

**PROPOSED FISCAL YEAR 2005 BUDGET REQUEST  
FOR THE DEPARTMENT OF ENERGY**

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**HEARING**  
BEFORE THE  
**COMMITTEE ON**  
**ENERGY AND NATURAL RESOURCES**  
**UNITED STATES SENATE**  
**ONE HUNDRED EIGHTH CONGRESS**

SECOND SESSION

TO CONSIDER THE PRESIDENT'S PROPOSED FISCAL YEAR 2005 BUDGET  
FOR THE DEPARTMENT OF ENERGY

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FEBRUARY 10, 2004



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# **PROPOSED FISCAL YEAR 2005 BUDGET REQUEST FOR THE DEPARTMENT OF ENERGY**

**TUESDAY, FEBRUARY 10, 2004**

U.S. SENATE,  
COMMITTEE ON ENERGY AND NATURAL RESOURCES,  
*Washington, DC.*

The committee met, pursuant to notice, at 10:08 a.m., in room SD-366, Dirksen Senate Office Building, Hon. Pete V. Domenici, chairman, presiding.

## **OPENING STATEMENT OF HON. PETE V. DOMENICI, U.S. SENATOR FROM NEW MEXICO**

The CHAIRMAN. The hearing will please come to order.

There are a lot of Senators who want to participate. I do not know how long each one wants, but I am going to give it a trial run anyway, assuming that everybody will be reasonably fair knowing that there are many Senators. I am going to let Senator Bingaman start since we are late and he has been waiting.

Senator Bingaman.

## **STATEMENT OF HON. JEFF BINGAMAN, U.S. SENATOR FROM NEW MEXICO**

Senator BINGAMAN. Thank you very much, Mr. Chairman, for having the hearing.

I welcome the Deputy Secretary, Kyle McSlarrow. I know he has a very busy schedule and we appreciate him spending time with us.

The Department budget, as I understand it—and this is all to be clarified, I am sure, by Secretary McSlarrow, but the budget is proposed overall to increase 1.2 percent. I am concerned about some of the priorities reflected in that budget, though. As I understand it, the Office of Science, which is the premier funding source for the physical sciences, is slated for a decline of 2 percent.

I see an unfortunate trend in basic research across the executive branch. When you take out the funding for NIH, the basic research budget of the Federal Government is decreasing by 2.5 percent, as I understand the proposal of the administration. This is obviously our investment in the future and it is important in maintaining our competitive position in the world.

The administration is aggressively pursuing hydrogen research, but the hydrogen economy's growth is at the expense of other energy R&D programs, as I see the budget, particularly DOE's conservation research with most of the energy-intensive industries. This program which has been designated the Industries of the Fu-

ture program is scheduled for a 37 percent decline from the 2004 level. If you compare the 2005 proposed budget to the 2003 budget, it is a 60 percent decline. This Industries of the Future program is to develop partnerships between industry and Government, to enable the steel industry, the glass industry, paper, chemicals to be energy efficient and competitive in order to retain manufacturing jobs in this country. As I understand it, there is a major, major lack of focus on that by the administration.

Because of OMB's cap on discretionary spending, the Department is proposing to take off budget \$749 million from the nuclear waste fund. This is money that nuclear utilities paid in to help license Yucca Mountain, and I think we need to inquire about that as well.

The overall management issue in the Department I think is one we need to ask a few questions about. OMB has their program assessment rating, and they have given the Environmental Management program a score of 26 out of 100. That is obviously a cause for concern. The Office of Science got a similar rating of 82 to 93 percent, which is extremely impressive, but they are the ones scheduled for the cut in budget. So there are various issues there I think that need to be addressed.

I am concerned about the holding back of funds in the environmental management effort for our State. As I understand it, the Department has held back \$69.5 million, or 33 percent, of the cleanup budget for fiscal years 2003 and 2004 because of the failure to reach an enforceable agreement with New Mexico on some of these issues, and there is an additional \$47 million scheduled to be withheld in this budget until that agreement is reached.

Let me mention one other issue that I would like to ask Mr. McSlarrow about and that is the whole issue of processing claims by the atomic workers in the DOE. This is an issue that I continue to hear great concern about.

One example. We have a State representative, Ray Ruiz, in New Mexico who was diagnosed with mesothelioma sarcoma, which is an illness that you contract from working with asbestos. He contracted the disease as an iron worker at Los Alamos. He has been in touch with me about his frustration about the slowness of the review of workers compensation claims. He has followed these hearings. I think we need to find a way to get these claims processed. Clearly that has not been happening. I hope we will find some way to solve that problem, and when we get to the questions, I will ask Mr. McSlarrow about that.

Thank you again, Mr. Chairman.

The CHAIRMAN. Thank you very much, Senator Bingaman.

Let me first say good morning to you, Mr. Deputy Secretary. I would welcome you here and thank you for the job you do with reference to the Department. You have worked diligently. It is a very hard Department to manage and I do not know what they would do without you.

I am pleased to be joined by the ranking member, Senator Bingaman.

The Department of Energy has a significant presence in our State, New Mexico, and we will both have questions either orally or in writing with reference to the impact of this budget, Mr. Deputy Secretary.

As we start this hearing, I would like to congratulate the Department on their ranking as first among all cabinet agencies in a recent review of the implementation of the President's Management Agenda. That is an impressive achievement and a major turnaround for the Department.

The President requested \$24.3 billion for the Department which represents a \$1 billion, or 4.5 percent, increase. While this appears to be good news, in a budget that is significantly constrained for non-defense, non-homeland security spending, a closer look reveals that \$749 million, Senator Bingaman, of that increase is associated with the reclassification of mandatory fees associated with Yucca Mountain, a high-level nuclear waste repository, to discretionary spending. That does not sound like much to anybody, but it is a very, very important thing as we attempt to find the money for what we think we need. This is a dramatically different story from the DOE budget that is first portrayed.

I realize in wartime budgets domestic agencies and programs have to prioritize within overall budget limitations. Energy programs under the Office of Science, Fossil Energy, et cetera are all concerns, as indicated by the ranking member, of his and mine, and I would venture every member of the committee. Perhaps if we do not talk about them all today, you will get the questions in writing.

We keep hearing from outside evaluators that the DOE laboratories have to be the best research institutions in the world, and they probably are. But they are not going to stay that way if we continue to underfund science at the laboratories and fund only the defense work at high dollars.

So having said that, I am going to yield, starting on this side with the first Senator who was here. Senator Campbell.

Senator CAMPBELL. I have no opening statement, Mr. Chairman.

The CHAIRMAN. All right.

The Senator from Wyoming, would you like to ask some questions?

**STATEMENT OF HON. CRAIG THOMAS, U.S. SENATOR  
FROM WYOMING**

Senator THOMAS. Thank you, Mr. Chairman.

Well, I am anxious to hear more about the budget, of course.

The CHAIRMAN. Strike that. I did not mean ask questions. Would you have some observations?

Senator THOMAS. That is what we are here for.

I guess as I look at this overall sheet, I find the State that probably has more potential for energy production than any other State with a substantial reduction in the budget. I find that sort of interesting. Particularly when we are talking about hydrogen and FutureGen and so on. We are the largest producer of coal by any means. So I want to talk a little bit about that later and some of these things.

It is kind of interesting to see this State by State sheet and be the State that is the biggest producer of energy and find that our involvement here—and much of it is with WAPA and other kinds of government programs—is down substantially from where it has been in the last 2 years. So I am hopeful that you will give me

some insight into that and maybe we can talk a little bit about what the purpose of this budget is.

Thank you.

The CHAIRMAN. Senator Dorgan.

**STATEMENT OF HON. BYRON DORGAN, U.S. SENATOR  
FROM NORTH DAKOTA**

Senator DORGAN. Mr. Chairman, thank you very much.

There is much, of course, to consider in these budget requests, and my colleagues have mentioned several issues of concern. Let me mention two.

One is the purchase power issue with respect to the PMA's. I thought we had solved that problem. We had a little problem in the previous administration on this. But the budget recommendation here is just fundamentally wrong and would injure, in my judgment, the PMA's, and I hope that we can resolve that. I do not know that I will be here to ask Mr. McSlarrow questions, but we need to get that fixed. The recommendation I think is wrong-headed.

Mr. Chairman, the other issue that is of great concern to me, among many, is the clean coal power initiative. That is cut from \$170 million to \$50 million, but it is combined with FutureGen, so it makes it look like there are not the deep cuts that do exist really. The President, when he campaigned, said his goal was \$2 billion over 10 years for clean coal technology. We are going to continue to use coal, and the research, it seems to me, to be able to use that coal in a way that is not destructive to our environment, is critically important. I do not understand, given the President's statements, beginning when he campaigned for this job, of his support for clean coal initiatives, why we would have a very substantial cut in that request because I think that is not in our interest, not in our energy interest and certainly not in our environmental interest.

So those are two areas that I will ask about, Mr. Chairman, if I have the opportunity today, and there are many other areas that we need to talk about dealing with renewable energy especially.

The CHAIRMAN. Thank you very much.

Who is next on our side?

Senator Smith.

**STATEMENT OF HON. GORDON SMITH, U.S. SENATOR  
FROM OREGON**

Senator SMITH. Thank you, Mr. Chairman. Kyle, welcome to the committee. It is nice to see you.

I note two things in the budget proposal of concern to me and I just want to raise them with you. The first has to do with the Bonneville Power Administration and the second has to do with the cleanup at the Hanford site in Washington State.

You probably are aware that the Northwest continues to suffer real volatility and the effects from the power problems there over the last few years. Our area of the country has been hurt economically, perhaps disproportionately, because of that. We currently suffer the highest unemployment rate in America.

But the specific concern I have is that the proposal of possible legislation to treat long-term lease-purchase transactions as debt



would count them against BPA's statutory debt limit. I believe that would have severe negative implications for needed infrastructure investments and would certainly draw my opposition if that were a part of this budget.

Finally, I do not think we need to hamper our recovery because the Pacific Northwest will recover economically, and we need to have better transmission capabilities. So any limits on that would hamper, I think, third party financing that needs to occur, and that would not occur if this happens.

As to Hanford in Washington State, we are down-river from that and we are very concerned that there is a proposal to cut funding for cleanup at the site. Even of greater concern is the proposal to reclassify residual tank waste, remaining after certain cleanup operations at Hanford, Idaho, and Savannah River, as waste incidental to reprocessing rather than high-level waste. My concern is that anything less than full cleanup of the Hanford site and dealing with all of this fully is going to be unacceptable in an area that's very concerned about the continued nuclear waste in that area.

So with that I will put my entire statement in the record, Mr. Chairman, if I may, and abbreviate those comments.

[The prepared statement of Senator Smith follows:]

PREPARED STATEMENT OF HON. GORDON SMITH, U.S. SENATOR FROM OREGON

Mr. Chairman, I appreciate your willingness to schedule this hearing today on the Department of Energy's budget request for fiscal year 2005. I would also like to thank Deputy Secretary McSlarrow for appearing before the Committee today.

While we all recognize that these are times in which the Congress must exercise fiscal constraint, there are a number of policy issues in this budget that are of deep concern to me and to my constituents. The two main concerns which I would like to focus on today deal with the Bonneville Power Administration, and with the clean-up of nuclear waste at the Hanford site in Washington.

The Pacific Northwest continues to struggle economically, although there have been some encouraging economic indicators in recent months. We also continue to bear huge costs resulting from the volatile West Coast electricity market of late 2000 and 2001.

Most ratepayers in the Pacific Northwest have seen their power rates go up by at least 40 percent. BPA raised its rates again last October, and is scheduled to impose two more rate increases between now and October 2004. Meanwhile, our energy intensive industries are shuttered, and Oregon continues to have one of the highest unemployment rates in the country.

I realize that BPA has tried, unsuccessfully, to negotiate a settlement to outstanding litigation. That settlement, had it been agreed to by all parties, would have reduced rates for BPA's customers this year. I would urge all of the parties to that litigation to try again to find some resolution to the issues that will provide rate relief to the ratepayers of the Northwest. Within the Department's budget proposal is discussion of possible legislation that would treat certain long-term lease-purchase transactions as debt, and would count them against BPA's statutory debt limit. I must tell you, Mr. Secretary, that this proposal would have severe negative implications for needed infrastructure investment, particularly in transmission, in the Pacific Northwest. Before you spend time developing and vetting such a proposal with BPA's stakeholders, I must inform you that—based on my current understanding of this concept—I would have to oppose such legislation.

Our region will recover economically. When it does, the Pacific Northwest will once again have a shortage of electricity generation. We do not need to hamper our recovery by restricting needed third-party financing of infrastructure.

Turning now to the Hanford site, I am troubled by a proposed cut in funding for the office of river protection, and for security at the site. Of greater concern, however, is a proposal to reclassify residual tank wastes, remaining after certain cleanup operations at Hanford, Idaho, and Savannah River, as "waste incidental to reprocessing," rather than as High Level Waste. This is on top of the Department's announcement that it will not to build a second vitrification plant to handle tank

waste at the Hanford site, but will use “supplemental technologies” to treat almost two-thirds of the tank waste.

Let me make it clear to the Department that anything less than the full clean-up of the Hanford site is unacceptable to the Pacific Northwest. The Hanford site is only miles from the Columbia River, the greatest since natural resource in our entire region. The Department cannot expect that those of us who represent the Pacific Northwest will allow the Department to lower the bar for clean-up, and leave our region with untreated waste stored at the Hanford site for 10,000 years.

Mr. Chairman, this issue is vitally important to Oregon. I would like to work with you, my Northwest colleagues and the Department during this session—before the fiscal year 2005 budget is enacted—to get this clean-up program back on a track that is acceptable to the region.

Again, thank you, Mr. Chairman, for convening this oversight hearing. I look forward to hearing from Deputy Secretary McSlarrow, and I will have questions for the Department.

The CHAIRMAN. Thank you very much.  
Senator Akaka.

**STATEMENT OF HON. DANIEL K. AKAKA, U.S. SENATOR  
FROM HAWAII**

Senator AKAKA. Thank you very much, Mr. Chairman. I want to thank you for holding this hearing so promptly.

I also want to add my welcome to Deputy Secretary McSlarrow. It is nice to see you again.

Mr. Chairman, I would like to submit my remarks for the record, and I have a few questions later for Mr. McSlarrow.

[The prepared statement of Senator Akaka follows:]

PREPARED STATEMENT OF HON. DANIEL K. AKAKA, U.S. SENATOR FROM HAWAII

The budgets of federal agencies, and especially those funded in the discretionary part of the budget, are very important. The federal budget is a template by which priorities are drawn. This year, all the programs for agencies in the discretionary part of the budget will receive only one-sixth of the President's \$2.4 trillion budget. Essentially, the agencies are level-funded, and will not be able to keep up with inflation or cost-of-living.

The budget of the Department of Energy is particularly significant. The availability of secure, reasonably-priced energy for the American people is a critical need. Long-term solutions to our energy problems require strong investments in science and research and development, firmly based in American ingenuity and technology, in order to solve our energy problems. Our investment in and commitment to the science and technology behind alternative and clean sources for energy security in the future must be greater than ever. Unfortunately, again this year, a strong commitment is not evident from the budget request.

As you know, I have been a strong supporter of the DOE science and energy programs. I am disturbed that the FY 2005 request for the important programs in Energy Efficiency and Renewable Energy, Energy Conservation, and Fossil Energy are all level or less than what was requested for FY 2004. The notable bright spots are increases for Hydrogen technology in Energy Production and Vehicle Technologies in the Energy Conservation account.

