, as well as Diablo. That would include the operator of the power plant, the concerned community, the citizens around there, the environmentalists around there as well. Could we work together on that?

Mr. Burns. Certainly, Senator.

Senator Boxer. And I would love it as many commissioners could attend would be great. It is not just meant to be for the chairman; he has a lot on his shoulders. So any one of you that wants to be at that meeting. And I will organize that and get back to you.

I wanted to comment on the article that my friend, and he is my friend, put in the record, Nuclear Safety Upgrades Post Fukushima Cost \$47 Billion. When you read the story, what you find out is that 90 percent of that is being spent outside the United States of America, most of it in Japan because of the disaster and the turning up now of these diseases. So I wanted to point out that our nuclear industry is quoted in the story as saying the industry has managed its response to Fukushima while avoiding costly new requirements.

So I just wanted to circle those points in the story. And I am glad the story is in the record because it proves my point that what is happening here is just not moving fast enough, which leads me to the last part of my questioning.

I think I gave you this, Mr. Burns.

Mr. Burns. Yes.

Senator Boxer. And I know that everyone has seen it and agreed that it is accurate, but I am going to go through it just to show the people, the American people how little is really being done post-Fukushima.

Almost four years ago, your Commission, your task force laid out these 12 ideas. They were senior members of the NRC staff. I don't know who is still there. If I was working there, I would probably quit, given the fact that nothing has been done. But it is almost four years, so I am going to go through each one of these, and all I want from you, Mr. Burns, if you would, is if you agree with my analysis of each one and, if you don't, explain why.

Number one, improve regulatory framework. The NRC rejected staff proposals on that, is that correct?

Mr. Burns. The Commission decided not to proceed with that.

Senator Boxer. That is what I just said. So the Commission said no to the NRC staff proposal on regulatory framework.

Two, study and upgrade seismic flooding and other hazard protections. My understanding is that there is no target date set for permanent safety upgrades on seismic flooding or other hazards, is that correct?

Mr. Burns. I am not sure that that is correct. We have seismic and flooding analysis from most of the plants.

Senator Boxer. No, I am asking do you have a target --

Mr. Burns. In some circumstances there were not a need for further seismic and flooding upgrades.

Senator Boxer. Okay. Well, your staff said --

Mr. Burns. This is important work and progress is made on it.

Senator Boxer. Whoa, whoa, whoa, whoa. Your staff said that there needed to be upgrades, study and upgrades seismic flooding and other protections. My understanding is you are implementing some, but no target date has been set for permanent safety upgrades. Now, your staff said that is correct. Is that correct?

Mr. Burns. I am not sure of the context, Senator. I am happy to look at that.

Senator Boxer. Does anyone else understand the context?
Mr. Baran?

Mr. Baran. I think it is correct that there is no firm date by which any necessary upgrades would be made.

Senator Boxer. Thank you. So that is accurate.

Three, upgrade to prevent or mitigate seismically-induced fires or floods. My understanding is the NRC rejected that action. Is that correct?

Mr. Burns. I think that is correct because we felt it was bound by the existing protections that we --

Senator Boxer. I understand that. All of these are improvements, they are not status quo. You rejected, the NRC

rejected doing this even though your staff, senior staff, after Fukushima four years ago, said to do it.

Number four --

Mr. Burns. No, what they said to do is to evaluate whether that provided an additional benefit.

Senator Boxer. No, they said to upgrade.

Mr. Burns. And we have been responsible about doing those things.

Senator Boxer. Upgrade. Upgrades. They want upgrades in the plants to prevent or mitigate seismically-induced fires or floods. You said no.

Let's move on. Mitigation for events like blackouts. The final rule is supposed to be due this year. Is it coming?

Mr. Burns. Yes.

Senator Boxer. When?

Mr. Burns. Toward the end of the year, as scheduled.

Senator Boxer. Can we say by December?

Mr. Burns. Yes.

Senator Boxer. Thank you.

Mr. Burns. And the plants have already implemented, per orders imposed by this Commission in 2012, improvements to address this and, in fact, went beyond the Near-Term Task Force requirements were.

Senator Boxer. I see I have gone over my time, so I will wait for a second round to go through the rest of these. But we will ask you the rest of these.

Senator Inhofe. Thank you, Senator Boxer.

Senator Rounds?

Senator Rounds. Thank you, Mr. Chairman.

Chairman Burns, as part of the oversight review, there are just some specifics on the budget proposal that I would like to ask, and if you think you need to respond to them for the record, that would be fine.

Mr. Burns. Thank you.

