

**ENVIRONMENTAL MANAGEMENT STIMULUS
FUNDING**

HEARING
BEFORE THE
SUBCOMMITTEE ON STRATEGIC FORCES
OF THE
COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE
ONE HUNDRED ELEVENTH CONGRESS
FIRST SESSION

APRIL 22, 2009

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ENVIRONMENTAL MANAGEMENT STIMULUS FUNDING

WEDNESDAY, APRIL 22, 2009

U.S. SENATE,
SUBCOMMITTEE ON STRATEGIC FORCES,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:33 a.m., in room SR-222, Russell Senate Office Building, Senator Bill Nelson (chairman of the subcommittee) presiding.

Committee members present: Senators Bill Nelson, Begich, Sessions, and Graham.

Committee staff member present: Jennifer L. Stoker, security clerk.

Majority staff member present: Madelyn R. Creedon, counsel.

Minority staff member present: Daniel A. Lerner, professional staff member.

Staff assistant present: Kevin A. Cronin.

Committee members' assistants present: Christopher Caple, assistant to Senator Bill Nelson; Lenwood Landrum and Sandra Luff, assistants to Senator Sessions; and Matthew R. Rimkunas, assistant to Senator Graham.

OPENING STATEMENT OF SENATOR BILL NELSON, CHAIRMAN

Senator BILL NELSON. Good morning and welcome to our hearing in the Strategic Forces Subcommittee.

Our witness is Dr. Inés Triay, the acting Assistant Secretary of Energy for Environmental Management (EM). Dr. Triay is responsible for Energy's efforts to clean up the vast quantities of radioactive and other contamination generated during the Cold War.

Under the stimulus bill, the American Recovery and Reinvestment Act of 2009, the Department of Energy (DOE) received \$5.1 billion to address a substantial backlog of these cleanup projects, and it hopefully will meet the various legally binding commitments to the States and the Environmental Protection Agency (EPA) and accelerate the cleanup activities, where it is possible. In the long run, this accelerated cleanup ought to save money by reducing the number of sites and the facilities that have to be maintained.

The funding under the stimulus bill for the EM Program is similar to the annual appropriation for fiscal year 2009, which is approximately \$6 billion. Although the EM Program has been underfunded in the last several years, receiving the equivalent of a full year's appropriation is a very large amount for a single program to absorb and to manage. So, under the requirement of section 1603

of the stimulus bill, the funds have to be obligated by September 30, 2010.

Because the EM Program has been underfunded in the past several years, the National Defense Authorization Bill from last year, which is this present year, fiscal year 2009, authorized an additional \$500 million to address the shortfall in 2009. Additional money is needed in this program, and the hearing today is to ensure that these extra funds and extra projects will be managed to ensure that the taxpayers are receiving good value for their money.

Dr. Triay, we look forward to hearing from you about how we're going to meet the goals that the stimulus bill laid out, what projects are going to be funded, how the projects will be managed, and the timetable for project execution.

Senator Sessions.

STATEMENT OF SENATOR JEFF SESSIONS

Senator SESSIONS. Thank you, Mr. Chairman, and thank you, Dr. Triay. We appreciate your service. You certainly are challenged, and very few people have any idea how significant a financial commitment this Nation is being asked to make with regard to this cleanup. It's just stunning, breathtaking beyond most anything anybody could imagine.

It will provide no real benefits, such as investing \$100 billion in the Department of Defense (DOD) or energy efficiency or productivity. It's mainly clean up a spill and an environmental hazard that has occurred, and so it's not a real benefit to us. I think—of course it's a benefit in cleaning up, but I'm talking about the economy and the productivity of the Nation is not much enhanced by this effort.

So, I guess my fundamental concern is the cost. I raised that several years ago at some length in this committee, and remain baffled by the amount of money that we're investing here.

As the chairman indicated, in addition to your \$6 billion base budget, the stimulus bill added another \$6 billion. That is a huge amount of money. It's difficult for me to imagine how it could be spent effectively in the short timeframe it's been suggested it would be spent. So, you're challenged, no doubt.

The bipartisan Congressional Budget Office reports that only 40 percent of the emergency management recovery funding can be spent by the end of fiscal year 2010, which I'm sure is true. You would just be throwing money away, probably, to try to spend it faster than that, and I'd be interested as to whether or not you can carry the money over, even though it was supposed to be stimulus, in the 2 year timeframe. But, we can't just waste that money. It has to be productively utilized, and I hope that you'll have that flexibility.

Dr. Triay, in this committee, several years ago, maybe 3—I think I was chairman then, or maybe just—Senator Nelson had just taken over—the DOE official came in and blithely told us that there had been an error in the computation of how much this cleanup cost would be, nationwide, and it wasn't going to be \$100 or \$120 billion, I think, it was going to be \$180 billion. I remember declaring in amazement that that had to be the largest cost over-

run in the history of the Republic. Nothing had ever been seen like an \$80 billion cost overrun before.

Now I'm hearing that that's low, still. According to the 2009 report to Congress, the estimated total outstanding cost to complete cleanup at all of the remaining facilities, at this highest, pristine standard that we're talking about, range between \$205 billion and \$260 billion. History being what it is, it probably will exceed \$260 billion unless we can figure out a way to confront this problem.

You have a tremendous challenge. I don't know how you can do it, but I encourage you to stand up for the American taxpayer. I remember, at that committee meeting, Senator Lindsey Graham from South Carolina talked about how they were able to speed up the Savannah River Site cleanup by 23 years and save the taxpayers \$16 billion.

So, my question and my concern is, we have to be realistic. How much good could we do, Mr. Chairman, with \$100 billion, \$150 billion, if we could figure out a way to do some of the things they did at Savannah River in South Carolina, and improve that cleanup, get the job done quicker, and do it at a cost that is going to be exceedingly high, by any standards, but more realistic?

So, I'm not against cleaning up. I'm not against the Senators and Congressmen who want to see everything possible done in their States, but you're in a difficult spot, and we're in a difficult spot. We have to protect the treasury of the United States, and we have to ask, are there some alternatives that we can utilize, as in South Carolina, that can get the job done effectively, quicker, and at less cost?

Thank you.

[The prepared statement of Senator Sessions follows:]

PREPARED STATEMENT BY SENATOR JEFF SESSIONS

Thank you very much, Mr. Chairman. I join you in welcoming our witness, Dr. Inés R. Triay, the acting Assistant Secretary for Environmental Management at the Department of Energy (DOE).

Dr. Triay, the Office of Environmental Management (EM) has an important mission. Defense-related nuclear activities during the Cold War led to significant volumes of nuclear waste, materials, and facilities. It is the responsibility of the Office of EM to complete the safe cleanup of contaminated DOE labs and production facilities.

When Congress considered the stimulus bill earlier this year, there was broad agreement that a targeted, effective, and fiscally responsible economic recovery package was needed. However, by the time the bill reached the President's desk, it quickly became anything but targeted, effective, or fiscally responsible. Including billions in wasteful spending on permanent government programs, the final bill, at a staggering \$1.2 trillion, is the largest single expenditure in our Nation's history. Every penny of which will have to be borrowed and repaid, with interest, by future generations.

The purpose of this morning's hearing is to assess EM and its plan for obligating and spending its recovery act funding. As you are already aware, the legislation was especially generous to defense-related environmental cleanup. In addition to its nearly \$6 billion regular fiscal year 2009 appropriation, EM received an additional \$6 billion to help invigorate the economy and provide new jobs. I have a number of significant concerns and look forward to a constructive discussion regarding among others the overall funding level, and the speed at which EM will be able to allocate such a large infusion of funds in a stimulative way.

Given reports by the bipartisan Congressional Budget Office (CBO) that only 40 percent of EM's recovery funding can be spent by the end of fiscal year 2010, I am especially troubled by the excessive level of this appropriation. Furthermore, CBO estimates it will take EM until the end of fiscal year 2012 to spend the entire \$6

billion, hardly the immediate effect, many of the legislation's proponents advocated for.

As noted in your 2009 report to Congress, the estimated total outstanding costs to complete cleanup at all of the remaining facilities could range between \$205.43 billion and \$260.53 billion. The last facility, Hanford, in the State of Washington, may not be cleaned up until as late as 2062. I remain very concerned with these escalating costs and schedules.

To place this figure in context, the total general, education, and other funds that represent the total budget for the State of Alabama for fiscal year 2008 was \$22.7 billion—that represents 8.7 percent of the \$260.5 billion of the estimated costs to complete the cleanup. I just do not see how we can sustain this level of spending. That said, I am very interested in hearing your views regarding what procedures you will put in place and how you will ensure we contain, and more importantly reverse, this cost and schedule growth.

A few years ago when this subcommittee met on the same issue of environmental cleanup, I recall a discussion on how Senator Graham and the people of South Carolina were able to speed cleanup at the Savannah River Site by 23 years and save taxpayers \$16 billion. Section 3116 of the 2005 DOD Authorization Bill illustrates there are in fact vehicles and legislative options for reducing both cost and schedule. What is EM doing to address the ever-increasing growth in cost of cleanup and what can Congress and the executive branch do to make sure that we get the job done without spending such large sums of taxpayer dollars?

Finally, in light of some recent management and performance issues, look forward to hearing how EM plans to avoid cost overruns and significant delays like those at the Hanford Waste Management Treatment Plant, a project to solidify approximately 54 million gallons of radioactive waste, that has increased in cost from \$6 billion to \$12 billion and been delayed by at least 8 years.

Dr. Triay, as you can see I have a number of concerns. Nonetheless, look forward to having a constructive conversation this morning and am eager to hear how under your leadership EM will execute this funding in an expedited, fiscally responsible, transparent, and stimulative way.

Senator BILL NELSON. Okay. Let's just start right there. Dr. Triay, who, by the way—you have good blood in you; you were educated in the State of Florida. [Laughter.]

