

Stenographic Transcript
Before the

COMMITTEE ON
ARMED SERVICES

UNITED STATES SENATE

HEARING TO
RECEIVE TESTIMONY ON CHALLENGES IN THE
DEPARTMENT OF ENERGY'S ATOMIC ENERGY
DEFENSE PROGRAMS
IN REVIEW OF THE DEFENSE AUTHORIZATION
REQUEST FOR FISCAL YEAR 2019 AND
THE FUTURE YEARS DEFENSE PROGRAM

Thursday, March 22, 2018

Washington, D.C.

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9
10 U.S. Senate
11 Committee on Armed Services
12 Washington, D.C.
13

14 The committee met, pursuant to notice, at 10:04 a.m. in
15 Room SH-216, Hart Senate Office Building, Hon. James M.
16 Inhofe, presiding.

17 Committee Members Present: Senators Inhofe
18 [presiding], Wicker, Fischer, Cotton, Rounds, Ernst, Tillis,
19 Sullivan, Cruz, Graham, Sasse, Scott, Reed, Nelson,
20 McCaskill, Shaheen, Gillibrand, Blumenthal, Donnelly,
21 Hirono, Kaine, King, Heinrich, Warren, and Peters.

1 OPENING STATEMENT OF HON. JAMES M. INHOFE, U.S.
2 SENATOR FROM OKLAHOMA

3 Senator Inhofe: Our hearing will come to order.

4 They are the force sitting right behind you, Rick. So
5 you wave at them.

6 The committee meets today to hear testimony from the
7 Department of Energy's atomic energy programs.

8 We welcome our witness, Energy Secretary Rick Perry, a
9 good friend of all of ours.

10 The DOE houses a number of defense programs, such as
11 the National Nuclear Security Administration and the Office
12 of Environmental Management that are under the jurisdiction
13 of the Armed Services Committee.

14 Even so, a hearing like this is rare. Our committee
15 has not called a Secretary of Energy to testify for over 10
16 years. You ought to feel good about that.

17 Secretary Perry: I am trying, sir.

18 [Laughter.]

19 Senator Inhofe: The DOE's defense programs, including
20 the cleanup of nuclear waste, have gone without sufficient
21 oversight.

22 Chairman McCain has asked that we read into the record
23 a statement that he would like to make concerning this
24 hearing today, so I am quoting. The Department of Energy's
25 defense atomic energy programs are critically important to

1 our national security. Unfortunately, in recent years, the
2 DOE has run up a long list of cost overruns, schedule
3 delays, and violations of safety and security. Put simply,
4 too often they have failed to meet mission requirements with
5 billions of dollars in the DOE funding authorized by the
6 NDAA each year. The Senate Armed Services Committee has the
7 opportunity to conduct the kind of oversight that will help
8 the Department correct course.

9 The fiscal year 2019 budget request for the NNSA and
10 the Environmental Management totals over \$20 billion. That
11 comprises about 70 percent of the Department of Energy's
12 proposed budget for fiscal year 2019. And it is up to us to
13 ensure vigorous oversight of these taxpayer dollars.

14 Secretary Perry, it is a pleasure having you here.

15 Senator Reed?

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1 STATEMENT OF HON. JACK REED, U.S. SENATOR FROM RHODE
2 ISLAND

3 Senator Reed: Well, thank you very much, Mr. Chairman.

4 And welcome, Mr. Secretary. Thank you very much.

5 The last Secretary of Energy to testify before the
6 committee was Secretary Chu in 2010. The Augustine-Mies
7 Commission which evaluated the effectiveness of the NNSA
8 recommended in 2015 that the Secretary of Energy appear
9 before the Senate Armed Services Committee on an annual
10 basis. This appearance I hope fulfills that recommendation
11 and becomes a recurring part of the committee's posture
12 hearings given that the atomic energy defense funding in the
13 Department of Energy totals approximately \$19 billion, which
14 is more than two-thirds of the Energy Department's fiscal
15 year 2019 budget.

16 Secretary Perry, there are a number of issues I am
17 hoping you will address today.

18 First and foremost is the ability of the Department and
19 the NNSA to build 80 pits a year by 2030, as mandated by the
20 2014 National Defense Authorization Act. This requirement
21 was ratified by the Department of Defense based on a series
22 of modules to be built at Los Alamos after spending about
23 \$600 million to design a prior building there, whose costs
24 became out of control and was canceled. The modular
25 approach was also approved by the DOD and the NNSA and was

1 authorized in the 2013 National Defense Authorization Act.
2 I understand that you may again be reconsidering or
3 considering a large building design rather than the modules.
4 Since a single building approach failed in 2013, I am
5 interested in your thinking on this issue.

6 Second, the Department is modernizing six weapon
7 systems, and while at the same time is modernizing an
8 infrastructure that in some cases dates back to the
9 Manhattan Project, which includes the NNSA uranium and the
10 plutonium infrastructures. For fiscal year 2019, \$3
11 billion, or about 20 percent of NNSA's overall budget, is
12 dedicated to this effort. Maintaining momentum on
13 modernization will be a daunting challenge, and I am
14 interested in your views on sustaining this effort.

15 Third, I would like to know about the Department's plan
16 to clean up the Hanford nuclear site. In 2014, after
17 spending close to \$8.3 billion at the Hanford site to treat
18 approximately 55 million gallons of radioactive waste in 177
19 underground tanks, the Department paused its efforts to
20 treat and turn into glass the waste in those tanks. In
21 addition, the Department now only intends to turn the low-
22 activity waste into glass while leaving the high-level waste
23 treatment, which is about 10 percent of the site, to a later
24 date. I would like to know the status of the low-activity
25 waste effort, when will you return to treating the high-

1 level waste, and what is the estimated total cost.

2 Finally, I would like to know how the Department is
3 addressing the flow of loose nuclear material particularly
4 from Russia. In just one example, a British newspaper has
5 reported on four thwarted attempts in Moldova to stop the
6 sale of nuclear material on the black market. In some
7 cases, the sale is linked to Russia and buyers were linked
8 to extremists in the Levant region. Proliferation of
9 nuclear materials is one of the greatest threats facing our
10 nation and I hope is the top focus of the Department of
11 Energy.

12 Again, I look forward to your testimony today and hope
13 this becomes an annual event for this committee. Thank you,
14 Mr. Secretary.

15 Senator Inhofe: Thank you, Senator Reed.

16 And, Secretary Perry, thank you again for being here,
17 and we would like to have you give us your opening
18 statement. Your entire statement will be made a part of the
19 record. And you are recognized.

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1 STATEMENT OF HON. J. RICHARD PERRY, SECRETARY OF
2 ENERGY

3 Secretary Perry: Chairman Inhofe, thank you, to each
4 of the members. Some of you I have worked with through the
5 years. It is always good to see a governor or two in the
6 crowd. So, Mike and Governor Shaheen, thank you for your
7 kindness. And it is my honor, Ranking Member Reed, others
8 to be in your presence, and at your request, I will be here
9 as often as you need me, sir. So I hope I can answer your
10 questions, discuss this very important issue with you today,
11 and in a succinct way, as we talk about the President's 2019
12 budget request for the Department of Energy.

13 But before I get started, I just want to share with you
14 I had a wonderful conversation yesterday, a phone call, with
15 Chairman McCain. He was lively, focused. Anyway, he sent
16 his regards and said that you would ably chair the
17 committee, Senator Inhofe. So, anyway, it was good to talk
18 to him. Certainly I know I think all of you keep him in
19 your prayers and wish the best to him and his family.

20 Mr. Chairman, this budget request capitalizes on the
21 Department of Energy's scientific capabilities to advance
22 our nuclear security, support our nuclear Navy, and reduce
23 the threat of nuclear terrorism. It also confirms our
24 commitment to clean up the environmental legacy of America's
25 past efforts to maintain nuclear security. And I appreciate

1 this committee's steadfast support for these missions as
2 they pertain to our efforts, past and present, to keep
3 America safe and strong.

4 I firmly believe that we have a moral obligation to
5 protect the American people from adversaries who are wishing
6 to do us harm. And for the past 70 years, our government
7 has advanced this goal by maintaining our nuclear deterrent.

8 The Department of Energy's role in our national
9 security is one I undertake with utmost seriousness. In the
10 last year, I visited our national security facilities at Los
11 Alamos, Pantex, Y-12, Kansas City. Next week, I am going to
12 have the pleasure to go out west to Sandia and Lawrence
13 Livermore. For these visits, I have identified key
14 challenges facing our Department and its national security
15 mission.

16 First, through DOE's National Nuclear Security
17 Administration, NNSA, we need to ensure that our nuclear
18 strategy responds to the threats of today while anticipating
19 those of tomorrow.

20 Second, through our Office of Environmental Management,
21 we need to increase the pace of cleaning up the legacy
22 resulting from decades of nuclear weapons production. We
23 aim to address both challenges through our partnership with
24 our national laboratories. Those crown jewels are, I think,
25 irreplaceable. They are clearly great incubators of

1 innovation.

2 The 2019 \$30.6 billion budget request for the
3 Department meets both of those needs that I have just
4 pointed out.

5 When it comes to our nuclear posture, we have long
6 embraced a two-pronged strategy of deterrence and
7 nonproliferation. We have sought to deter aggressors by
8 maintaining a powerful nuclear arsenal and infrastructure,
9 and we have sought through nonproliferation to prevent those
10 foes from gaining such weapons for themselves or providing
11 them to others.

12 But since the end of the Cold War, we have not kept
13 pace with rising threats to our nation and its allies.
14 These include threats from borderless enemies and the
15 potential sale of nuclear materials to bad actors. They
16 also include new challenges from Russia and China who are
17 upgrading their nuclear capabilities and, of course, the
18 challenge posed by North Korea.

19 Mr. Chairman, let me pause for a moment and just say
20 thank you to you specifically, the committee as a whole.
21 This committee understands that we have to keep pace with
22 modernization. You understand that we have deferred
23 maintenance for too long, that it is going to take a
24 multiyear approach to get us back to a position of strength.
25 Thankfully with your help, our administration is starting to

1 turn the corner on this arena. Coupled with the National
2 Security Strategy, the President's recently released Nuclear
3 Posture Review, it reaffirms our nuclear triad as the
4 bedrock of the nation's deterrent. This strategy
5 necessitates that our capabilities be more robust, more
6 resilient, and more flexible than ever before.

7 The President's budget provides the resources to do
8 exactly that. This budget will help us modernize our
9 nuclear forces by extending the life of existing warheads,
10 replacing them with systems that use today's technologies.
11 It will ensure the safe and reliable operation of our
12 nuclear-powered submarines and aircraft carriers and meet
13 the Navy's requirement for modernized nuclear propulsion.
14 It will help us replace our aging nuclear security
15 infrastructure, much of which dates back to the Eisenhower
16 administration, and it will keep nuclear weapons out of the
17 wrong hands by aiding in nonproliferation efforts.

18 While the President's fiscal year 2019 budget request
19 provides much needed resources for our nuclear security
20 enterprise, we must be mindful that those resources are not
21 unlimited, and we have a responsibility to the American
22 taxpayers.

23 I recently visited the Savannah River site, and it is a
24 national asset, populated with some amazingly capable,
25 patriotic men and women. Savannah River is a critical

1 partner in our national security and our environmental
2 management missions, and it has a very bright future ahead
3 of it.

4 We have a solemn moral duty to address the
5 environmental legacy left at the sites, which produced the
6 materials that helped us end a world war and to secure the
7 peace. We also have a moral duty to the taxpayers to use
8 scarce resources wisely, effectively.