Senator Rounds. Your testimony states that the fiscal year 2017 budget represents a decrease of \$19.8 million from 2016, \$15 million of which is a decision not to fund the University Grant program. That leaves a decrease of \$4.8 million and 90 FTE in the NRC's office. Chairman Burns, I would expect that there would be more of a cost savings than \$4.8 million considering the decrease in FTEs. Is the NRC spending some of the savings and efficiencies in other activities?

Mr. Burns. No, Senator, it is not. And one thing I would note, with respect to the Integrated University program, in terms of the President's Budget reflects a judgment the Administration believes that those activities ought to be consolidated. We recognize that over a number of years we have

received the direction to continue with that and have essentially absorbed that program and tried to implement it responsibly.

But to your other point, we are looking at, we have identified savings. One of the things, as I said both in my submitted and in my oral testimony, as part of Project Aim, we have identified about \$30 million beyond the President's Budget submittal where we think, through the re-baselining, we can achieve additional savings.

Senator Rounds. Then when can we expect to see the savings and the efficiencies fully reflected as actual decreases in the NRC spending, rather than, if it is being reallocated, but when will we see that actually reflected in the budget?

Mr. Burns. Well, we see some of that actually in our implementation of the fiscal year 2016 budget and, as I say, although the President's Budget came in at \$970 million, which included incorporation of some of the identified gains or efficiency gains in areas where we thought we could reduce, we think there is more there for the fiscal year 2017. So there is some work we are doing this year where we think we are achieving those gains and I think in the further consideration of the fiscal year 2017 budget we can achieve more.

Senator Rounds. Okay. Licensees must seek NRC review and approval for many modifications to equipment and procedures. As

such, this is a fairly routine activity and a significant portion of the NRC's workload. However, the NRC seems to be struggling with a backlog, unable to complete their reviews on time in spite of the fact that from 2012 to 2015 the industry filed fewer licensing action requests than the NRC had budgeted to review. The NRC used the review about 1,500 licensing actions each year at a time when the agency had fewer people and fewer resources.

What has changed since then to cause this recurring backlog?

Mr. Burns. Well, thank you for the question, Senator. Actually, where we are, we have come to the point where we have substantially worked down the backlog. I think a major cause of the backlog was a need to focus on the potential safety enhancements post-Fukushima. What we have been able to do over the last few years is work that backlog down. I think it was like about 100 actions were in the backlog about a year ago, so we are about 24 now, and we expect to work them off within the next year.

Progress to date through fiscal year 2016, we are just about at what our target of 95 percent completion, we are at about 94 percent. Staff, I know, will work to get that better. So I think the simple answer to your question, I think a lot of attention, necessary as it was, on Fukushima put some of the

licensing actions created backlog. What we have been trying to do and have done successfully is work that off.

Senator Rounds. Okay. I have another question, but rather than that I just want to give you the opportunity, and I think Ranking Member Boxer had asked you a question and she was out of time. I have a few seconds left. Is there any part to her question that you would like to respond to with regards to when staff recommendations are made and sometimes the Commission decides not to accept or may have other things? Is there anything you would like to respond to that you didn't have time to when the Ranking Member was asking the question?

Mr. Burns. I think she has given me a fair opportunity to answer her question. The only context I would give is that the Near-Term Task Force, I was here as general counsel then and I have a lot of respect, and there are a number of folks who are still working with the agency and proudly do so.

But what I would say is this, the Task Force had an enormous task in 90 days to say what are the things we ought to be looking at, and the Commission and the staff took that seriously. Staff added some additional things and we took those seriously. So I think from my standpoint we may have disagreements about whether some of those things should be implemented or not, but I think we have taken them seriously, and I continue to do so.

Senator Rounds. Thank you, sir.

Thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator Rounds.

Senator Carper?

Senator Carper. Thanks very much.

Welcome, one and all. Good to see you.

Commissioner Ostendorff, tell us what you are going to be doing next, please.

Mr. Ostendorff. Senator Carper, I have accepted a position at the Naval Academy as a distinguished visiting professor of national security, and I will start teaching there in August.

Senator Carper. All right. Well, as we say in the Navy, fair winds and a following sea. Thank you for all of your service to our Country.

Mr. Chairman, thank you very much for bringing us together for this hearing. I recently wrote a letter to Chairman Burns about the challenges of safely licensing advanced nuclear reactors. I was encouraged to see that the NRC budget request for 2017 includes \$5 million to develop the licensing infrastructure.

I would just start off by asking Chairman Burns and others who would like to join in what you expect to do with the \$5 million targeted toward the development of advanced nuclear reactor technology regulatory structure in terms of hiring

appropriate staff. Give us some idea how many might be needed, technology development, maybe some other activities.

Could you start off with that, please?

Mr. Burns. Certainly, Senator. Thanks for the question.