We will, of course, put your lengthy statement in the record, and Senator Sessions and I are just going to start off with questions. [The prepared statement of Dr. Triay follows:]

PREPARED STATEMENT BY DR. INÉS TRIAY

Good morning, Chairman Nelson and members of the subcommittee. I am pleased to be here today to answer your questions on the integration of American Recovery and Reinvestment Act of 2009 (Recovery Act) funding within the Department of Energy's Office of Environmental Management (EM) program.

As you are aware, in January 2009, the Department completed and presented to Congress a comprehensive report assessing initiatives to accelerate the reduction of environmental risks and challenges posed by the legacy of the Cold War. The report, "Status of Environmental Management Initiatives to Accelerate the Reduction of Environmental Risks and Challenges Posed by the Legacy of the Cold War," was prepared pursuant to section 3130 of the National Defense Authorization Act for Fiscal Year 2008 and summarizes EM's initiatives to accelerate risk reduction.

The report submitted to Congress also outlined one of EM's key strategic planning initiatives: to reduce the legacy footprint of the EM complex. Footprint reduction is accomplished by focusing cleanup activities on decontamination and demolition of excess contaminated facilities, soil and groundwater remediation, and solid waste disposition, all of which have proven technologies and an established regulatory framework. Within this rubric, EM has demonstrated that additional investments in the program could yield significant environmental cleanup progress and create jobs quickly.

Because of its strategic planning efforts over the last 18 months, EM was positioned to quickly leverage additional investments in footprint reduction activities to help achieve national economic and environmental objectives of both the Recovery Act and the EM program.

RECOVERY ACT AND EM BASE PROGRAM

EM's plan is to allocate the \$6 billion of Recovery Act funding provided by Congress to support footprint reduction and near-term completion cleanup activities. Given the economic climate over the past several years, footprint reduction cleanup activities have often been deferred in order to fund higher-risk activities.

At the same time, EM will remain focused on the highest risk activities in EM's portfolio, including the management of radioactive tank waste, surplus special nuclear materials (SNM), and spent nuclear fuel (SNF) and essential activities required to maintain a safe and secure posture in the EM complex. These activities comprise the majority of base program funding and represent the biggest challenges facing the EM program. EM continues to move forward and clear hurdles in finalizing design, constructing, and operating of three unique and complex tank waste processing plants to treat approximately 88 million gallons of radioactive tank waste for ultimate disposal. With a total cost estimate of \$14.3 billion, investments are still needed to complete building and operating these necessary facilities and process the tank waste, which is one of the primary risk and cost drivers in the program. EM also faces the challenge of selecting and implementing disposition options needed to prepare certain types of SNM and SNF for ultimate disposal. These higher risk activities will continue to comprise a large portion of EM's annual budget request.

RECOVERY ACT FUNDING AND OVERSIGHT

Since much of the Recovery Act cleanup work is associated with compliance milestones, EM will be better positioned to meet its compliance commitments going forward. This work will be accomplished primarily through existing contract vehicles and will create thousands of new jobs that require limited training.

EM is well poised to effectively spend the \$6 billion in Recovery Act funding because this type of cleanup is associated with:

- Proven technologies—on-the-shelf plans and projects ready to be implemented
- Regulatory infrastructure in place—established regulatory framework with regulator and community support
- Acquisition structure in place—flexible contract vehicles allow quick expansion of environmental cleanup workforces
- Project Management structure in place—ability to track and measure performance

EM has identified opportunities at 17 sites in 12 States that meet these Recovery Act principles. EM must be able to fully account for and communicate the accomplishments achieved with Recovery Act funding and assure that Recovery Act work scope is integrated with ongoing EM budgeting and planning activities to ensure seamless integration of Recovery Act work within existing baseline work.

As a result, EM will segregate cleanup scope funded within the normal appropriation process from work funded from the Recovery Act for both budget execution and project performance tracking and reporting. EM will be able to clearly articulate between existing programmatic performance (base program) and the additional cleanup progress that is achieved as a result of the additional resources invested in the program. This will provide a basis to continue the optimization of planning scenarios that can support future funding allocation decisions.

EM has chartered an integrated project team (IPT), the EM Recovery Act Team, to ensure proper planning and execution of Recovery Act funds. The IPT is led by the Chief Project Manager (CPM) who is the senior-most Federal official within the project chain of command and who has ultimate responsibility and accountability for delivering the project successfully. The CPM is a member of the Federal Senior Executive Service and possesses the executive core competencies required to lead the project through this period of government transformation. The CPM is supported by Federal Project Directors (FPD) who have satisfied the certification requirements prescribed in the Department's Project Management Career Development Program (PMCDP), and have been certified by the PMCDP Certification Review Board. The FPDs are senior Federal managers and are seasoned project directors certified by the PMCDP Certification Review Board at FPD Levels 3 and 4. The IPT members are experts in the areas of safety/operational readiness, planning, project management, budget, contracting, regulatory compliance, and communications. The team is actively engaged with the field office sites in all elements of Recovery Act implementation.

EM is in the process of assigning Recovery Act Site Representatives to support the field offices. These individuals will streamline communications and decision-

making between Headquarters and the field sites, while facilitating the integration, rapid sharing of lessons learned, and compliance with Recovery Act requirements.

As a prerequisite to receiving Recovery Act funds, the site offices have been required to submit to Headquarters checklist items that ensure each site is in a state of readiness and has implemented measures that prevent waste, fraud, and abuse. The checklist items verify that each site office has the necessary systems and processes in place for safety, oversight, contracting, change control, reporting, risk management, and regulator and stakeholder involvement.

The Recovery Act team will maintain a project management discipline in accordance with DOE Order 413.3A, through the use of clear performance measures, project and cost reviews, frequent rigorous reporting, utilization of the Earned Value Management System, and Risk Management Plans. The Recovery Act team is in close coordination with the Department's Office of Engineering and Construction Management to ensure full compliance with project management orders and policies.

Approximately 90 percent of the Recovery Act work scope can be accommodated using modifications of existing prime contracts. Additionally, subcontracting is expected, as well as the continued implementation of small business contracts. Where appropriate, EM will utilize the Indefinite Delivery Indefinite Quantity (IDIQ) contract mechanism. IDIQ contract mechanism streamlines the contract process and provides for an indefinite quantity of supplies or services during a fixed period of time. Contract actions are being supported by the EM Consolidated Business Center and the Army Corps of Engineers for independent cost estimating.

Safety is of the utmost importance to EM. Recovery Act activities will be executed in full compliance with all of the Department's safety requirements including the Integrated Safety Management System and Nuclear Safety Management, 10 CFR 830. Site offices have developed Federal Resource Oversight Plans, Contractor Readiness Self-Assessment Plans, and Vulnerability Assessment and Risk Mitigation Plans. Safety will also be a primary focus in the ongoing site readiness evaluations being implemented to assess the overall project, financial, technical, safety, and administrative readiness.

EM endeavored to select Recovery Act projects that had an established regulatory framework. EM Headquarters and site-level managers will continue to work with State and Federal regulators, Congress, tribal nations, union officials, and all other stakeholders on Recovery Act planning and implementation process. The EM Recovery Act Team has also created a public website dedicated to the Recovery Act, and we are providing planning and implementation documentation to the Department's Inspector General as requested.

RECOVERY ACT FUNDING ACROSS THE CLEANUP COMPLEX

Washington (Total funding \$1.961 billion)

Richland Operations Office (\$1.635 billion)

Demolish nuclear facilities and support facilities, remediate waste sites, remediate contaminated groundwater, and retrieve solid waste from burial grounds. Recovery Act funds will utilize the River Corridor cleanup contract to accelerate cleanup of facilities, waste sites, and groundwater along the Columbia River to support shrinking the active area of cleanup at the 586-square-mile Hanford Site to 75 square miles or less by 2015.

Office of River Protection (\$326 million)

Upgrade the infrastructure and systems to transfer radioactive liquid waste from aging underground tanks to a waste treatment facility for immobilization and disposal to meet the 2019 startup date.

South Carolina (Total funding \$1.615 billion)

Savannah River Site (\$1.615 billion)

Accelerate decommissioning of nuclear facilities and contaminated areas throughout the site, including in-place decommissioning of two nuclear materials production reactors. Recovery Act work includes shipping more than 4,500 cubic meters of waste out of South Carolina and will reduce the site's industrial area by 40 percent, or 79,000 acres, by September 2011.

Tennessee (Total funding \$755 million)

Oak Ridge (\$755 million)

At the East Tennessee Technology Park, Oak Ridge National Laboratory, and Y-12 sites, accelerate demolition and disposal of remaining uranium enrichment plant

buildings, surplus Manhattan Project era buildings, and highly contaminated uranium processing buildings, and perform soil remediation to protect area groundwater. For instance, Recovery Act funding will allow EM to begin to address the environmental liability associated with the Integrated Facility Disposition Program, which includes removal of at risk materials and stabilization and deactivation of facilities. Recovery Act funding will also accelerate cleanup of the most significant sources of off-site mercury release to East Fork Poplar Creek to prevent further contamination of the area.

Idaho (Total funding \$468 million)

Idaho National Laboratory (\$468 million)

Accelerate demolition of excess nuclear and radiological facilities resulting in a footprint reduction of more than 800,000 square feet. Recovery Act funds will be used to leverage the efficiencies realized through existing decontamination and decommissioning (D&D) contracts. The value of the D&D work conducted at Idaho translates into \$1.60 of work being completed for every Recovery Act dollar spent. The acceleration of D&D projects at Idaho will reduce project cost, and help to avoid surveillance and maintenance and escalation costs for D&D activities. Recovery Act funding will also allow for the retrieval of targeted waste per the Agreement with the State of Idaho and accelerate the shipment of waste offsite for disposal.