9 I will report to you that our Environmental Management
10 has made undeniable progress in advancing its mission. It
11 has completed cleanup activities in 91 sites in 30 States.
12 However, there is still a lot of work to be done, and Mr.
13 Chairman, we are committed to doing it. We will commission
14 and start up the salt waste processing facility at Savannah
15 River. In addition to our work at Savannah River, we will
16 continue our progress at Hanford. We will ramp up
17 activities to increase shipments of transuranic waste to
18 Senator Heinrich's district out at WIPP -- for his State.
19 Excuse me. And we will complete design and initiate
20 construction of the Oak Ridge mercury treatment facility,
21 and we will continue to press forward with tackling these
22 aging and excess facilities in some cases at various sites.

23 So I want to thank you again for your hospitality and
24 for your continued support of our mission and for having me
25 here this morning. I will attempt to answer your questions,

1 as you have them, sir.

2 [The prepared statement of Secretary Perry follows:]

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1 Senator Inhofe: That is great, and I appreciate that
2 very much.

3 We are going to have 5-minute rounds, and I am going to
4 adhere to it myself.

5 And I think you said it in your last few statements
6 that we have catching up to do, and people do not realize
7 that. You know, the Department of Defense recently
8 completed its Nuclear Posture Review, and the
9 administration's defense strategy and nuclear posture --
10 they both highlight the acute threat that China and Russia
11 are to us as peer competitors. Now, we are not used to that
12 in America, but they are. And we just got back from the
13 South China Sea and we saw what they are doing with
14 reclaiming land down there, and they are in the driver's
15 seat in many parts. And people question is it China or the
16 United States who we should be partners with.

17 Secretary Mattis put it the best way. He said we
18 looked reality in the eye as the world sees us as it is not
19 as we wish it were. And that fits in with the National
20 Defense Strategy because nuclear weapons are an unavoidable
21 part of our return to great power competition, whether we
22 like that or not.

23 So we are talking about China and Russia in this part
24 of our review.

25 I would just first ask you just to get this out of the

1 way. Do you support the recommendations of the Nuclear
2 Posture Review? Just yes or no?

3 Secretary Perry: Yes, sir.

4 Senator Inhofe: Okay. That is good and I agree.

5 Now, I want you to elaborate on that only if there is
6 time because I have two other questions I need to get out of
7 the way first.

8 Both China and Russia have a robust nuclear arsenal and
9 a triad. Now, we are talking about missiles and the bombers
10 and submarines. In 2018, the Nuclear Posture Review
11 recommends the development and procurement of a low-yield
12 warhead for submarine-launched ballistic missiles. Now,
13 this has become controversial, and I know there is honest
14 difference of opinion at this table on this. And sometimes
15 we talk about, well, we do have it now. We only have it
16 with bombs. And so that would assume then a B-52 could get
17 through, which I am not ready to assume. So the
18 recommendation is to have this capability with the idea that
19 if we ever got into something with Russia and they have a
20 low-yield and we do not, it might put us in a position of
21 having to respond with something that we would not want to
22 start that could lead to mutual assured destruction.

23 So I would just ask you, Secretary Perry, how does the
24 NNSA plan to provide this capability?

25 Secretary Perry: Senator, I will try to be very brief

1 in this answer. This program will be a modification of the
2 W-76 warhead using the existing components that we have.
3 And I respect the arguments on both sides of this, but I
4 will say from my perspective is that I think it is necessary
5 for us to go forward with this program to achieve our
6 tailored deterrence objective. I do not think this raises
7 the threshold for use of nuclear weapons. I think it will
8 deter others, which is exactly from my perspective the role
9 that we should have. And we are working with DOD on the
10 specific requirements, and obviously we will work with OMB
11 and this committee going forward for the necessary
12 authorization to begin the engineering and production side
13 of that.

14 Senator Inhofe: And I think also people need to
15 understand when they talk about low-yield, we are talking
16 about up to 10 kilotons. Hiroshima was 15 kilotons. So we
17 are talking about a lot of power and a lot of destructive
18 power.

19 Back when they were putting together the deal, when
20 John Kerry was, with the Iran deal, I was opposed to that
21 all the way through. But the Joint Comprehensive Plan of
22 Action was established to ensure that Iran's nuclear program
23 would be exclusively peaceful. And I think a lot of people
24 are walking around now believing that they want to have
25 their enrichment program. They do not want to use that as

1 weapons but for energy, for peaceful reasons. Now, let us
2 assume that they are right on that, which I do not think
3 they are. The most significant flaw in this agreement is
4 they have the sunset provisions where they ease after a
5 period of years, and another flaw is that does not apply to
6 ballistic missiles or terrorism activities.

7 So in the short time that we have here, Secretary
8 Perry, how can the United States mitigate proliferation
9 potential in Iran after these provisions expire, if they go
10 beyond the expiration date?

11 Secretary Perry: Senator, I support the President's
12 desire to put America in a stronger position relative to
13 this agreement. My role, the Department of Energy's role is
14 in a technical position. We are really not in the policy
15 side of it. We will respect what you, this committee,
16 Congress, and the President working together does relative
17 to that.

18 Senator Inhofe: Thank you very much.

19 Senator Reed?

20 Senator Reed: Well, thank you very much, Mr. Chairman.
21 And thank you, Secretary Perry.

22 The issue of proliferation is one that is critical, and
23 one aspect of this that you have already been asked about on
24 your visit to the House is you have been in discussions with
25 Saudi Arabia about the transfer of nuclear technology for

1 power production. But there are indications that there may
2 be a waiver of the traditional standards we insist upon,
3 which is no nuclear enrichment, the so-called gold standard.
4 In fact, we have arranged with the UAE, the Emirates, in
5 which they have to adhere strictly to the gold standard.

6 I think you already know that if such a deal was
7 proposed where the Saudis would not be liable to and
8 required to adhere to this standard, I would oppose it and I
9 think many others would too. So I just wanted to make that
10 clear on the record, Secretary Perry.

11 Secretary Perry: Yes, sir.

12 Senator Reed, I think it is really important to look at
13 each of these agreements not in a vacuum but certainly with
14 the specificity of what we are looking at here. And I like
15 to remind people that our choice is at this particular point
16 in time, it appears to me either Russia or China is going to
17 be a partner in building civil nuclear capability in the
18 Kingdom of Saudi Arabia or the United States. I am very
19 confident that the prior two have no requirements of
20 nonproliferation. So I think it is really incumbent upon us
21 to sit down to work as closely with the kingdom to not only
22 bring them into our fold from the standpoint of being able
23 to build that for them, our technology, our jobs being
24 created, et cetera, but also from having those additional
25 protocols and the International Atomic Energy Agency with

1 their ability to go in and make sure that they are in fact
2 not involved in any activities that would be untoward.

3 So I think it is important for us to negotiate in a
4 powerful way, but recognizing that the alternative of who
5 they are going to be doing business with is of great concern
6 to me.

7 Senator Reed: No. I appreciate that point. I think
8 the proliferation dangers are so great that we should be
9 able to wield all of the influence we have, which goes way
10 beyond just this one transaction, to insist upon the same
11 standards we applied to the Emirates, and there should be no
12 difference.

13 Let me turn quickly to the issue of pit production.
14 General Hyten was here testifying, and he was very, very
15 clear that we need 80 pits by 2030. In 2013, after spending
16 \$600 million on a design at Los Alamos, both Congress, NNSA,
17 DOD, and this committee agreed in 2014 that we have to go
18 ahead and proceed with the modular facilities there. And
19 frankly, we are in a rush to get those 80 pits done by 2030.

20 But now there is talk of sort of stopping and
21 recalculating and looking at another approach. I just do
22 not think we have the time to do that. So your comments.

23 Secretary Perry: Yes, sir. Senator Heinrich and I
24 have discussed this at length many times. I have been to
25 Los Alamos and visited P-4 and the other facilities out

1 there. It is populated with some extraordinary men and
2 women. They have done fabulous work, pits 0 through 30.
3 Los Alamos is going to be the center for plutonium
4 excellence for as long into the future as there is a future.
5 We are committed to that.

6 0 through 30 will be done there. I think it does make
7 some sense to have -- we have been given the directive with
8 this analysis of alternatives to take a look at with GAO
9 best practices. You know, there were two options that were
10 identified, Savannah River and Los Alamos. And that
11 engineering study has not been done yet, but when it does,
12 we will report to you on a very timely basis. I think we
13 know to get the job done, I think 2026 is when the calendar
14 is for the 30 pits per year to be done. And then that 31
15 through 80 -- it is important for us to be able to send a
16 clear message that we can get it done, we can get it done on
17 a timely basis and get it done in a way that the taxpayers'
18 respect is thoughtful about their concerns.

19 Senator Blumenthal: Thank you, Mr. Secretary. I might
20 follow up with some questions about Hanford and otherwise.
21 But thank you very much.

22 Senator Inhofe: Thank you, Senator Reed.

23 Senator Fischer?

24 Senator Fischer: Thank you, Mr. Chairman.

25 Welcome, Secretary Perry.

1 The Nuclear Posture Review states the longstanding goal
2 of building a responsive nuclear infrastructure but notes
3 that despite being highlighted in all previous NPRs, the
4 United States has failed to make sufficient progress to
5 achieve this objective.

6 Are you committed to making the necessary investments
7 to ensure that we meet the Department of Defense's
8 requirements and the objectives described in the Nuclear
9 Posture Review?

10 Secretary Perry: With Congress' blessing and funding,
11 absolutely.

12 Senator Fischer: Thank you.

13 Can you speak to how you will implement the NPR's
14 recommendations and what steps you can take to ensure the
15 goals of this Nuclear Posture Review result in real action
16 when it comes to modernizing the nuclear complex?

17 Secretary Perry: Well, I want to remind the committee
18 that I just had the privilege of naming a new director or
19 administrator, I should say, of the NNSA, Lisa Gordon-
20 Hagerty, a brilliant, capable, and I might add, the first
21 female that ever headed up that administration, that agency.
22 So she is very capable.

23 When you look at the work that has to be done -- and I
24 think we all recognize this is going to be multi years.
25 This Congress', this administration's focus on the increase

1 in funding I think was very important, whether it is the
2 modernization of those warheads or whether it is the
3 facilities. And again, I have not been to all of the
4 facilities we have. I am en route to get to all of them.

5 But when I go to Oak Ridge and I am in facilities that
6 were built in some cases before I was born -- and that was a
7 spell ago -- then it becomes abundantly clear to me that
8 both on the modernization side having the workforce, having
9 the resources to dismantle in my home State of Texas with
10 Pantex, being able to process those whether it is over in
11 Senator Heinrich's district or whether it is at some of the
12 other facilities, that is going to require a long commitment
13 for as long as I am the Secretary of Energy and for years
14 down the road. I hope that what we are doing today with
15 this budget sends the message that modernization is a
16 priority, dealing with these facilities is a priority, and
17 putting America in a position to be stronger and do it in a
18 way that our taxpayers recognize is very efficient.

19 Senator Fischer: Thank you.

20 I was pleased to see in your opening statement that you
21 committed to achieving the required production capacity of
22 those 80 plutonium pits by 2030 and affirms that there is no
23 margin for further delay in modernizing NNSA's capabilities
24 and infrastructure.

25 Secretary Gordon-Hagerty, who I have strong confidence

1 in, made similar points during a recent hearing that I
2 chaired in the Strategic Forces Subcommittee, and I welcome
3 that sense of urgency that you are both bringing to this
4 important issue.