Probably three areas that we focus on with the \$5 million, focusing on licensing infrastructure. Given that the current infrastructure focuses primarily on light water reactors, these advanced reactors are in a lot of non-light water technologies, are there areas where we need to address there? Part of it is technical preparation, getting some of the right staff, understanding where we may be going, actually talking with our Canadian counterparts about the processes.

One of the concerns is whether people have to go all or nothing in terms of coming in with an application. Are there ways of doing, in effect, what we would call topical reports that sort of give maybe not a final signoff, but it gives encouragement that says you look like you are on the right step, we don't see a primary safety problem. We are looking at that and our Canadian colleagues have a process to do that and we are encouraged to do that.

I think, again, it is outreach. We had a successful workshop we co-hosted with DOE last year --

Senator Carper. I am going to interrupt you and just ask some specific questions if I could.

Mr. Burns. Okay.

Senator Carper. How long do you expect the regulatory development process to take?

Mr. Burns. I couldn't hear you. Sorry.

Senator Carper. How long do you expect the regulatory development process to take.

Mr. Burns. I think that is over probably several years. I don't think we really expect an advanced non-light water application probably until the mid-2020s, so we have some time there. There is work underway and I think we would continue.

Senator Carper. Might we expect to see similar requests in coming years?

Mr. Burns. Probably. What we understand, I think this is some of information we get from DOE in some of these initiatives, I think around 2025.

Senator Carper. Okay. So in terms of how much money and roughly how much time will it take to put the appropriate regulatory structure in place, we are talking about eight or nine years?

Mr. Burns. I am not sure it would take that long. Part of, I think, what this \$5 million helps us do is understand where the gaps are, what other work we would have to do. But I think we want to encourage those who are interested in the industry to talk to us and we want to be in a place where we are

ready and we have identified the issues that we think need to be addressed.

Senator Carper. Okay.

Commissioner Ostendorff, any idea when you might anticipate advanced nuclear reactor technology applications being presented to the Commission? Any idea?

Mr. Ostendorff. Thank you for the question, Senator Carper. I spoke at a conference at Oak Ridge National Laboratory back in February of this year, met with a number of groups that are looking at, on the vendor side, developing new technologies. I have had communication with the Nuclear Infrastructure Council, Nuclear Innovation Alliance, Nuclear Energy Institute, and Third Way, four different groups who are working in this area. There is not a predicted date, but we think it is possible in the next five years to receive an application.

Senator Carper. Do you think that the NRC staff have the non-light water reactor design and modeling skills that are going to be required to consider applications for advanced nuclear reactors?

Mr. Ostendorff. Let me answer that by using an anecdote, if I may. Right behind me is Amy Cabbage. Amy, please raise your hand. Amy is my reactor assistant. She was a member of

the Near-Term Task Force on Fukushima issues. She has been my reactor assistant for the last three and a half years.

Amy, 15 years ago, worked on the pebble bed reactor technology that was submitted to the NRC, and those plans were curtailed at the industry's request. I would say we have many other people like Amy at the NRC who have had some experience working in non-light water reactor technologies and we believe we can fully capitalize on their skill sets going forward.

Senator Carper. Okay. Thanks so much again and thank you for your service. Great to see you.

Commissioner Svinicki, Commissioner Baran, thank you all for joining us today.

Senator Inhofe. Thank you, Senator Carper.

Senator Barrasso.

Senator Barrasso. Thank you, Mr. Chairman.

Chairman Burns, thank you, and I think the members for being here today. I want to discuss the NRC permitting process. During its licensing reviews, the NRC staff frequently poses requests for additional information, they call it the RAI, Request for Additional Information, to licensees, to applicants. It is clear the NRC should request any information necessary to make a safety determination, then process the information, because the process itself can be burdensome if it is not

properly managed, and that is one of the concerns about how this works.

Chairman Inhofe and Senator Capito and I have tasked GAO with examining the very problem and I want to just give you one example of why we feel the process warrants some scrutiny from you as chairman. With regard to a request for additional information request made by the NRC to the United States Geological Survey, it regards their renewal application for a research reactor they have in Denver.

This is what the NRC asks the United States Geological Survey, and this is recent, February 8th, 2016, it says: The application indicates that the United States Geological Survey is a federal bureau within the United States Department of Interior. To comply with 10 CFR 50.33(d), the staff, your staff, requests that the applicant state whether the United States Geological Survey is owned, controlled, or dominated by an alien foreign corporation or foreign government and, if so, give details.

This is what your staff has decided to ask the U.S. Geological Survey. Now, I am going to quote what the NRC's instructions for developing these requests for additional information are, because you need to get additional information sometimes. Your own instructions say before developing a request for additional information, the staff should ensure that

the information isn't already available to the staff or that the answer could not reasonably be inferred from general knowledge or previously docketed correspondence.