New Mexico (Total funding \$384 million)

Carlsbad (WIPP-\$172 million)

Accelerate completion of legacy transuranic waste shipment preparation and shipments to the Waste Isolation Pilot Plant repository from one large quantity site and seven small quantity sites. Accelerate shipments from four other large quantity sites.

Los Alamos National Laboratory (LANL-\$212 million)

Demolish 35 buildings and structures across the complex, reducing the footprint by more than 260,000 square feet.

New York (Total funding \$148 million)

Brookhaven (\$42 million)

Demolish surplus ancillary structures associated with a nuclear research reactor. Remove contaminated soil and buried pipelines and dispose of off-site, protecting the surrounding soil and groundwater.

Separations Process Research Unit (SPRU) (\$32 million)

Cleanup of the North Field Land Area, removal of contaminated soil for off-site disposal, perform sampling to confirm cleanup results, and regrading and reseeding the area.

West Valley (\$74 million)

Design and construct a storage system for high-level waste canisters and move high-level waste canisters from the former waste treatment facility to the new system, allowing the former treatment facility to be decontaminated and demolished earlier than planned. Begin demolition of former process buildings and install a system to prevent migration of groundwater contamination. Accelerate radioactive waste treatment and disposal activities to shrink the area of site contamination.

Ohio (Total funding \$138 million)

Miamisburg (\$20 million)

Complete remediation of Operable Unit 1 (historic landfill).

Portsmouth (\$118 million)

Demolish surplus facilities, including electrical switchyard structures, cooling towers, and one pump house, and cleanup 65 acres of contaminated soils. Remove the source of the highest contaminant concentration groundwater plume on site, preventing further potential groundwater contamination.

Utah (Total funding \$108 million)

Moab (\$108 million)

Accelerate removal of uranium mill tailings away from the Colorado River and dispose of an additional 2 million tons of mill tailings by 2011, accelerating site cleanup. Recovery Act work will be accomplished by increasing the number of railcars and shipments.

*Illinois (Total funding \$99 million)**Argonne National Laboratory (\$99 million)*

Accelerate demolition of excess contaminated facilities and waste cleanout activities several years early.

*Kentucky (Total funding \$79 million)**Paducah (\$79 million)*

Remove and dispose of large process equipment and demolish surplus chemical processing facilities, shrinking the area of contamination.

*California (Total funding \$62 million)**ETEC (\$54 million)*

Provide \$38.8 million for the U.S. Environmental Protection Agency to conduct radiological assessments necessary to complete an environmental impact statement and enable completion of site cleanup. Any additional cleanup work at ETEC will be conducted if regulatory approval is obtained.

SLAC National Accelerator Laboratory (\$8 million)

Accelerate excavation and disposal of contaminated soil and accelerate installation of groundwater treatment systems.

*Nevada (Total funding \$44 million)**Nevada Test Site (\$44 million)*

Identify waste characteristics within the soil at three corrective action sites and install groundwater monitoring wells to provide additional data on groundwater contamination to support future cleanup work. Demolish three major facilities and two smaller structures, removing contaminated materials.

*Multiple States (Total funding \$69 million)**Uranium Thorium Payments, Statutory Reimbursement (\$69 million)*

Reimburse cleanup costs to companies that formerly processed uranium and thorium for sale to the Federal Government. These payments may allow companies to accelerate completion of site cleanup work.

Management and Oversight/Reserve at Headquarters and Sites (Total funding \$70 million)

The integration, policy management, and other activities funded by the Recovery Act will ensure that EM's cleanup mission proceeds in a consistent and responsible manner.

CONCLUSION

Mr. Chairman and members of the subcommittee, I would like to reiterate that Recovery Act funding provided by Congress will be utilized to support footprint reduction and near-term completion cleanup activities, and will be executed in a transparent manner in accordance with the goals and objectives of the Recovery Act. In addition, much of the Recovery Act funding work is associated with compliance milestones, which better positions EM to meet its compliance commitments going forward.

EM has made long-term commitments to address its highest risks—especially tank waste management. While the major portion of EM's current budget is devoted to building the capability for tank waste treatment and disposition, future investments will be needed to complete construction of these facilities and to process the tank waste.

I look forward to working with this committee and Congress to continue to accomplish the Department's cleanup commitments. I thank you for your attention, and I would be pleased to answer any questions.

Senator BILL NELSON. What is it that you're cleaning up, and why is it necessary to spend all this money?

Dr. TRIAY. First off, Senator Nelson and Senator Sessions, I share your concerns on behalf of the money and the taxpayers who are footing the bill for this cleanup. So, you have the EM Program's commitment and the DOE's commitment that we're going to be good custodians of the taxpayers' dollars.

With respect to what are we going to clean up, the National Defense Authorization Act for Fiscal Year 2008 requires us to send a report, as you are aware, that delineated the life-cycle costs of the cleanup and also delineated strategic planning business cases that we put together in order to do exactly what you have talked about this morning, which is to try to come up with ways of accelerating the cleanup and reducing the cost of the cleanup.

Those strategic planning business cases dealt with footprint reduction and near-term completions. As a matter of fact, as Senator Sessions mentioned, some of the acceleration at Savannah River Site came from being able to close areas at the site and clean them completely up.

We came up with a business case so that, by 2015, we would reduce the footprint, that is, the contaminated active area, of the EM legacy complex by 90 percent by 2015. Based on that business case—

Senator SESSIONS. Could I interrupt?

Dr. TRIAY. Yes, please.

Senator SESSIONS. At Savannah River by 90 percent, or the other sites you were talking about?

Dr. TRIAY. The entire EM complex and, in particular, Savannah River Site, I believe, by 87 percent, and our Hanford Site, which is the other very large cleanup—those are the two major cleanups of the EM complex—also by 90 percent.

So, we wanted to come up with a way to reduce the complex only to its highest-risk priorities—those are tank waste, special nuclear materials, and spent nuclear fuel—and do the majority of the cleanup for the remainder of the portfolio of EM—transuranic waste, low-level waste, soil and groundwater remediation, and the decontamination and demolition of excess facilities.

When the President, as well as Congress, started looking at options for the Recovery Act, these particular business cases became part of the discussion. The business case that we have put forth essentially has us completing the footprint—the reduction of the footprint at both Savannah River Site and our Richland operation—in other words, the Hanford Site—by 45 to 55 percent; essentially half of what we had analyzed in the report that we sent Congress in January 2009. We would do that by 2011. I would like to also mention that the activities in the Recovery Act funding that I have mentioned before—transuranic waste, low-level waste, soils and groundwater, and excess facilities decontamination and demolition—are activities that, by and large, the EM Program has done well.

As a matter of fact, this morning, I have the honor, actually, to introduce you to some of my colleagues that are with me—not only Cynthia Anderson, who's the Program Manager for recovery funding, but we also have Frazier Lockhart, who's a Federal Project Director certified at the highest level that the DOE certifies Federal Project Directors.

The reason I bring this up is, Mr. Lockhart was the Federal Project Director when we finished the Rocky Flats cleanup. I would like to mention, just along the same lines that both of you have discussed this morning, that the Rocky Flats cleanup finished 50 years ahead of the originally scheduled completion, and that the

Rocky Flats cleanup finished \$20 billion under the original cost that was estimated. Similar figures are also available for the Fernald cleanup.

Even though I completely understand your concern, and, as a matter of fact, the EM Program has been heavily criticized for issues associated with project management, we have selected the activities in this portfolio for the recovery funding to play to our strengths. Even though we have had issues in other areas of the program, or in specific projects dealing with these four areas that we have delineated for this recovery funding, we are ready to be extremely effective when it comes to the activities in the Recovery Act funding portfolio.

Senator BILL NELSON. Can you share with us how you determined what the cleanup level would be?

Dr. TRIAY. The EM Program has a regulatory framework that is based on Comprehensive Emergency Response Compensation (CERCLA) and Resource Conservation and Recovery Act (RCRA), as well as our own authority under the Atomic Energy Act. So, the majority of those cleanup levels are the result of agreements between the EPA, the States, and the DOE.

In addition to that, we have stakeholders, such as the communities, and we have Tribal Nations that we have responsibility to consult with. So, these are negotiated cleanup standards that are agreed to for the particular cleanup.

Senator BILL NELSON. That's how you come to the percentage cleanup that you're going to achieve?

Dr. TRIAY. That's correct.

Senator BILL NELSON. The timetable in which you're going to do it, that's negotiated, as well?

Dr. TRIAY. The timetable is also negotiated, and it depends on the funding profile that is assumed. It depends on the degree of maturity of the technology. But, yes, the timetables are also negotiated among all of those parties.

Senator BILL NELSON. All right. Of the material remaining, how do you go about accounting for all of that, of what you're not going to clean up?

How are you going to manage those sites to account for the remaining material?

Dr. TRIAY. We have—for instance, for nuclear materials, we are consolidating all of our nuclear materials at the Savannah River Site from our Hanford Site, as well as Los Alamos National Laboratory, Lawrence Livermore National Laboratory, as well as other parts of the complex. We have very strict controls associated with safeguards and security for ensuring the security of those nuclear materials that are being consolidated at the Savannah River Site.

With respect to the radioactivity that, when we clean up, we may leave behind because we have not done 100 percent cleanup, in terms of not leaving the site at pristine conditions, we do surveillance and maintenance monitoring to ensure the protection of the environment with respect to the level of cleanup that we have agreed to with the State and the EPA and other parties.

Senator SESSIONS. I would like to follow up on these agreements. Agreements made many years ago—when were these agreements, some of the major agreements, and when were they entered into?

Dr. TRIAY. Some of them, decades ago.

Senator SESSIONS. I've seen it, for example, in agreements, consent—confirmed by Federal judges, like in desegregation cases; after 20, 30 years, it becomes not a feasible thing. Those things can be amended. So, I guess my first question would be, if you have provisions in those agreements that don't make sense for the taxpayers of America, have you undertaken any evaluation to see to what extent they can be amended to accomplish the goal and also to contain these incredibly surging costs?

