Chairman Lamar Alexander Opening Statement
Committee on Appropriations Subcommittee on Energy and Water Development

Hearing to Review the FY2020 Budget Request for the U.S. Nuclear Regulatory Commission

May 1, 2019

(As prepared for delivery)

The Subcommittee on Energy and Water Development will please come to order.

Today's hearing will review the administration's fiscal year 2020 budget request for the U.S. Nuclear Regulatory Commission.

This is the last of the Subcommittee's four budget hearings this year. In April, we heard from the Department of Energy, the National Nuclear Security Administration, the Army Corps of Engineers, and Bureau of Reclamation about their funding requests.

We run a real risk of losing our best source of carbon-free power just at a time when most Americans are increasingly worried about climate change. Nuclear power must be part of our energy future if we want clean, cheap, and reliable energy that can create good jobs and keep America competitive in a global economy.

Today 98 nuclear reactors provide about 20 percent of electricity in the United States, and 60 percent of all carbon-free electricity in the United States.

But nuclear plants are closing because they cost too much to build and cannot compete with natural gas.

Two reactors have announced they will retire later this year, and ten more have announced retirements by 2025.

Let's do a little math here. If we closed those 12 reactors, that would mean a 17 percent decline in carbon-free nuclear power by 2025, which is 10 percent of carbon-free electricity.

Today, solar power – despite impressive reductions in cost – provides 4 percent and wind provides 20 percent of carbon-free electricity despite billions of dollars in subsidies.

To replace those 12 reactors that have announced they will close with other carbon-free electricity, we would have to almost triple the entirety of U.S. solar power or increase wind power by another 50 percent.

If half of our existing nuclear reactors were to close, we would have to double the amount of wind energy produced and or increase the amount of solar energy produced by as much as 10 times.

Nuclear power is much more reliable than solar or wind power. It is available when the sun doesn't shine and the wind doesn't blow.

The bottom line is, we can't replace nuclear power with just wind and solar. We would have to use natural gas to replace nuclear power, which would increase emissions in our country.

Unfortunately, we do not need to speculate about what happens when a major industrialized country eliminates nuclear power. We have seen what happened in Japan and Germany for different reasons. Major industrialized economies similar to ours lost their emission-free, low-cost, reliable electricity. Prices went up, pollution went up, and manufacturing became less competitive in the global marketplace. And that is where we are headed in the next 10 years if we do not do something. Stakes are high.

In Japan, the cost of generating electricity increased 56 percent after the Fukushima accident in 2011 when Japan went from obtaining 30 percent of its power from nuclear to less than 2 percent.

Before 2011, Germany obtained one quarter of its electricity from nuclear. Now that number is down to 12 percent. Now Germany has among the highest household electricity rates in the European Union after replacing nuclear power with wind and solar as part of an expensive cap-and-trade policy.

Germany also had to build new coal plants to meet demand, which increased emissions.

In late March, I proposed that the United States should launch a New Manhattan Project for Clean Energy, a five-year project with Ten Grand Challenges that will use American research and technology to put our country and the world firmly on a path toward cleaner, cheaper energy.

These Grand Challenges call for breakthroughs in advanced nuclear reactors, natural gas, carbon capture, better batteries, greener buildings, electric vehicles, cheaper solar, and fusion.

I put advanced reactors first on the list for a reason. To make sure nuclear power has a future in this country, we need to develop advanced reactors that have the potential to be smaller, cost less, produce less waste, and be safer than today's reactors.

We need to stop talking about advanced reactors and actually build something. Within the next five years, we need to build one or more advanced reactors to demonstrate the capabilities they may bring.

As we review the Nuclear Regulatory Commission's fiscal year 2020 budget request we need to make sure the Commission has the staff and resources it needs to respond to the changing industry.

First, I would like to thank our witnesses for being here today, and also Senator Feinstein, with whom I have the pleasure to work again this year to draft the Energy and Water Appropriations bill.

Our witnesses today include: Kristine Svinicki, Chairman of the Nuclear Regulatory Commission; Commissioner Jeff Baran; Commissioner Annie Caputo; and Commissioner David Wright.

Commissioner Stephen Burns retired yesterday after forty years of distinguished service at the NRC. He started as an attorney in 1978, rose to General Counsel, and then retired from the agency to head Legal Affairs at the Nuclear Energy Agency in Paris. He returned to the NRC in 2014 as a Commissioner and Chairman. He was well respected in every position he held. I would like to thank him for his many years of service.

We're here today to review the administration's fiscal year 2020 budget request for the U.S. Nuclear Regulatory Commission, the independent federal agency responsible for regulating the safety of our nation's 98 commercial nuclear power plants and other civilian uses of nuclear material.

The Nuclear Regulatory Commission's budget request this fiscal year is $921 million, which is about $10 million less than Congress provided last year. The request includes $38.5 million for the Yucca Mountain licensing process.

It has become increasingly difficult for the nuclear industry to compete with other sources of electricity, especially natural gas.

One of the concerns the industry had was the amount of regulatory fees charged by the Commission—currently, $760 million of the Commission's budget comes from fees paid by utilities and other facilities that are licensed to possess and use nuclear materials.

So over the last five fiscal years, we have worked with the Commission to reduce its overall budget by about $100 million, which represents about a 10-percent reduction in budget – which means a roughly 10%-percent reduction in fees – and more closely reflects its actual workload while maintaining its gold standard of safety.

These savings are important because they lower the fees utilities must pay the Commission, and these savings can be passed on to utilities' customers.

These reductions have not been arbitrary and represent the type of oversight the Senate is supposed to do. Our subcommittee has only reduced the Commission's budget in areas that the Commission has identified as unnecessary to its important safety mission.