So I think not only can it be reasonably inferred that anyone outside the NRC staff that the United States Geological Survey is part of the Federal Government, the fact has been docketed in previous correspondence with the NRC staff. They actually asked the same question in an RAI in 2010 and they got the same answer. It just seems that project managers are supposed to be responsible for ensuring that these requests for additional information are actually necessary on companies, my State, other States, but do you have any idea how this sort of thing keeps happening?

Mr. Burns. No, Senator, and I would agree that that question is unnecessary. I appreciate the request the Committee has made to have GAO take a look at it. It is something, and I think our EDO is committed to bringing discipline, bringing training. This may be, in part, one of these things in terms of the transition from the generational shift from older folks like me who are getting fewer at the Commission to some of our young staff.

As a lawyer, I know, for example, I would go up to the judge and say, Your Honor, will you take official notice or judicial notice that the USGS is a U.S. Government agency. We

can do better. I think that the review will probably help us do that and I think our staff will continue to be vigilant. But we need to be disciplined because it is important. There are important questions we have to ask during the review, but we need to focus on the things where those touchy safety issues or undefined things. So I appreciate the example.

Senator Barrasso. Okay, thank you. I asked a question for the record back in October, October 7th hearing, that essentially asked how might a longer license duration help the NRC manage its workload a little better with regard to uranium recovery facilities. I think you said extending the license term would reduce the administrative burden associated with the license renewal process for both the NRC, I think you said, the staff and the uranium recovery licensees, and I agree.

Will you, therefore, commit to me to help pursue extending the license duration for uranium facilities for the reason that you had stated? Because it used to be five years; we extended it to ten back in the 1990s, which helped, but it takes about five years to get through the full process.

Mr. Burns. I think that is something we can look at. As you noted, we had extended before. My understanding and as a general matter, given where we are in terms of some of the licenses before us, renewals, it becomes a more critical issue

in the early 2020s, but that gives us some time to, I think, consider that, and I think the staff will be willing to do that.

Senator Barrasso. Thank you.

Thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator Barrasso.

Senator Gillibrand.

Senator Gillibrand. Thank you, Mr. Chairman. Thank you, Madam Ranking Member.

As I am sure you are aware, last week Entergy, which operates Indian Point Units 2 and 3 in New York, discovered that 227 baffle-former bolts inside of Unit 2's reactor core are degraded, which is more than 10 percent of the specific type of bolts used in the reactor. My understanding is that these bolts are used to hold together the core former which surrounds the nuclear fuel. Do you have any information about whether there was any degradation of these bolts detected prior to this most recent inspection?

Mr. Burns. Senator, I am not sure. Let me get back to you on that, whether there were indications. As you said, the inspections were started after defueling and identified, and I want to give you the best answer I can.

Senator Gillibrand. Okay. Would you have concern about other types of bolts if that was indeed the case?

Mr. Burns. I think your concern about the bolts there, and this is part of the monitoring I would expect at plants. This is the type of equipment that you want to see --

Senator Gillibrand. You would expect that type of monitoring?

Mr. Burns. Pardon?

Senator Gillibrand. You would expect that kind of monitoring?

Mr. Burns. Yes. That is what happened here.

Senator Gillibrand. Okay, then I would urge the same inspection for Unit 3, because they have decided not to expect Unit 3 because it is three years younger. Do you think that is a legitimate reason not to inspect Unit 3?

Mr. Burns. Actually, my understanding from my staff is that it will be inspected in several years. It has operated less --

Senator Gillibrand. I wouldn't wait several years. If 11 percent is degraded and you didn't expect to find degradation, it means your expectations are wrong. So I would not wait a few years; I would inspect Unit 3 immediately.

Mr. Burns. Okay, we will take that into consideration, Senator, but I think the technical evaluation of our staff assure that they believe that the timing is appropriate.

Senator Gillibrand. Their technical evaluation concerning Unit 2 was flawed, so I would be highly concerned that their technical evaluation concerning Unit 3 is also flawed, and I would request you to do the inspections now. It is unexpected to have 10 percent degradation. One of the bolts couldn't even be found.

That is highly alarming to me, given that it is just 50 miles from 8 million people. We do not want to have any problems at this power plant, and I think you have to be more concerned than you might be otherwise, given the failure to know that 10 percent of your bolts were degraded so close to the reactor. I think it is very unwise and I think it is unsafe.

So who decides? Who is the technical decision-maker here?

Mr. Burns. The NRC considers and evaluates the information it has. The licensee has programs in terms of monitoring and maintenance, and those are integrated together.

Senator Gillibrand. So when do you step in and require an infrastructure issue to be treated as a significant safety issue for the plant?

Mr. Burns. When we identify it as a significant safety issue.