I have long monitored and supported Gas Hydrates Research. Gas hydrates represent a vast potential source of clean energy and warrant a serious research and development effort. The Administration's request has scaled back enacted levels consistently since FY 2002. These cutbacks continue to hinder progress significantly, with minimal associated savings. The nation's capabilities in science and technology would not have been realized without the investments made in the past. The country needs increased investment in basic research and resource assessment if we are to maintain our leadership in energy sciences and technology. The budget decreases in the Administration's proposal for the Natural Gas Technologies program will not help us improve our capabilities.

I am pleased to see funding increases for the Hydrogen program. However, these increases are lower than what I, and many on this Committee and in the Senate, would consider to be adequate. There are many unanswered questions about the production and storage of hydrogen. These questions need to be answered prior to undertaking a comprehensive initiative to produce consumer goods such as auto-

mobiles, rather than a public good such as electricity. However, I am pleased to see that with respect to energy supply, there is an increase of \$2.7 million for research to lower the cost of renewable production of hydrogen. This is an important priority for my State. It is more important than the need to produce hydrogen-fueled cars, but it receives only secondary attention compared to fuel cells for cars and the infrastructure to support them.

The National Academy of Sciences, in their pre-publication report on *The Hydrogen Economy*, recommends investing in "targeted fundamental and exploratory research on hydrogen production by photobiological, photochemical, and thin-film solar processes." The production of hydrogen from renewables, whether for transportation or for stationary sources, is a quest for energy sources for the people of the U.S. We must provide adequate funds for these critical Hydrogen R&D programs. I am optimistic that a robust Hydrogen program can make positive and long-lasting adjustments for quality of life of people across the nation, whether or not we drive cars with hydrogen fuel cells.

The CHAIRMAN. Thank you very much.  
The Senator from Tennessee.

**STATEMENT OF HON. LAMAR ALEXANDER, U.S. SENATOR  
FROM TENNESSEE**

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

Mr. Secretary, thank you for coming. Thank you for your hard work and your attention to these very important issues.

There are three areas that I would like to concentrate on in my questions.

One, I salute the President's priorities in his budget on focusing on defense and homeland security and then education, but I would note that half our new jobs, according to the National Academy of Sciences, since World War II were created by the physical sciences, and as we think about how to compete in the world marketplace, we need those new investments in technology.

I would congratulate the Secretary for his excellent 20-year plan, his path to the future, on science and technology, and I would hope, as Senator Bingaman mentioned a little earlier, that as we move along, we could begin to fund that plan. We have done a great job in doubling funding for NIH and increasing funding for the health sciences and life sciences, but we need to put a new focus on making the same kind of investment in the physical sciences. Within our tight budget, I hope that has a strong priority, and the administration I believe would find in this committee and in the Congress wide bipartisan support for such a budget priority. That would be the full funding of the 20-year plan that the Secretary so well outlined. That is the first thing.

The second thing is that last year the Office of Science received an additional \$30 million above the President's request to start the development of a leadership class computational facility. That is consistent with the recommendations made by the High End Computing Revitalization Task Force. I hope to hear from you as we get into questions and answers as to what plans the DOE has to accomplish this. I especially hope that we focus that money on a single effort as much as possible to be a world leader and do not just spread it out and make mediocre progress. So that is the second area.

The final area that I hope to explore has to do with infrastructure. In States, we have capital budgets, and I remember, when I was Governor, almost the most unglamorous part of the budget

was to try to maintain things, but if you did not maintain infrastructure right along, you paid a big price later.

The Federal budget has a strange procedure of including those infrastructure payments in the operating budget. I am worried that the DOE Office of Science request is down, according to my figures, from \$54 million to \$29 million for scientific laboratories infrastructure. I hope that while it is not a sexy, spectacular part of any budget, that we can keep the infrastructure spending to support the science and technology investment.

Those are the three areas I hope to explore in questions. Thank you for being here.

The CHAIRMAN. Thank you, Senator.  
Senator Murkowski.

**STATEMENT OF HON. LISA MURKOWSKI, U.S. SENATOR  
FROM ALASKA**

Senator MURKOWSKI. Thank you, Mr. Chairman, and thank you, Mr. Secretary, for your willingness to join us this morning.

I am going to, during the question period, focus on two very specific areas, specifically the Arctic energy research at the University of Alaska and why we are not seeing a little more assistance there and then also the Department's processing of those claims under the Energy Employees Occupational Illness Compensation Program Act. As you know, we had a hearing in November and we were able to explore a little bit of what was happening with the processing of those claims by the Department. Specifically my concern was those claims coming out of Amchitka and some of the problems that we have with that. If I am not able to get all of my questions to you, I will certainly submit them in writing.

I did have an opportunity, as we were sitting here, to just briefly go through your statement that you will give, and I am always looking for recognition of the fact that Alaska is truly the energy bank or certainly a major energy bank for the rest of the country when we think about domestic supply and production. I am a little bit disappointed, I guess, to note that the only mention of energy production in your narrative here is as it relates to foreign imports, and specifically a reference to the conference that was held in December on LNG, bringing together all of the world's major gas-producing countries to discuss increasing U.S. access to gas imports.

I have stated previously and I will continue to caution that this country not go in the direction of increased imports for our natural gas, as we have with oil where we are now currently 57 or 58 percent dependent on foreign sources of oil. We should not adopt or accept as a policy that we would do that with our natural gas, when we have yet huge opportunities, vast reserves up north—we have got 35 trillion cubic feet that we are trying to get down to you with the pipeline. We would certainly like to think that we would have the support for that domestic production.

I look forward to your comments. Thank you.

Thank you, Mr. Chairman.

The CHAIRMAN. Thank you, Senator.

Now, Senator Bingaman, do you have anything further? Shall we proceed?

Senator BINGAMAN. Yes.

The CHAIRMAN. Mr. Deputy Secretary, would you proceed? Your statement will be made a part of the record. Keep it as brief as you can.

**STATEMENT OF KYLE E. McSLARROW, DEPUTY SECRETARY,  
DEPARTMENT OF ENERGY**

Mr. McSLARROW. Thank you, Mr. Chairman. I will.

I am pleased to appear before you today to discuss the President's fiscal year 2005 budget request for the Department of Energy.

This budget request builds on a number of successes we have achieved over the past 3 years. We have implemented changes that have fundamentally reformed DOE's environmental management program. At the beginning of this administration, the time table for completing cleanup at all sites was 70 years. Today we have implemented reforms to accelerate completion of the cleanup program by 35 years, saving taxpayers as much as \$50 billion, and perhaps even more.

Two years ago, the administration made the decision to move forward with the Yucca Mountain project. Thanks to the efforts of this committee, the Yucca Mountain project is authorized and on schedule to accept waste in 2010.

We are pursuing new technologies to meet future energy and environmental challenges. We are pursuing a path toward a hydrogen economy with affordable, zero-emission fuel cell vehicles, abundant production sources, and safe storage and transportation of hydrogen. We are developing carbon sequestration which, when used in conjunction with advanced power production, promises to ensure that this country's 250-year coal reserves can be used without concern about environmental impact.

In our national security programs, we have accelerated the material protection programs and expanded the scope of our work to ensure that dangerous materials do not fall into the hands of terrorists. We have increased our cooperation with Russia's Strategic Rocket Forces.

We have also taken measures to modernize the defense complex. 3 years ago, it was clear to us that we needed to make significant investments to restore those facilities to working condition and we are doing so with a very substantial capital investment program underway to make these repairs and improvements.

While we are rebuilding and modernizing the defense complex, we are also restoring its capabilities. The ability to manufacture plutonium pits for nuclear weapons is just one example. We produced the first certifiable pit last year and are on a path forward now to have a new, fully certified pit ready to enter the stockpile by fiscal year 2007.

The fiscal year 2005 budget proposal we are submitting to Congress seeks to continue and build on those successes.

In the energy budget, the Office of Energy Efficiency and Renewable Energy is at the forefront of implementing the President's hydrogen fuel initiative. Hydrogen holds tremendous promise to help meet our Nation's future energy challenges, and we are requesting \$227 million for hydrogen activities.

The budget also includes \$291 million to fulfill the President's commitment to increase funding for the Weatherization Assistance program by \$1.4 billion over 10 years.

We request \$447 million for the President's Coal Research initiative to dramatically improve the efficiency and environmental protections being developed for coal-burning power production.

The budget request for the Department's nuclear energy programs is \$410 million.

And we request \$91 million, a \$10 million increase over the 2004 level, to modernize and expand our national electricity transmission grid.

Our \$3.4 billion request for science-related programs and activities supports work in areas like nanoscience, fusion, advanced scientific computing, microbial genomes that hold enormous promise for scientific discoveries over the next decade.

Our commitment to the environment includes taking action to address the environmental legacy of past work. It also means doing right by former weapons employees who may have become ill as a result of their work at nuclear facilities. We are seeking over \$7.4 billion for the Environmental Management program, which is the most funding ever requested for this program. We are seeking \$43 million to accelerate the processing of claims for former workers who may have become ill as a result of their work, and with this budget request, we are making good on implementing a 3-year program to completely eliminate the backlog of applications by the end of 2006.

As was mentioned by several members, one of the most significant and longstanding commitments addressed in this budget is funding to establish a permanent repository at Yucca Mountain. In order to remain on schedule to begin operation in 2010, the budget requests \$880 million for Yucca Mountain repository activities, \$303 million above the fiscal year 2004 enacted level.

This budget request reflects the accomplishments of the last 3 years, the successes, and the many changes. This request charts a focused course of investment for the Nation's future, one guided by a cohesive mission and targeted performance metrics. Making all of this work are the extremely talented men and women of the Department of Energy which include the world's top engineers and scientists. It is a privilege to work alongside them. It is an honor to serve a President who has provided this vision of what this Department can and will accomplish in 2005.

Thank you, Mr. Chairman. I will conclude my statement at that point and be pleased to answer questions.

[The prepared statement of Mr. McSlarrow follows:]

PREPARED STATEMENT OF KYLE E. MCSLARROW, DEPUTY SECRETARY,  
DEPARTMENT OF ENERGY

Good Morning Mr. Chairman and Members of the Committee. I am pleased to appear before you today to discuss the President's FY 2005 budget request for the Department of Energy. At \$24.3 billion in gross budget authority, the FY 2005 budget request is the largest in the history of the Department, nearly a 4 percent increase over last year's submission and 27 percent higher than when we took office.

This FY 2005 budget request builds on a number of successes we have achieved over the past three years. Secretary Abraham and I are very proud of what we have accomplished in terms of fulfilling the President's management vision for this Department and also what we have achieved for the national, energy, and economic

security of the American people. We are grateful for the support and guidance the Members of this Committee have provided the Department.

The Office of Management and Budget recently announced that DOE has made the most progress among cabinet-level agencies in the implementation of the President's Management Agenda. OMB issued a scorecard that evaluates agency performance in the areas of human capital, competitive sourcing, financial management, e-government, and budget/performance integration. OMB recognized the Department as the cabinet-level agency "leading the pack with regard to management improvement." One hallmark of that leadership centers on defining the mission of the Department. From our first days in office we stressed that the overriding umbrella under which the operation of this Department takes place is a mission of national security.

In addition to the progress we have made on management and mission definition, we have made great progress in a number of our program areas. We have implemented changes that have fundamentally reformed DOE's Environmental Management program. Complex-wide, we have taken an approach to accelerated cleanup that says we will not allow the legacy of the work done in the weapons complex to be part of a community's burden for future generations. At the beginning of this Administration, the timetable for completing cleanup at all sites was 70 years. Today, we have implemented reforms to accelerate completion of the cleanup program by 35 years, saving American taxpayers as much as \$50 billion and perhaps even more.

Another area where we have made tremendous progress is ensuring that nuclear power remains part of the Nation's fuel mix. Two years ago, the Administration made the decision to move forward with the Yucca Mountain project. Thanks to the efforts of this Committee, the Yucca Mountain project is authorized and on-schedule to accept waste in 2010. There is still much work to be done—at the site, at the Nuclear Regulatory Commission, and throughout the country—but at the end of the day America will finally have a long-promised, safe repository for nuclear waste.

The Yucca Mountain project goes hand-in-hand with other steps we have taken to ensure nuclear energy plays an important part in our future energy mix. Our scientists are pursuing an advanced fuel cycle to significantly improve fuel performance, energy utilization, and proliferation resistance for nuclear reactors. We are also working internationally to develop the next generation of nuclear technologies to take us to the next level in terms of efficiency, reliability, and security.

In addition to advanced nuclear research we are pursuing other new technologies to meet future energy and environmental challenges. These are transformative technologies that will change the way we think about how we use and produce energy. We are pursuing a path toward a "hydrogen economy"—with affordable zero emission fuel cell vehicles, abundant production sources, and safe storage and transportation of hydrogen. We are developing carbon sequestration which, when used in conjunction with advanced power production technologies, promises to ensure that this country's 250 year coal reserves can be used without concern about environmental impact.

Knowing of this Committee's strong interest in the Department's national security programs, I would like to mention the great progress we have made with Russia on nonproliferation. We have accelerated the material protection programs and expanded the scope of our work to ensure that dangerous materials don't fall into the hands of terrorists. We have increased our cooperation with Russia's Strategic Rocket Forces by initiating warhead security work at three new sites.

We have extended our International Nuclear and Radiological Cleanout programs to states that were once part of the Soviet Union and its empire. Working with them, with Russia, and with the International Atomic Energy Agency, we have been able to secure radiological materials in these countries.

Moreover, we have begun a MegaPorts program to detect the trafficking of nuclear or radioactive materials in the world's busiest seaports. Eventually we hope to have detection equipment in key locations all over the planet.

We have also taken measures to modernize our defense complex. Three years ago, our complex was in a seriously deteriorated condition. Many of our buildings and facilities were in such disrepair that our ability to carry out our defense responsibilities appeared jeopardized. It was clear to us that we needed to make significant investments to restore those facilities to working condition. And we are doing so, with a very substantial capital investment program under way to make these repairs and improvements.

While we are rebuilding and modernizing the defense complex, we are also restoring its capabilities. Some of the capabilities within our weapons complex have either been allowed to deteriorate or simply have been lost. The ability to manufacture plutonium pits for nuclear weapons is one example. We produced the first certifiable pit last year, and are on a path forward now to have a new, fully certified pit ready

to enter the stockpile by FY 2007. This will complete the first step for the United States to restore the capability that other nuclear weapons states already have.

In the same vein we are enhancing our nuclear test readiness. The weapons in the nuclear stockpile are of various ages and conditions. Today we are confident they will function as our nuclear deterrent if they are needed. But as these weapons age in an era in which we have a moratorium on testing, it is up to our laboratories to do the phenomenally complicated job of determining through science and technology whether or not the weapons will work effectively.

We believe we can do that. But if some day in the future it were determined that we had uncertainty, it would take us a minimum of three years to conduct a test to determine whether or not the stockpile was reliable. That is too long. We are in the process of reducing that timeframe by half so that this Department can protect America's national security by being able to conduct such a test in a timely fashion.

Beyond the things we have done within the complex, we have aggressively pursued international cooperation in order to advance our initiatives. In a variety of areas, especially those that relate to climate change, we have been able to create partnerships with other countries to develop the Department's cutting-edge science and technology.