To ensure nuclear power will continue to play a significant role in our nation's electricity generation, I'd like to focus my remarks on four main areas: licensing small modular and advanced reactors; solving the nuclear waste stalemate; safely extending licenses for existing reactors; and maintaining adequate staffing at the Nuclear Regulatory Commission.

Advanced reactors and small modular reactors represent the future of nuclear power. The Commission needs to be ready to review applications for new these new reactors.

In fiscal year 2017, we provided enough funding to complete the Small Modular Reactor Licensing Technical Support program at the Department of Energy.

NuScale, which was one of the technologies selected in that program, filed an application for design certification of a small modular reactor with the Commission in December of 2016.

A utility group has been working with NuScale and Idaho National Laboratory to build and demonstrate a small modular reactor in Idaho.

TVA also has an application under review for a permit to build and demonstrate a small modular reactor at the Clinch River site in Tennessee.

Licenses to build and demonstrate small modular reactors is an important step, and we need to make sure the Commission has the resources it needs to review the applications.

I also understand that the Commission expects to receive an application in fiscal year 2020 for a construction and operating license for an advanced, non-light water reactor.

The fiscal year 2019 appropriations bill included $10 million for the Commission to prepare to review advanced reactor designs, and the current budget request includes $15.5 million for fiscal year 2020.

I'd like to know what the Commission plans to do with the funding Congress provided for advanced reactors so that we can make sure the development of advanced reactors stays on track.

To ensure that nuclear power has a strong future in this country, we must solve the decades' long stalemate over what to do with used fuel from our nuclear reactors.

Senator Feinstein and I have been working on solving the nuclear waste stalemate for years, and I'd like to take the opportunity to compliment Senator Feinstein on her leadership and her insistence that we find a solution to this problem.

The only way to break the stalemate is to get a final decision on whether Yucca Mountain is safe or not.

And this year's budget request for the Nuclear Regulatory Commission includes $38.5 million to begin to answer that questions by restarting the licensing process for the Yucca Mountain repository. This is the next step the Department of Energy must follow to determine whether it can begin construction of Yucca Mountain. After a public hearing where all parties, including the State of Nevada, can provide expert testimony and evidence, the Commission will make a final determination whether it is safe to build Yucca Mountain.

I strongly believe that Yucca Mountain can and should be part of the solution to the nuclear waste stalemate. Federal law designates Yucca Mountain as the nation's repository for used nuclear fuel, and the Commission's own scientists have told us that we can safely store nuclear waste there for up to one million years.

But even if we had Yucca Mountain open today, we would still need to look for another permanent repository. We already have more than enough used fuel to fill Yucca Mountain to its legal capacity.

The quickest, and probably the least expensive, way for the federal government to start to meet its used nuclear fuel obligations is for the Department of Energy to contract with a private storage facility for used nuclear fuel.

I understand that two private companies have submitted license applications to the NRC for private consolidated storage facilities, one in Texas and one in New Mexico, and that the NRC's review is well underway. I'll be asking some questions about that today.

I want to make sure that the Commission has all the resources it needs in fiscal year 2020 to review the applications for consolidated storage facilities because we have to start working together to solve the nuclear waste stalemate if we want a strong nuclear industry.

Senator Murkowski, along with Senator Feinstein and I, introduced a bill this week to implement the recommendations of the Blue Ribbon Commission on America's Nuclear Future, which include using temporary private storage facilities.

The legislation complements Yucca Mountain, and would create a new federal agency to find additional permanent repositories and temporary facilities for used nuclear fuel.

Instead of building more windmills, which only produce 20 percent of our carbon-free electricity, or solar farms, which only produce 4 percent of our carbon-free electricity, the best way to make sure the United States has a reliable source of inexpensive, efficient, carbon-free electricity is to extend the licenses of our existing nuclear plants—which produce 60 percent of our carbon-free electricity—if it is safe to do so.

Most of our 98 reactors have already extended their operating licenses from 40 to 60 years (although many have decided to close prematurely for economic reasons), and some utilities are beginning the process to extend their licenses from 60 to 80 years.

The Commission has spent the past several years developing the framework to review these types of license renewal applications to make sure the reactors can continue to operate safely from 60 to 80 years.

This year's budget request includes funding to review what the Commission calls "subsequent" license renewal applications for six reactors in Florida, Pennsylvania, and Virginia.

Just those 6 reactor extensions would equal about what solar power currently produces and a fourth of what wind power currently produces.

That is just accounting for the 6 reactors that have applied to extend their licenses rather than shut down.

If even half of the remaining 92 reactors decide to extend their licenses another 20 years, it would produce almost double the amount of wind power that is currently produced and as much as 10 times the amount of solar power produced.

So if you care about carbon free emissions, the short term solution for the next 20 years is, where safely, to extend the licenses for these reactors.

I want to make sure that the Commission has the resources it needs to review those applications in fiscal year 2020, because I think it is important to maintain our existing nuclear power when it is safe to do so.

The Commission's budget reduction has been steep over the past five fiscal years. As part of its effort to reduce its budget, the Commission has limited hiring, especially entry-level hiring.

We have heard from the Commission that of its 2,900 current employees, 24 percent are currently eligible for retirement. Four years from now, 42 percent will be eligible for retirement.

Those numbers are not a concern as long as the NRC has younger staff ready to take over the important work of the agency. But I understand that only 2 percent of NRC employees are under 30 years old.

To have nuclear power in the future, we need to have a nuclear regulator. I would like to understand how the Commission is ensuring that the next generation is in place.

I look forward to working with the Commission as we begin putting together our Energy and Water Appropriations bill for fiscal year 2020, and also with Senator Feinstein, who I will now recognize for her opening statement.

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