Senator Gillibrand. Is 10 percent of degradation a significant safety issue?

Mr. Burns. I would be happy to consult with our staff in terms of their evaluation. They are evaluating what the licensee is doing and examining there, and I would expect us to take that information into account.

Senator Gillibrand. I would like a written response to these questions, specifically whether you think 10 percent degradation of bolts is a safety issue. If not, why not? And if you do, then I would like you to evaluate Entergy's plan and make recommendation about what they should do instead.

Does anyone else on the panel have a comment to this concern?

Mr. Baran. Well, Senator, let me just add I think the written request you asked for is completely appropriate, we should do that. You should have a complete answer to those questions. My understanding is that the number of baffle bolts that were potentially problematic in this case is a substantially larger number than we have seen in the past with other plants that had this issue, so I know it is something the staff is looking at very carefully. We should get you the answers you are asking for.

Senator Gillibrand. Well, I would like aggressive oversight here.

Both Indian Point Units 2 and 3 are currently in a period of relicensing. A major component of relicensing is the

management of aging infrastructure. Is it fair to say that as you go through the process of evaluating a plant for relicensing, there are a certain set of assumptions made on what you expect the condition of the plant's infrastructure to be and how the plant will operate if it is relicensed based on past performance of safety records?

Mr. Burns. Senator, I would agree essentially with that you said. The focus on license renewal tends to be on aging management. In fact, I believe the issue of the question of the inclusion of the baffle bolts is a matter in contention within the license renewal hearing. We can't comment on the outcome of that, I think it is still going on, but that is the focus. So I think I would agree with your general characterization.

Senator Gillibrand. So if you find that degradation was higher than you expected, will you then go back and challenge other assumptions you made in the review for relicensing?

Mr. Burns. If that is appropriate.

Senator Gillibrand. Meaning if your assumptions were wrong, I would like you to go back and look at all of your assumptions concerning degradation.

Mr. Burns. We would look at our assumptions.

Senator Gillibrand. Thank you.

Thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator Gillibrand.

Senator Capito?

Senator Capito. Thank you, Mr. Chairman, and thank all of you for being here today.

Chairman Burns, I listened to your testimony and I just want to make sure that in terms of the budget and your FTEs, your employees, where the numbers are. I understand that in 2005 your budget was \$669 million and you had just over 3,100 employees, and today you are overseeing a smaller -- I think we brought this up several times -- a smaller nuclear fleet and considering far fewer licensing actions, but you are requesting \$982 million and over 3,500 employees. I know Project Aim is specifically aimed at this issue and I applaud your progress.

How far along is Project Aim and how much longer do you plan to continue? And do you think that will be shrinking the workforce, number of employees?

Mr. Burns. Thank you for the question, Senator. Project Aim, in terms of the particular tasks that were identified when it began, is pretty far along. This re-baselining paper, which the Commission will issue its final guidance on I think very soon, was one of the main steps.

We have some additional papers and recommendations to come from the staff, for example, on the consolidation, the new reactors, and recombining the new reactor office with a nuclear reactor regulation office, a few things like that. The EEO and

the CFO have given some tasks in terms of further looking at the corporate support offices and potential efficiencies and reductions there.

So the main activities that were identified in the Aim program were, I think, come to close this year. The longer term issue, and I have been talking to the EEO and I think my fellow commissioners, and I will let them add if they wish, is really incorporating sort of the ongoing awareness and idea of looking at how we do our work to assure we get the safety security benefit that we need while doing it effectively and efficiently. That is the longer term challenge once I think most of their Aim activities conclude this year.

Senator Capito. Does anybody have any other comment on that?

Mr. Ostendorff. Senator, I would just add and reinforce the chairman's comment that there is still more work to be done both on corporate support, as well as some of the programmatic activity lines, and we are committed to doing that work.

Senator Capito. Thank you.

Mr. Baran. Just briefly. I will just give you a couple of concrete numbers that I think illustrate how aggressive the effort has been. At the beginning of fiscal year 2016, we had 3,628 FTE. By the end of fiscal year 2017, so two years later, we expect to see that number drop to 3,344 if all these re-

baselining items are approved. That is 284 fewer employees in two years, or about 8 percent of our workforce. It is a pretty significant decline we have seen.

Senator Capito. And you are already on your way there because you are at, like, 35 something at the present time.

Mr. Baran. That is right. Yes.

Senator Capito. Chairman Burns, also, you were directed by appropriators to discontinue the practice of carrying over budgeted funds from one fiscal year to the next. Are you carrying over any funds in this fiscal year?

Mr. Burns. Well, our plan is to obligate the funds that we have been appropriated in 2016.

Senator Capito. Right.