Last November, the International Partnership for the Hydrogen Economy brought together 15 countries and the European Union to work together on fuel cells and other energy technologies for the future. The Carbon Sequestration Leadership Forum in June brought together 13 countries to begin working on ways to sequester greenhouse gas emissions from fossil fuels.

And we have expanded international partnerships on the energy production side as well. We have developed much stronger relationships with countries like Russia and others in the Caspian region, in Africa, and in South America that have the potential to be major suppliers of gas and oil for the 21st century. As important as it is to have a diverse mix of fuel, it is equally important to have a diverse set of sources from which we acquire that fuel. Toward that goal, in December we hosted a conference on liquefied natural gas, or LNG, bringing together all of the world's major gas-producing countries to discuss increasing U.S. access to gas imports. It was an extremely successful conference, one that will help produce the fuels we need in the 21st Century.

And, finally, we have made a lot of progress on safety and shoring up the security of this complex. Much of our Department's work is of a highly skilled nature and deals with dangerous materials. Many of our facilities are located near populated communities. Given these facts, it is clear that safety has to be of paramount concern for everyone at DOE. We have done a good job of driving that message home, and it is best reflected in the improved safety record in our laboratories.

The same goes for security. Our Departmental mission is national security. We cannot be said to be fulfilling that mission with any confidence unless we can guarantee security at our facilities. We are attempting to do that. We have increased the security budget by about 35 percent since FY 2002. We have made significant managerial changes in the security leadership at our facilities. We have revised and are implementing the Design Basis Threat, which is the post-September 11th analysis of potential threats against which we must protect DOE sites and materials across the country. And we have a high-level review of security procedures being conducted by some of the Nation's top military and civilian experts.

The FY 2005 budget proposal we are submitting to Congress seeks to continue and build on these successes. It includes unprecedented funding increases to hasten the cleanup of the Cold War environmental legacy, to construct a permanent nuclear waste repository at Yucca Mountain, to deliver on essential nuclear-related defense requirements, to provide for energy security by exploring the promise of hydrogen and fusion, and to promote basic science research to ensure America's technological preeminence well into the future.

#### ENERGY

Turning to the energy budget, in FY2005 the Department is requesting \$2.7 billion for energy resource programs. An important element of all our energy programs is making current forms of energy use more secure, more efficient, and more environmentally benign. At the same time, we are preparing long-term energy solutions that will eventually make questions of supply and environmental effects obsolete. The Administration's energy portfolio takes a long-term focus through investments in hydrogen use and production, electricity reliability, and advanced coal and nuclear energy power technologies. Investments in these pivotal areas honor a commitment to strengthen the Nation's energy security for the near-term and for generations to come.



In FY 2005, the Department's Office of Energy Efficiency and Renewable Energy is at the forefront of implementing the President's Hydrogen Fuel Initiative. Hydrogen holds tremendous promise to help meet our Nation's future energy challenges. The Department is requesting \$227 million for hydrogen activities. That figure includes \$173 million in the Energy Efficiency and Renewable Energy program, \$9 million in the Nuclear Energy program, \$16 million in the Fossil Energy program, and \$29 million in the Science program.

The budget includes an investment of \$544 million for R&D to improve energy efficiency and reliability in buildings, transportation, and industry, and \$375 million for R&D to reduce the cost of renewable energy technologies such as wind, solar, geothermal, and biomass, as well as to promote deployment of renewable technologies. The Energy Efficiency and Renewable Energy budget also includes \$291 million to fulfill the President's commitment to increase funding for the Weatherization Assistance Program by \$1.4 billion over ten years. The FY 2005 request represents a \$64 million (or 28 percent) increase over FY 2004 funding, and would weatherize 119,000 homes in calendar year 2005.

This budget invests \$447 million for the President's Coal Research Initiative to dramatically improve the efficiency and environmental protections being developed for coal burning power production. Of that figure, \$287 million will go to the President's Clean Coal Power Initiative, including the ambitious FutureGen program. The Department launched FutureGen in FY 2004. This cost-shared, \$1 billion project will create the world's first near zero-emissions fossil fuel plant. When operational, FutureGen will be the cleanest fossil fuel-fired power plant in the world.

Nuclear energy remains a critical component of the Nation's energy portfolio and a significant part of America's energy future. The budget request for the Department's nuclear energy programs in FY 2005 is \$410 million, a \$5 million increase above the FY 2004 level. These programs work to address essential requirements to develop advanced nuclear power technologies for deployment. The FY 2005 nuclear energy budget request also reflects the establishment of the Idaho National Laboratory. This new laboratory will serve as the Nation's primary center for strategic nuclear energy research, development, demonstration, and education. It will lead the Department's investigation of a new type of nuclear power plant that is proliferation-resistant and melt-down proof—the next generation nuclear power plant. It is our objective that the Idaho National Laboratory becomes the world's premier nuclear energy technology center within a decade.

The widespread blackout of August 2003, affecting 50 million people across eight states and one Canadian province, was a strong reminder that our Nation's electricity grid has vulnerabilities and weaknesses which need to be addressed. Energy reliability is imperative. To this end, DOE requests \$91 million, a \$10 million or 12.5 percent increase above the FY 2004 level, to modernize and expand our national electricity transmission grid. Included within this request is \$5.5 million for the new Gridworks program and \$5 million for the Gridwise program. These initiatives will improve electricity reliability by bringing innovation in information technology and transmission hardware into operational electric systems. The budget request for Other Defense Activities includes \$10.6 million for Energy Security and Assurance activities to complement the efforts undertaken by the Office of Electric Transmission and Distribution and the activities of the Department of Homeland Security.

#### SCIENCE

Every one of the programs and activities requested in this budget depends heavily upon advanced research and development. The work we do could not be possible were it not for the scientific and engineering capability available in the Department's national laboratories and at universities across the Nation. Our \$3.4 billion request for science-related programs and activities supports work in areas like nanoscience, fusion, advanced scientific computing, and microbial genomes that hold enormous promise for scientific discoveries over the next decade. Combined with the significant science expenditures included in the nonproliferation and weapons budgets, this amount makes the Department of Energy the largest federal supporter of the physical sciences, and will help enable us to maintain America's position as the world leader in scientific research and development.

Nanoscience—the study of particles at the atomic and molecular level—has nearly unlimited potential. From the life sciences, to building materials that repair themselves, to giving us the tools to boost the potential of solar power, this new science will be a powerful force for solving a host of challenges. For FY 2005, the Department requests \$211 million, an increase of approximately \$8 million over FY 2004, to continue revolutionary nanoscience research.

The Department's budget also continues the pursuit of scientific understanding of matter and energy. The FY 2005 budget includes \$80.5 million for construction and \$33.1 million for operation of the Spallation Neutron Source; and \$50 million for design and procurement activities for the Linac Coherent Light Source, which will truly give us a new window on nature. Both facilities are expected to significantly advance the understanding of materials that will benefit applied R&D across a wide range of disciplines.

Another important investment this budget continues is the pursuit of fusion energy power. When the President announced that the U.S. would join in the International Thermonuclear Experimental Reactor (ITER) project, he noted that "the results of ITER will advance the effort to produce clean, safe, renewable, and commercially available fusion energy by the middle of this century." In order to support the President's commitment, funding for ITER-related activities is up \$30 million from last year.

The FY 2005 budget includes \$204 million for Advanced Scientific Computing Research to further U.S. leadership in high performance supercomputing, networking and software development. The request includes \$38 million for the Next Generation Computer Architecture to acquire additional advanced computing capability for existing users, and for longer-term research and development on new architectures for scientific computers.

The request for our Genomes to Life program is \$67.5 million, an increase of \$4 million over last year. This program will attempt to use genetic techniques to harness microbes to consume pollution, create hydrogen, and absorb carbon dioxide.

New in FY 2005 is the addition of targeted basic research activities within the President's Hydrogen Fuel Initiative, a \$29 million program within Basic Energy Sciences to advance the fundamental understanding of the properties of hydrogen and fuel cells. This work will complement the applied investigation underway elsewhere in the Department on hydrogen production, storage, and infrastructure development.

#### ENVIRONMENT

All of our scientific research is designed in part to meet our Nation's environmental challenges. In that regard, DOE's work on hydrogen, clean-coal technology, or next generation nuclear technology comes as readily to mind as our renewable energy research. This commitment to the environment includes taking action to address the environmental legacy of our past work, particularly building the nuclear weapons complex that helped win the Cold War. That means cleaning up the contamination caused by the production of nuclear weapons. It also means doing right by former weapons employees who may have become ill as a result of their work at nuclear facilities. And we must act to ensure our Nation is equipped to safely handle future high-level nuclear waste generated by the use of conventional nuclear power as well as the continued production of nuclear weapons.

DOE is prepared for these responsibilities through our Environmental Management program and the work at Yucca Mountain. Our FY 2005 budget requests \$8.6 billion to meet our various environmental-related objectives. Within that, we are seeking over \$7.4 billion for the Environmental Management program, a \$426 million increase when compared to this fiscal year. This is the most funding ever requested for this program. This budget reflects the peak year of DOE's investment strategy for accelerated cleanup. The budget also includes a \$350 million proposal to reserve funds pending the satisfactory outcome of uncertainties associated with a recent court ruling dealing with our authority to classify certain lower-activity waste from reprocessing (Waste Incidental to Reprocessing) under the Atomic Energy Act.

To better focus Environmental Management funds on actual cleanup activities, the FY 2005 budget includes several program shifts from environmental management to other programs within the Department. The Department's accelerated cleanup strategy has led to the creation of two new organizations outside of Environmental Management—the Office of Legacy Management and the Office of Future Liabilities. Transferring responsibilities to these new offices enables the Environmental Management program to complete its current cleanup scope, and allows other Departmental programs to focus on their primary missions.

The budget includes \$66 million for the Office of Legacy Management to manage post-environmental-cleanup activities. This organization demonstrates the Department's long-term commitment to manage requirements relevant to closure sites beyond the completion of remediation.

The budget also includes \$8 million for the Office of Future Liabilities to address various cleanup activities at sites with continuing missions. The FY 2005 budget

provides funds to pay for and manage environmental liabilities for sites not currently assigned within the Department.

The FY 2005 budget includes \$43 million within the Environment, Safety and Health program to accelerate the processing of claims for former workers who may have become ill as a result of their work at U.S. weapons facilities. This is a matter of doing what's right and taking care of those whose labors helped secure our safety. With this budget request, we are making good on implementing a three-year program to completely eliminate the backlog of applications by the end of 2006.

One of the most significant and long-standing commitments addressed in this budget is funding to establish a permanent nuclear waste repository at Yucca Mountain. In order to remain on schedule to begin operation in 2010, the FY 2005 budget requests \$880 million for Yucca Mountain repository activities, \$303 million above the FY 2004 enacted level. This is key to ensuring the future use of nuclear power in this Nation. It is also key to helping us complete the cleanup of our weapons facilities and to consolidate high-level nuclear waste in one safe, secure location. This request enables us to finalize the license application for construction of the permanent repository, as well as other activities associated with construction and with developing a transportation system to Yucca. We plan to submit a license application to the Nuclear Regulatory Commission by December 2004.

The Yucca Mountain project is moving toward a second phase, one which will require a significant financial commitment to accomplish. The FY 2005 budget request includes a legislative proposal to reclassify currently mandatory receipts to the Nuclear Waste Fund as discretionary, to offset the amount appropriated for geologic repository activities. In FY 2005, the Department proposes that \$749 million in fees collected from utilities for the purposes of the Nuclear Waste Fund be used to offset FY 2005 non-defense appropriations in support of design and other Yucca Mountain activities. This proposal will help ensure that the Department will have the financial resources needed to accomplish an undertaking of this scope.

Throughout the entire budget request is funding for one of our highest priorities, safeguarding and securing DOE's sites and facilities. The FY 2005 budget includes \$1.38 billion for all DOE safeguards and security programs to address additional requirements identified as a result of the revised Design Basis Threat.

Within the total amount requested for safeguards and security activities, approximately \$707 million will support activities to safeguard nuclear weapons facilities. About \$265 million will support activities that protect the Cold War nuclear waste material being cleaned up at our environmental cleanup sites.

In addition, we are committing approximately \$73 million to support the continued safeguards and security activities at our scientific laboratories and facilities. We are requesting \$255 million to support the development of DOE-wide security policies as well as to provide physical security for DOE Headquarters. The FY 2005 budget request also includes \$58 million to support safeguards and security activities at the new Idaho National Laboratory for nuclear energy R&D. Moreover, \$25 million will fund the Department's cyber security activities administered by the Department's Chief Information Officer, while an additional \$109 million within the amounts mentioned above will fund DOE-wide cyber security measures.

#### CONCLUSION

The Department's FY 2005 request reflects the accomplishments of the last three years, the successes and the many changes. This request charts a focused course of investment for the Nation's future—one guided by a cohesive mission and targeted performance metrics. Making all of this work are the extremely talented men and women of the Department of Energy which include the world's top engineers and scientists. It is a privilege to work alongside them on a common mission. It is an honor to serve a President who has provided this vision of what this Department can—and will—accomplish in FY 2005 and beyond.

Thank you. This concludes my formal statement. I would be pleased to answer any questions you may have at this time.

The CHAIRMAN. Thank you very much, Mr. Deputy Secretary.

The committee is going to set a date of March 11 in order to hear the outcome of the electricity blackout report. Do you agree that DOE should testify before this committee when the Federal blackout report is released on March 11?

Mr. MCSLARROW. I do. I believe we have already committed to having someone come up here.

The CHAIRMAN. I am just going to tick through several issues, if you can answer.

Nuclear energy. In light of the administration's stated support, can you help me understand why the administration proposed significant cuts in nuclear energy R&D? It looks to me like it cuts the Nuclear Energy Technologies program by 48 percent from \$20 million to \$10 million and it cuts the Advance Fuel Cycle initiative by 31 percent. Granted, these are not giant programs. We put them in the budget ourselves over the years, as you know. So we did not use the administration to get them started, but when they come along and cut them, that is an effective reduction in the program. Do you have a quick explanation for that?

Mr. MCSLAWROW. I do. First is I think it is a robust nuclear energy budget, and the reason is because we actually have three phases in terms of nuclear energy. First is what you have been doing with the energy bill in terms of jump-starting nuclear energy. A lot of the nuclear energy technologies budget that you were talking about that was reduced was guided toward nuclear power 2010, how to get a new plant on line. We have an early site permitting process that is going on and we have a solicitation that we are waiting for feedback from the industry. There is a lot of uncertainty, as you well know, but right now we did not feel like we had enough information and enough indication from the industry on whether or not we could go forward with NP 2010 in a more aggressive way.

Instead, what we have tried to do is focus on the advanced technologies, Generation IV reactors, nuclear hydrogen, including the Generation IV work that is included within the advanced fuel cycle initiative line item. All of that has been increased and so it is just a matter of, in a constrained budget, where do we place our bets in terms of investing in the future, and instead of investing on the technologies of today, we decided to go for the higher-payoff, higher-risk technologies of the future.

The CHAIRMAN. Quickly on fusion science and the budget for ITER. I have no objection to what is going into that program. I was here for the last great debate on let us do ITER or let us not do it. The Japanese were anxious and so was another country. But I do get kind of concerned when we look like we are going after this gigantic program in a sort of half-baked manner. We put in a few bucks and we take them out of other programs. I do not think that is a real commitment to ITER. Are we really committed to it or not?