5 Since the Department of Energy's budget was finalized
6 before the Nuclear Posture Review, do you anticipate seeking
7 funding increases for the National Nuclear Security
8 Administration, the NNSA, beyond the out-year projections
9 included in this budget request in order to implement the
10 NPR's objectives?

11 Secretary Perry: I do not. I think that the budget
12 that is -- actually the omnibus that was finished last
13 night, the 2019 budget is the appropriate amount of dollars.
14 My commitment to you is that those dollars will be spent as
15 efficiently, as effectively. As a former governor of a
16 State and a manager of some pretty big line items, I hope I
17 give some comfort to not only the governors that are
18 represented around this table but to all of the members here
19 that the management of the Department and into those
20 enterprises that are outside of Washington, D.C. will be run
21 as efficiently, as effectively as they have ever been in
22 their history.

23 Senator Fischer: Thank you, sir.

24 Thank you, Mr. Chairman.

25 Senator Inhofe: Thank you, Senator Fischer.

1 Senator Shaheen?

2 Senator Shaheen: Thank you, Mr. Secretary, for being
3 here. I think it is very important for this committee to
4 have more insight into what you are doing at the Department
5 of Energy to address our defense requirements.

6 There was a story in the "New York Times" on March 15th
7 that was based on information provided by the Department of
8 Homeland Security that talked about the Russian Government's
9 series of cyber attacks targeting U.S. and European nuclear
10 power plants, as well as water and electric systems. And
11 separately on that day, there was also a story about a cyber
12 attack on a Saudi petrochemical plant by the Iranian
13 Government, or the suggestion was that it was the Iranian
14 Government.

15 And I wonder if you could talk about what you are doing
16 within the Department of Energy to try and address cyber
17 attacks and the threat of cyber attacks on our nuclear
18 infrastructure.

19 Secretary Perry: Senator, thank you. A year ago in
20 front some of my committees, I made the statement that
21 cybersecurity was one of the priorities of the Department.
22 That has not changed. If anything else, it is even
23 highlighted more by those activities that you mentioned
24 here.

25 So as we looked at the agency, NNSA has some cyber work

1 that they do and over at the enterprise level in the
2 Forrestal building. We saw a lot of bifurcation, a lot of
3 fragmentation, if you will. So what I asked the agency to
4 do was to come back with a plan where that we could really
5 consolidate, we could focus, we could have as tight a
6 process as possible to really focus on this issue of
7 cybersecurity. As you well know, DOE is the sector-specific
8 agency in the electrical side of things. So the grid, the
9 reliability, the resiliency of that grid, attacks from
10 cyber-- all of that is statutorily in our house.

11 So with all of that said, we laid out to you, to the
12 Members of Congress, this concept called CESER, the acronym.
13 It is Cybersecurity, Energy Security, and Emergency
14 Response. And we bifurcated the Office of Electricity.
15 Those two have assistant secretaries now that are equal.

16 The reason I think this was wise from my perspective --
17 it is certainly worth having a conversation about -- to
18 create a clear, important, and a chain of command on this
19 issue of cybersecurity.

20 Senator Shaheen: And I am sorry to interrupt. My time
21 is running.

22 Secretary Perry: I am sorry.

23 Senator Shaheen: But I agree with you on the chain of
24 command issue. I think that is very important.

25 What I am concerned about is whether we have a chain of

1 command throughout the whole of government. And who do you
2 report to or who is it throughout government who is taking
3 charge of this issue? Do you know?

4 Secretary Perry: When you say this issue, sector-
5 specific it is DOE and it is me through my Under Secretary
6 of Electricity who will be in charge of this.

7 I think what you are talking about, Senator, is do we
8 have global relationship. And we do. We work very closely
9 with the Department of Homeland Security. She also sits on
10 the National Security Council.

11 Senator Shaheen: So in terms of national security
12 threats from cyber, it is the Department of Homeland
13 Security who you understand to be in overall --

14 Secretary Perry: But not in the electrical sector.
15 There is a clear bifurcation, if you will, statutorily. DHS
16 has a role. They are very comfortable with that. They are
17 working on it. We coordinate. We talk to them. We got a
18 great relationship with DHS. But sector-specific when it
19 comes to the electrical grid, when it comes to protecting
20 that grid, when it comes to having a cyber effort in place
21 for that, that is in the Department of Energy.

22 Senator Shaheen: And can you brief members of this
23 committee about specifically what you are doing to address
24 the potential for cyber attacks?

25 Secretary Perry: In a smaller room.

1 Senator Shaheen: Thank you.

2 Thank you, Mr. Chairman.

3 Senator Inhofe: Thank you, Senator Shaheen.

4 Senator Sullivan?

5 Senator Sullivan: Thank you, Mr. Chairman.

6 And, Mr. Secretary, good to see you again.

7 I appreciate your focus in your testimony here on the
8 nuclear modernization issue. It is an important issue. I
9 think it still remains -- I hope it still remains -- a
10 bipartisan issue. You and I had the opportunity to present
11 at a forum at the Reagan Defense Forum a couple years ago,
12 and that is when President Obama was still in office and I
13 was touting their nuclear modernization program as
14 important, something that we should all get behind. It
15 seems to me the Trump administration's modernization program
16 is very similar to the Obama one. So I certainly hope we
17 can have a bipartisan support for that. It is an important
18 issue that should transcend politics.

19 But I wanted to actually talk about another element of
20 energy that you have been talking about. I actually read
21 your interview in "The Examiner" this past week, a good
22 picture there. So congratulations on that. But it is the
23 issue of energy as a new instrument of American power, and
24 whether it is renewables or natural gas or oil, we are on
25 track, because of States like yours and States like mine, to

1 become once again the world's energy super power, a position
2 we had occupied for decades until a couple of decades ago.

3 So just given your experience, I think it is important
4 to kind of get on the table as a former governor of Texas --
5 I am a former Department of National Resources commissioner
6 in Alaska -- we clearly have the highest standards in the
7 world -- our country -- in terms of producing and exploring
8 energy than any other place, say, like Russia or Iran or
9 Kazakhstan or Saudi Arabia, other places that produce
10 energy. Do we not, Mr. Secretary?

11 Secretary Perry: Yes, sir.

12 Senator Sullivan: So can you talk to us a little bit
13 more about how you see energy as an instrument of American
14 national security and economic security and jobs? You know,
15 a lot of my colleagues -- I consider myself part of it --
16 are looking at ways to push back against Russia. The "New
17 York Times" recently reported that, quote, Russia is
18 increasingly wielding oil as a geopolitical tool, spreading
19 its influence around the world and challenging the interests
20 of the United States.

21 Yet, Senator McCain and I had a meeting about a year
22 and a half ago with a very senior Russian dissident, someone
23 that is trying to undermine the Putin regime, which I think
24 a lot of us want to do, push back on that regime. At the
25 end of that meeting, he said the number one thing we can do-

1 - number one thing we can do -- to help push back against
2 Putin is produce more American energy.

3 So can you talk about that? It is this incredible
4 opportunity we have. I think it should be bipartisan. You
5 are clearly an expert on it with a lot of experience. I
6 would love to hear your views on what we can do more and
7 then what we should, as the Congress, do more to take
8 advantage of this great American energy renaissance,
9 American energy dominance, as you and Secretary Zinke and
10 the President talk about it, but how it helps our national
11 security, helps our allies. I would love to hear whatever
12 you think we should be doing on this issue. You have been a
13 leader on it and we appreciate it.

14 Secretary Perry: Yes, sir. I will try to go fast.
15 For a southern boy, I will talk as fast as I can.

16 Senator Sullivan: Well, I have about a minute and a
17 half left. So go for it.

18 Secretary Perry: We all remember 15 years ago there
19 was a person traveling around the country giving a pretty
20 good speech called peak oil. We found it all, and even if
21 we were going to produce anymore, it was going to be
22 incredibly expensive.

23 Senator Sullivan: And we were going to be importing
24 LNG.

25 Secretary Perry: Yes, sir. And George Mitchell, with

1 the help of national labs I might add -- George Mitchell was
2 an old geologist from down in Texas, a Texas A&M graduate I
3 might add, who along with our national labs on hydrologic
4 fracturing and directional drilling changed the world
5 literally. And so today, the geopolitical geography, if you
6 will, has truly changed and it has changed because America
7 decided that it was going to produce and we had the
8 technology to do it and the innovation to do it.

9 And it is not just on the fossil fuel side. I mean, my
10 home State of Texas produces more wind than any other State
11 in the nation. We did that in a decade period of time
12 because we want to have a portfolio that was clearly
13 diversified. And I think when we talk about a bipartisan
14 way to do this, I mean, whether it is wind, whether it is
15 hydro, whether it is solar, whether it is LNG -- I mean, we
16 are sending LNG shipments to 27 countries now. I mean, the
17 idea that American LNG was going to be anything -- well,
18 there was not an American LNG. We were going to import.

19 So it is the most fascinating time to be --

20 Senator Sullivan: How does that help our national
21 security here on the --

22 Secretary Perry: And certainly from the standpoint of--
23 - that dissident gave you good advice. Anytime that we can
24 deliver LNG, for instance, whether it is sending it into
25 Poland to that LNG facility up there, it sends the message

1 to the rest of the European Union, you do not have to be
2 held hostage by Russian gas.

3 Senator Sullivan: Thank you.

4 Thank you, Mr. Chairman.

5 Senator Inhofe: Thank you, Senator Sullivan.

6 Senator Gillibrand?

7 Senator Gillibrand: Thank you, Mr. Chairman.

8 Thank you so much, Mr. Secretary, for joining us.

9 One of the primary responsibilities of the Department
10 of Energy is to promote international nuclear safety and
11 nonproliferation. However, President Trump recently waved
12 sanctions on Iran under the JCPOA but threatened not to do
13 the same again unless Congress put forth legislation to
14 rewrite the agreement to meet his list of demands.

15 Is the Department preparing to address any damage to
16 international nuclear safety and worldwide nonproliferation
17 efforts that would be caused by the United States reneging
18 on a nonproliferation agreement that it helped to negotiate?

19 Secretary Perry: Senator, I am going to support the
20 President's position when it comes to JCPOA. I agree with
21 him that if we can get a better deal, that we certainly
22 ought to have that conversation.

23 My role in that and the Department of Energy's role in
24 that is from a technical standpoint to give him the
25 technical expertise as he goes forward on that. We are not

1 in the policy business.

2 Senator Gillibrand: Yes, but as you know, the
3 technical expertise is really important --

4 Secretary Perry: Yes, ma'am.

5 Senator Gillibrand: -- because when we negotiated the
6 JCPOA, the Department of Energy was very heavily involved,
7 and your predecessor was in the room for all negotiations.
8 So I hope that you can focus on that technical support but
9 recognize that if we do walk away from this agreement, I
10 think it will undermine nuclear nonproliferation.

11 Do you have a plan to address any responses to us
12 walking away from the agreement?

13 Secretary Perry: Here is how I will address that. Our
14 responsibility in the nonproliferation side of the equation
15 is clear. We will use every means that we have, whether it
16 is our ability to have detectors used, well, anywhere in the
17 world for that matter, our scientists, the training of
18 scientists in other countries. Our commitment to
19 nonproliferation I think is as strong as it has ever been in
20 this country. I intend to make it even stronger. So you
21 have that commitment, Senator.

22 Senator Gillibrand: So I have a related question.
23 Earlier this week, the Commander of Strategic Command
24 testified that the effect of weapons of mass destruction in
25 the hands of transregional terrorist organizations could be

1 catastrophic. Yet, at the same time, the 2018 NPR states
2 that the current environment makes further progress towards
3 nuclear arms reductions in the near term extremely
4 challenging.