Dr. TRIAY. Senator, these agreements have been amended many times. As a matter of fact, on an annual basis, the majority of the agreements are discussed with our regulators and the communities where we actually have the cleanup agreements. As I was describing before, we have significantly amended the agreements and delayed some of the completion of the cleanups.

Senator SESSIONS. When you say that, does it have to be done with the consent of all the parties to the agreement?

Dr. TRIAY. That is correct, sir. That's right.

Senator SESSIONS. But, now, of course, if I had signed an agreement, I might find it politically difficult to agree to any modification that reduced spending, reduced employment in my area, and would even minutely reduce the pristine nature of the cleanup. So, if we're dependent completely on the consent of the local people who have an agreement, sometimes you have to go—how do you—have you considered legal avenues of amending that, in light of changed circumstances?

Dr. TRIAY. Senator, one of the main things that we do in the EM Program, is to try to find a balance between the degree of the cleanup and a balance that is respectful of the taxpayer. So, notwithstanding the fact that the agreements started many decades ago—as I was saying, the States, as well as the regulators, EPA, as well as State regulators, Tribal Nations, local communities—have negotiated with us and agreed to delay many of the completions, as well as the degree of the cleanup.

Senator SESSIONS. Okay, you've made some progress here, and I think that happened at Savannah River. I think local people agreed to a speedier cleanup and a less expensive cleanup. But, do you agree—where did this \$210- to \$260-billion figure come from? Is that what we now expect to do under the existing plans that you have at Energy? Is that your number?

Dr. TRIAY. Yes, the numbers are \$205 to \$260 billion and we have published in the report that was sent to Congress. Those numbers came from that report.

Let me just elaborate a little bit on these life-cycle costs. Scope, cost, and schedule are difficult to calculate for cleanups that are going to take decades. So, what we do is, we present a range, which is the range that you have quoted this morning. The reason for the proposal that we made, or the concept that we presented in this particular report to Congress, was to tackle those large total project costs—total program costs, life-cycle costs, as well as the duration of the cleanup. We think that economies of scale, being able to have ability to accelerate the decontamination and decommissioning of some of these facilities that are deteriorating and, once that they deteriorate, they become even more expensive to clean up, was one

of the ways to actually reduce the life-cycle cost and reduce the amount of time of the cleanup. So, that was, indeed, the reason for the concept that was presented in the report that we sent to Congress in January 2009.

Senator SESSIONS. But, you would admit that, just a few years ago, the high-side estimate for the cleanup was \$180 billion, I believe, and now the high-side estimate is \$260 billion. That is an incredibly huge overrun of just an estimate of a few years ago. Am I wrong about that?

Dr. TRIAY. Senator, let me address that. The Government Accountability Office (GAO) has been very critical of EM's project management, has said that in the cleanup projects the two main reasons for the issues were, number one, the fact that the assumptions that were used were very aggressive, and number two was lack of reality in the funding profile that we used for the life-cycle cost.

Of that life-cycle cost, an increase of \$70 billion; 40 percent of that was because we rebaselined the entire program to recalculate the life-cycle costs based on a funding profile that was more realistic, which was, essentially, around \$6 billion as an assumption—per year—in terms of how we were going to conduct the cleanup. When some of those agreements were signed, the annual budget that was assumed for some of those agreements went from \$7.5 billion to \$8 billion. So, by coming up with realism associated with the funding profile based on economic realities that we have in the country, 40 percent of that increase in the life-cycle cost was simply a matter of delaying the cleanup and moving it to the right so that, per year, we could be on the order between \$5.5 billion and \$6 billion per year. Another 40 percent of that increase in the life-cycle cost came from unrealistic assumptions, such as the amount of waste that we were going to be able to leave, for instance, in underground tanks; for instance, assumptions such as the nuclear materials portfolio of the DOE was not going to be part of the EM cleanup, but was going to be transferred out of the EM Program. There's no question that some of that life-cycle cost increase is due to performance of our contractors. But, the vast majority of that life-cycle cost increase was because of assumptions that were too aggressive and lack of reality in the funding profile.

In addition to that, this particular report that we're talking about that was sent to Congress in January 2009, delineated the excess facilities that were not part of our EM portfolio, and were delineated by other programs, such as Nuclear Energy, the National Nuclear Security Administration, and the Office of Science, where there are facilities that were no longer needed and also needed to be cleaned up, decontaminated, and demolished. Those facilities in that report to Congress, we reported that the range of that particular amount of money to deal with those facilities, was between almost \$4 billion and \$9 billion. So, about 15 percent of that life-cycle cost increase came from the excess facilities that were transferred to the EM portfolio as late as this year and excess facilities that are part of the liability of the DOE.

Senator BILL NELSON. Senator Begich, I need to get through just a few questions here, and then I'm going to have to excuse myself momentarily to go make a presentation in another committee. So,

if you will indulge me, let me just go on and do that, and then I'll call on you.

With regard to what you're addressing to Senator Sessions, part of the growth that we've been talking about is growth in a number of projects. So, while there has been the growth in cost of individual projects, there have been, also, a lot more projects that have been added to the EM Program. Then in the future, as the weapons complex reduces, those excess facilities that are no longer needed are themselves going to have to transfer to EM to decontaminate and to tear them down. Is that correct?

Dr. TRIAY. Correct.

Senator BILL NELSON. Okay. Now, let me ask you, on the stimulus bill projects, how did you decide what projects were going to be funded?

Dr. TRIAY. First, projects that had an established regulatory framework, the reasons that both you and Senator Sessions have been talking about, where we don't have established regulatory framework becomes very difficult to be effective in the cleanup.

Second, proven technologies. In other words, we have had issues, serious cost and schedule issues, in the EM Program, when we are doing first-of-a-kind projects. We made sure that the activities in the portfolio had proven technologies associated with the cleanup.

Number three, cost, schedule, and scope. Those plans had already been delineated by the EM Program so that we essentially had shovel-ready activities that could be started as soon as we received the funding.

Senator BILL NELSON. Are any of the stimulus funds used for ongoing construction projects?

Dr. TRIAY. No funds in the Recovery Act portfolio are used for construction projects. All of the funding is for transuranic waste, low-level waste, soils and groundwater remediation, and decontamination and decommissioning of excess facilities. There is one exception, which is \$300 million that has been given to the Office of River Protection in Hanford, to improve the tank farm infrastructure to be ready for when the waste treatment plant becomes operational in 2019.

Senator BILL NELSON. So, when you use the term "shovel-ready," you're talking about the projects you've just described.

Dr. TRIAY. Absolutely.

Senator BILL NELSON. All right. Now, are the projects that are going to be funded first with the stimulus bill money, is this addressing the high-risk and the most cost-effective projects?

Dr. TRIAY. The highest risks of the EM Program are, indeed, tank waste, special nuclear materials, and spent nuclear fuel. Because the rules of engagement of the activities that we were going to put in the portfolio of the Recovery Act funding were established regulatory framework, proven technologies, and cost, scope, and schedule baselines that were already established, we did not put any activities in the Recovery Act funding associated with tank waste, special nuclear materials, or spent nuclear fuel, which actually are the highest-risk activities of the EM Program.

The reason for that, Senator, is that, as you were describing in your opening remark, over the years, because the EM Program has been assigning their base program—in other words, the annual ap-

propriated funds—to those highest-risk priorities, we have been deferring transuranic waste, low-level waste, soils and groundwater remediation, and decontamination and decommissioning, to the point that some of our excess facilities have become deteriorated so that when our workers try to go in to clean them up, they are at risk, and then all that happens is, the cleanup takes all that much longer and it costs all that much more. So, that is the reason why the Recovery Act funding is associated with the part of the portfolio that is not the highest risk.

Senator BILL NELSON. Senator Begich, I'm going to call on you, and Senator Sessions will chair the meeting until I can get back.

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

I want to hone in on a couple of things regarding—I've just been scanning the report that was delivered in January, but let me walk through the contractor lay of the land, and that is—make sure I understand it.

You now have double your capacity, in dollars, \$6 billion to \$12 billion. The contractors that you currently have, your goal is to modify 90 percent or so of those to do that additional work in those locations. What is the current status of those modifications of those contracts? Have you done that? Or, when do you anticipate those contract modifications to be completed?

Dr. TRIAY. We have established an internal deadline for those modifications. Let me explain a little bit about how the process works.

The first thing that is done is the Government does an independent government estimate that is based on all the work that we have done on cost, schedule, and scope—baselines that I was describing a moment ago. So, then we put a modification to the contractor that is what we call “undefinitized,” meaning that the Department and the contractors have not agreed on how much the work is going to cost and how long it's going to take, so essentially, all the scope is in that modification—that is not definitized, but the schedule and the scope are then negotiated. Those negotiations, based on the independent government estimates, are going to take on the order of 3 months.

Senator BEGICH. So, you anticipate that, from today, maybe mid-summer, you'll have those modifications completed.

Dr. TRIAY. That's correct.

Senator BEGICH. Okay. Now let me ask you a couple of questions on those. The 90 percent, these contractors that you have, of the contracting world that deals in this industry, or this area, how much of the capacity will you consume? All of it?

Or, let me ask it another way. I'm sorry.

Dr. TRIAY. Yes.

Senator BEGICH. Are there contractors that are out there, that are not going to be part of this new equation because they're not current contractors, that could do this work?

Dr. TRIAY. Part of what we were trying to accomplish with the Recovery Act funding was, indeed, to have contract vehicles that were in the ready so that we could move forward with the work. In some cases, we have what is called a contract that we have already awarded, in terms of the contractors that are capable of doing work. It's like a task-order contract that—where we can com-

pete those tasks among the contractors that have already been preselected. Some of the funds—like, for instance, all of the funds associated with the Oak Ridge National Laboratory decontamination and decommissioning of facilities in the laboratory—will be competed through those task orders. The majority, however, just like you have delineated, is going to go to contracts that are already in place, where the contractor has already been selected.