Mr. MCSLAWROW. We are. The budget does not reflect what is going to happen in the future. The out-year funding will be different, and it is for this reason. What is happening right now is, after the design period of the last couple of years, we are going through a site selection process. So in this year and the next year, it is just getting started. In 2006, construction begins. What we are doing right now is we are taking the fusion money that we requested for ITER, together with the kind of fusion money that would actually support ITER activities, and we're are spending I think about \$38 million as well we have requested for 2005, which is all we need in 2005, but it will definitely increase in the out-years.

The CHAIRMAN. We will see.

My last question has to do with something that is of great concern to Senator Bingaman. He raised the issue in his opening remarks and has spoken to it in our home State. It has to do with the Energy Employees Occupational Illness Compensation program. He talked about a constituent in New Mexico with a long-delayed adjudicative process following his illness.

I am concerned where workers are injured by work in the past. Weapons program workers should be appropriately compensated. We know that the current legislation is fundamentally broken and it needs improvement. I am working with my colleagues to decide how best to proceed with this program which could involve another hearing or the consideration of alternative legislation.

When would the Department be ready to discuss alternative legislative options or ways to improve the performance of this program?

Mr. MCCLARROW. Well, I think we are already beginning those discussions, so we are prepared to engage. As the budget indicates, we would like to discuss what kinds of reforms would make this a better program. And with the chairman's indulgence, since several members have mentioned it, I will take a couple of minutes to talk about where we are.

The CHAIRMAN. Okay.

Mr. MCCLARROW. I know you had a hearing with Under Secretary Card in December. This is a program where everybody, Congress, the administration, DOE, everybody vastly underestimated the scope of the program. There was a lively debate about whether or not you would have a direct benefits program or whether or not you would end up with what we have today, which is a fairly complicated system that hinges on a State workers compensation program.

Part B, which went to the Department of Labor, is a relatively simple program. If you are in the pool, they write a check.

Part D, which is what we have, is not that kind of program, and it has three basic challenges. The first one—as Under Secretary Card testified in December, we did not do a good job of anticipating. It was just the sheer scope, the need for resources. Under the Secretary's leadership, we requested a transfer of approximately \$10 million in fiscal year 2003. We have requested another \$33 million transfer this year, and we are now requesting \$43 million for this program next year. All of that is just to put resources necessary to actually help the applicants process their files. So that is the first bottleneck and I feel like we are on the path right now. If we can get the funding that we have requested, that is, the transfers and the budget request in 2005, we are on a path to work off that backlog by the end of 2006.

The second bottleneck is the physicians panel. Applicants are only beginning now to arrive at that point. The physicians panel was by statute constrained in ways that with you we probably want to discuss changing. One of the ways is the fact that the doctors are only paid \$68 an hour. We are not able to recruit the people who are willing to spend the time to do this work. We want to vastly and aggressively expand the number of available physicians. We probably want to reduce the number of physicians on each

panel. By rule, you have to have three physicians on a panel. You could probably, if you had the right qualifications, do this with one person on each panel. So there are a variety of means which we can take to just speed up the entire system, which has been obviously a major complaint and well-founded in my judgment.

The final issue is this issue of willing payor. Now, in one sense, willing payor was the purpose of the statute. That is, Congress in this debate—and I know Senator Bingaman was in the middle of it then—decided not to do a direct benefits package, and instead they set up this hoops process to the workers compensation boards throughout the States. Congress did not tell DOE that we had to issue “do not contest” orders to our contractors to force them, in essence, not to contest the claim. But Secretary Abraham decided we would do that by rule. Congress did not tell us that we had to reimburse contractors who had a compensation claim by an employee, but Secretary Abraham in his rule decided, because the statute allowed us to, that we would do that.

At the end of the day, we are not a party to those adversary proceedings, and there is an open question as to how many contractors there are out there with whom we have no contractual relationship where we are not able to issue a “do not contest” order or we are not able to order reimbursement.

That is a very live issue. It is one that we would welcome discussing. We have some ideas perhaps, with the National Academy of Sciences looking into it, but it is one of those things that, even though we have not really gotten to that point yet, it is right around the corner. So we think that there are things that Congress and the Department can do right away. That is a larger issue that needs more discussion.

The CHAIRMAN. I am going to yield to you now, Senator.

I want to tell you now so there will not be any misunderstanding, Mr. Secretary, I do not know how to solve the problem. I cannot sit up here and tick it out and say this is what we should do. But I want you to know that short of somebody taking the jurisdiction away from this committee, which we will resist—I will resist—we are going to pursue this with vigor as to delay, why we cannot move more rapidly, are there some definitions we ought to change. You have suggested some today. But it does not make sense to build people’s enthusiasm up and then have a program like this.

Mr. MCSLAW. We agree.

The CHAIRMAN. Thank you.

Senator Bingaman.

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

Let me just follow up on this one issue. I am concerned somewhat about your statement that we are going to work off the backlog by the end of 2006. That is a pretty long time frame in the minds of most people and particularly a lot of these people who are quite ill. I do not know that that is adequate.

I am also concerned that we not get into a mind set that Congress has got to come together and change the law before you folks can fix this program. I do not doubt that there are things that should be changed in the law, but it seems to me there are also a great many things that can be done administratively to speed this up, and I hope that that happens very quickly regardless of

how effectively we pursue a change in the law. I want us to do both, but I do not want one to wait on the other. I just wanted to make that point.

Mr. MCSLARROW. Well, I agree with that.

Members of this committee rightly complained about the pace of the applications processing last year, and one of the things we said and the Secretary made a commitment to this committee about was that if we got more resources, we could move it along a lot faster, and whereas it might have been 10 or 20 a week in mid-2003, the moment we got the reprogramming, suddenly we jumped up to 100 a week and we have stayed consistently at about 120 a week ever since. If we get more money, we believe we can increase that even more.

But at some point it is implausible that we will have every physician that we need, even if we just went to one physician per panel, and at some point it is probably implausible that you can just simply move the work faster and just get it done in 1 year. If somebody can show that to us—and we have people looking at that right now—then the Secretary's commitment is we are going to do everything we can to move this as fast as possible. Our judgment right now is that 3 years—that is, by the end of 2006—and all this assumes, of course, we make some changes to the physicians panel, we do the administrative activities that you were just talking about, and we get the necessary funding. But even that is an incredibly aggressive schedule. So in spirit, we are right with you. We need to operate on parallel tracks. We will do everything we can to fix this.

Senator BINGAMAN. Well, I think the chairman is right that we need to have more engagement on this and figure out what Congress needs to do and what the Department needs to do to get this problem on track.

We had a hearing last year also on polygraphs, and it was my impression at the end of that hearing that there was going to be a rescoping of the polygraph program as it applied to DOE employees and contractors. That was one of the things that came out of that hearing, or at least I was led to believe would happen. What has happened on that?

Mr. MCSLARROW. We are proceeding on that path. It is our intention to put out a new proposed rule. The rule has already gone through DOE review and is currently at OMB under review. So I cannot put a date on it, but I hope very soon we will be able to go out publicly.

Senator BINGAMAN. Okay.

You have in your budget a new proposal to fund an Office of Future Liabilities, and the budget document states that this is an office that will manage environmental liabilities that are not assigned to the Office of Environmental Management. Then there is another sentence that says, these needs are expected to grow substantially due to the backlog of environmental liabilities at active DOE sites.

Could you explain? I always thought that the Office of Environmental Management was to be doing all of this type of work. Why are we setting up a separate office here and how are we distinguishing what goes into which office?

Mr. MCSLAWROW. When we came into office and conducted our top to bottom review of the environmental management program, we concluded two things. One, they were trying to do too much and too little at the same time. We were convinced—and this committee supported these efforts—that the only way we could deal with the massive legacy cleanups, which are about \$7 billion a year now, was to have Environmental Management focused on the mission of cleanup, not distracted by other liability issues or long-term stewardship. Get the job done. And I would say just in the short time—that is, really the 2 years since the program went into effect—that we have had major, major successes. In some ways it may be the best legacy of what we have done in the last 3 years.

But part of that—and it is a philosophical management choice I guess—is our view is that missions need to be defined and very clear cut and that if you get too many missions for an organization, it just fails. It flounders. So what we tried to do was to separate out EM and make it clear that they are responsible for cleaning up the legacy of the Cold War. The Appropriations Committee supported last year—Congress did—the establishment of the Legacy Management Office which would be, once EM finishes a cleanup, the office responsible for the long-term stewardship and monitoring of a site, plus issues like pension benefits for former employees. So we established that office for that.

Now the issue is how do we avoid getting into exactly the same trap we got into when we had to create EM in the first place. That is, who is doing the thinking about all of the facilities and sites that may, over the next 30 years, need to be decontaminated and decommissioned? It could be EM. Our judgment is it should be someone else who is taking the broad view, is not distracted by the current obligations of cleanup. That is what the Office of Future Liabilities would be. And it would probably be the case, as EM phases down and Future Liabilities phases up, that some of the very same people and talents and experiences would shift to a new organization.

But right now what is critical to us is—and when the Secretary is asked this question—that we just have not done enough thinking about these liabilities and we do not want to be back here in 10 years saying we just discovered another massive liability.

Senator BINGAMAN. Well, I think thinking about the future liabilities is obviously very useful. I am just questioning whether setting up a new office to do that is a better way to proceed than just changing the planning process within EM itself. But we will have plenty of opportunity to get back to that.

I do not know what the time situation is. Am I out of time? Do I have time for another question?

Senator THOMAS [presiding]. I think you are out of time.

Senator BINGAMAN. All right.

[Laughter.]

Senator THOMAS. Since you asked.

Senator CAMPBELL.

Senator CAMPBELL. Thank you, Mr. Chairman.

I am reading page 7 and 8, Mr. Secretary, and I am a little bit confused, and please enlighten me a little bit on this. The Department is requesting in paragraph 2, \$880 million for the Yucca



Mountain repository activity, \$303 million above fiscal year 2004. And as I understand it, reading on, it is going to be for licensing and construction and development of a transportation system.

First, what transportation system is that? Is that something within the Yucca Mountain area or something nationwide we are doing?

Mr. MC SLARROW. It is several things. One is the planning necessary for transportation of the spent nuclear fuel once the repository opens.

The second is actually building a rail system in the State of Nevada. We announced I think in December, our preferred rail corridor in Nevada. There are rail lines that come, obviously, into Nevada. We want to avoid the city of Las Vegas, which means that if we decide to select rail and that particular rail corridor we are going to have to build a fairly lengthy spur to meet up with some existing rail line.

Senator CAMPBELL. The spur would be up further north of Las Vegas apparently?

Mr. MC SLARROW. Right.

Senator CAMPBELL. Also on page 8, the Department proposes that \$749 million in fees collected from utilities for the purposes of a nuclear waste fund be used to offset the fiscal year 2005 non-defense appropriation in support of design and other Yucca Mountain activities. That \$749 million that you want to use to offset that, what is it used for now? Does any of that go towards Superfund cleanups or something of that nature?

Mr. MC SLARROW. I think it goes into the general revenue. So it is just available for general purposes.

Senator CAMPBELL. So it would not deteriorate our ability to keep up with our Superfund cleanup.

Mr. MC SLARROW. No.

Senator CAMPBELL. Maybe one other question. On natural gas, we are all pretty well aware of the spikes that have occurred the last few years in natural gas. It is my understanding—I think most of us—that it will be about a 10-year wait before the Alaska natural gas pipeline comes on line, and yet every winter we have got these spikes and people complaining that natural gas is costing too much and there is not enough of it. Is there some short-term proposal to try and alleviate that problem between now and the time the Alaskan pipeline comes on line?

Mr. MC SLARROW. Well, there are a couple of things and all of them are hard. As Senator Murkowski pointed out earlier, we have got substantial reserves in this country, but we placed a lot of it off limits. We have so restricted the lands that people just cannot actually get to it economically or at all in some cases.

One of the things the Department of the Interior is doing is trying to take the initiative by being creative in terms of royalty relief—for example, Secretary Norton just recently announced a proposal to encourage the deep drilling in the shallow waters in the gulf and the like. So those are probably, in terms of just production in the short term, the kinds of things we would have to focus on.

The mid-term to long-term is going to be an increase in LNG, probably not a significant increase because it will take time and we

will have to see how the LNG facilities are actually sited. And that is going to be challenging in and of itself.

But until we get to the point of where we have a combination of more LNG and the Alaska pipeline bringing Alaska gas here, we are going to go through a period of time where production in the States is declining. The Secretary commissioned the National Petroleum Council 2 years ago to produce a report, which they did last year, and that is essentially what they reported, that we have topped out. We import about 15 percent of our gas from Canada and they are faced with declining production as well.

So at some point we are going to have to obtain it and we are probably going to have to obtain it from multiple areas. It is not just going to be one source that is the panacea.

Senator CAMPBELL. Several American corporations are in the process of trying to outfit tankers to bring in liquified natural gas to some of our major ports and then re-gassify it and put it into the existing grid, which I guess is good in one respect from a short-term standpoint, maybe bad in another because it gets us more and more dependent on foreign energy.

Has that been something that the Department has also been involved in or looked at?

Mr. MCSLARROW. We have. If you take the Energy Information Administration's forecast for how the gas market is going to look in 25 years, the interesting thing is that they forecast that we are going to have a substantial, probably 8-fold increase, in imports of liquified natural gas by 2025. And that is on the assumption that we actually have the Alaska pipeline. If we did not have the pipeline, who knows what position we would be in.

There is obviously a concern in getting to the same position that we are already in in terms of crude oil that we are completely dependent. Today we are 55 percent dependent. We are projected to go to 70 percent dependence on foreign oil in 20 years. I do not think anybody wants to see that happen with gas. So we are going to have to help ourselves domestically.

But as I say, the EIA forecast suggests that even if we did that, we are going to probably have to have more LNG facilities, and there are significant issues that the Department and FERC, for example, are engaged in to make sure that we can site those facilities in the United States because we are going to need them.

Senator CAMPBELL. Thanks. Thank you, Mr. Chairman.

Senator THOMAS. I think we are going here by the time of arrival.

Senator Dorgan.

Senator DORGAN. Mr. McSlarrow, thank you for being with us.

Let me ask you about the purchase power issue for PMA's. Can you describe to me why you want to zero that out?

Mr. MCSLARROW. With purchase power wheeling, basically the philosophy is that there is no reason for the Federal entity to front-end the financing of wheeling across the PMA system. That is something that the customers can do themselves. At least in our reviews, we have seen nothing to suggest that that would not be the case.

Senator DORGAN. I do not understand that answer. You have seen nothing to suggest that that will not be the case? The pur-

chase power program is a program in which we in the appropriations provide funding for purchase power above that which the PMA's would normally generate themselves through hydropower and so on. We went through this with the previous administration. We had a fight with them about the purchase power issue. I guess I do not quite understand your answer. Can you explain it to me in a different way?

Mr. MC SLARROW. I will try. In our analysis of whether or not people needed us to essentially finance the transactions across the system to wheel power, we have seen nothing to suggest that customers are unable to do that on their own. So what is in essence a Federal loan we thought is unnecessary. I do not know if that makes it any clearer.

Senator DORGAN. So will this cost the customers more?

Mr. MC SLARROW. I do not know if costs customers more, but it gives our PMA's additional flexibility. I do not know that the rates are any different.

Senator DORGAN. How does eliminating the funding for purchase power give the PMA's more flexibility? It seems to me it gives them less funding.

Mr. MC SLARROW. No, because in a sense they are fronting the money for wheeling power across the system. So it is going the other direction.