5 What is the Department of Energy doing to mitigate the
6 possibility of nuclear materials ending up in the hands of
7 terrorists?

8 Secretary Perry: And, Senator, that may be a
9 conversation that we need to have in a smaller room.

10 Senator Gillibrand: Okay.

11 Secretary Perry: But know that we are committed to
12 that.

13 Senator Gillibrand: Can I then ask for that briefing
14 in closed session? And if you prefer by letter, that is
15 fine.

16 Secretary Perry: Yes, ma'am.

17 Senator Gillibrand: Thank you.

18 One more issue. The safe and efficient cleanup of
19 sites that are contaminated with legacy nuclear material is
20 critically important to the communities that surround them.
21 I appreciate your commitment to prioritizing your
22 Department's responsibilities to clean up those sites.

23 However, I am concerned that the DOE's fiscal year 2019
24 budget request would decrease funding by 8.5 percent for the
25 West Valley Demonstration Project. West Valley is a project

1 authorized by Congress for decommission of a facility in
2 western New York that was used to process high-level waste
3 prior to 1980. It has been nearly 40 years since the
4 facility closed down and the site remains highly toxic. A
5 decrease in funding for this project will result in further
6 delays while the site continues to pose a threat to health
7 and safety of western New Yorkers.

8 I know that in our omnibus we are going to restore some
9 of that funding, but will you commit to prioritizing the
10 West Valley Demonstration Project within DOE's Office of
11 Environmental Management to ensure that the cleanup does not
12 fall behind schedule?

13 Secretary Perry: Yes, ma'am.

14 Senator Gillibrand: Thank you.

15 Thank you, Mr. Chairman.

16 Senator Inhofe: Thank you, Senator.

17 Senator Heinrich?

18 Senator Heinrich: Thank you, Chairman.

19 And welcome, Secretary Perry.

20 For the record, I want to associate myself with the
21 comments of the ranking member with regard to maybe looking
22 at doing this annually. I think the Secretary of Energy's
23 importance to DOD cannot be overstated.

24 Secretary, I would like to start with DOE's capacity to
25 produce plutonium pits. When General Hyten testified here

1 on Tuesday, he reinforced DOD's requirement of up to 80 pits
2 per year by 2030 with the initial 30 per year by 2026 taking
3 place with the existing facilities at Los Alamos. As I see
4 it, General Hyten is really DOE's customer here.

5 Secretary Perry: Yes, sir.

6 Senator Heinrich: Are you fully committed to meeting
7 STRATCOM's requirement for pit production of 30 by 2026 and
8 50 by 2030?

9 Secretary Perry: Yes, sir.

10 And, Senator, if I could, I just add one thing. I
11 think it was Senator Fischer that asked about the budgeting
12 side of it and if we were going to have the resources in the
13 omnibus in the 2019, and I said yes. But the caveat here
14 that I think is important is that we are going to work with
15 DOD and the OMB on any issues that may come out about that,
16 any equivalency. So I just wanted to, for the record, make
17 sure that she recognizes, you all recognize that the budget,
18 as written, appears to be sufficient. If DOD has additional
19 requirements, then we will address those.

20 Senator Heinrich: We will certainly work on the budget
21 side of things.

22 I asked that in part, Secretary, because spending 3
23 years on what I have viewed as a flawed analysis of
24 alternatives does not exactly inspire confidence with regard
25 to the timeline. And as you know, I had serious doubts

1 about NNSA's analysis of alternatives to meet the 80 pits
2 per year. And in December, I sent you a letter expressing
3 specific concerns with the AOA and that the modular approach
4 at Los Alamos had not even been considered at that time.

5 The AOA has now taken a full 3 years. We were assured
6 that Administrator Gordon-Hagerty intends to meet the May
7 11th deadline to make a decision on NNSA's recommended
8 strategy for pit production. General Hyten testified
9 Tuesday that he would be concerned if there is any further
10 delay in that timeline. So as these delays stack up, it
11 means there is simply no room for error at this point.

12 So can you assure me that the modular approach at Los
13 Alamos will be fully considered in this process?

14 Secretary Perry: I join General Hyten in telling you
15 that that timeline is correct, and I will be greatly
16 concerned if it is not met. And yes to your question.

17 Senator Heinrich: Will you and the Deputy Secretary
18 also commit to do a careful review of that recommendation by
19 the May 11th deadline?

20 Secretary Perry: Yes, sir.

21 Senator Heinrich: Finally, can you assure me that the
22 best available cost estimates are used and that the
23 recommended option will meet STRATCOM's required capacity by
24 2030?

25 Secretary Perry: Yes, sir.

1 Senator Heinrich: I am going to shift gears a little
2 bit right now, Secretary, and talk a little bit about
3 trusted electronics. The Nuclear Posture Review confirmed
4 the need to maintain a robust capability for both research
5 and also a production capability of trusted radiation-
6 hardened microelectronics.

7 The Mesa facility at Sandia National Labs was built in
8 the 1980s. It must be upgraded to meet future national
9 security requirements after 2025. A plan is now being
10 developed to upgrade Mesa to meet NNSA's requirements
11 through 2040.

12 Do you agree that NNSA should maintain the unique
13 capability at Mesa for both the R&D side but also the
14 production capability of strategic radiation-hardened
15 microelectronics?

16 Secretary Perry: Yes, sir. And I hope before the next
17 7 days are up to have visited that site.

18 Senator Heinrich: Yes, I look forward to that. Thank
19 you very much for making that a priority.

20 I was also really pleased to see an increase to \$403
21 million in the request for WIPP to help restore full
22 operations at that facility. I know you are familiar with
23 that facility and I thank you for that. I had been
24 concerned about the growing backlog in maintenance and
25 repair at that facility, and so it is good to see an

1 additional \$47 million to look at those systems and
2 structures, including a significant fire suppression system
3 and an existing salt hoist there that are going to be very
4 important to maintaining that in a safe way.

5 Secretary Perry: Yes, sir.

6 Senator Heinrich: I want to thank you for your focus
7 and your commitment to funding WIPP in a way that ensures
8 proper maintenance but also safe operation because we cannot
9 afford to have a deviation from the safe operation of that
10 facility.

11 Secretary Perry: Indeed.

12 Senator Heinrich: Thank you.

13 Secretary Perry: Yes, sir.

14 Senator Inhofe: Thank you, Senator Heinrich.

15 Senator Kaine?

16 Senator Kaine: Thank you, Mr. Chair.

17 And thank you, Mr. Secretary. Good to be with you.

18 Secretary Perry: Thank you.

19 Senator Kaine: I am really glad we are having this
20 hearing, to the chair and ranking. One thing this hearing
21 does is it kind of points out the somewhat arbitrary
22 distinction that we often make between defense and non-
23 defense spending as we are talking about budget caps.

24 This is an agency, the DOE, with a \$30 billion budget
25 and \$25 billion of it is defense programs. Those programs

1 are authorized in the NDAA but then appropriated through not
2 the SACD but through the domestic committee. And so having
3 this hearing is really important because it shows the way we
4 talk about budget caps and things can be a little bit
5 arbitrary. These expenditures are critical to the nation's
6 defense.

7 And, Mr. Secretary, I know that you know that in
8 Virginia we care a lot about this. The Lynchburg area of
9 Virginia -- it is kind of odd how it developed, but is the
10 center of production of nuclear reactors for the carriers
11 and subs that are a critical part of the work we do. They
12 are developed there in Lynchburg by amazing craftsmen and
13 women and then on trains down to the shipyard where they are
14 installed into carriers and subs. And so the deal we budget
15 is absolutely critical to the nation's defense.

16 And I thank you for the work that you are doing to make
17 sure, and I am happy with the omnibus that I hope that the
18 Senate will vote in the next day or so because I think it
19 portends well for the consistency of those investments.

20 I actually want to go, though, to a different space,
21 which is you have a pretty amazing track record as a
22 governor in a number of areas. Your tenure was pretty
23 historic. But Texas and renewables. Texas produces more
24 renewable energy than any State. Texas is in the top few in
25 terms of the percentage of its energy that has been produced

1 by renewables. If I got this right, I think Texas did a
2 renewable portfolio standard in 1999 and then a new one in
3 2005, and yet whatever standard was set by the governor and
4 legislature, Texas innovators and industry beat the
5 standard. And my sense, from everything I have studied, is
6 that sort of a combination of policy and then private sector
7 innovation has been not only an environmental good but also
8 an economic good for Texas. Would you agree with that?

9 Secretary Perry: I could not have written it any
10 better, sir. That was an awesome display of what we were
11 able to do in the State, and I totally agree with you.

12 Senator Kaine: How did Texas beat its standard? So
13 you set CAFE -- I mean, not CAFE standards -- renewable
14 portfolio standards. And often we hear a debate about, oh,
15 that is going to pit the environment against the economy.
16 And yet Texas beat the standards again and again. How did
17 that happen?

18 Secretary Perry: I will try to be brief.

19 One of the ways we did it was by giving incentives to
20 companies. For instance, we had a program called the Texas
21 Emissions Reduction Program. We gave incentives on the
22 franchise tax for fleet operators to remove old, inefficient
23 burning engines and replace them. We subsidized -- the
24 State did -- the building of a CREZ line from out where the
25 wind blows to where the people are. And so there were

1 incentives to get the private sector to do particular
2 things.

3 The result of that and one of the things, Senator, that
4 I am really proud of -- Texas is a pretty good sized place,
5 the 12th largest economy in the world. And we created a lot
6 of jobs while this was going on. The rural economic
7 development from the wind energy was fascinating to watch
8 happen. But we lowered emissions: NOx by over 60 percent,
9 SOx by over 50 percent. The total carbon dioxide footprint
10 in the State of Texas during that period of time was almost
11 20 percent in a State that grew by 7,000 people. That is a
12 lot of pickup trucks on the road.

13 Senator Kaine: Right. So a growing population,
14 growing economic activity --

15 Secretary Perry: And lowering emissions. And it was
16 driven by two of those. The third one that really drove it
17 was changing out, shifting out those old, inefficient power
18 plants, replacing them with natural gas plants.

19 Senator Kaine: Well, I think Texas just offers such a
20 bit of evidence for the country. We have had at least one
21 vote during my time in the Senate on a national renewable
22 portfolio standard. And I think Texas and the States that
23 have done it have demonstrated that if we are bold enough to
24 lead, we will actually be surprised and go farther than the
25 standards that we set.

1 And I remember a visit with Shimon Peres once where he
2 said the same thing to me about the Middle East that was
3 stated to you about Russia, Senator. He said, look, the
4 best thing you could do for the Middle East is reduce your
5 reliance upon oil, reduce your reliance upon foreign energy.

6 And I think Texas gives us a path forward, and I wanted
7 to praise you for your work there. And I hope we would
8 embrace that kind of a policy as a nation.

9 Senator Inhofe: Thank you, Senator Kaine.

10 Senator Blumenthal?

11 Senator Blumenthal: Thanks, Mr. Chairman.

12 And thank you for being here, Mr. Secretary.

13 As I know you are aware, DHS and the FBI highlighted a
14 series of cyber attacks targeting United States Government
15 entities and critical infrastructure sectors, occurring
16 since at least March 2016, notably on the nuclear energy and
17 water sectors. The "New York Times" reported last week that
18 by 2013 researchers had linked Russian hackers to hundreds
19 of attacks on United States and European energy grids. In
20 my view, those attacks are an act of war. Would you agree?