Mr. Burns. With respect to potential carryover, there is the potential for some at the end of the year, some de-obligation. I think it is somewhat less than \$25 million.

Senator Capito. Well, I am on the Appropriations Committee and, I mean, I think you can understand in tight times you want to appropriate to the proper amount for the particular year because there is a lot of give and take and a lot of flat in the budget. So you can understand why that would be an issue.

Another issue, we are having trouble getting conflicting numbers on the number of rulemakings that are in progress right

now. We have been given numbers between 43 to 60. Do you have an accurate number for that?

Mr. Burns. Yes. What we did, and this is, quite honestly, one of my frustrations and one of the reasons why I asked for a tasking to say let's get a consistent reporting on these issues. We have what would be called rulemaking activities, about 80, and part of that 89 is there are a number of those things that are, for example, petitions for rulemaking. That means the industry or a citizen can file something.

We have an obligation under the law to look at that. We can probably give you a better breakdown for the record, but a number of other things are things like incorporating industry consensus standards, cast certifications, things like that that the industry wants.

But we have, I think, a good handle on what the number of "rulemaking activities" are. And one last point is within those 89, the staff has identified for potential elimination a number of rulemakings so that we would take those off where we see limited value in proceeding.

Senator Capito. If you could get me that, maybe more detail on that.

Mr. Burns. I can try to give you a better breakdown.

Senator Capito. All right. Thank you so much.

Senator Inhofe. Because a vote has started and we are good for another probably 15 minutes here, we are going to continue.

Senator Boxer wanted to make one statement that I think is reasonable.

Senator Boxer. Really quickly. Thanks, Mr. Chairman.

We only got to four of the recommendations. Could I count on you to answer my questions in writing on the rest of the list?

Mr. Burns. Absolutely.

Senator Boxer. I know that you are taking these seriously. That is the difference between that and implementation. So I appreciate all of you being here today.

And I thank you, Mr. Chairman.

Senator Inhofe. Thank you, Senator Boxer.

Senator Markey.

Senator Markey. Thank you, Mr. Chairman, very much.

I just want to once again put the Commission on notice that the NRC is still not in compliance with its own policy and the law surrounding providing documents to members of your oversight committee. It has been almost two years since I first requested documents related to the indictment of five members of the Chinese military on charges of hacking and stealing nuclear reactor trade secrets from Westinghouse in 2010 and 2011. At the very same time that these thefts occurred, Westinghouse was

hosting months-long visits for dozens of unescorted Chinese personnel at U.S. nuclear reactors.

I have narrowed my document request. I have sent several letters. I have raised this in several hearings of this Committee. I have raised it in private conversations with the chairman of the Commission. My staff has been briefed by your staff. The Commission still hasn't even provided me with the documents that others at the agency have already made it possible to get access to.

I am not willing to accept briefings in lieu of my document request, nor is it helpful for the Commission to ignore the need to respond to my request until several days before the hearing. When you ask for a meeting on this issue, I expect the Commission's response to my request.

I just wanted to put that on the record, and I would ask the Commission again to comply with the request for that information.

In 2014, an insider at the Doel Nuclear Plant in Belgium sabotaged the reactor by draining all the oil from the reactor turbine. This was not all that sophisticated, it was basically the nuclear reactor technology equivalent of slashing someone's tires.

But it caused more than \$100 million in damage. Two years earlier, a contractor at the plant who had passed a security

background check traveled to Syria to fight with jihadist groups there. This incident is similar to that of Sharif Mobley, an American who worked at U.S. nuclear plants and subsequently fought with Al-Qaeda in Yemen.

Disturbingly, the background check investigations that are required for nuclear contract workers allow them to self-report their foreign travel. We also recently learned that two suicide bombers in the Brussels terrorist attacks had collected video footage at the home of a Belgian nuclear official.

Commission Baran, do you agree, then, in light of these disturbing reports from Belgium, the Commission should take a new look at its design-basis threat, force-on-force mock terrorist exercises, and other security regulations?

Mr. Baran. I have to be careful answering that just because the design-basis threat issues are classified. I can say that the NRC staff is taking a look at this issue, and I believe that is appropriate. The events you raised are something that is being looked at by our security folks.

Senator Markey. We know that nuclear power plants, gaining access to those materials are at the top of the terrorist target list, so I recommend very strongly that you put in place a program to reexamine the measures that we have in place. That is where they are going, and we have been warned, and I think it is critical for us to have heeded those warnings.

The NRC is currently doing a rulemaking to address decommissioning in light of the many reactors that are now or soon to be shutting down, including the Pilgrim Plant in Massachusetts. The commissioners told the staff that the new rules should consider the concerns of State and local officials, but the nuclear industry wants the Commission to eliminate the consideration of State and local officials' views from the rulemaking altogether.