Senator DORGAN. You know what? I am not sure either of us know what we are talking about here.

[Laughter.]

Mr. MC SLARROW. We may not be communicating here. I think that is right. Should I take a crack in the record?

[The information follows:]

#### BACKGROUND

##### *Purchase Power*

The Southeastern Power Administration (Southeastern), Southwestern Power Administration (Southwestern), and Western Area Power Administration (Western), collectively called the Power Marketing Administrations (PMAs), market energy produced at Federal dams to local utilities in their region under long-term electric service contracts. These contracts obligate each PMA to provide a level of energy to customers.

However, the amount of energy generated at Federal hydroelectric plants is not fixed. The amount of energy generated depends on changing water conditions, unscheduled and scheduled outages variable dam release rates in response to flood control, navigation, fish and wildlife, public safety and recreation needs, and the effect of drought. Hence, there are times each year when the PMAs need to purchase power to supplement the hydropower produced at the dams in order to meet their obligations under their respective electric service contracts.

Additionally, Southeastern and Western purchase power to operate pump-back units, which pump water from a lower reservoir into a higher reservoir during off-peak periods, so the water can pass back through the turbines during on-peak periods. Since the power for the pump-back units is generally purchased at night, it is more economic to purchase power on the market than it is to use the more valuable PMA peaking resources to power the pump-back units.

If the PMAs are not able to guarantee delivery of a certain amount of power, they would only be able to market non-firm power, which is a less valuable product. The ability to purchase power enables the PMAs to sell a more valuable product and to assure repayment of the Federal investment.

##### *Wheeling*

Using the transmission facilities of one electric utility to transmit power owned by another electric utility is termed "wheeling." Wheeling is needed to move Federal power to certain PMA customers that are not directly connected to Federal trans-

mission facilities. In particular, Southeastern, which does not own any transmission lines, buys the right to use the transmission systems of other electric utilities in the area. The price paid for wheeling services fluctuates due to market prices for access to transmission lines, which have risen substantially over the past two years.

*Purchase Power and Wheeling Program*

When combined, these energy products are termed, “purchase power and wheeling” or “PPW.” All purchase power and wheeling expenses are generally recovered in the year they are incurred through rates the PMAs charge their customers—there is no net impact on the U.S. Treasury. The PMAs do not purchase or wheel power beyond what is necessary to meet their contractual commitments.

The use of proprietary receipts from the sale of power is one means for the PMAs to acquire needed power and wheeling. In this mechanism, the PMAs are allowed to use a portion of their receipts (which normally flows into the U.S. Treasury) to fund their purchase power and wheeling activities. Other financing mechanisms are also available, such as net billing, bill crediting, and customer reimbursements (advances) by the PMAs to enable them to make power and transmission purchases. Non-Federal reimbursable funds, or customer advances, provide cash which is available to the PMA for financing purchase power and wheeling services in advance of PMA requirements.

Federal reimbursable authority, provided in the Economy Act, allows the PMAs to perform firming and transmission services for other Federal agencies using the other agencies’ appropriations or funding sources. Net billing is a funding mechanism that can be used when a customer both buys power from, and sells power to, a PMA in the same billing period. In instances when the PMA owes the customer less than the customer owes the PMA, the PMA issues a bill to the customer that nets the two amounts against each other. In effect, the customer’s funds are used to pay for the amount the PMA owes the customer.

Bill crediting is a funding mechanism where one or more PMA customers sends its payment to a PMA supplier who has agreed to credit the PMA for the payment as if the funds had come directly from the PMA. The PMA credits the customer’s bill as if the payment had been made directly to the PMA. The Administration’s decision to eliminate the use of PMA receipts to fund purchase power and wheeling for the PMAs should not hurt the PMAs’ ability to meet their contractual commitments to provide electricity as long as the PMAs’ customers are willing and able to advance funds to the PMAs for purchase power and wheeling.

The Administration believes that electric industry restructuring and the resulting competition make it appropriate for PMA customers to acquire these services themselves. The private sector routinely provides these services and is fully capable of doing so.

1. Why is the Administration proposing to zero out purchase power and wheeling?

Although the use of power receipts to fund purchase power and wheeling activities is budget neutral, the Administration desires to reduce Federal funding for the acquisition of firming energy and wheeling services to fulfill PMA contractual requirements for the delivery of Federal power.

The Administration believes that the function of purchasing power from third-party suppliers and of arranging for transmission services (i.e., wheeling) over non-federal transmission lines are services that can and should be performed by parties other than the Federal Government. The PMAs’ customers should have the responsibility of funding purchase power and wheeling.

The Administration believes that electric industry restructuring and the resulting competition make it appropriate for PMA customers to acquire these services themselves. The private sector routinely provides these services and is fully capable of doing so.

2. Are the PMA customers able to provide purchase power and wheeling on their own?

The PMAs market energy under long-term electric service contracts that obligate each PMA to provide a specified level of energy to their customers, regardless of water conditions. This requires the PMAs’ to purchase power to provide a more “firm” product and assure repayment of the Federal investment. The PMAs’ larger customers are generally able to purchase power and wheeling services on their own. However, small municipal electric departments may need to add staff to make purchase power and wheeling arrangements and incur other transaction costs to enable them to carry out this responsibility.

In addition, it is possible that transmission service for some of Southeastern’s customers may not be easily obtainable. The allocation of Federal power received by many of Southeastern’s customers is less than one megawatt. Today most, if not all, transmission providers will not provide transmission capacity for less than a whole

megawatt. Southeastern's customers may have to form their own organizations in order to aggregate their various allocations from Southeastern.

3. If the customers provide their own purchase power and wheeling, will it cost them more?

The use of proprietary, or "customer," receipts is the most cost-effective means for the PMAs to acquire needed energy and wheeling. If the PMAs' authority to use proprietary receipts for purchase power and wheeling is eliminated, the PMAs historically have been provided authority by precedent and in the annual appropriation process to net bill, bill credit, and use customer reimbursements (advances) to make power and transmission purchases. In addition, the PMAs each have access to "Continuing Funds" in the U.S. Treasury that can be used, if certain conditions are met, to purchase power if needed to meet Federal contractual commitments.

The customers generally prefer to have the PMAs use receipts to fund purchase power and wheeling activities, rather than have the PMAs use customer advances, because: (1) the use of customer advances is more administratively burdensome; (2) it is not standard utility practice; (3) it exposes the purchase power and wheeling program to risks from late, erroneous, or disputed advances; (4) it potentially restricts the PMAs abilities to buy purchase power and wheeling at the lowest price; and (5) it may result in increased rates to the PMAs' customers.

In addition, a reduction in the PMAs' authority to use proprietary receipts for the acquisition of purchase power and wheeling services may limit the PMAs' ability to purchase at the lowest market price. This could result in increased costs to the PMAs, which would increase rates to customers. The Administration will work with Congress to attempt to minimize any rate impacts this change may have.

As long as Congress continues to provide these authorities, the PMAs will use these authorities for purchase power and wheeling to meet their contractual requirements as long as the customers are able and willing to provide these methods of alternative financing.

4. How does eliminating the funding for purchase power and wheeling give the PMA's more flexibility?

The PMAs have authority to net bill, bill credit, and use customer reimbursements (advances) to make power and transmission purchases. Bill crediting and cash advances are not standard financing methods within the electric industry. However, they do provide a backup funding method for the PMAs to meet their contractual obligations to deliver a certain amount of energy to their customers. In addition, the PMAs each have access to "Continuing Funds" in the U.S. Treasury that can be used to purchase power under certain conditions. The PMAs will use these other authorities to meet their contractual commitments for power delivery.

Senator DORGAN. Let us do this. Let us exchange some paper and we will have an opportunity to go at this some more. Obviously, I am a big supporter of the PMA's. We have some people in town that want to get rid of the PMA's which I think would be a huge mistake. But we have had these battles on purchase power previously and have resolved them.

Let me ask just a brief question about clean coal technology and the Clean Coal Power initiative. Give me your assessment of where the administration is with that issue in terms of funding.

Mr. MCSLAW. The bottom line is the President made a commitment to \$2 billion over 10 years for clean coal, and our budget and the out-years that we projected will support that amply. If you looked at the 5 years prior to the Bush administration, clean coal averaged about \$160 million in requests and about \$180 million in appropriation. Even if you were generous with the rate of inflation, you are talking, over a 10-year period, of a \$1.6 billion to \$1.8 billion program. If you take everything that we have requested, the budget that we have before you now and the out-years that we have in our budget, we will have requested \$3.8 billion.

This is the most aggressive pro-coal budget that this country has ever seen, and the fact that we are putting a lot of money into FutureGen does not suggest that we are cutting other programs. It is all designed to support how do you take coal in this country and

make it so that the environmental challenges are not just completely a bar to its use. That is what FutureGen is designed to do. It is a prototype. It takes in all of the R&D that is being spent on clean coal and reroutes it into a prototype demonstration plant. But at some point, we have to prove all this. Right now we have a lot of basic R&D. We are trying to move it to the applications.

Senator DORGAN. Mr. McSlarrow, while I support FutureGen and think it will provide value to our country, I do not think lumping it all together with clean coal technology programs that we have had is in our interest. What I would like to do is I will follow this up with the Secretary. I think he will be testifying on the appropriations side before my subcommittee.

But the way I look at this, I think that you are actually far short of where I would expect you to be, given what the President supported and pledged with respect to clean coal technology initiatives. And that is a very important issue. Clean coal technology for many of our States is the advance by which I think we will be able to continue to use coal as a resource without endangering or injuring our environment. This is a very, very important issue for those of us who come from coal States.

I want to get into greater depth with the Department at a future hearing. Perhaps we could also, between now and then, I think in the next week or two, exchange some paper on this general area of coal research. There is a difference between all coal research and the clean coal technology initiative. So I want to exchange some paper with you on that.

Again, while there is a lot to discuss, this the first blush and first look at what you are proposing. I appreciate your coming up and testifying today. We will have a lot more discussions I am sure, before this is over.

Thank you.

Senator THOMAS. Thank you.

Senator SMITH.

Senator SMITH. Thank you, Mr. Chairman.

Mr. Secretary, again welcome.

I listened with amazement, as we are in a political year, that sometimes we do not think the administration is spending enough on this or that. I know that these concerns are well meaning because the Federal Government is becoming sort of the answer to everybody's prayer on almost every issue. The truth is there is almost no program in the Federal Government we are not spending a lot more on than ever before in the history of this country. So when we speak of not doing enough, one of the concerns I hope you have is that we are not spending it so quickly that we are wasting money and that you will use some care in that regard.

I know, as part of the energy and water appropriations bill that you are developing, and the Department is going to submit a report on the Bonneville Power Administration (BPA), and I would simply ask that you let me know how that is coming along because that again is one of those other areas that is going to require more investment. I hope the investments are carefully made.

Kyle, I note also that the Department has announced that it will not build a second vitrification plant at Hanford. A concern that I have is that apparently the single one that is being constructed will

treat 53 million gallons of nuclear waste at the site. Apparently it cannot do it all, and it will leave some 60 percent or more untreated there. I suppose I am interested in some of your alternatives to vitrification that you may be pursuing, how effective they may be, and how safe they will be because obviously this is a real concern to the entire Northwest.

Mr. MCCLARROW. We share the concern and you and I obviously have had a number of discussions about the importance of getting the cleanup done at Hanford.

I will say this. We are not going to do anything that is not in compliance with the agreements that we have made with State of Washington. Obviously, the budgets—not that money is everything, but it is a lot—speak for themselves in terms of what we requested and Congress has given us over the last couple of years.

There are a number of issues that we need to explore beyond the first vitrification plant, which is actually going quite well right now, in terms of how we deal with these other wastes, including I think very promising alternative technologies for addressing it.

The final point I would make is that we do have the situation that I think you had mentioned earlier on what we call waste incidental to reprocessing, or WIR. Other people just call it high-level waste. This is the situation again where we and the State regulators in Washington, Idaho, and South Carolina were working cooperatively together. Again, we are not going to do anything that is not in compliance with what the State regulators want to do. But out of left field comes a lawsuit in Idaho District Court that essentially says the way we are doing it is not in compliance with the Nuclear Waste Policy Act.

Suddenly, we want to spend the money. Of course, the States want us to spend money there, and I think it is about \$64 million that is at issue at Hanford. But we are in the situation that unless we can get a legislative resolution or court decision on this issue, we are not able to spend money that we have already planned on spending. So to me the most dangerous thing that is going on in terms of cleanup at Hanford is the fact that the environmentalists, the very people who profess to be pro-environment are keeping us from doing the cleanup that we need to do, and we want to get on with it.

The good news is we are working with Governor Locke and the other two States to try to resolve this.

Senator SMITH. Is it your belief you are going to win that lawsuit?

Mr. MCCLARROW. Well, if I said it was the Idaho District Court and we are going to end up in the Ninth Circuit, would that tell you anything?

Senator SMITH. Good luck.

On another issue, again nuclear waste is going to be transported in large amounts to Yucca Mountain by 2010. Can you give us any update on transportation planning? Because a lot of waste shipments will go through the State of Oregon.

Mr. MCCLARROW. Well, the strategic plan was issued in November and I would be glad to have folks come by and brief your staff on that. As I mentioned earlier, we did designate a corridor pref-

erence also in December, and I think we are going to have a record of decision on that very soon.

The next thing that we have to do is an environmental impact statement on the rail alignment. That is how do you match up the site to the rest of the rail networks.

But we have to do what we can now to ensure that in parallel we are doing the transportation system in a way that we do not slow down opening the repository for waste receipt in 2010. That is the good news.

The bad news is we cannot jump too far ahead in terms of talking about selection of routes until we have continued through the licensing process. We are planning on applying for the license in December of this year. So we are doing everything we can now to keep from slowing up, but there are still some additional steps that would take place I think starting next year after the license application.

[The information follows:]

In the Notice of Preferred Nevada Rail Corridor, the Department had announced the Caliente rail corridor as its preferred transportation route in the State of Nevada for shipments of spent nuclear fuel and high-level radioactive waste to a geologic repository at Yucca Mountain. To date, the Department's Office of Civilian Radioactive Waste Management has not received comments from anyone representing the State of Oregon regarding this notice.

Oregon has been an active participant of the Western Interstate Energy Board for approximately the past 20 years, working with the Department on the program established by the Nuclear Waste Policy Act. This Board serves as the technical arm of the Western Governors' Association and has been assigned responsibility to work on issues related to nuclear waste transportation. The Department's transportation corridor preference was discussed with the Western Interstate Energy Board and Oregon's representative on the High Level Waste Committee of the Board in a meeting held on January 30, 2004.

The Department is committed to the development of a safe and secure transportation system that will protect public health, safety, and the environment. We intend to conduct an open and collaborative planning process as we move forward in this process.

Senator SMITH. Thank you.

Has the State of Oregon, to your knowledge, commented on the corridor routes?

Mr. MCSLARROW. Not that I know of, but I will find out and get back to you.

Senator SMITH. If you can let me know, I'd appreciate it.

Thank you, Mr. Chairman.

Senator THOMAS. Senator Akaka.

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

Mr. McSlarrow, as you know, I have a strong interest in hydrogen programs. Hawaii and all islands in the Pacific share a common need to decrease our dependence on imported energy sources. I am pleased to see an overall increase of \$13 million for hydrogen technology research and development and for the emphasis on renewables in the Production and Delivery account. However, I have concerns and questions as to where the increase is allocated.