21 Secretary Perry: I would tend to agree with you, sir.

22 Senator Blumenthal: Thank you.

23 And by December of 2015, in fact a noticeable change of
24 strategy occurred. The Russians had gone from intelligence
25 gathering to actually possibly seeking to shut down these

1 operations, a more serious act of war.

2 We know that Russia is willing to go much, much
3 further. We know that fact from what they have done in the
4 Ukraine in 2015 and 2016 when Russian Government hackers, in
5 fact, executed cyber attacks against Ukraine's critical
6 infrastructure that in fact vastly disrupted electrical
7 grids and disabled control systems that impacted hundreds of
8 thousands of people.

9 Can you assure us that the United States of America has
10 taken dramatic action to deter such Russian attacks?

11 Secretary Perry: I can.

12 Senator Blumenthal: You can.

13 Secretary Perry: I can.

14 Senator Blumenthal: And what kinds of actions have the
15 United States taken?

16 Secretary Perry: That conversation probably needs to
17 occur in a smaller room, Senator.

18 Senator Blumenthal: Well, I am asking what kinds of
19 attacks. Are these verbal messages? Are they covert
20 actions? Are they cyber messages of some kind?

21 Secretary Perry: Senator, we are making, I think,
22 every effort to protect the electrical grid from those types
23 of attacks. And, again, I am a bit -- I am not a bit
24 uncomfortable. I am quite comfortable telling you that we
25 need to have this conversation in a room where we can talk

1 classified.

2 Senator Blumenthal: Is one of those actions to
3 congratulate Vladimir Putin on his election? That kind of
4 congratulations seems to, in effect, remove the deterrent
5 effect of any action that we have taken.

6 Secretary Perry: Senator, I think there are a lot of
7 ways that we will be sending messages. My bet is that
8 people call people from time to time that they are in great
9 competition with and maybe tell them thank you on one sense,
10 nice competitive work, but on the other side, rapping their
11 kneecaps pretty hard to get their attention. And in some
12 other areas, you are making some big, big mistakes.

13 Senator Blumenthal: Do you agree that Russia has to
14 pay a price?

15 Secretary Perry: I agree that the United States and
16 the rest of the world need to send some very powerful
17 messages to Russia relative to some of their activities.

18 Senator Blumenthal: Do you agree that the only message
19 the Vladimir Putin understands is one that makes him pay a
20 price?

21 Secretary Perry: And that is exactly why the United
22 States having an energy policy where that we can deliver
23 energy to Eastern Europe, for instance, where we are a
24 partner with people around the globe where they know that we
25 will supply them energy and there are no strings attached is

1 one of the most powerful messages that we can send to
2 Russia.

3 Senator Blumenthal: Do you agree that there has to be
4 more cooperation between your Department and the utilities
5 that are privately run and owned?

6 Secretary Perry: Yes, sir.

7 Senator Blumenthal: And what steps are you taking to
8 do that?

9 Secretary Perry: We are working closely with that
10 sector. With some specific companies, we are working even
11 more closely with. There are some of these pieces of
12 information that get into very sensitive areas. And so one
13 of the conversations that we need to have, Senator
14 Blumenthal, is being able to speed up the process of which
15 we can get individuals classified so that if we need to
16 bring them in and talk to them in a classified setting, we
17 can do that. I know this is a little off subject here, but
18 the point is I think it is really important for you and the
19 committee to know that the process to get individuals
20 classified so that they can do work is very slow and
21 onerous. And I think we need to have this conversation
22 about how to speed that up and to be able to get these
23 people into a classified designation.

24 Senator Blumenthal: My time has expired.

25 But, Mr. Secretary, it is not off topic. It is a very

1 relevant issue in this space and in protecting our election
2 system, as was raised yesterday in the Department of
3 Homeland Security or, I should say, the Intelligence
4 Committee hearings involving the Department of Homeland
5 Security.

6 But I would just emphasize to you that the Russians
7 almost certainly know everything that you would tell me in a
8 closed setting. They already know it. The ones who do not
9 know it are the American people. They are the ones who
10 deserve to know it. I would respectfully suggest that you
11 and other leaders who are responsible in this area owe it to
12 the American people to come in an open forum like this one
13 and explain what we are doing to fight back against the
14 Russians who are attacking our country every day not only
15 our Department of Defense but also our critical grid.

16 Thank you, Mr. Chairman.

17 Senator Inhofe: Thank you, Senator Blumenthal.

18 Senator Peters?

19 Senator Peters: Thank you, Mr. Chairman.

20 Thank you, Secretary Perry, for your testimony here
21 today.

22 Secretary Perry, as you know, your Department plays a
23 key role in national security particularly in advancing
24 nuclear nonproliferation and promoting nuclear safety
25 generally across the globe. This includes working with the

1 international community and the International Atomic Energy
2 Agency.

3 One area that the IAEA is involved in deals with the
4 production and the reprocessing of plutonium. And I would
5 argue that the United States should take a leading role in
6 pursuing strict enforcement of the IAEA agreement that
7 requires participating countries to manage their production
8 and their reprocessing of plutonium to maintain a balance
9 between the supply created, as well as the demand for their
10 peaceful purposes, the rightful peaceful purposes that they
11 are conducting within their countries.

12 Currently, however, there are countries that are
13 members of this agreement that are not in compliance with
14 the best practices of balance between plutonium production
15 supply and peaceful use demand. And I would also argue the
16 United States should encourage strict compliance with the
17 principle of supply and demand balance of plutonium and then
18 work to the next standard which we should employ which is to
19 have a supply/demand balance for highly enriched uranium as
20 well. This I think has the advantage of strengthening our
21 global position in terms of nonproliferation norms before
22 the JCPOA expires in the years ahead.

23 If the United States takes swift action and can show
24 the global leadership to raise and not lower international
25 nuclear standards so that the JCPOA provisions, when they

1 expire, will find a very different diplomatic environment
2 where the world community understands that we need to have
3 this balance and we are taking strict action now, I think it
4 will help us move to a place where Iran does not begin the
5 commercial and large-scale reprocessing of -- or, I should
6 say, enrichment of uranium, which would be a global threat
7 to us.

8 So, Secretary, my question is I would like you to share
9 your views on this issue and whether or not it makes sense
10 to try to push for a balance of supply and demand as is
11 required in plutonium agreements and to move to highly
12 enriched uranium as well.

13 Secretary Perry: Yes, sir. I can answer that very
14 briefly and directly. Yes, I believe that that should be
15 our goal.

16 Senator Peters: So what sort of diplomatic efforts
17 will you be engaged in to promote that?

18 Secretary Perry: My role is more on the technical
19 side, Senator, than being a diplomat. That is the State
20 Department. The State Department leads these types of
21 efforts. So we have not a secondary role but I would say a
22 supporting role on the technical side. So I try to stay in
23 my lane when it comes to -- if the President asks me to be a
24 diplomat in a particular way, I will certainly take my
25 instructions.

1 But let me go back and have a conversation with the
2 folks in our office about the specificity of what you talked
3 about, the balancing of that, and get back to you if I may.

4 Senator Peters: Well, I would appreciate that, Mr.
5 Secretary, because I think this is critically important.
6 And certainly as a member of the cabinet with these
7 responsibilities, your voice will be important. And if it
8 is something that you believe we need to pursue, I would
9 certainly like to work with you to give a nudge to the
10 administration to move in that area, particularly given the
11 fact the JCPOA -- every day we wait we get closer to its
12 expiration, and we could see the production of enriched
13 uranium.

14 And I think that is also related to a question that was
15 asked by Senator Reed as well, that in dealing with Saudi
16 Arabia, that we really need to push to make sure that they
17 also agree to the gold standard that the UAE agreed to. I
18 think it would set a horrible precedent to allow Saudi
19 Arabia to begin enriching uranium and perhaps to higher
20 levels at the same time we may be getting close to the JCPOA
21 expiring. So I would certainly hope that you would push
22 aggressively to make sure that Saudi Arabia is held to the
23 same standard that we should hold every single country to
24 really across the planet.

25 Secretary Perry: Yes, sir. Count on it. As we are

1 asked to engage in whatever way, we will. But I always
2 remind people that the alternative is not good. If Russia,
3 China, or who are going to be chosen to do the civil nuclear
4 projects in the Kingdom of Saudi Arabia, there will be no
5 oversight.

6 Senator Peters: And that is why we need to push to
7 make sure we have this balance of supply and demand.
8 Certainly both China and Russia need to be a part of that as
9 well. This is going to take a very large diplomatic effort,
10 which I believe the United States should lead. This is
11 common sense, and if we can implement that with other
12 nuclear powers, we will make a safer world.

13 Secretary Perry: Indeed.

14 Senator Peters: Thank you.

15 Secretary Perry: Yes, sir.

16 Senator Inhofe: Thank you, Senator Peters.

17 Senator Cotton?

18 Senator Cotton: Thank you, Mr. Chairman.

19 Welcome back, Mr. Secretary. Always good to see you.

20 Senator Peters and I had a little vacation over the
21 weekend. We went up -- just a little, short flight up to
22 the Arctic icecap where we got on a fast attack submarine
23 and sailed underneath the ice and then surfaced about 24
24 hours later. It was a lot of fun. I would recommend to all
25 of you that you do it. The quarters in the submarines are a

1 little tight, though, I have to say.

2 But we had a chance to tour the nuclear reactor on the
3 submarine. And Naval Reactors is considered probably the
4 gold standard within our nuclear enterprise, one of the best
5 run organizations, maybe one of the best run organizations
6 in the entire government. Now that you have been on board
7 for a little over a year, you have had a chance to get to
8 know your organization and observe Naval Reactors. I just
9 wanted to know what your thoughts are about what has made
10 Naval Reactors such an outstanding organization for now
11 40-plus years, maybe what lessons could we learn from that
12 and apply to some of the other more troubled parts of our
13 nuclear enterprise or, for that part, across the government
14 entirely.

15 Secretary Perry: I will suggest to you it has had good
16 leadership. Frank Caldwell is an incredibly capable leader.
17 You look back to the man who started it, an extraordinary
18 Admiral Zumwalt. So you have some really fine leadership.
19 They have a tight focus. They basically stay in their lane.
20 They have not gotten outside of that. They have a mission,
21 and Naval Reactors has well run an operation, as I have had
22 the opportunity to -- and that is not to say that there are
23 not some other places at the DOE and other areas of
24 government that are not as capable. But I think your
25 observation is very succinct that they indeed are well run.

1 Senator Cotton: I agree. It is really important for
2 an organization to have leadership. There is no substitute
3 for it. That is why we depend as a Congress on you and your
4 people and the American people depend on all of you. As
5 Secretary Gates used to say, when he was the Secretary of
6 Defense, to his people, we can solve problems here with a
7 scalpel or we can wait till Congress solves them with a meat
8 cleaver. You have got some of the most important challenges
9 that our government faces, not always pleasant business to
10 think about these kind of things, but the American people
11 are depending on you and the Department of Energy to make
12 sure that our nuclear deterrent is safe, reliable,
13 effective, credible.

14 I want to turn to one specific point now in your
15 testimony, in which you state that you are building the
16 capability and capacity to produce 80 pits per year by 2030.
17 Is the main risk of missing that mark lack of adequate and
18 certain funding for your organization?

19 Secretary Perry: I think if the adequate funding was
20 not in place, you would be correct. At this particular
21 point in time in this budget cycle, it is adequate. In the
22 out-years, I cannot respond to that because I do not know
23 what those numbers are going to be. But for us to continue
24 to build those pits to have those 30 pits per year ready by
25 2026, obviously the funding has to stay in line.