At a recent NRC meeting, Massachusetts State Senator Dan Wolf said the industry's suggestion was absurd.

Starting with Commissioner Baran, do you all agree that it would be absurd to eliminate all consideration of State and local officials' concern in your decommissioning rulemaking?

Mr. Baran. I agree that would be a very bad idea. I think we absolutely, as part of that rulemaking, should look at the appropriate role of State and local governments in the process.

Senator Markey. Can we keep coming down the panel? Do you agree?

Mr. Ostendorff. Senator Markey, we had a good Commission meeting on this topic here last month. We heard the State senator from your State, his comments, and we are considering all these comments as we go forward here.

Senator Markey. Thank you.

Ms. Svinicki. Senator, the NRC staff is engaging in looking at all of the public input that came in. The comment period is closed and I look forward to their evaluation of all of that public comment.

Senator Markey. Mr. Chairman?

Mr. Burns. Really the same response. I haven't made up my mind on this. I want to look at the comments. I want to extend my appreciation to Commissioner Baran for suggesting this meeting. I think when you and a number of others wrote to us, this was one of the impetuses for holding that meeting on the decommissioning issues.

Senator Markey. Okay. Well, only one of you can, right now, say yes, that the State officials should be listened to, and I think that is not a good thing.

Mr. Burns. Well, I don't think that is what I said. That is not what I mean to imply. I think we need to take into consideration those views in this process.

Senator Markey. Okay.

Senator Inhofe. Thank you very much, Senator Markey.

Senator Markey. Thank you, Mr. Chairman.

Senator Inhofe. Senator Fischer.

Senator Fischer. Thank you, Mr. Chairman.

Chairman Burns, I would like to ask you a few questions about the Backfit Rule. That is a topic that I have raised in

several of our Committee's oversight hearings of the NRC in the last two years. As you know, the Backfit Rule says that before the NRC can impose a new requirement on an existing licensed facility, the NRC must first demonstrate that the new requirement results in a substantial increase in the protection of public health and safety, and also that it is cost-justified.

This Committee has expressed concerns about how the NRC's use of subjective qualitative factors, as opposed to objective quantitative factors, can erode the Backfit Rule and undermine, I believe, its important purposes, and I have been very concerned about that.

Sir, are you aware of the compliance exception to the Backfit Rule and do you believe it should be used by the NRC staff to avoid the Backfit Rule in cases involving changes in interpretations of existing regulations?

Mr. Burns. Yes, Senator, I am aware of the compliance exception to the Backfit Rule. It has a role and it should be applied that way. I don't view it as a way of evading the Backfit Rule, but a way of looking at what is the requirements, what is compliance; if it fits in that, otherwise you need to apply the Backfit Rule the substantial additional protection elements.

Senator Fischer. So are you saying that your staff would be justified in requiring extra steps for regulation that don't take into effect the cost?

Mr. Burns. No. What I think I am saying is that there may be circumstances in which the question or the issue between a licensee and the staff is whether or not some corrective action, some other action by the licensee is really something needed to comply with existing requirements. That is an exception. I don't mean the exception to swallow the rule. But that is a stated exception the Commission adopted in the mid-1980s when it reformed the Backfit Rule.

Senator Fischer. And the rule then should still be in effect.

Mr. Burns. Yes.

Senator Fischer. It should be considered at all times?

Mr. Burns. Well, the Backfit Rule has a substantial additional protection piece of it. Included within the Backfit Rule are these limited exceptions to whether or not you engage in the cost-benefit analysis. I am just saying I think the rule should be applied appropriately in the circumstances we find ourselves in.

Senator Fischer. And costs should be considered?

Mr. Burns. Costs should be considered where it is not a compliance backfit or, for example, there is a statutory

requirement that has been imposed by the Congress to do something. It is part of a normal evaluation and consideration of the Backfit Rule. I don't want to leave you the impression that I am saying that the exception should swallow the rule. It is part of the normal process of evaluating whether a particular action requires the backfit analysis, the substantial additional protection.

Senator Fischer. I think this gets us back to the discussion on looking at if it is a subjective factor or an objective factor when we consider the rules and regulations. Would you agree with me on that? And I would always come down on the objective side of this.

Mr. Burns. Well, and the Commission's guidance --

Senator Fischer. I think that has been clear.

Mr. Burns. Yes. And I think the Commission's guidance issued about a year or so ago emphasizes we expect the application of quantitative factors and we have given guidance, and I would expect that as the process of engagement between licensee and staff goes on, that that guidance of the Commission would be adhered to.

Senator Fischer. Okay, thank you.