As I said, I am pleased to see the increase in hydrogen production from \$14.9 million from fiscal year 2004 to fiscal year 2005 in the Hydrogen Technology initiative. The budget document states that the majority of funding will focus on renewables.

So my question to you is what percentage of the funding will be allocated to renewables?



Mr. MCSLAWROW. Well, I will give you a precise answer for the record on that, but let me just give you the off-the-top picture.

For the hydrogen initiative, we have requested \$227 million. If you add to that the vehicle technologies, the Freedom Car program, you are talking a total for the hydrogen and Freedom Car programs about \$319 million. So this is a huge investment.

If you take fuel cells out, the energy efficiency and renewable energy budget for the hydrogen program is \$95 million and compare that \$95 million with the amount we asked for hydrogen and fossil, which is \$16 million, the amount we asked for nuclear energy, which is \$9 million, and the amount we asked for basic research in science, which is \$29 million, so when you look at just that aggregate number—and as I said, I will get you a more precise number—a huge portion of this hydrogen budget is in the energy efficiency and renewable energy section.

Senator AKAKA. I will look forward to that information from you later.

[The information follows:]

The total government request in FY 2005 for the President's Hydrogen Fuel Initiative is \$227.8 million. Of this, \$50.3 million supports research and development of hydrogen production technologies. More funding is requested to convert renewable feedstocks to hydrogen than any other single energy source. The FY 2005 hydrogen production research includes:

- \$19 million for renewable production of hydrogen
- \$16 million for coal-based hydrogen
- \$9 million for nuclear-based hydrogen
- \$6.3 million for distributed natural gas-based hydrogen

Thus, renewables account for 38% of the Department's overall hydrogen production budget of \$50.3 million.

Do you foresee that this increase will be enough to make hydrogen production costs from renewables competitive with nonrenewable production—such as natural gas or coal—over the next 5 years? So my question to you is, do you foresee that this increase will be enough to make hydrogen production competitive with nonrenewable production over the next 5 years?

Mr. MCSLAWROW. Five years sounds aggressive to me. I think the issue with renewable energy production of hydrogen is really twofold. First is what are the processes just to make hydrogen from renewable energy, but there is not in my mind a substantial—there may be some—but there is not a substantial cost difference of the actual production of hydrogen. I think the larger issue is the same issue we always confront with renewable energy and electricity production for renewable energy. We are doing great. The cost per kilowatt hour has come down for wind and solar and geothermal, but we are still not to the point, even with the renewable production tax credit, that it is competitive. But the trend at least is going in the right direction. I think if we can get to that point, then I think the issue of how you produce hydrogen is a much easier question. But as I say, I think 5 years—and I will have our people contact your office with a more precise answer, but I think that is probably too optimistic.

[The information follows:]

One of the Department's strategies for energy security is to utilize diverse, domestic resources to produce hydrogen. Based on the cost of gasoline today and normalized on a per mile basis, hydrogen from any source must be approximately \$2.00

per gallon gasoline equivalent to be competitive with conventional technology. The Department is focused on achieving cost and performance targets that will enable industry to make a commercialization decision for hydrogen fuel cell vehicles in 2015.

The FY 2005 request of \$19 million for renewable hydrogen production keeps us on track to meet our 2010 goal of \$2.90 per gallon gasoline equivalent (delivered, untaxed) for wind-based hydrogen production using water electrolysis. Natural gas is currently a cheaper feedstock, and we have a 2010 hydrogen production cost target of \$1.50 per gallon gasoline equivalent (delivered, untaxed). Although renewables may not be competitive with natural gas over the next five years, the Department's plan reflects the high priority placed on renewable production of hydrogen with the goal of approaching \$2.25 per gallon gasoline equivalent by 2015. Coal is potentially a very cheap source of hydrogen; however, it will not be available in the near term because carbon capture and sequestration will need to be resolved.

Senator AKAKA. I am also pleased that the budget includes \$5.6 million for the National Nuclear Security Administration's Off-site Source Recovery Project. This will certainly help collect unwanted radioactive materials and prevent them from being used as radiological dispersal devices.

I am also pleased that there is \$3 million budgeted within the Office of Future Liabilities to begin an environmental impact statement for a facility to permanently dispose of these sources.

While this is a good first step, I remain concerned about the progress being made in this area. This disposal facility is necessary to close the loop on the life cycle of these sources, once they are collected, and should continue to be a priority for the DOE.

My question is, how will the transfer of the off-site source recovery project to the National Nuclear Security Administration affect the Department's ability to develop a permanent, safe, and secure disposal facility for these sources?

Mr. MCCLARROW. As you point out, NNSA now has the responsibility for this program, and the reason they do is, as you know, most of the sources that have been recovered are stored at Los Alamos and they have significant experience in recovering these kinds of sources, not just in the United States but obviously in our international proliferation programs. We anticipate that we will collect about 1,500 sources next year, bringing the total to about 10,000.

But as you point out, one of the reasons—and I probably should have used this with Senator Bingaman—that we need an Office of Future Liabilities is to think about the kinds of disposal pathways that people had not thought about to date. And the "Greater-Than-Class-C" wastes contained in these kinds of sealed sources do not have an obvious disposal pathway. So it is one of the obligations we are placing in that office to begin the environmental work to try to figure out what that pathway is because the storage at Los Alamos is not intended to be permanent and we need to do this on a permanent basis, as you said.

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

Senator THOMAS. Thank you.

I guess I am next here. Kyle, we have been working on an energy policy for a good long time to lay out those things that we have felt are most important, such as fossil fuels and transmission, coal generation of electricity, coal being our largest fossil fuel resource, hydrogen to be able to transfer that differently, talking about the environment, reinjection and sequestration of CO<sub>2</sub>, and these kinds of things in addition to urging domestic production. So these are the

things that we have talked about that I hope are reflected in the budget, and I think maybe they are.

You indicate in your budget book that we rely 85 percent on fossil fuels for the energy we consume. Yet, at the same time, the fossil energy program is slated for a 9.4 percent budget reduction. How do you justify that?

Mr. MCCLARROW. Well, there are a couple of things about this. First, the starting place is we are in a constrained environment. The President, as you pointed out correctly, is focusing on homeland security and defense.

Now, if you take away the obligations that we have for environmental management, the obligations that we have for Yucca Mountain, the fact that the NNSA budget, \$9 billion, is clearly a part of that defense budget, that means all the rest of a constrained budget is visited on science, fossil energy, EERE, and nuclear energy.

In fossil energy, there are a couple of programs, for example, the oil and natural gas. I realize this does not accord with what you read about in the papers about the Bush administration in oil and gas, but they simply did not perform measured against the other programs. And this is 2 years in a row. And so we have reduced funding for those programs.

As I say, we have really emphasized coal. We are trying to meet the President's commitment, and assuming we get the request for 2005 for coal, we will be on a path to have provided \$2 billion in clean coal over 10 years.

We feel like we are doing what needs to be done for fossil energy, but we are also trying to change the program from one that was focused on the near term to one that is focused on the long term.

The really bright spot in this program to my mind is FutureGen. We are talking about a \$1 billion prototype, 275 megawatts, something that produces hydrogen, sequesters carbon, gassifies coal, employs the most advanced sophisticated technology to get rid of mercury and SO<sub>2</sub> and NO<sub>x</sub>. This is the future for the coal industry.

And I think there is a judgment that whereas coal has significant environmental challenges that an R&D budget can really help, when it comes to oil and gas, it is not clear to us, in a way that it would be with the Department of the Interior where they can actually produce oil and gas, what we can do beyond the kind of basic R&D, the applied R&D to actually help with oil and gas development. So we are trying to do that. We feel like the budget is a fair way of balancing that.

Senator THOMAS. I am glad the Rocky Mountain Oil Testing Center, which last year you did not fund in your budget but did finally—and that is there. They are doing sequestration. They are doing other kinds of things.

Mr. MCCLARROW. They are doing enhanced oil injection with the CO<sub>2</sub>, and it is a good project and they are doing a good job.

Senator THOMAS. Well, that is good.

The cooperative research and development is a joint project with WRI in Wyoming and North Dakota. That was reduced substantially, more than in half. Are you familiar with that program?

Mr. McSLARROW. My recollection—and I may be wrong, and I probably should just not say anything, but my recollection was it was an earmark.

Senator THOMAS. Say something nice, if you can.

[Laughter.]

Mr. McSLARROW. I think I will just say nothing and get you an answer for the record, thinking nice thoughts.

Senator THOMAS. Well, that will be fine. In any event, we do need to work on this.

[The information follows:]

The University of North Dakota Energy and Environmental Research Center (UNDEERC) has contributed greatly to the Department's coal program:

- In addition to the cooperative R&D program in Fossil Energy (\$1.5 million requested in FY 2005) UNDEERC has competed for and won contracts in other areas of Fossil Energy.
- It has played an integral role in the development of the “advanced transport gasifier.” This gasifier has potential for being lower in cost, higher in efficiency, and more readily adaptable to a wide range of feedstocks than today's commercial technologies. UNDEERC has evaluated the performance of the transport gasifier over a wide range of coals (bituminous, sub-bituminous, and lignite) and process conditions. These data are providing critical guidance for the operation of the larger-scale transport gasifier at DOE's Power Systems Development Facility in Wilsonville, AL.
- UNDEERC also supported the U.S./Australia Climate Action Partnership by evaluating the performance of two Australian lignites in the transport gasifier.
- To further demonstrate the flexibility of the gasifier, tests are being conducted to assess the co-feeding of coal with biomass as a potential way to reduce CO<sub>2</sub> emissions from power generation. In addition, technologies for the measurement and capture of mercury in the product gas from the gasifier are being developed for operation at moderate process temperatures (300-700 F) commensurate with the operation of the transport gasifier and some commercial gasifiers as well.
- The accomplishments from UNDEERC have, and will continue to have, significant impact on the development of advanced gasification technology that could potentially be the cornerstone of the FutureGen project.

The Western Research Institute (WRI) in Laramie, Wyoming has also contributed greatly to the Department's programs. As shown by the areas of expertise listed below, WRI has been working with the private sector to develop technologies that will lead to power systems capable of sequestering carbon, as envisioned by the FutureGen project.

WRI has capabilities to test hydrogen separation membranes and other components, and it has significant experience with catalysis, petroleum product refining, CO<sub>2</sub> sequestration and other environmental issues associated with advanced power generation. WRI engages in important research, development, demonstration and commercialization of technologies related to energy, environment, and transportation materials:

You talked about FutureGen. Do you have any idea what the timing is on that and where it will be? We are, of course, very hopeful that it could be in Wyoming where the greatest supply of future coal might be.

Mr. McSLARROW. A site has not been selected for FutureGen. The process we are going through now is essentially soliciting ideas from what I would expect to be consortia of really different players who all have an interest in coal, electricity, and hydrogen as to how they might go about doing the project themselves. So to some extent, we have outlined a vision, but we are going to be looking for information from industry to help us define that mission.

I think we are talking really 10 to 15 years to see this project through full fruition, although the kinds of work that we are going to be doing, the kind of R&D is stuff that can spin off all along the way. So it is not just something that pops out at the end of that

process. It is a way of really supporting the kind of R&D that we are doing today.

Senator THOMAS. One of the real challenges, of course, is, as I said, our greatest supply of fossil fuel is coal and yet we have not had a coal plant for electricity developed in the last 10 years. So we need to do some things and transmission to the market, of course, has to be a very real part of that. And I know, Kyle, that you understand that.

Senator Alexander.

Senator ALEXANDER. Thank you, Mr. Chairman.

Mr. Deputy Secretary, thank you for coming again.

I am a big fan of the Secretary's 20-year facility plan. I think creating a path to the future for investment in science and technology is step number one, and I am glad that you have done that. It is ambitious. It is in line with our Nation's needs, and it reminds us that a lot of our ability to create new jobs and compete in the world marketplace depends upon these investments.

I would like to focus on one of the priorities in that plan. I believe the number two priority in the 20-year plan was supercomputing. Congress last year appropriated an additional \$30 million above the President's request to start the development of a leadership class computational facility. It would just start it, but it is consistent with the recommendations made by the High End Computing Revitalization Task Force. That is money you have got.

My first comment about it is that I want to encourage you in your decision-making to spend all of it that you can in a single direction rather than spread it out over a lot of different places. Japan is the leader in supercomputing. This is money that will be competed among the laboratories. All the different laboratories, as I understand it, could be involved. But what specifically I would like to see is that of the \$30 million, at least \$25 million of it be competed so that we can take a first step toward leading the world in supercomputing.

My second comment on the same line would be, do you have any plans in terms of additional appropriations in support of that priority in your 20-year plan?

Mr. MCSLARROW. Based on what I just heard, I think we are completely in agreement here. Out of that \$30 million that we got for this year, about \$5 million, as I understand, is going to Berkeley.

Senator ALEXANDER. That is the way I understand it.

Mr. MCSLARROW. I think \$5 million is going to actually buy a couple more cabinets for the Cray facility at Oak Ridge, both of which are designed to support the work we do in the leadership class computational facility, which I guess is another way of just saying the best in the world.

Senator ALEXANDER. Right.

Mr. MCSLARROW. \$20 million is going to go out to be competed, and my understanding is it will not be spread out. It is to be competed for one leadership class facility and our budget for 2005 includes I think about \$38 million to continue that drive toward such a leadership class facility.

Senator ALEXANDER. I think the difference between what I was thinking and what you said may be \$5 million. What I am encour-

aging—and I would just ask you to review this when you go back—is it may be possible for you to compete as much as \$25 million instead of \$20 million out of your existing funds, and if you do, we may get even more bang for the bucks that you have got. So I would ask that you take a look at that.

Mr. MCSLARROW. I will have a look at it.

Senator ALEXANDER. The second issue is infrastructure for the labs. There are 10 labs. The way we read the budget, the amount of money for infrastructure is \$29 million. That is not very much money to spread over 10 labs. Last year it was \$54 million. Would you have any comment on that?

Mr. MCSLARROW. I do. Actually, if I might, let me just make a larger point about the science budget. There have been several times statements that we are cutting this budget, and I think we just need to understand something.

In 2004, we had \$140 million of earmarks. I have been on the other side working for Senators. I understand how this goes. But this was a significant number of earmarks. In addition, from 2004 to 2005, we have about \$75 million of a decrease that was planned. It is just construction activities like the Spallation Neutron Source. They are declining.

So the truth is while it is not a huge boost, in terms of spending on programs in the science budget, the budget is going up. I might add that the good news for this program is in 2000, the budget for science was about \$2.8 billion, and we have been \$600 million above that last year and in the request for next year. So I know you and the Secretary absolutely share this vision of what science can do. I would just say that it is easy to read the tables, but there is actually more to the story than meets the eye.

On the laboratories infrastructure, two points. First, I have personally been a bear on deferred maintenance of our facilities, both on the defense side and on the energy side. You do not necessarily see it in this line item, but I think Dr. Orbach and Under Secretary Card are doing a fantastic job of rebuilding the infrastructure for these labs.

On the specific line item that you are talking about, I would just note a couple things. It said that it was about a \$25 million decrease to \$29 million, which is what you mentioned. But this year in 2004, about \$10 million was given to the labs to work on NRC and OSHA compliance. Well, they spent the money. It was a one-time tranche of money, so we have not requested that again.