1 Senator Cotton: And if the threats from Russia and
2 China and Iran and North Korea, potentially other now or
3 future nuclear states were to grow and our leaders determine
4 that we need to produce more than that number of pits per
5 year, with additional funding do we have the technical
6 ability to achieve that?

7 Secretary Perry: Yes.

8 Senator Cotton: Good.

9 While we are talking about funding requirements as
10 well, the Nuclear Posture Review, in addition to your
11 testimony, observes that more than half of NNSA's
12 infrastructure is over 40 years old. More than a quarter of
13 it dates back to the Manhattan Project in the 1940s.

14 Your budget request had an increase of about \$200
15 million for infrastructure and operations, much of that
16 going to deferred maintenance for NNSA infrastructure.
17 Secretary Perry, is the budget that we passed last month,
18 the spending bill we may be on the verge of passing going to
19 give you the money you need to make real progress on this
20 infrastructure backlog?

21 Secretary Perry: Yes.

22 Senator Cotton: Good.

23 Thank you very much for what you do, and thanks for all
24 the men and women at the Department of Energy.

25 Secretary Perry: Thank you, sir.

1 Senator Inhofe: Thank you, Senator Cotton.

2 Senator King?

3 Senator King: Thank you, Mr. Chairman.

4 Mr. Secretary, Governor, welcome.

5 Secretary Perry: Thank you, sir.

6 Senator King: For 70-plus years, there has been no use
7 of nuclear weapons since 1945 in the world, and that has
8 principally been because of the strategy of deterrence, that
9 there are nuclear-armed countries, but the deterrence
10 strategy of if you use them, you will suffer horrendous
11 consequences has worked.

12 My concern is that the whole strategy of deterrence
13 breaks down if you are talking about terrorists having
14 nuclear weapons or a nuclear device. They have indicated
15 they do not care about dying. They do not represent a
16 nation state, and we really do not have a strategy to deal
17 with that except nonproliferation.

18 And what bothers me is that in your budget under NNSA,
19 there is a significant increase for weapons activity. There
20 is a significant increase for naval reactors. There is a
21 decrease for nonproliferation. It is not a big decrease,
22 but it is a decrease. And it seems to me this is one of the
23 most serious issues that we face in terms of the danger of
24 nuclear weapons or even one nuclear device falling into the
25 hands of either a small rogue state or more dangerously a

1 terrorist organization.

2 Why in the world in this situation are we seeing a
3 decrease in the activities of the Department in
4 nonproliferation instead of an increase?

5 Secretary Perry: Senator, I do not think you are
6 seeing a decrease in the activities. You may be seeing a
7 decrease in the funding line item, but the focus of the
8 Department -- and if my information is correct, we actually
9 have an increase of the entire nonproliferation budget. I
10 think it is approaching 4 percent.

11 Senator King: Well, perhaps I am misinformed. I have
12 got a Department of Energy budget request fact sheet,
13 February 12th. It says 1.98 for defense nuclear
14 nonproliferation, \$17 million below fiscal year 2017
15 enacted. So maybe we need to get together offline and
16 straighten out those numbers.

17 So you are committing to me a serious and unrelenting
18 commitment to nonproliferation.

19 Secretary Perry: Regardless of what that budget may
20 be, sir.

21 Senator King: Thank you.

22 NNSA has had some difficulty over the past years
23 managing the life extension program, which is a very
24 important part of the Nuclear Posture Review of
25 recapitalizing. There have been cost overruns, schedule

1 delays, reductions in numbers of weapons refurbishment.

2 What are you doing to get a hold of that program and tighten
3 the management so that we can meet the deadlines and also
4 the cost limitations?

5 Secretary Perry: I am sorry. Repeat that again,
6 Senator.

7 Senator King: On the life extension programs for
8 nuclear weapons, there have been cost overruns, delays. And
9 the question is can we rely on the Department to focus
10 management skills on this problem because this is going to
11 be a part of the Nuclear Posture Review's recapitalization.

12 Secretary Perry: Excuse me for making you repeat that,
13 Senator.

14 What I found a year ago when I came into the agency,
15 there are a number of programs that had some pretty big cost
16 overruns. There were some pretty big programs, whether it
17 was in the environmental management side of things or
18 whether it was in the programmatic side of life extension
19 programs.

20 We have a new NNSA Administrator. She and I have had
21 very pointed conversations about the management of the
22 modernization of the arsenal, the life extension programs.
23 And I will suggest to you and I hope that you will see a
24 commitment to managing those programs where that the result
25 is not only up to your satisfaction, but the expenditures

1 are within the realm of thoughtful, efficient use of our
2 taxpayer dollars.

3 Senator King: Thank you.

4 In just a few seconds, just a comment. You mentioned
5 it earlier. The issue of clearances is a huge problem
6 throughout the government. We had a hearing in the
7 Intelligence Committee a couple of weeks ago just on this
8 subject. It turns out there is a backlog of 791,000 people
9 awaiting secret or top secret clearances, which is impeding
10 our ability across the government, but I know it is in your
11 Department. We discovered in that hearing that OMB seems to
12 be the center of where this is focused, and I hope that you
13 will work with OMB and add your voice to those of other
14 departments that we have just got to solve this problem.
15 Not only is it slowing down the activities, but we are
16 losing good people. I know people who have been in the
17 queue for a year and a half or 2 years, and finally they
18 said I am going to go off and get a job in the private
19 sector. I cannot wait for this anymore. And I think that
20 is a real loss. That is an opportunity lost to our country.

21 Secretary Perry: I will not sit here in front of you
22 and defend OMB, sir.

23 Senator King: I want you to raise this with them and
24 be insistent as only you can be.

25 Secretary Perry: Yes, sir.

1 Senator King: Thank you, Mr. Secretary.

2 Senator Inhofe: Thank you, Senator King.

3 Senator Cruz?

4 Senator Cruz: Thank you, Mr. Chairman.

5 Good morning, Mr. Secretary.

6 Secretary Perry: Senator.

7 Senator Cruz: Welcome. Let me say first of all
8 congrats on the Aggies beating North Carolina. I know you
9 were celebrating loudly, and we all were. That was a good
10 victory and I hope more to come.

11 Secretary Perry: On to Michigan.

12 Senator Cruz: And it should have been Houston. That
13 would have made an even better game. But alas, it was not
14 to be.

15 Mr. Secretary, often when people talk about the work of
16 the Department of Energy, they think about physicists in
17 laboratories and models being developed on supercomputers.
18 But an important part of it is that we also have to be able
19 to build and produce the things our scientists design, and
20 for that we need production capacity like at the Pantex
21 plant outside of Amarillo, Texas. We used to have huge
22 production capacity in this country, but we have closed much
23 of that down at the end of the Cold War. Now we have a few
24 places left and a lot of the buildings in those places are
25 too old and too small to do what we need to have them do.

1 The Nuclear Posture Review the Department of Defense
2 recently released mentions, quote, developing a National
3 Nuclear Security Administration road map that sizes
4 production capacity to modernization and hedging
5 requirements. Could you elaborate a little bit on what that
6 means and what kind of production capacity we need that we
7 do not have right now?

8 Secretary Perry: Senator, I think the issue that you
9 rightly focused in on -- it is as much as, in a global
10 sense, looking back over the last 25 years after the end of
11 the Cold War, if you will, the peace dividend that we all
12 appreciated. Then the world has changed since then. And
13 the requirement, whether it was in facilities, whether it
14 was in modernization of our weapons, whether it was in
15 keeping a supply chain in place, is a slight diversion here.
16 It is the same challenge that we have got on our civil
17 nuclear side, is that those got pushed back on the back
18 burner.

19 And we are faced now with, on the civil nuclear side, a
20 real challenge, whether it is keeping our companies engaged
21 in this in a worldwide way, developing the engineers and the
22 technology and the expertise to go forward with. And the
23 same is true in the sense of our weapons program. You have
24 visited Pantex before. You have visited Senator Graham's
25 facilities out at Savannah River. Oak Ridge has some

1 facilities that are older than I am. And for a building
2 that is old.

3 But my point is that this Nuclear Posture Review and
4 this committee needs to be, as I said in my opening remarks,
5 thanked for recognizing that we have got to have the
6 resources to be able to get this country back on track from
7 the standpoint of building the life extension programs, the
8 modernization of the fleet. If we do not, then we put
9 America in a place of jeopardy that I do not think anyone on
10 this committee wants to see us in.

11 Senator Cruz: Is the Department looking at expanding
12 facilities in existing plants like Pantex?

13 Secretary Perry: I do not know whether we are looking
14 at expanding facilities. One of the things that is very
15 close to being is a new headquarters building at Pantex that
16 is going to get them out of some early 1950s buildings that
17 are scattered around and all over that complex into one
18 facility where I can assure you that your constituents that
19 are getting up in Randall County every day and going to work
20 are really going to like going to work there because it is a
21 first class facility, but it is long overdue. So the
22 facility side of this is a real challenge, and we should not
23 be asking some of the people who are involved in some of the
24 most important work in this country keeping us safe and
25 deterring those that would do us harm from having to go to

1 work in buildings that, quite frankly, are an embarrassment
2 in some cases.

3 Senator Cruz: Thank you, Mr. Secretary.

4 Senator Inhofe: Thank you, Senator Cruz.

5 Senator Warren?

6 Senator Warren: Thank you, Mr. Chairman.

7 And thank you, Secretary Perry, for being here today.

8 Secretary Mattis told this committee that, quote, the
9 central challenge to U.S. prosperity and security is the
10 reemergence of long-term strategic competition with
11 countries like Russia and China. More specifically, he said
12 that China, quote, continues its economic and military
13 ascendance asserting power through an all-of-nation long-
14 term strategy. And he called on the U.S. to pursue a
15 similar whole-of-government response.

16 So let me just ask. I will start with just a yes or no
17 question here, Secretary Perry. Do you agree with Secretary
18 Mattis on this?

19 Secretary Perry: Yes, ma'am. I might expand on that.

20 Senator Warren: But basic agreement. Good. Because I
21 want to ask you how this plays out in your area of
22 responsibility.

23 According to the International Energy Agency,
24 renewables accounted for almost two-thirds of new net power
25 capacity around the world in 2016. Last year, according to

1 Bloomberg, China accounted for 40 percent of all global
2 clean energy investments. And China has vowed to spend at
3 least \$360 billion on renewable energy by 2020. But here at
4 home, President Trump's latest budget would cut the Energy
5 Department's research office on renewable energy and
6 efficiency by 65 percent.

7 So very briefly, can you explain to me, Secretary
8 Perry, how cuts to funding for research into energy
9 efficiency and renewable energy improve America's future
10 energy security?

11 Secretary Perry: Senator, I will talk about two
12 different arenas here. One is that we are different from
13 China, and we are different from China in the sense that our
14 private sector is where a substantial amount of R&D is done.
15 We have a role in early stage development, which we have, I
16 think, done a very good job of. Once those technologies
17 become more mature and we can commercialize them, then the
18 private sector will take over.

19 Senator Warren: But why do we cut that by 65 percent,
20 Mr. Secretary? That is what that is.

21 Secretary Perry: But the point there is that these are
22 technologies that are starting to mature.

23 Senator Warren: I am sorry, Mr. Secretary, but that is
24 the whole point is that we keep doing the early stage
25 research so the next technology is supported and the next

1 one and the next one. And what I do not understand is how
2 you can cut research into energy by 65 percent and how that
3 is going to help us be a global competitor.