Also, in a letter that was dated January 20th of this year, the Nuclear Energy Institute discussed concerns about misuse of the compliance exception. For historical context, the NEI

letter quotes from the Federal Register Notice from the 85 Backfit Rule where the NRC explained new or modified interpretations of what constitutes compliance would not fall within the exception and would require a backfit analysis.

I think this is getting at it again. Would you agree for the NRC staff to be able to use that Backfit Rule's compliance exception, that the staff first of all has to show some omission or mistake that has occurred within that licensed facility that was previously approved by the NRC?

Mr. Burns. I think my answer is yes, but let me give some explanation.

Senator Fischer. Okay.

Mr. Burns. The provision I think you quoted from the Federal Register, the statement of consideration for the Backfit Rule, are significant example or significant guidance from the Commission with respect to the appropriate application of the compliance exception. And I am aware of the NEI letter, but I am not aware of all the details of some of the dialogue, but I would expect in the dialogue between staff and licensee that that would be focused on and, in terms of the decision-making, those are persuasive words or persuasive criteria that the Commission set at that time. So what I want to say is I don't think they are easily discarded.

Senator Fischer. Thank you, sir.

Thank you, Mr. Chairman.

Senator Inhofe. Senator Boozman.

Senator Boozman. Thank you, Mr. Chairman.

Chairman Burns, thank you for your upcoming plans to visit Arkansas Nuclear 1. As you know, nuclear power improves air quality. Each year, Arkansas Nuclear 1 allows our State to reduce air emissions. For example, in just one year, the plant reduces sulfur dioxide by about 14,000 tons, it reduces nitrogen oxide by about 10,000 tons, and it reduces CO2 by nearly 8.5 million metric tons.

In other words, thanks to nuclear power in Arkansas, we reduce acid rain, smog, and ground level ozone. The operation of our Arkansas Nuclear 1 directly creates more than 1,000 good paying jobs; it provides a reliable source of over 1,800 megawatts of clean power to Arkansans. The plant provides affordable power that supports many other jobs and industries across our State that helps families keep the lights on.

The NRC staff has been working diligently to address a few issues that were discovered at the plant following a serious industrial accident that occurred three years ago during maintenance on the non-nuclear side of the plant. I applaud the efforts of energy and the NRC staff to address these issues while keeping the plant safely operating. We really are very, very proud of our nuclear plant.

Just a question. We want to make sure you have the resources you need to do your work, and we want to make sure that the NRC budget is right-sized for today's workload. The NRC's work on Project Aim is intended to more closely align NRC's resources with the actual workload, while making sure the NRC meets its safety and security missions.

In your testimony you say, "The NRC has taken a hard look at the proposed budget and is proposing reductions in both full-time equivalents and contract support dollars that represent real savings. As we continue our work through the Project Aim initiative, we anticipate additional savings and efficiencies to come."

How will these additional savings translate in reductions of the NRC fiscal year 2017 budget request of \$982.3 million and 3,523 FTE?

Mr. Burns. Thank you for the question, Senator. I do appreciate the opportunity to be able to go visit Arkansas Nuclear 1 and 2 soon. It is a plant I haven't been to as yet.

The answer to your question is that we have identified, primarily through the re-baselining effort through Project Aim, about \$31 million in additional savings, and I think below what we can in on the President's Budget, part of that is, you know, the timing of the President's Budget and the review process.

The Commission is about ready to issue its final guidance on these additional re-baselining items and I think they represent about \$31 million. There are a few more and, frankly, the number escapes me now, that we see that would go on into 2018. I forget, it is about \$8 million in additional savings. So that is where I would say the core of it is, and I think is a demonstration we have taken this effort seriously.

Senator Boozman. How about Project Aim recommendations and workforce planning, including strict hiring controls, staff reduction buyouts, how would that affect things?

Mr. Burns. The Office of Chief Human Capital, I used to call it HR, now it is OCHC, so I get confused sometimes. Our HR office basically has put hiring controls, so in terms of external hires we are looking only at very critical positions, looking to be more flexible, that is the strategic workforce planning, about getting people with skill sets who might, say, working in the reactor area go to the materials area and working with things like that.

We did do an early out buyout last year. We were authorized up to about 100. We had about 50, I think 49 take it. We are in the process of going through the process of getting authorization for an additional effort in that way, but that is in process. So we would do that again to achieve some savings this year.

Senator Boozman. Thank you, Mr. Chairman, and Chairman Burns.

Mr. Burns. Thank you.

Senator Inhofe. Thank you, Senator Boozman.

Senator Sessions had questions concerning Yucca Mountain and, without objection, I am going to ask him to submit to each one of you those questions, and we would anticipate a response by the end of the week. Okay?

Thank you very much for your patience and also getting us out on time.

We are adjourned. Thank you.

[Whereupon, at 11:20 a.m. the committee was adjourned.]