In addition, we decided, in 2003, that work that was supposed to be done for infrastructure at the Pacific Northwest lab would not be done because we were actually going to dismantle those facilities. We spent that money instead on work at Brookhaven and at Thomas Jefferson Accelerator Facility, and so we do not have to request that in 2005. The net result of that is that there is a very slight decrease in that line item. But again, as I point out, the larger issue is really deferred maintenance, and that is not all captured by that one line item.

Senator ALEXANDER. Thank you for the explanation, and I encourage you to continue to be a bear on the deferred maintenance. It never makes headlines except when it is deferred too long and then it is hard to catch up.

Thank you very much for your testimony.

Senator THOMAS. Senator Murkowski.

Senator MURKOWSKI. Thank you, Mr. Chairman.

I appreciate your comments on the supply issue as it relates to natural gas in response to Senator Campbell. I think we all recognize that we do need to look to the diversification of sources, and we would like to certainly do all we can domestically to ensure for that energy security. We have had some good news in Alaska in the past month with some applications, as they relate to our natural gas pipeline. We are looking forward to the administration's support to make this pipeline a reality in the very near future. We recognize it takes a while to build it, but we need to get the gas here as soon as possible.

I also want to make a side note with regard to LNG, that we are also looking at that as an option to bring LNG down through the State, put it in tankers and bring it across to the west coast to provide for Americans on that side. So we have got a lot going on.

I mentioned in my opening remarks my concern that the budget does not reflect any funding for the Arctic Energy Office. This is a program that is administered through the University of Alaska with a mission to conduct Arctic energy research in the categories of fossil energy and remote electrical power and generation.

They have been doing some great work. We have got some projects going on right now. The Tundra Travel Model project is really helping to expand the number of days that we can actually be involved in drilling on the North Slope using this technology.

Another project that they are working on is the amount of free water which can safely be removed from the tundra ponds for ice road and ice pad construction so that again we can truly do the work that we need to do up there without harming the environment. They are great projects and they certainly address the ability to work up there on the North Slope. These are projects that are vital to continue if we want to continue exploration and drilling up there.

We have also got a membrane separation technology for possible use in the gas handling plant. These are great things going on. So to see the funding pulled out from underneath them causes a little degree of anxiety.

You had indicated earlier that you want to certainly encourage R&D in the production and development end of things, and I would like to know if we will be getting any support for the Arctic Energy Office there in UAF.

Mr. MCSLAWROW. Well, today, Senator, I am probably not going to be able to answer fully your question about the office specifically. My understanding is we are planning on doing R&D in Alaska, and I think what we owe you is an explanation as to how that relates to the decision in the budget to zero out that line item. But I am not able to go beyond that point right now.

But I certainly appreciate your leadership on all these issues. You and I have discussed obviously the Alaska pipeline many times, and I would be glad to commit to working with you to explore what plans we have for those kinds of activities in the State.

Senator MURKOWSKI. Good. Maybe what we can do is set up a separate meeting. But in the meantime, I have got some additional

questions that I will forward to you as they relate to rural power generation in Alaska.

I want to ask real briefly about the Energy Employees Occupational Illness Compensation program. We had a little bit of an exchange earlier. The area that causes me some particular concern is the willing payor issue, and it was asked why we bring people down this path of believing that there will be some compensation at the end and then, in fact, there is no willing payor in the Amchitka situation. A little bit of truth in advertising along the way here.

Senator Grassley and I submitted a series of inquiries to the Department on implementation of subpart D in December. I guess it was December 22. I understand we are still waiting for those responses.

But again, understanding what the Department intends to do with the willing payor issue—you indicated that you had some ideas out there. Can you elaborate at all on the direction that you might be taking?

Mr. MCSLARROW. Yes. Let me try to be a little clearer on willing payor. I described really three problems.

One we own. How do we process these things faster? We think we have got a plan to do that now with the funding.

The second is the physicians panel. That would be a mixture of legislative changes and our own administrative changes.

The third issue is the willing payor. I am not certain that there's anything we can do about it, and it goes back to this conversation I was having with Senator Bingaman. Congress had a lively debate. On one side there were people who just wanted this to be a direct benefits program modeled after the Federal program. Others did not want to have the Government on the hook for a liability at all. And they met somewhere in the middle with something that relied on the State workers compensation program. As I say, by definition, just the statute that was passed, it was a willing payor problem in that sense, but that was the choice that Congress made.

What Secretary Abraham did was at least make it more likely that people could get to the compensation board, as I said earlier, by putting in the rule that we will issue do not contest orders, by saying we will reimburse it, which makes it more likely you will not have a willing payor problem, and we are certainly willing to look at whether or not there are other things administratively that would help that. But at the end of the day, my conclusion, after having now reviewed this record, is that there was a fundamental choice made and it is not one administratively that we are going to be able to solve by ourselves.

Senator MURKOWSKI. I guess I would just throw out that if we are not able to solve that, then the Mrs. Carlsons of the world that are going through this system with an expectation at the end need to be brought in early on that there is an issue. You may go through this process and there may be nothing for you at the end. In fairness to the victims and the victims' families, I think we need to give them that heads-up on the issue.

Mr. MCSLARROW. I agree.

Senator MURKOWSKI. Thank you, Mr. Chairman.

Senator THOMAS. Thank you.



Thank you, Mr. Secretary. You and Secretary Abraham are doing a great job in a tough area, and we will be working on this with you as time goes by because this is one of the most important issues, of course, for Americans and for our jobs.

The record will be open for questions until the close of business tomorrow.

We are adjourned. Thank you.

[Whereupon, at 11:36 a.m., the hearing was adjourned.]



APPENDIX  
RESPONSES TO ADDITIONAL QUESTIONS

DEPARTMENT OF ENERGY,  
CONGRESSIONAL AND INTERGOVERNMENTAL AFFAIRS,  
*Washington, DC, April 30, 2004.*

Hon. PETE V. DOMENICI,  
*Chairman, Committee on Energy and Natural Resources, U.S. Senate, Washington,  
DC.*

DEAR CHAIRMAN DOMENICI: On April 5, 2004, we sent you the edited transcript of the February 10, 2004, testimony given by Kyle E. McSlarrow, Deputy Secretary, regarding the President's FY 2005 budget request for programs of the Department of Energy.

Enclosed are five inserts requested by Senators Dorgan, Smith, Akaka and Thomas for the hearing record.

Enclosed also are the answers to 55 questions that were submitted by you and Senators Craig, Alexander, Murkowski, Bunning, Bingaman, Akaka, and Feinstein. The remaining answer to Part I of question 24 is being prepared, and will be forwarded to you as soon as possible.

If we can be of further assistance, please have your staff contact our Congressional Hearing Coordinator, Lillian Owen, at (202) 586-2031.

Sincerely,

RICK A. DEARBORN,  
*Assistant Secretary.*

[Enclosures]

RESPONSES TO QUESTIONS FROM SENATOR DOMENICI

*Question 1.* What are the consequences on commercial development and global competition if the budget request for High Temperature Superconductivity projects is not met?

Answer. Without an adequate budget, we risk losing the world leadership role that we hold today in High Temperature Superconductivity (HTS). International HTS competition is significant because the stakes are high. Investment in HTS can result in growth in U.S. manufacturing of the next generation of transmission cables, transformers, generators, motors and other equipment—and can provide an important new capability to increase the efficiency, capacity and reliability of our electric system.

*Question 2.* This Committee will set a hearing on the date of March 11 in order to hear the outcome of the Blackout Report. Do you agree that DOE should testify before the Senate Energy Committee when the Final Blackout Report is released on March 11?

Answer. On February 24, 2004, DOE testified before the Senate Energy and Natural Resources Committee concerning the reliability of the grid, including discussion of the August 14, 2003, blackout. Once the final Blackout Report is released, which we hope will occur in late March, DOE will work with the Committee if a new hearing is scheduled.

YUCCA MOUNTAIN PROJECT

*Question 3.* The budget request for Yucca Mountain increased from \$577 million in FY'04 to \$880 million in FY'05. In addition, the President proposed a new manner for financing this project by reclassifying \$749 million of the mandatory fees paid by utilities for waste disposal as discretionary funds.

Legislative change to enact this proposed change. The request assumes that Congress will, in fact, move to enact their request.

Please explain why the Department has decided on this course of action, why the revenue from this change is assumed up front, and what the practical implications will be if Congress does or does not enact this change. In this latter case, if the change is not enacted, how does the Department plan to make up for the lost revenue?

Answer. Starting in FY 2005, the project will require a substantial increase in funding as it moves forward on an extremely tight schedule for licensing, designing and constructing a repository, and providing the needed transportation infrastructure. Historical funding patterns fall far short of the increased funding the Program will need. We have reached the point where action is must be taken now to provide the necessary resources.

The Administration's proposal would allow the revenues from the nuclear utility fees to be used in the way that was intended when the Nuclear Waste Policy Act was passed: to develop a repository for disposal of high-level radioactive waste and spent nuclear fuel. Specifically, under the Administration's proposal, the amount of receipts from annual fees would be credited as offsetting collections in an amount equal to the appropriation for the Yucca Mountain repository. The amount credited as offsetting collections would still be subject to approval in an appropriations act, but could be appropriated without reducing the discretionary funding that would be available for other Federal programs. Reclassifying the fees will ensure that money collected to pay for Yucca Mountain is spent on Yucca Mountain. If the President's Budget had simply included additional money for Yucca Mountain, it could not have been assured that the dollars would have been spent on Yucca Mountain and not used for some other purpose, as they have been in past years.

By using the fees that electricity consumers pay into the Nuclear Waste Fund to offset appropriations, the proposed legislation would both assure consumers that their fees are being used for their intended purpose and enable Congress to meet the challenge of financing the repository's construction. This is a technical change that reasserts a key principle established in the Nuclear Waste Policy Act, a principle with longstanding bipartisan support—that those who receive the benefit of nuclear-generated electricity pay for waste disposal. The federal government, in exchange for fee payments, will implement a permanent solution for management of the waste. The federal government is contractually required to perform the service for which the disposal fees are paid.

If sufficient appropriations from the Nuclear Waste Fund are not available, the Nation will not have an operational repository in 2010. Delays could mean additional costs of nearly a billion dollars per year for commercial utilities and federal defense nuclear waste sites to continue to provide temporary storage. The country will be forced to spend billions of dollars, without solving the problem. Nuclear waste will remain at sites near communities and water supplies throughout the country, and we will not have finished the job of cleaning up the Cold War legacy at defense sites.

The Administration has proposed what we believe is a workable solution to the problem. We recognize there may be other workable solutions, and are open to working with the Congress on other solutions it may wish to propose.

#### PORTSMOUTH FACILITY

Congress has been funding two de-conversion facilities to treat the tails from uranium enrichment which now reside at Portsmouth, Ohio; Paducah, Kentucky; and other locations. With Federal funding, these would of course be national facilities, available to treat tails as needed to address national issues.

Before we proceed with further funding of the Ohio facility, I need the Department to clarify recent suggestions by Governor Taft of Ohio that the Portsmouth facility might be unable to accept tails from outside this state.

*Question 4.* Will the Department please verify with Governor Taft that he understands that the Ohio de-conversion facility, if built with Federal funds, will be available to treat tails originating anywhere in the nation?

Answer. The mission of the two conversion facilities that the Department is designing, one in Ohio and one in Kentucky, is to provide for the conversion of the legacy from the Department's enrichment program of approximately 700,000 metric tons of DOE depleted uranium hexafluoride (DUF<sub>6</sub>) to a more stable chemical form suitable for beneficial use or disposal, as appropriate.

The Governor of Ohio's Office has been informed that these Federal conversion plants may be used by the Department to convert its DUF<sub>6</sub> currently stored at other DOE sites. No decision has been made by the Department whether these facilities will, at some point in the future, be made available for the disposition of commercially generated DUF<sub>6</sub>. However, in the event a decision is made to make these fa-

cilities available to the commercial industry, the Department believes that all domestic commercial uranium enrichment plant operators should have equal access without regard to the state in which they reside.

#### FUTURE EM PROGRAM AND PERFORMANCE

The EM program has seen many changes lately. Just to name a few, the Department has re-organized the EM management, created a new Office of Legacy Management, created a new Office of Future Liabilities, and shifted responsibility for several programs between Offices. I'd appreciate your discussion of the overall vision guiding these changes.

*Question 5.* What do you foresee for the Department's future EM program and performance?

Answer. The changes we have made over the last several years have been designed to focus EM on its original core mission—the cleanup of the environmental legacy that resulted from several decades of nuclear weapons production and research. As such, programs and activities that are not part of this core mission have been transferred to other programs where we believe they can be performed more effectively. For example, long-term stewardship of sites where cleanup has been completed involves different issues and requires different skills and management strategies compared to active cleanup work. For this reason, the Office of Legacy Management was created to focus on long-term stewardship. We also believe that for effective management efficiency and control it is important that EM be focused on a defined, finite work scope. However, the Department also recognizes that there may be environmental liabilities beyond those identified in the EM work scope. The Office of Future Liabilities will plan for how the Department should handle environmental liabilities beyond those identified in the EM work scope. In addition, responsibility for on-going waste management activities is being transferred to the generator programs. DOE is doing so to promote incentives for cost efficiency and waste minimization by the waste generators.

Having streamlined and focused EM on its core mission, we are making great progress toward our cleanup goals and are confident that EM is well poised to complete its cleanup mission by 2035 at the latest. I believe, however, that we will be able to accelerate the completion date of the EM program even more.

*Question 6.* I need help understanding the Administration's rationale for cuts in Nuclear Energy R&D Programs.

Strong statements by the Administration, including support in the National Energy Policy, recognized the vital role that nuclear energy must play in our future energy mix. Working together, we've created some strong nuclear energy programs, programs that did not exist back in 1997 when Senator Craig and I wrote to Secretary Peña expressing our concern for the Department's neglect of nuclear energy.

Despite strong statements of support for nuclear energy, the Budget proposal zeroes the Nuclear Energy Research Initiative and the Nuclear Energy Plant Optimization Program.

It cuts the Nuclear Energy Technologies Program by 48 percent from \$20 to \$10 million, and it cuts the Advanced Fuel Cycle Initiative by 31%.

In light of the Administration's stated support for nuclear energy, can you help me understand why the Administration proposed these cuts?

Answer. The President's budget request increases the funding for the Department's nuclear energy program by 1.2% to about \$410 million for FY 2005. This budget allows the Department's priority efforts in programs such as Generation IV and the Nuclear Hydrogen Initiative to proceed vigorously. The Department's request more than doubles the FY 2004 request for each of these programs.

Two of the Department's nuclear R&D programs have ended with the FY 2005 budget.

- We request no funding for the Nuclear Energy Research Initiative (NERI for FY 2005, but the activity will continue as an annual competitive research grants program for university researchers that is tied to mainline programs such as Generation IV and Nuclear Hydrogen Initiative.
- The Nuclear Energy Plant Optimization program has accomplished the most important mission it was designed for: encouraging longer-range technology development by the private sector.

We are requesting less for two other programs:

The Advanced Fuel Cycle Initiative requires less funding in FY 2005 because the Department has decided against the rapid deployment of commercial-scale UREX+ technology. Instead, we are focusing on longer-term, higher-payoff research at laboratory scale in next-generation fuel cycle technologies including advanced aqueous

and pyroprocessing spent fuel treatment, advanced transmutation and Generation IV fuels, and detailed systems analysis and modeling. Further, given the tight budget environment, we did not request funds to continue some of the useful, but still not essential programs that were contained in various earmarks in FY 2004.