In terms of the capacity, are we going to use all the capacity? We have required our contractors to heavily utilize subcontractors, especially small-business subcontractors, and in addition to that, with respect to the capacity, the amount of individuals that are out there looking for work, every day we have people coming in to look for work, working for either the subcontractors or the prime contractor, we have a factor of 10 higher interest than the people that we need. For instance, at Oak Ridge we had 76 jobs that were being competed for, and 1,000 people showed up for 76 jobs. At Hanford, 4,000 individuals showed up to get the jobs that were available. South Carolina, Savannah River Site, thousands of workers in the union halls and a tremendous success, in terms of the people who want to work in this area. So, with respect to whether we can staff this work, I think that what the data that we have shows that we are going to be able to do that.

Senator BEGICH. Let me ask you, if I can, just a couple more quick ones on the budget process, because I think, Senator Sessions, you brought up an interesting point of escalation. You mentioned independent cost estimates. Do you have something that you could at least share with me—I don't know if other committee members would be of interest in this—but, when you've done these cost estimations, what the final outcome is, based on that? I'm guessing, here. I come from being a city mayor. They're never right, the estimations, and the costs are much more. The danger I worry about here is, you're using—I understand the timetable, but rushing, which then is costing us more money, is somewhat dangerous. Why I say that is, these contractors know they're getting the business. It's a guarantee. You're going to do the work with them. So when you've exceeded the cost of independent government estimates, what has been the penalty for those contractors? Or, have you just assumed that cost with a negotiated—because I understand everything is negotiated. We do that a lot, when I was in the city government, and you end up paying, still, but you negotiate, and they work that into their costs on the front end, because that's how they do the business. Now, do you have something you could share, if it's the last 2, 3, 4 years of work, that you have had a cost estimate before the work is done, what the final work is done, and what did the contractor pay or not pay?

Then on top of that, are there any of these contractors that are currently under any cloud with the Federal Government in any other work they do with your agency or any other agency? What I mean by that is, are there contractors that have issues with the Federal Government on cost overruns in any other business they do with the Federal Government?

Dr. TRIAY. Senator, let me answer the question and tackle the serious issues that you have raised.

With respect to how we have analyzed the original cost and the actual cost, we do have some data indicating that, since 2004, the actual projects that were completed—we completed 19 projects, and, of those, 85 percent had cost success, meaning within 10 percent; 95 percent had schedule success; and all of them completed all of the scope.

Having said that—

Senator BEGICH. Can I ask you a quick question?

Dr. TRIAY. Yes. Yes.

Senator BEGICH. What was the total value of those projects?

Dr. TRIAY. Over 6—

Senator BEGICH. Does that mean—

Dr. TRIAY. —way over \$6 billion.

Senator BEGICH. So, 10 percent is a big number.

Dr. TRIAY. Not for each one of them. I mean, the total.

Senator BEGICH. Gotcha.

Dr. TRIAY. They ranged from \$11 million all the way to \$6 billion, individually.

As I have already stated, the EM Program has had serious issues with schedule delays and increase of costs. So, let me also tell you what we're doing to ensure that this doesn't happen, moving forward.

First off, even though we have obligated 80 percent of the funds to the States, 80 percent of the \$6 billion to the sites that we have in the different States, we have only authorized them to spend 30 percent of that 80 percent. In other words, 24 percent of the \$6 billion is the only thing that is going to be authorized for costing.

In addition to that, every time that we go from that 24 percent all the way to, hopefully, the 100 percent, meaning the \$6 billion, every 20 percent increment has to be authorized, not only by the office of Cynthia Anderson, who's the Program Manager for the Recovery Act funding, but also by the Chief Financial Officer of the DOE. The Office of the Chief Financial Officer also has to, independently from the EM Program, sign off on that 20 percent interval authorization.

Let me tell you how we're going to decide whether the next 20 percent is going to be allocated or not. It's going to be based on cost performance index and schedule performance index. What that means is that we are going to require that those contractors that—the site—our field sites are asking for the additional—the next interval—are going to be at a cost and schedule between .9 and 1 or, of course, above. We're going to require that performance is there, based on rigorous earned-value-management system, which means that we know how are they doing with respect to the plan that was put in place, and the initial cost estimates that the government has recorded.

So, it's not even a matter of what's going to happen after something happens, because it's not going to happen, to start with. If there is a nonperforming contractor at a particular site, we're going to evaluate whether the problem can be resolved; if it cannot be resolved, we're going to go to the next project on that site, and, if not, the money may very well have to be moved from one site to another one that is performing. This is about, of course, job creation, but also about performance for the cleanup.

Senator BEGICH. Very good. Thank you very much.
Thank you, Senator Sessions.

Senator SESSIONS [presiding]. Just one question. How many contractors in the last 4 years, to your knowledge, have been terminated for nonperformance or failure to performance—perform on time?

Dr. TRIAY. We have not terminated a contractor for nonperformance in the last 4 years; we have taken other contractual actions. We have taken scope work from the contracts that, that contractor is no longer going to do a part of the work, and we have competed, then, a particular part of the scope that was in the contract.

Senator SESSIONS. Senator Graham?

Senator BEGICH. Senator Graham, I apologize. There is that other part of the question, and you just triggered me, and if I could just ask, to make sure we're clear.

Can you provide to me, or to the members of the committee who are interested, if any—again, these contractors that are currently doing the business, and will be doing the business, if any of them have any issues in front of the Federal Government in regards to costs or other types of issues, maybe with your agency or any other agency, could you provide that?

Dr. TRIAY. Absolutely.

Senator BEGICH. I apologize, Senator Graham.

Dr. TRIAY. We will provide that information, absolutely.

[The information referred to follows:]

There is one contractor that has cost or business-related issues in front of the Office of Environmental Management:

- In Office of Inspector General (OIG) Audit Report No. DOE/IG-0811, Washington Savannah River Company, LLC, Internal Audit Function, the OIG identified problems with the internal audit function at Washington Savannah River Corporation, LLC, which led to some questioned costs not being brought to the attention of the applicable Federal contracting officer for adjudication of cost issues. This contract is transitioning to subsequent awardees and will not be receiving any Recovery Act funding.

Senator BEGICH. That was kind—you triggered me on that one.

Senator GRAHAM. Thank you. Thank you for your willingness to do this job.

I represent South Carolina, and obviously Savannah River Site's a big issue for the State. We've been through a couple of administrations, and I think the overall theme of the hearing, here, is that we seem to be spending a lot of money on cleanup and not advancing the cleanup agenda as much as everyone would like. So we have a new chance here to start over.

As far as the stimulus money goes, whether it be Savannah River Site or any other site, can you assure us that you're not taking one-time money and creating new programs with it?

Dr. TRIAY. I can assure you of that, Senator. This work is work that was already clearly delineated in the report that the DOE sent to Congress in January 2009. There are not going to be future liabilities associated with starting any particular program or construction or anything of that nature. We are committed to use the taxpayers' dollars wisely.

Senator GRAHAM. So, the bottom line is that the stimulus money, which is a 2-year funding stream, is not going to be used to create a program that has a funding stream past 2 years.

Dr. TRIAY. Absolutely, that's a correct statement.

Senator GRAHAM. Okay. That's good.

Now, when it comes to energy independence, which is a laudable goal, bipartisanly pursued here, the national laboratories, I think, can be very important pieces of that puzzle. What's your game plan to improve the infrastructure of the national labs? I think the newest national lab is Savannah River Site, and—can you tell me, just briefly, where do you see the national labs going, in terms of the funding from DOE?

Dr. TRIAY. We are very committed to the Savannah River National Laboratory's capabilities and the EM Program. Coming back to some of the comments made by Senator Sessions on the daunting task part of the cleanup, the high-level radioactive waste and underground tanks are something that need to be aggressively pursued. Savannah River National Laboratory, my intent is for them to become the premier chemical separations laboratory in the world. I think that they completely have the tools and the type of people.

Senator GRAHAM. Right. Yes.

Dr. TRIAY. So, we are going to invest in technology development in—not only at the Savannah River National Laboratory, but where the talent is across the complex. But, for chemical separations, clearly a lot of the talent is there at the Savannah River National Laboratory.

Senator GRAHAM. Two quick areas. One of the things we're doing at Savannah River Site National Lab in the community is research on the use of hydrogen to fuel cars. I know that's going to be part of the energy mix, is try to have vehicles fueled by hybrid—hydrogen. So, I'll talk to you about that later on, more privately.

H-Canyon. As you are, I'm sure, aware of, Savannah River Site was chosen by the Clinton administration to be the MOX fuel facility, where it would take 36 tons of weapons-grade plutonium excess to our defense needs, and the Russians would take a like amount, and take the plutonium pits that are nuclear bullets and turn them into plow shares to create commercial fuel. South Carolina has agreed to be a receiving site for this plutonium, so you could consolidate it there, save a lot of money, and eventually turn it into commercial-grade fuel, taking what would have been a nuclear-weapon-grade material down to commercial fuel level. We're way behind in construction there, and I know that's a different bailiwick.

But, the material that we receive from the weapons complexes that can't be MOX'd, turned into commercial fuel, the goal was to run it through H-Canyon and vitrify it. H-Canyon, to me, is a national treasure. In 2001, we passed the National Defense Authorization Act, that said that H-Canyon would be required to maintain a high state of readiness. What is your view of H-Canyon?