4 You know, the Trump administration is rolling back
5 rules designed to limit dependence on dirty fossil fuels,
6 and our competitors at the same time, competitors like
7 China, are making huge investments in solar power and other
8 renewable energy sources. This is a \$1 trillion market, and
9 we are cutting ourselves out of it. Instead of leading the
10 energy revolution, the Trump administration's policies are
11 causing the United States to be left behind.

12 Secretary Perry: Senator, as I look at our budget, the
13 Office of Technology Transfer had a 23 percent increase in
14 our budget. So I do not think we are arguing apples and
15 oranges here.

16 Senator Warren: Are you telling me the Trump
17 administration budget did not propose a 65 percent cut?

18 Secretary Perry: No. What I am telling you is that
19 just because a line item does not have the same amount of
20 money in it that it did in 2017 does not mean that the focus
21 is not there.

22 Senator Warren: Look, I got to say if you do not spend
23 the money, you cannot support the research.

24 I want to ask you about the nuclear deal between the
25 United States, the five partner nations, and Iran and the

1 restrictions this has placed on Iran's nuclear program under
2 limits and inspections so it cannot develop nuclear weapons.
3 And I just want to start with a couple of baseline technical
4 questions.

5 As a result of the nuclear deal, has Iran eliminated 97
6 percent of its low-enriched uranium stockpile?

7 Secretary Perry: I think that is correct.

8 Senator Warren: Yes. And has Iran removed the core of
9 the Arak heavy water reactor and filled it with concrete so
10 that it will not produce significant amounts of weapons-
11 grade plutonium?

12 Secretary Perry: That is correct.

13 Senator Warren: And do international weapons
14 inspectors have more access to and more monitoring of Iran's
15 nuclear sites, their uranium mines, and their mills and
16 centrifuge production facilities?

17 Secretary Perry: I would say you are correct. There
18 may be some other places that those inspectors would like to
19 take a look at.

20 Senator Warren: Right. And I know that under the
21 additional protocol, they are allowed to do that. But do
22 you basically agree that that is what they have got now?

23 Secretary Perry: With my caveat to that.

24 Senator Warren: I know there are other technical
25 aspects to the agreement, but one last question. And I know

1 I am out of time here. I am going to ask the indulgence of
2 the chair. We will try to be short.

3 In his most recent threat assessment, the Director of
4 National Intelligence said the Iran nuclear agreement has,
5 quote, extended the amount of time Iran would need to
6 produce enough fissile material for a nuclear weapon from a
7 few months to about 1 year and, quote, has enhanced the
8 transparency of Iran's nuclear activities.

9 Secretary Perry, do you agree with the intelligence
10 community's assessment on that?

11 Secretary Perry: I cannot tell that I do or I do not.

12 Senator Warren: Okay. I am a little surprised by
13 that. They are the intelligence community that has brought
14 us this information.

15 I will just say I understand that Iran supports
16 terrorism, abuses human rights, develops nuclear missiles,
17 in short, is a bad actor. But an Iran without nuclear
18 weapons is at least a lot easier to deal with than an Iran
19 with nuclear weapons. And I think that is something we have
20 to keep in mind as we talk about our agreement to keep Iran
21 from having those nuclear weapons.

22 Thank you.

23 Senator Inhofe: Thank you, Senator Warren.

24 Senator Graham?

25 Senator Graham: Thank you.

1 Mr. Secretary, I think you are doing a great job for
2 the President, and I really appreciate your service to our
3 country.

4 Secretary Perry: Thank you, Senator.

5 Senator Graham: Just to pick up on the Iran deal, I
6 was not going to talk about it, but I will now. Did the
7 Iranians deny inspectors access to military sites in Iran?

8 Secretary Perry: It is my understanding that they did.

9 Senator Graham: Under the agreement, in 15 years from
10 now, can the Iranians enrich and reprocess without
11 limitation?

12 Secretary Perry: Yes, sir.

13 Senator Graham: Do you think that is a good deal?

14 Secretary Perry: No, sir.

15 Senator Graham: Thanks for coming to SRS. It was a
16 great visit. I know we have some differences on MOX, but
17 you identified some things that we could work on at the site
18 that are very exciting to us and the community.

19 The President tweeted out a couple of days ago he wants
20 to talk with Putin about stopping an arms race. Do you
21 think that is a good idea?

22 Secretary Perry: I think stopping an arms race would
23 be a good idea.

24 Senator Graham: I do too. Actually I think it is okay
25 to talk to the Russians about where we are going with

1 nuclear weapons.

2 This nuclear-powered cruise missile that they displayed
3 on a video in Russia -- what did you take that to mean?
4 What are they trying to tell us?

5 Secretary Perry: They are back in the game and we
6 better pay attention to them.

7 Senator Graham: I could not say it any better.

8 And your effort is to get us back in the game by
9 rebuilding our triad system that has been depleted over
10 time.

11 Secretary Perry: Correct.

12 Senator Graham: And that is to modernize our nuclear
13 force. I hope to God we never use it, but make sure it is a
14 deterrent. That is correct.

15 Secretary Perry: That is correct.

16 Senator Graham: And the money you think is well spent?

17 Secretary Perry: I do.

18 Senator Graham: I do too.

19 Secretary Perry: And I hope it is even more
20 efficiently spent under the current administration.

21 Senator Graham: So I think we have to do two things at
22 once: talk to the Russians about where we are headed but
23 rebuild a nuclear deterrent force that is in decline. That
24 is on your watch and I have a lot of confidence that you
25 will get that done.

1 As to the MOX issue, 34 metric tons of weapons-grade
2 plutonium was agreed to be disposed of by both sides in
3 early 2000. You are aware of that agreement?

4 Secretary Perry: Yes, sir.

5 Senator Graham: The Russians had 34 metric tons of
6 weapons-grade plutonium in excess of their defense needs.
7 We had the same amount. And if you took 34 metric tons of
8 weapons-grade plutonium, do you realize you can make over
9 10,000 warheads out of that material?

10 Secretary Perry: Yes, sir.

11 Senator Graham: So the goal is to take that off the
12 table, turn it into a plowshare, no longer a sword.

13 In 2010, are you aware of the fact that we signed an
14 agreement with Russia where the MOX system would be our
15 disposal method and they would burn their plutonium in a
16 fast reactor?

17 Secretary Perry: Yes, sir, I am.

18 Senator Graham: The Obama administration decided to
19 abandoned construction of the MOX program. Do you consider
20 that a withdrawal of that agreement?

21 Secretary Perry: No, sir. I consider the Russians are
22 who walked away from the agreement.

23 Senator Graham: What did they do to walk away?

24 Secretary Perry: They unilaterally suspended the PMDA.
25 And prior to that suspension, the Department had informed

1 Russia both formally and informally that we would pursue the
2 D&D process.

3 Senator Graham: Dilute and disposal.

4 Secretary Perry: Dilute and disposal, yes, sir.

5 Senator Graham: So your belief is the Russians walked
6 away not us.

7 Secretary Perry: Yes, sir.

8 Senator Graham: Why did we go from MOX to dilute and
9 dispose? Is that the new policy of the administration?

10 Secretary Perry: Yes, sir. And I will try to give you
11 the short version of this. You and I have talked about it
12 at length, but for the purposes of the committee, we think
13 that the cost versus the cost of D&D, the timetable to being
14 able to address the plutonium issue in the MOX versus --

15 Senator Graham: And you realize that I have a
16 different view of all of this.

17 Secretary Perry: Yes, sir, I do.

18 Senator Graham: So let us look at the dilute and
19 dispose option. It would go to New Mexico to the WIPP
20 system -- is that right -- after it is diluted?

21 Secretary Perry: Yes, sir.

22 Senator Graham: Have you talked to the New Mexico
23 delegation?

24 Secretary Perry: I have talked to the delegation. I
25 have talked to the Governor.

1 Senator Graham: What did they say?

2 Secretary Perry: They are in the process of having a
3 conversation, a negotiation with their environmental
4 commission.

5 Senator Graham: Have they agreed to accept the
6 material?

7 Secretary Perry: We will know the answer to that in
8 May.

9 Senator Graham: Do you not think we should know the
10 answer to that before we stop the other program?

11 Secretary Perry: I am comfortable that we are already
12 sending plutonium --

13 Senator Graham: Let me ask you another question.

14 Secretary Perry: -- to the WIPP as we speak, 5 metric
15 tons.

16 Senator Graham: What regulations would be required to
17 be changed to do dilute and dispose? Have you inventoried
18 what regulations would be required to be changed?

19 Secretary Perry: Can I get back to you on that?

20 Senator Graham: Sure.

21 [The information follows:]

22 [COMMITTEE INSERT]

23

24

25

1 Senator Graham: What legislation would be required to
2 be changed?

3 Secretary Perry: Same response.

4 Senator Graham: Okay.

5 Have the Russians agreed to dilute and dispose?

6 Secretary Perry: No. The Russians basically said that
7 their waiver would require --

8 Senator Graham: They object to it.

9 Secretary Perry: Yes, in some pretty harsh ways
10 basically saying that we got to -- anyway.

11 Senator Graham: Thank you.

12 I think what we have done is ended the biggest
13 nonproliferation program in the history of the world for no
14 good reason, and I am going to try to fix that.

15 Thank you.

16 Senator Inhofe: Thank you, Senator Graham.

17 Senator Nelson?

18 Senator Nelson: Thank you, Mr. Chairman.

19 Mr. Secretary, it is good to see you.

20 Secretary Perry: Thank you.

21 Senator Nelson: You are looking very well.

22 I want to pick up on this discussion about nuclear
23 proliferation. Do you think that Iran -- do you have any
24 reason to believe that Iran by denying access to some of
25 these military facilities is cheating on the JCPOA?

1 Secretary Perry: Senator, if history is a teacher,
2 then the Iranians do not have a real good track record of
3 living up to agreements or telling the truth.

4 Senator Nelson: So what do you recommend that we do?

5 Secretary Perry: I think anytime that you can
6 renegotiate an agreement that puts you in a better position,
7 you should do it, whether it is the North American Free
8 Trade Agreement or whether it is the Joint Comprehensive
9 Plan of Action. I think this President properly and for the
10 right reasons is renegotiating some agreements that from his
11 perspective is not in America's best interest.

12 Senator Nelson: The agreement basically keeps Iran
13 from having a nuclear weapon for a specified number of
14 years. Is there anything that you know of that would
15 indicate that that is not going to be fulfilled?

16 Secretary Perry: I think the President's focus here is
17 on being able to push that timeline even further down the
18 road. And I think everyone around your dais agrees that
19 that is a good idea. The idea that we could push Iran back
20 from the standpoint of when they can start processing is a
21 good thing.

22 Senator Nelson: Beyond the 15 years.

23 Secretary Perry: Yes, sir.

24 Senator Nelson: Let me ask you about our concern that
25 Saudi Arabia might be wanting to get into the nuclear bomb

1 business. So they are wanting to have a whole bunch of
2 nuclear reactors for electricity production. And we worked
3 with the IAEA to produce these protocols called additional
4 protocols to monitor for diversions from technology used for
5 electricity to get it over. Do you think Saudi Arabia
6 should adhere to those protocols?

7 Secretary Perry: Yes, sir.

8 Senator Nelson: So do I.

9 Mr. Secretary, back to an earlier discussion that you
10 had with Senator Blumenthal. It is troubling -- and I am
11 saying this from my standpoint. I have the privilege of,
12 along with Senator Rounds, leading the Cyber Subcommittee of
13 the full committee here. And we are quite concerned with
14 what Russia is able to do to us, in addition to a whole
15 bunch of other countries and parties, in cyber attacks.