Dr. TRIAY. We're committed to H-Canyon. We're committed to the high state of readiness. We, as we have discussed on some occasions with your staff, are always looking for ways to be efficient and effective, including H-Canyon. That's a 50-year-old facility and we always are looking for improvements to the life-cycle cost of that facility. We have had GAO questions with respect to H-Canyon, and our plan is to continue to use H-Canyon for excess pluto-

mium processing, but in addition to that, trying to accelerate the plutonium processing any way we can for the obvious reasons.

Senator GRAHAM. One final question. If you close Yucca Mountain, which apparently is the game plan now, under the law that created Yucca Mountain, high-level defense waste would have priority. A lot of the DOE sites have legacy materials from the Cold War, spent fuel is obviously a problem. The goal was to take our spent fuel from commercial reactors and store it in Yucca Mountain. But, what has not been talked about nearly as much is high-level waste from the DOE complexes and DOD complexes that helped us win the Cold War.

In terms of timelines for disposition, if Yucca Mountain is no longer available, how does that change the timelines to dispose of this high-level waste? What do we do with it?

Dr. TRIAY. With respect to the timelines associated with the EM Program, Yucca Mountain is not part of the responsibilities of the EM Program.

Senator GRAHAM. But, it is a place you would send the materials.

Dr. TRIAY. Of course. So, with respect to the EM Program activities themselves, we're a long ways away for the Yucca Mountain decision or potential repository to change any of our plans. We are constructing the Salt Waste Processing Facility at the Savannah River Site to get on with the treatment of the tank waste and vitrification of that waste. Because you have visited all of these facilities and have been a leader for us for this work, we have the facility that vitrifies the waste and is vitrifying sludge today, and has been for some time. So, we actually are going to continue with our plans and put all of the waste—we're going to vitrify all of the high-level waste. That is a very robust waste form that affords a tremendous amount of protection to the environment.

Senator GRAHAM. Right.

Dr. TRIAY. With respect to what happens after that, we are going to rely on the blue ribbon commission that Secretary Chu is—

Senator GRAHAM. But, you don't see the timelines being changed because of the decision to close Yucca Mountain.

Dr. TRIAY. I don't see the timeline of vitrifying the waste being changed in any way because of that decision, no.

Senator GRAHAM. Okay, thank you. I look forward to working with you.

Senator SESSIONS. On that question, if Yucca Mountain is not open, what impact does that have on you? Could that even drive up the cost of cleanup even more?

Dr. TRIAY. As I was saying to Senator Graham, we are decades away from any impact to the EM Program.

Senator SESSIONS. So, it's going to be decades before you—but, your ultimate plan was to transmit this waste to Yucca, correct?

Dr. TRIAY. That is correct. But, right now—

Senator SESSIONS. What would you do with it if you didn't?

Dr. TRIAY. We are going to vitrify it, if it is high-level waste. If it is spent nuclear fuel, it's going either into dry storage or to a Savannah River Site to be reprocessed through H-Canyon and also vitrified. Those are very protective waste forms. Clearly dry storage for spent nuclear fuel is very protective of the environment.

Senator SESSIONS. I understand all that, but—

Dr. TRIAY. We're committed, we're committed.

Senator SESSIONS. It has impact if we don't use Yucca, because—frankly, I share your view that the storage, in dry cask storage on site, is not a danger. Unless someone goes and sits on it, it's not going to blow up, it's not a threat to the safety, if it's well-managed, and it can stay there for decades. I have no doubt of that. But, in this political world we're in, most folks feel that's an unacceptable long-term solution. The long-term solution was to move it to Yucca. A decision to cancel Yucca alters your long-term plan for the disposal of that waste. Yes or no? If we cancel Yucca, doesn't that alter your long-term plan for disposal of this waste?

Dr. TRIAY. As I was saying, for the next 20 years, we were committed to get the waste into glass or into dry storage for spent nuclear fuel. So, for the next two decades, it doesn't impact the EM Program. Whether it affects it for the longer term—

Senator SESSIONS. Was the plan to transfer it, at some point in the future, to a national storage center, which has been generally considered to be Yucca? Is that correct?

Dr. TRIAY. That is correct.

Senator GRAHAM. Can I just—

Senator SESSIONS. Yes.

Senator GRAHAM. The reason this is important is because we've always wanted a pathway forward. When Savannah River Site agreed to take the 36 tons of weapons-grade plutonium, the Democratic Governor at the time—this was during the Clinton-Bush years—threatened to lay down in the road. I got a statute passed that put penalties on the Federal Government if they didn't hit their timelines, because we made a leap of faith, here, that we're going to take this material—and I told people in South Carolina it's going to, the pits are going to be disassembled, it's going to create good jobs, we're going to vitrify what can't be MOX'd, and there'll be a pathway forward, either through MOX, vitrification, Yucca Mountain. I guess what Senator Sessions is saying is that we need to reassure people that, 20 years from now or whatever, that there's going to be a pathway forward out. Because if we don't do that, then sites are going to be very reluctant, in the future, to embrace change.

We also, with Senator Sessions' help, came up with a plan, when it came to tank-waste storage in South Carolina. The State of South Carolina and the DOE and the last administration—to leave some material in the heel of the tank that would save \$16 billion, instead of scraping it all out and sending it to Yucca Mountain to just fill the place up quickly with stuff that you could leave in South Carolina. We made a bold decision at the time to leave some of this waste in the tank, save a lot of money; wouldn't hurt South Carolina. We're behind schedule there.

So, I know you're new here, you get a chance to start over, and I really do want to work with you. But, the one thing we're going to have to do is to assure these States and sites that are willing to do things differently, they're not going to get stuck, and that's the point. There's a lot of concern now that if Yucca Mountain is taken off the table, have we been left holding the bag, here, 20 years from now, or 15 years from now? This agreement to leave the tank waste behind in South Carolina, if it's behind schedule,

were we smart to do it? So help us work through these issues, because I think we can save a lot of money if we'll just look at this whole stuff anew.

Dr. TRIAY. We are completely committed to meeting our commitments to the States to have a path out for high-level waste, as well as the spent nuclear fuel. As Secretary Chu has shared with you, we're looking at the blue ribbon commission to ensure that we have those options that are viable, that will meet our commitments to the States.

Senator GRAHAM. Thank you.

Senator SESSIONS. I know you don't want to get into a political fray, here. I'll just do it. There are a lot of ramifications for not proceeding with Yucca. It's not just commercial-reactor spent fuel, it's nuclear Cold War residue, fuels like this. If we don't do Yucca after all we've spent on it, I don't know what we're going to do. There's no plan out there. Maybe this blue ribbon commission can solve it, but we've gone from having a plan to having no plan. That's what Senator McCain has complained about, and I think he's correct.

Nuclear power is a part of our reality, and nuclear weapons are going to be part of our reality, as long as I'm on this Earth, I assume. It's just a problem that I'm worried about.

Senator Begich, did you want a turn?

Senator BEGICH. I do, yes.

Senator SESSIONS. Interject right now, if you'd like.

Senator BEGICH. If I could, thank you very much.

Because I'm new to this whole process here, let me make sure I understand this right. When you say that, for 2 decades, you're—approximately 2 decades—could be more, could be—but, that you feel very secure that you have ability to move the waste and put it properly away. It's a question of after that, that you're now planning for, but not yet definitive of where that is.

Is that correct?

Dr. TRIAY. That is exactly correct. However, committed to finding a path out.

Senator BEGICH. I understand that. Now, when I look at—and I have to look at the name of this report, and I think this is the same one you referenced a couple of times, the January 2009 report.

Dr. TRIAY. Correct.

Senator BEGICH. I've been just flicking through it real quick, here, but on page 79—it's in your summary—it's not the appendix that has all the detail by each project within the projects, but it's a pretty good summary, and it shows the remaining costs in 2008. I have a high and low number on that, and then you have "planned completion date" date range. When I did a quick check here, a lot of these projects will be done within the 20 years. Right? There are some big ones that aren't. I recognize that. But, help me understand, just so I get the connection between these "project completed," the concern that Senator Sessions has, and Senator Graham, are we talking about the remaining projects that I've checked off that are, in some cases, 75 percent complete at that stage—but, are they—what's the—

Dr. TRIAY.—we only have high-level waste and spent nuclear fuel with respect to the projects that are listed here on page 79. Three sites.

Senator BEGICH. Which ones are those, just so I'm clear?

Dr. TRIAY. The Hanford Site, Savannah River Site, and the Idaho site.

Senator BEGICH. Where is the last one? I'm sorry.

Dr. TRIAY. Savannah River Site, Hanford Site, and the Idaho site.

Senator BEGICH. Oh, Idaho, okay.

Dr. TRIAY. So, those are the three sites that we are committed to delineating a solution for a path out for the spent nuclear fuel and the high-level waste. As you can see, those sites have a longer period for completion. In Idaho, in particular, the agreement that we have with the State in one of the negotiated agreements is for 2035.

Senator BEGICH. 2035, okay.

Let me end on that, but I'll go back—I have some other questions, but they're a separate issue.

Senator SESSIONS. All right. Just to note that this \$6 billion increase in funding was a stimulus package bill that DOE projects would create 13,000 jobs. But, to give an indication of how much money \$6 billion is, that averages, just by mathematics, \$461,000 per job. So, I want to say, first of all, in terms of a pure jobs package, this is not—it can only be considered as a—money to get this job done, an advance payment to you, the DOE, to perhaps accelerate it and keep up with where we need to be with regard to cleanup.

Dr. TRIAY. Senator Sessions, that figure that you quoted, of course, we would have to divide that by the amount of years, because obviously we don't want to hire somebody and then fire them. In other words, we would hire one person for 2½ years.

So, having said that, let me just address your concern—

Senator SESSIONS. First of all, I know you're going to have to buy technology, equipment, and machinery, all of which makes the cost per employee go up. I'm just saying, as a pure jobs bill, this is not a big winner, in terms of jobs per dollar invested. But, it does create jobs, no doubt.

Second, what I want to stress with you, as I stressed with Secretary Bodman and your predecessors, is that I consider the amount of money we're talking about unacceptable. \$260 billion is unacceptable. We're paying you to do something other than business as usual.

Now, are you bringing in experts, thoughtful people who can help you do some of the things that were done in Savannah River that got the project quicker, saved \$16 billion, and got us on the right track in a better way?

We need to save this money. If you took \$1 billion, \$2 billion a year, and used it to incentivize windmills or hybrid cars or other things that could benefit this country, research and development in clean coal, and things of that nature, it would be huge over the next 20 years. It would be huge.

So, right now we're spending it on a cleanup program that continues—it's indisputable to go up in dramatic fashion. It was \$120

billion, as I recall, just a few years ago. Then it was announced, in this subcommittee, that it was \$180 billion, and now you announce in January, with your report, that it's \$220 billion to \$260 billion. It just continues to go up. Somehow we have to get off this treadmill.

Are you looking creatively and are you demanding of every employee under you that they are thinking on how we can do this project in an effective way?

It may require some renegotiation of contracts and agreements. I understand that's driving some of this. But, if an agreement no longer makes sense—Senator Graham worked with you to make that change that seemed to be effective. Are you thinking in that way?

Dr. TRIAY. Absolutely, Senator Sessions. The reason I brought up the strategic planning that led to footprint reduction and near-term completions is because that strategic planning, as delineated in this report, also talks about tank waste, which is half of that life-cycle cost, and in addition, talks about spent nuclear materials and spent nuclear fuel. We are looking at every possible opportunity, but in particular, at transformational technologies and concepts.

Secretary Chu has talked to me, in no uncertain terms, about his expectations of us looking at those transformational technology development or concepts that are actually going to dramatically—could dramatically reduce tank waste, spent nuclear materials, and—

Senator SESSIONS. Let's just follow what Senator Graham suggested, that, as I understand it—I may be wrong, but, as I understand, the South Carolina agreement was that you get 90 percent of the waste removed and then you have a tank that has some residue, minor residue, that's not easily recoverable, except by digging up the entire tank and treating the entire tank as a nuclear waste, and they agreed that you get every bit of it out the tank that's possible, and they agreed that you could leave the remainder there to gradually decay over the years, in years to come. Is our plan, at the other sites, the complete, pristine removal of the tanks? Is that a factor in the higher cost at the other sites?

Dr. TRIAY. No, sir. We don't have plans at other sites to remove the tanks. But, just so that I can tell you, Senator Sessions, I was the lead technical assistant to Congress from the DOE on section 3116 of the National Defense Authorization Act for Fiscal Year 2005, which I believe is the section that you're talking about, where we were able, as a result of that, to leave waste, after consultation with the Nuclear Regulatory Commission, as low-level waste as part of the tanks. So, we are completely committed to making sure that we look at these transformational technologies and concepts that can reduce the cost, especially in the area of tank waste, spent nuclear fuel, and special nuclear materials.

You have my commitment for the EM Program to work with this subcommittee and ensure that we work collaboratively, but expeditiously, to reduce the life-cycle cost and reduce the amount of time that this cleanup is going to take. You are completely right about the fact that we need to look very creatively at how to deal with this cleanup.

Senator SESSIONS. Thank you. Nothing comes from nothing. The money spent should compete with other energy environmental concerns. \$260 billion is a lot of money that could, I think, if we did this thing right, reduce that cost and save \$100 billion, and that \$100 billion could be better used in other ways to improve the environment, would be my thinking. I certainly hope that we're not locked into some sort of agreement we made 30 years ago, or a mindset in energy that does not look for these new, creative ways to deal with it. I'm glad to hear you're committed to that. I did talk to Dr. Chu about it, and I think he understands the immensity of the money that this cleanup program costs, and it provides an opportunity to do better things with limited dollars, if we can save them.

Dr. TRIAY. Yes.

Senator SESSIONS. Thank you, Mr. Chairman, and thank you for your good leadership. I do have to make another appointment. I know you're pleased with the new FEMA director from your State. You had to go introduce him at the committee hearing today. I hear good things about him.

Senator BILL NELSON [presiding]. Indeed, and thank you for your continued leadership, Senator Sessions. It's a pleasure to work with you. We have a lot of work to do in this subcommittee.

Senator SESSIONS. Yes, we do. I look forward to working on a time with you to discuss your trip to Eastern Europe.

Senator BILL NELSON. Thanks.

Following up on this, Dr. Triay, EM was going to focus on a number of sites that could be cleaned up and closed much more quickly. Rocky Flats was one of those, and Congress went along with that, on the condition that when Rocky Flats was finished, the savings would be applied to accelerate cleanup at other sites. With the accelerated cleanup at Rocky Flats, there were substantial savings, but those savings were not used to accelerate cleanup at other sites. What are you going to do with the stimulus money to accelerate cleanup?

Dr. TRIAY. The stimulus money will be used to deal with those deferred projects that constituted the portfolio of accelerated cleanup at some of these other sites. We are going to ensure that we reduce the footprint at our two largest sites—Hanford as well as Savannah River Site—by between 45 and 55 percent. We are going to ensure the disposition of thousands of cubic meters of transuranic waste and low-level waste. In addition to that, we are going to deal with some of the main issues associated with contaminated soil and groundwater.

In my testimony, in particular, I talk about Idaho, Oak Ridge, Savannah River Site, and Hanford. If you actually look at the majority of our life-cycle costs, it deals with Savannah River Site, Hanford, Idaho, and Oak Ridge. At the Savannah River Site, we are going to be closing major contaminated areas and two nuclear reactors. We also think that it is imperative that, if we are able to reduce the footprint, we will see reductions to our surveillance and maintenance costs. In other words, the cost of opening the doors every morning and being able to maintain the complex in a safe and secure posture.

So, I believe, Senator, that you're not going to be disappointed with the dramatic amount of decontamination and decommissioning that is going to be done with the Recovery Act funding and with the amount of waste that is going to be dispositioned.

Senator BILL NELSON. Back on the jobs, do you have an estimate of the new jobs that are created by the stimulus bill, how many are going to be Federal and how many in the private sector?

Dr. TRIAY. With respect to the Federal jobs, we are going to be hiring on the order of 90 individuals, 90 employees, into the Federal workforce. The rest of up to the 13,000 jobs are going to be in the commercial sector.

Senator BILL NELSON. Now, after the stimulus bill money is over, which is in a couple of years, what happens to those jobs?

Dr. TRIAY. What we had in mind was to partner with the energy sector of the DOE. So, essentially—part of our vision in proposing this dramatic decrease in the footprint was to have vast tracts of land that would be cleaned up and would become an asset to that particular community. We in the EM Program are focused on the cleanup; however, there are other parts of the DOE that are focused on energy, and other parts that are focused on other missions, like science, like other parts of defense. So, we thought that, by cleaning up these vast tracts of land, we would then be able to put this resource on the table for ideas, such as, for instance, energy parks in the different sites that now those lands we're in, and then ready for beneficial reuse. So, our thought was, by doing that amount of footprint reduction, we would be able to give the communities the opportunity to use the infrastructure, very well-trained workforce, as well as the ability, based on a lot of geohydrological characterization of those sites over the years, to explore, even within the Department or outside the Department, in a totally commercial venture, the opportunity to continue with those jobs past the 2½ years, because then those vast cleaned-up tracts of land will become an asset to the community.

Senator BILL NELSON. Okay. Now, at the same time that you're dealing with the stimulus money, you have to handle and manage your own regular cleanup activities. How are you going to do both of them together?

Dr. TRIAY. We have stood up an office for the Recovery Act funding. As a matter of fact, the Program Manager, Cynthia Anderson, was a Federal Project Director at South Carolina, as I was saying; Frazier Lockhart was Federal Project Director of Rocky Flats. So, we have very good talent. But, in addition to that, the EM Program, in 2007, was at 1,370 employees. Today we have hired and extended more offers so that we increased our employees essentially by 300, to 1,680. That doesn't count the 90 individuals that we're going to hire specifically for economic recovery. So, we're going to have an increase on the order of 400 employees between 2007 and today.

We believe that we are going to be very demanding customers of these economic recovery activities, and that we're well-poised—we have high-level individuals in the areas of science and engineering, but also acquisition and project management. In the area of project management and contract management, in particular, we essentially have increased by 116 employees. In addition to the Federal

employees, we have partnered with the U.S. Army Corps of Engineers so that they can also provide augmentation to the Federal employees that are in the EM Program. We have over 50 individuals deployed from the U.S. Army Corps of Engineers and their contractors, so that we can strengthen project management and contract management, in addition to the strengthening that we have done of our own Federal staff.

Senator BILL NELSON. It's your intention to obligate the rest of this money within the next 5 months, and to have the work completed in 2½ years, by the end of 2011. Yet, we've seen that's what's gotten us into a fix in the past, where we do these accelerated projects. So, what is your plan to develop realistic baselines or milestones for each of these stimulus bill projects?

Dr. TRIAY. Cost, scope, and schedule baselines have been developed for 90 percent of the portfolio before the Recovery Act. As part of this increase of 300 employees in the EM Program, we have stood up a cost estimating group in our Consolidated Business Center for Independent Government Estimates, and we're going to have the Office of Engineering and Construction Management continue to perform independent audits of all of our baselines, including the baselines that are associated with this work.

As I was saying before, in this case, in addition to having realistic baselines to start the work, we're going to have independent verifications before we allow the contractors to cost work at 20 percent intervals. That will require not only the EM Program, but the Office of the Chief Financial Officer. We are extremely aware of the fact that we need to perform, that we have to ensure that we use this money effectively, and the baselines that are going to be put in place are going to be realistic, they're going to have independent auditing of their degree of integrity, and we're going to have risk management plans so that we identify the vulnerabilities that we have associated with the work, and that we are vigilant about dealing with those risks before we commit further dollars that can be costed against the Recovery Act activities.