16 And if an electric company -- and I am making this
17 point -- in the private sector, an electric company, a
18 banking company, a water company, whatever in the private
19 sector -- if they were attacked with, say, a bomb, a
20 sabotage, a missile from Russia, that would be a direct
21 attack on our country. Would it not be the same thing if
22 they use cyber to attack and shut down, say, an electrical
23 grid?

24 Secretary Perry: Senator Nelson, I think you are
25 absolutely correct. I think the world has changed greatly

1 over the course of the last decade when it comes to using a
2 digital way to attack a country and that we have to have
3 this conversation. We have to be not only on the
4 cybersecurity side of this but also on the rules of
5 engagement standpoint, that when there is massive amounts of
6 damage done -- for instance, if a hospital were to be shut
7 down and their ability to deliver lifesaving procedures
8 because of an attack on their information technology system,
9 that is every bit as much a direct effect on people's lives
10 as if someone would explode a bomb in an emergency room.

11 Senator Nelson: Well, I think I can speak for Senator
12 Rounds. So you know this is in a bipartisan spirit. We are
13 concerned that the DOD, which is our only capability now as
14 the commander -- we are concerned -- and he is also, the
15 head of NSA. We are concerned if he has the authorities in
16 order to, number one, prevent or, number two, counterattack
17 in the case of such a thing. And I want to bring this to
18 you since you are definitely a part of the national security
19 apparatus to please give counsel to this because it is upon
20 us, and it is going to happen one way or another. And we
21 have already seen how an attack undermines our very
22 democratic institutions.

23 Secretary Perry: Yes, sir.

24 Senator Nelson: Thank you, Mr. Chairman.

25 Senator Inhofe: Thank you, Senator Nelson.

1 Senator Scott?

2 Senator Scott: Thank you, Mr. Chairman.

3 Good morning, Secretary.

4 Secretary Perry: Senator.

5 Senator Scott: Good to see you again.

6 Secretary Perry: Good to be in your presence, sir.

7 Senator Scott: Thank you, sir.

8 Thank you for visiting the MOX facility and the entire
9 Savannah River site.

10 Can we just revisit why the Russians withdrew from the
11 PMDA because from my perspective nonproliferation equals the
12 PMDA in many, many ways? It has been widely reported that
13 the Russians withdrew from the PMDA because of our lack of
14 progress on the MOX facility. Would you agree or disagree?

15 Secretary Perry: Yes, sir. They are the ones that
16 walked away.

17 Senator Scott: But would you agree that part of the
18 reason why they walked away, at least the focus that I have
19 read -- part of their rationale for walking away is that we
20 were not upholding our part of disposing of and eliminating
21 the weapons-grade component of the material?

22 Secretary Perry: Senator Scott, without having any
23 more information, I might agree with that simplistic
24 approach. But here is what I think from my perspective, and
25 I am not going to base this on anything other than some

1 facts.

2 The Russians suspended it because I think they were
3 looking for a reason to suspend it. That is my read on
4 this. And I think when they put the requirements for the
5 resumption out on the table, then that even solidified it
6 more for me. When they talk about they require the
7 reduction of military infrastructure and manpower in certain
8 NATO countries before they will come back to the table, when
9 they say they want a repeal of the Magnitsky Act and the
10 Ukraine Freedom Support Act, so I start seeing a real
11 political pushback from the Russians. You and I -- we have
12 done a few negotiations before. I think they were looking
13 for a reason to walk away from this so that they could make
14 some political points.

15 Senator Scott: Let me suggest that what you are
16 talking about is a part of the aftermath. The fact of the
17 matter, that which opened the door for them to walk away was
18 us not honoring the obligation and our responsibility to
19 develop the technology that eliminates the weapons-grade
20 component. So the reality of it is that we opened the door.
21 Actually we did not open the door. We took the door off the
22 hinges and said please feel free to walk away with your part
23 of the 34 metric tons of weapons-grade plutonium that at
24 least creates 10,000 warheads, perhaps 15,000 warheads. So
25 the reality of it is we opened a door and we still focus on

1 the importance of nonproliferation. And we opened the door
2 with a bad actor from my perspective.

3 A question for you. What if New Mexico says no? What
4 if the capacity levels that seem to be in question already
5 becomes an answered question that there is no capacity?
6 What if the incidents that have occurred at the New Mexico
7 site become more problematic or we find more reasons and
8 rationale why it will not work?

9 What if the Russians actually say that the D&D does not
10 eliminate the weapons-grade component and we find ourselves
11 back at the table and back in South Carolina at a site that
12 according to some -- I am sure that you guys would disagree--
13 - is between 60 and 65 percent complete? We have invested
14 billions of dollars. What if the United States Congress is
15 unwilling to change the laws and the administration cannot
16 find ways to change regulations in order for us to move
17 forward on some alternative other than the current
18 alternative that is about 65 percent finished and is the
19 only means we have in the United States to eliminate the
20 weapons-grade component?

21 Secretary Perry: Senator, I do not get to work on
22 "what ifs." I have to work on concrete evidence. And this
23 committee has put forward a directive from my perspective
24 that MOX is shut down, and MOX is shut down because it is
25 horrendously over budget. The timetable for it that we are

1 looking at now is 2048 before the first plutonium could be
2 processed versus dilute and dispose, which is substantially
3 less so. And in the NDAA, we were clearly given
4 instructions that I think this committee may have passed
5 twice and sent out that says here are the four parameters of
6 which you need to meet. We will have the answers to those
7 in the very near future. But what I am looking at is my own
8 GAO-supported numbers and this committee's instruction that
9 we look at this alternative. And so I know we have had
10 disagreement about whose numbers are right.

11 Senator Scott: Yes.

12 Secretary Perry: But this committee has sent a really
13 powerful message to me that this is what we want you to do.

14 Senator Graham and you and I both talked about at
15 length are there some legacy programs that can go into
16 Savannah River, and there are. And we want to work with you
17 all, with the governor, with the people out there to find
18 those opportunities.

19 Senator Scott: And we welcome that.

20 I know I am over time, but Mr. Chairman, I will close
21 with this to our Secretary, whom I have a great respect for
22 and admiration.

23 Secretary Perry: Thank you.

24 Senator Scott: We disagree fundamentally on this
25 issue. I will say, however, that looking for concrete

1 evidence -- let me lay out the concrete evidence from my
2 perspective. What is concrete is that we simply do not know
3 the cost of transferring to WIPP. That is concrete. Number
4 two, what is concrete is we do not understand the timeline.
5 Concrete is we do not understand the process for getting the
6 regulatory environment or Congress to approve. Concrete, we
7 do not have any confirmation that the New Mexico delegation
8 will move forward.

9 What we do have concrete is billions of dollars
10 concrete in the ground in South Carolina. What we do have
11 concrete is that the only known way for us to dispose and
12 eliminate the weapons-grade component is the MOX facility,
13 and we have very, very strong disagreements on the price,
14 the time of completion.

15 I think the chairman is telling me to stop. Thank you,
16 sir.

17 Secretary Perry: Senator Scott, thank you. And the
18 only thing that I would say in response very quickly is the
19 dilute and dispose technology has been proven, and the
20 reason it has been proven is that we have put 5 metric tons
21 of plutonium into the ground at WIPP.

22 Senator Scott: Mr. Chairman, thank you so much for
23 allowing us to go forward.

24 Senator Inhofe: Thank you very much, Mr. Scott.

25 Senator Donnelly?

1 Senator Donnelly: Thank you, Mr. Chairman.

2 Mr. Secretary, I appreciate your highlighting the
3 importance of a trusted supply of strategic radiation-
4 hardened advanced microelectronics, including R&D
5 capabilities, in your testimony. NNSA is our nation's
6 source for these critical supplies for our nuclear weapons.
7 But the challenges related to the production of trusted
8 microelectronics and circuit boards exist with all of our
9 weapon systems not just nuclear. The declining U.S.
10 industrial base and the proliferation of threats in our
11 supply chain is creating new and dangerous ways for
12 adversaries to attack our systems.

13 How are you coordinating with DOD to ensure we are
14 investing properly and not duplicating efforts or leaving
15 gaps in critical areas?

16 Secretary Perry: Senator, I know you have probably had
17 the opportunity to meet the new Administrator at NNSA, a
18 very capable, bright, and hard charger. I have every
19 confidence in the world not only does her history of where
20 she came from, national security, but also her -- I mean, I
21 would not have asked her to come and serve in that role if I
22 was not very confident that she is going to be able to stand
23 in there and deliver to you exactly what you want.

24 Senator Donnelly: I just want to emphasize to you that
25 this is not only an important issue to me but to national

1 security.

2 Secretary Perry: Absolutely.

3 Senator Donnelly: Thank you.

4 As ranking member of the Strategic Forces Subcommittee,
5 I am a strong supporter of modernizing all three legs of the
6 nuclear triad. I am pleased to see we agree on that. The
7 work of the NNSA is integral to our nuclear modernization.
8 We held a hearing just last week in our Strategic Forces
9 Subcommittee with Administrator Gordon-Hagerty, with Admiral
10 Caldwell, Mr. Owendoff, and Mr. Trimble from the GAO. And I
11 want to get your thoughts on some of the issues raised
12 there.

13 We have a new bomber, a new air-launched cruise
14 missile, the life extension of current ICBMs, a new ICBM, a
15 new SSBN. Now the Nuclear Posture Review adds to this
16 potentially another warhead modification, a new sea-launched
17 cruise missile, any necessary modifications to the vessels
18 carrying that cruise missile, and any warhead modifications
19 necessary to arm it.

20 Do you have a budget proposal for that warhead, and how
21 much will it cost for fiscal year 2019 and over the 5-year
22 defense plan?

23 Secretary Perry: This is not a new capability. This a
24 weapon that we have had in the fleet before that we are
25 bringing back up. Let me, with your permission, get back to

1 you on the exact budgetary requirements for that.

2 [The information follows:]

3 [COMMITTEE INSERT]

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1 Senator Donnelly: Okay.

2 The last thing I want to ask. I think it is important
3 to ensure we are investing in our national labs. I think
4 they are extraordinarily critical and investing in their
5 workforce while also providing oversight of management and
6 operation contractors. It will take a joint effort to build
7 and sustain our nuclear security enterprise into the future.

8 Can you tell me how you think about this challenge and
9 the importance of the labs? I heard you mention early on
10 today that you said they are a jewel. They really are.

11 Secretary Perry: They really are, yes, sir. If it is
12 the one thing that I have been the most impressed with with
13 my time as the Secretary, it has been to be able to go visit
14 with these labs, have the lab directors in fairly regular,
15 and share with the rest of the country through a lot of
16 different means, including social media, just how good these
17 labs are. It is one of the reasons that this lab-directed
18 research and development program is so important. It is one
19 of the reasons that we think that the ability for our
20 national labs to have some autonomy, if you will, when it
21 comes to being able to let the labs direct some of this
22 funding to where it needs to go. So I am sure there are
23 some really big cheerleaders for the national labs, but I am
24 going to put myself right up there with the best of us.

25 Senator Donnelly: Thank you for your hard work.

1 Secretary Perry: Thank you, sir.

2 Senator Inhofe: Thank you, Senator Donnelly.

3 I am going to go ahead and adjourn the meeting here
4 because we are out of time.

5 [Whereupon, at 11:59 a.m., the hearing was adjourned.]

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