Senator BILL NELSON. Thank you, Dr. Triay.

Senator Begich, will you adjourn the meeting when you're through with your questions?

Senator BEGICH. That would be fine, Mr. Chairman.

Senator BILL NELSON. I'm going to slip out to another appointment.

Dr. Triay, thank you. You came very well-prepared. I want to commend you. If you would, go ahead and introduce your colleagues that you said you wanted to, and we'll make it part of the record.

Dr. TRIAY. Thank you, sir.

Cynthia Anderson is the program manager for the Recovery Act, and she was a Federal Project Director from South Carolina, from the Savannah River Site. Frazier Lockhart was the Federal project director that pushed closure of Rocky Flats, highest-level certification from the DOE. I would also like to introduce Merle Sykes, who's the Deputy Assistant Secretary responsible for the life-cycle cost as well as the strategic planning associated with the EM Program.

Senator BILL NELSON. Okay, thank you.

Senator Begich.

Senator BEGICH [presiding]. Thank you very much, Mr. Chairman. I'll be brief, I just have a couple of quick questions.

I might have missed this, so if you could clarify this, if I got the number right. With the stimulus bill, in the 11,000 to 12,000 or so, private contractor employees, there's about 90, give or take a few, that will enter your agency as agency employees. Is that correct?

Dr. TRIAY. Yes. Ninety additional Federal employees.

Senator BEGICH. Okay. Right. So, as the stimulus winds down, in 2-plus years—2, 2½ years—these 90 employees are intended to stay on, because you believe there's additional responsibilities and work for them in the future. Is that what I understand? Or, potentially could be?

Dr. TRIAY. Potentially. The National Academy of Public Administration published a report in 2007 indicating that the EM Program needed to increase their staff, from 1,370, by 200, immediately. They had done some benchmarking on comparable industries, such as the National Aeronautics and Space Administration, being one of the main comparable industries to the EM type of projects. They indicated that, at some of those other agencies, we would have two to six times the oversight that we have in the EM Program.

So, the EM Program really has, in the past several years, been understaffed when it comes to oversight. GAO, other bodies, have heavily criticized our performance in our projects, and, in particular, the oversight that we have provided to project management and contract management. We think that those 90 individuals would probably have an opportunity to continue to work in EM.

Senator BEGICH. So, you anticipate—would it be the 2011 or 2012 budget that you would see an increment in order to provide continual funding for those 90? Because, in theory, the stimulus money runs out; these people are temporary full-time, by definition.

But, your point is that they could be utilized in the future, so you would see an increment in 2012?

Dr. TRIAY. In terms of program direction, which is the account where those monies would come from, as I was stating before, we have augmented our Federal staff from other agencies, such as—the U.S. Army Corps of Engineers has over 50 individuals that, through their own contractors, have been part of our efforts to improve our projects and our contracts. So, in terms of a bottom-line increase of the dollar amount, that is not a given. In other words, we can't, within the account, make sure that we mentor some of our own Federal employees to take over, that assistance that is being provided to us from others that have had more success and are more experienced in project management and contract management.

Senator BEGICH. I understand. But, in order to do that—and I would just give you a cautionary flag on the Corps, because we do a lot of business in Alaska with the Corps; they have \$4+ billion in the stimulus bill that they have to manage. I have concerns over their capacity to manage that. They're taking similar steps, as you of managing existing projects, they don't want to create new projects, and so forth, which I commend them for that. It's very specific in the stimulus bill how we detailed how the Corps could

do projects, or not, with the stimulus money. So, a little flag of caution there, only because their capacity is in question.

But, saying that, when you mentor up your folks to then supplant what the Corps was doing, I guess my question is, is it 2011 or 2012 that you have to have an increment; you can't just—90 people added to your payroll, it comes from somewhere.

Dr. TRIAY. Right.

Senator BEGICH. That's all I'm saying.

Dr. TRIAY. All I was trying to say is that it may not be necessarily straight math, that we need to add 90 individuals times \$140,000 per year and that that is a straight math of how the program direction dollars are going to increase in 2012. Obviously it would be in 2012.

Senator BEGICH. Understood. But, 2012 is approximately?

Dr. TRIAY. Yes, it's approximate, yes.

Senator BEGICH. Okay.

Dr. TRIAY. Yes.

Senator BEGICH. Then, two quick ones. On the chart on page 79, which is a great summary, when I look at the high and low, just so I understand how you've done this, over the life span of the project, then those are inflation-adjusted or are they in today's dollars?

Dr. TRIAY. The life-cycle cost is escalated, the ones that are here on page 70.

Senator BEGICH. Okay.

Dr. TRIAY. Just so that you know, in terms of the ranges of the years—some of them that you were reading the ranges of the funding, the life-cycle cost funding, it goes from a 50 percent confidence level to 80 percent confidence level.

Dr. TRIAY. That range comes from that.

Senator BEGICH. That's great. What I just wanted to make sure, what has the greatest bearing on this number, on these numbers, is if you got additional increments above what you've projected, which is \$5.5 to \$6 billion, this number has a potential of going to the lower spectrum. I just want to make sure we're on the same page.

Dr. TRIAY. Absolutely.

Senator BEGICH. Okay.

Dr. TRIAY. Absolutely. That is why I was telling, I believe, Senator Sessions—

Senator BEGICH. Senator Graham.

Dr. TRIAY. —that 40 percent—

Senator BEGICH. Yes, Sessions and Graham.

Dr. TRIAY. —over the life-cycle cost was when we adjusted the funding per year down to about between \$5.5 and \$6 billion, we had to move the activities to the right, and therefore, the escalation of the dollars caused 40 percent of the increase in life-cycle.

Senator BEGICH. In that life-cycle change, that 40 percent number that you've identified—and I might have not heard you correctly earlier—the old estimate was \$7.5 billion, \$8 billion per year? Is that right? Am I right, in that range?

Dr. TRIAY. That is correct.

Senator BEGICH. So, the increment of \$1.5 to \$2 billion has an impact of 40 percent. Let me rephrase that—\$1.5 billion to \$2 bil-

lion per year has an increment increase of 40 percent on these projects.

Dr. TRIAY. That is correct.

Senator BEGICH. Am I saying that right? I just want to make sure I get it right.

Dr. TRIAY. That is exactly correct.

Senator BEGICH. I'm trying to keep the math as simple as I can manage it, dealing with nuclear energy and so forth. So, I'm just trying to keep it in my mind.

That helps a lot, because what it argues is, if you can adjust up the budget over time, back to that number, making it more realistic, the amount of money, potential savings, is huge. I mean, in theory.

Dr. TRIAY. That is true, in theory.

Senator BEGICH. Yes.

Dr. TRIAY. Of course you know, Senator, that there are economic realities—

Senator BEGICH. Sure.

Dr. TRIAY. —and that we need to do our part to allow other parts of the Federal Government to do their job effectively, as well.

Senator BEGICH. I appreciate that. I thank you.

The last question—or, actually, two quick ones. You mentioned, with the contractors, you have a lot of small-business component—or potential small-business component. Do you keep track of your disadvantaged business enterprises (DBE), or your disadvantaged business percentage on these contracts and what participation? If so, could I get that, at some point? I don't need that right now, but—of the contracts that you have—that are going to be extended, let me put it that way—stimulus only. The ones that will be added to and modified for the purpose of stimulus, what percentage of DBE, or disadvantaged business, or minority-owned businesses, have part of that business? Can you get that to us?

Dr. TRIAY. Absolutely. We will definitely do that. We keep track of it. The EM Program is very successful, actually, in having small business do a major part of our work. So, we will definitely give you that information.

[The information referred to follows:]

As we implement the American Recovery and Reinvestment Act (Recovery Act), the Office of Environmental Management's (EM) objective is to meet or exceed existing socioeconomic goals of 4.8 percent for prime contract obligations to small businesses. For work subcontracted by our prime contractors, an additional goal is to have 5 percent subcontracted to small disadvantaged businesses. Our experience is that many prime contractors will subcontract work to small businesses, generally in excess of 20 percent of our total contract dollars; and, given the nature of Recovery Act work, this percentage could be higher. Our fiscal year 2008 results support these projections: total small business funding was in excess of \$1.4 billion (26.2 percent of EM's procurement base), including prime small business prime contract funding of \$327 million (6.1 percent) and small business subcontract funding of approximately \$1.1 billion (20.6 percent).

Senator BEGICH. That'd be great.

The last question, and then I'll close off the meeting, and that is, of the amounts that you get on the—again, now let's put stimulus aside—the \$5.5 to \$6 billion, that you roll through on an annualized basis—of that—not what is obligated, but what is actually expended in work per year—do you have a number that you could share with me now, or maybe, again, at a later time, the last

4 years of—not what was obligated, but actually expended in actual completion work? Is there such a number that you might have available?

Dr. TRIAY. I'm having Merle Sykes identify herself and come to the table, but I believe that that number is 80 percent. But, by all means, Merle, please.

Senator BEGICH. About 80 percent. So, about \$4.8 billion, give or take a little bit there, because your number may vary—is actually expended on contractual and/or work completed regarding—or in relation to these projects. Then 20 percent is obligated for work that may occur 12, 14, 16, 18 months out, or whenever that obligation period is.

Dr. TRIAY. That is correct.

Senator BEGICH. Okay. Great. Thank you very much. As a new member, I appreciate allowing me to ask a few questions, some of them very naive, but learning a little bit more about the process.

I need to adjourn the meeting, but I want to make sure it's noted for the record that the record will remain open until Monday night for additional questions for the record.

I just want to, again, thank you and your staff for all the work you've done.

Dr. TRIAY. Thank you, Senator.

Senator BEGICH. This meeting is adjourned. Thank you.

[Whereupon, at 11:13 a.m., the subcommittee adjourned.]