- The Nuclear Power 2010 program seeks to achieve near-term deployment of new power plants in the United States through cost-shared demonstration of untested regulatory processes affecting the siting, construction and operation of new nuclear power plants, cost-shared development of advanced reactor technologies, and implementation of appropriate strategies to enhance the business case for building new nuclear power plants. In FY 2005, the budget request focuses primarily on regulatory tasks including the demonstration of the Early Site Permit (ESP) and combined Construction and Operating License (COL) processes to reduce licensing uncertainties and minimize the attendant financial risks to the licensee. The request will enable the continuation of ongoing licensing demonstration and related analysis projects. Future requirements for the program will be reviewed as Congress completes work on comprehensive energy legislation and the Department assesses the responses and requirements associated with its recent solicitation related to New Plant Licensing Demonstration Projects.

*Question 7.* I'm also concerned that several laboratories seem to be slated for sharp cuts in their contributions to nuclear energy programs. I appreciate the Department's interest in focusing Nuclear Energy research at Idaho, but I also recall many statements by the Administration in the past that the capabilities of all labs would continue to contribute.

In the proposed Budget, for example, funding for R&D funding is cut by 35 percent at Los Alamos, by 28 percent at Sandia, and by 18 percent at Oak Ridge. In contrast, Idaho's R&D funding is level. Further, Idaho is slated for a 40 percent increase in infrastructure support.

Is it still the Department's intent to assure that the critical capabilities of several laboratories continue to be part of a growing nuclear energy program?

Answer. Yes, the Department intends to do everything it can to retain the critical capabilities of all its nuclear energy laboratories in carrying out the research required to support the growth of nuclear energy in the United States. Even in the tight budget environment the Department faces next year, the nuclear energy program will receive a \$4.8 million budget increase.

*Question 8.* In Appropriations for the current year, the Department is directed to begin research, development, and design work for a project in Idaho involving an advanced reactor with hydrogen co-generation. Just two weeks ago, in a January 28, 2004, letter to Senator Craig and me, the Secretary stated that design competition for this reactor would begin this fiscal year.

Is this competition on schedule for this year and are there adequate resources requested in this budget for next year to support competitive selection and progress on a final design?

Answer. In FY 2004, the Department's Generation IV Nuclear Energy Systems Initiative continues to emphasize research and development on the Next Generation Nuclear Plant and continues collaborative research on the Lead-Cooled Fast Reactor, the Gas-Cooled Fast Reactor, and the Supercritical Water-Cooled Reactor. These systems were chosen as the best match for the future needs of the United States. Beginning in FY 200, the Department puts special emphasis on the NNGP, working towards the potential early deployment of the NNGP as a demonstration of a promising Generation IV reactor technology. The Department has not at this time made a decision to proceed with such a demonstration plant. The budget request for FY 2005 for the NNGP is \$19.3 million. Approximately \$5 million of the \$19.3 million request for FY 2005 is slated for NNGP design activities to define future research and development requirements, with the balance being applied to critical fuel and materials research.

#### LOS ALAMOS SCHOOLS

*Question 9.* Is this competition on schedule for this year and are there adequate resources requested in this budget for next year to support competitive selection and progression a final design?

Funding of \$8 million for the annual contract with the Los Alamos Schools is authorized through fiscal year 2005. In addition, the Armed Services Committee requested a report from the Department to assess paths forward for funding of these Schools. This funding has been provided for many years to assure an educational system which supports recruitment and retention of Los Alamos National Laboratory staff.

To date, no report has been provided to Congress by the Department, and the FY05 budget zeroed funding for the Los Alamos Schools.

Answer. I understand and appreciate the importance that a high quality education system provides for the recruitment and retention of quality scientists and engineers at Los Alamos National Laboratory. The Administration however doesn't feel that the President's budget for stockpile stewardship activities is the proper funding vehicle for this activity. NNSA recently submitted a report to the Congress on Los Alamos schools and funding options that could take the place of the annual authorization and appropriations approach.\* Option 1 would rely on the State of New Mexico and the citizens of Los Alamos County to ensure that adequate funding is available for the schools. Option 2 would reestablish a charitable foundation funded by annual appropriations for a limited period of time so that Los Alamos Schools would receive approximately \$8M annually from the endowment. Finally, Option 3, would allow the M&O contractor for LANL to support the school system by modifying the provisions in Appendix N of the contract. Currently under Appendix N, Los Alamos provides a few million dollars to the school systems in the vicinity of Los Alamos County.

#### OVERALL SCIENCE BUDGET

*Question 10.* Last year in this budget briefing, I expressed great concern over years of flat funding for the Office of Science. This year, I can't even make that statement, since the proposed budget reflects a 2 percent drop.

In Appropriations for this year, the Senate expressed its concern that

“Shrinking investment in physical sciences and engineering poses serious risks to DOE's ability to perform . . . It also threatens the Nation's science and technology enterprise.”

The Secretary just announced a 20 year initiative for new DOE science facilities. I'm concerned that this budget, added to the history of past years, doesn't prepare the Department for this initiative and can't adequately support the initiative.

Do you share my concern that the DOE Science budget, given its immense impact on the health of science in the nation, is not living up to our needs? When do you foresee reversal of this trend?

Answer. Compared with the FY 2004 appropriation, the request for the Office of Science reflects a decrease of \$68,451,000, or 2.0%. However, the FY 2004 appropriation contains \$140,762,000 of Congressionally-directed projects—projects which are not continued in the FY 2005 request. The request is an increase of \$72,311,000 or 2.2% over FY 2004 when these projects are excluded from the FY 2004 base. We believe this request continues to reflect the Department's strong support for the Office of Science programs given the tight fiscal environment in which the Nation currently finds itself.

#### COMMITMENT TO ITER

*Question 11.* Last year I said that the Administration was making an insignificant commitment to the ITER (International Thermonuclear Experimental Reactor) program in light of their stated intent to support at least 10 percent, or about \$500 million, of this international program.

Last year, the ITER Budget request for \$8 million forced the Office of Science to take it out of existing programs. This year, the commitment is \$38 million and again the funds are just taken from existing programs.

I have no objection to participation in ITER, but only if the Administration is serious about the commitment. I do not regard flat Science and Fusion Energy budgets as demonstrating serious commitment.

Answer. Assuming that the negotiations succeed, significant budgetary commitments for construction are not scheduled to begin until FY 2006. Until that time, the U.S. has funded, and proposes in FY 2005 to fund, ITER preparatory activities that reorient domestic fusion experimental, theoretical and enabling technology research more toward the needs of ITER. The vast majority of this research is performed by existing fusion scientists and engineers. In other words, these researchers are not doing less work, they are doing different work. Only a very small amount, on the order of \$1,000,000, of the preparatory activities is for industrial preparations at this time.

This committee recently held a hearing to understand the Department's commitment to resolution of the immense backlog of cases pending under the DOE's part of the Energy Employees Occupational Illness Compensation Program. I note that

\*The report has been retained in committee files.

your budget request includes a commitment to work through the backlog in three years.

I am concerned that workers who were injured by work in past weapons programs should be appropriately compensated. We know that the current legislation is fundamentally broken, and needs improvements.

I am working with my colleagues to decide how best to proceed with this program, which could involve another hearing or consideration of alternative legislation.

*Question 12.* When would the Department be ready to discuss alternative legislative options to improve the program?

Answer. The Secretary transmitted a legislative proposal on March 29, 2004 to eliminate the pay cap for physicians serving on EEOICPA Part D Physician Panels, expand the hiring authority of the physicians, and allow Part D applications to move forward to a Physicians Panel even if a State agreement is not yet in place. In addition, the Administration is currently working on an additional legislative proposal to clarify the definition of a DOE facility for purposes of the EEOICPA programs. The Department is available at your convenience to discuss legislation pending in Congress that affects the Part D program.

*Question 13.* Mr. Secretary, the President's budget provides \$227.8 million in total funding for the Hydrogen Fuel Initiative in four separate DOE programs including the Offices of Energy Efficiency and Renewable Energy, Science, Fossil Energy and Nuclear Energy and the Department of Transportation.

Can you explain how these funds are allocated and assure the Committee that the accounts don't duplicate work being done in any of the other DOE accounts or offices.

#### FUNDING SUMMARY

[Dollars in 000's]

Program/Activity	FY 2003 comp. approp.	FY 2004 request	FY 2004 comp. approp.	FY 2005 request
EERE Energy Supply (Hydrogen) .....	38,113	87,982	81,991	95,325
EERE Conservation (Fuel Cells) .....	53,906	77,500	65,187	77,500
Fossil Energy .....	2,280	11,555	4,889	16,000
Nuclear Energy .....	2,000	4,000	6,377	9,000
Office of Science .....	0	0	0	29,183
Department of Energy, Total	96,299	181,037	158,444	227,008
Department of Transportation .....	0	674	555	832
Hydrogen Fuel Initiative, Total .....	96,299	181,711	158,999	227,840

Answer. Please reference the above chart.

The Department has formed a cross-cutting team with representatives from each of the four DOE offices involved in the President's Hydrogen Fuel Initiative (Office of Energy Efficiency and Renewable Energy; Office of Nuclear Energy, Science and Technology; Office of Science; and Office of Fossil Energy) to ensure there is no duplication of work. This team has jointly developed a "Hydrogen Posture Plan" which integrates the hydrogen activities of the Department. This plan, developed with the Office of Management and Budget (OMB), was used in formulating the President's FY 2004 and FY 2005 budget requests.

In addition, an interagency plan was developed with the Department of Transportation, National Institute of Standards and Technology, and Environmental Protection Agency to ensure that codes and standards activities are coordinated and to avoid duplication. This plan was also developed under OMB's guidance.



## CARBON SEQUESTRATION

*Question 14.* The President's Coal Research Initiative contains funds (\$49 million) for research on carbon sequestration. Can you elaborate on the types of technologies that are to be examined? Can you also provide information on the potential cost of implementing these technologies, and their expected impact on carbon emission reductions?

Answer.

*Technologies*

The carbon sequestration program is developing cost-effective, environmentally sound technology options for coal and other carbon-based fuels that could ultimately lead to stabilization of greenhouse gas concentrations in the atmosphere. The Program is divided into several key areas: Capture; Sequestration; Measurement, Monitoring & Verification (MMV); Non-CO<sub>2</sub> Greenhouse Gas Mitigation and Regional Partnerships. For the capture area, the primary goal of this research is to develop technology options that dramatically lower the cost of eliminating CO<sub>2</sub> from flue gas and other streams by use of either pre- or post-combustion processes. This research is in its early stages and is exploring a wide range of approaches, including membranes, improved CO<sub>2</sub> sorbents, advanced combustor concepts, advanced scrubbing, formation of CO<sub>2</sub> hydrates, and economic assessments. For the sequestration area, technologies are being developed for geologic sequestration for cost optimization, monitoring, modeling, and capacity estimation. Numerous field studies are underway to determine the degree to which CO<sub>2</sub> can be injected and remain safely and permanently sequestered in geologic formations while concurrently assuring no adverse long-term ecological impacts. Terrestrial sequestration technologies are being developed to enhance uptake and storage of CO<sub>2</sub> in soils and vegetation. Field tests are underway to maximize productivity of infertile soils and change current mine reclamation perceptions and practices to make uncompacted soil and forest establishment the preferred choice for restoring mined lands. In the MMV area, fundamental and applied studies are developing instrumentation and protocols that can track the fate of sequestered CO<sub>2</sub> and provide the necessary scientific tools to ensure permanent storage. Non-CO<sub>2</sub> greenhouse gas technologies are under development that will reduce fugitive methane emissions from landfills and coal mines. Lastly, seven regional carbon sequestration partnerships have been established throughout the United States to develop the infrastructure for widespread deployment of greenhouse gas mitigation technologies should they be deemed necessary.

*Costs & Benefits*

The President's Global Climate Change Initiative (GCCCI) has the goal of significantly reducing the greenhouse gas intensity of the United States economy over the next 10 years, while sustaining the economic growth needed to finance investment in new, clean energy technologies. The GCCCI calls for increased research and development investments to provide an improved basis for sound future decisions, for increased emphasis on carbon sequestration, and for reductions in non-CO<sub>2</sub> greenhouse gas emissions such as methane. The GCCCI also calls for a progress review relative to the goals of the initiative in 2012, at which time decisions about additional implementation measures will be made. The GCCCI has defined a metric goal of an 18% reduction in greenhouse gas intensity over the next ten years. The Sequestration Program will show substantial contributions toward meeting greenhouse gas intensity reduction goals of the Global Climate Change Initiative (GCCCI) and provide a portfolio of "commercially ready" technologies to support the decision making process for future action in 2012, as mandated by GCCCI.

Developments within the Sequestration Program will be key to reducing greenhouse gas emissions. Benefits derived from the Sequestration Program assume that a sustained investment in sequestration R&D will continually drive down the cost of sequestration and create an infrastructure for wide scale deployment of greenhouse gas mitigation technologies. Technology developments are assumed to occur with adequate R&D funding such that by the 2012 timeframe, carbon sequestration technologies will be available that result in less than a 10% increase in cost of energy services for direct capture technologies and less than \$10/ton carbon sequestered for indirect capture technologies. Current capture and sequestration technology options result in at least a 30% increase for new plants and a 70% increase for retrofit plants.

A reduced emissions scenario consistent with the GCCCI and the Administration's National Climate Change Technology Initiative (NCCTI) calls for slowing of emission growth in the near term and stabilization of emissions toward mid-century, if warranted by technology developments. Using results from an FE/NETL analysis, the Sequestration Program has estimated the contribution that various options will

make toward meeting the future Greenhouse Gas (GHG) emissions reduction needs. Sequestration technologies have the potential to account for more than 30 MMTCE (Million Metric Tons of Carbon Equivalents) GHG reduction in 2012 or about a 30% direct contribution to President's GCCI goals. GHG emissions stabilization is highly unlikely without substantial contributions technologies.

*Question 15.* Energy from biomass seems to be very promising yet the President's budget reduces funding for biomass and biorefinery systems R&D by almost \$14 million.

Can you explain the Department's rationale for decreasing the budget request in this area? Similarly, the request reduces the amount for solar and wind energy research. Again, solar and wind energy technology hold great promise for the U.S., the Southwest especially, why is the Department decreasing emphasis on solar and wind energy?

#### FUNDING SCHEDULE

(Dollars in 000's)

Program/activity	FY 2004 request	FY 2004 comp. approp.	FY 2005 request
Biomass .....	69,750	86,471	72,596
Solar Energy .....	79,693	83,393	80,333
Wind Energy .....	41,600	41,310	41,600

Answer. First and foremost, our funding request level is guided by factors such as program performance, alignment with the Administration's R&D investment criteria (including potential benefits), resources needed to meet program goals, relative priority, and other factors. While a useful input, last year's funding level is not determinative. Nevertheless, the table above provides a good perspective on funding levels. Funding for the Wind Energy Technology Program is not decreasing; the FY 2005 request is higher than the FY 2004 appropriation and the same as the Department's FY 2004 request level.

In the Solar Energy Technology Program, the decrease from the FY 2004 appropriation is due to our request for Concentrating Solar Power (CSP), a non-photovoltaic technology that "concentrates" solar rays to heat fluid for steam production and power generation. Last year we requested zero funding for CSP, and this year we are requesting \$2 million to maintain facilities and undertake a more thorough investigation of the proper course for our R&D.

The reduction in the Biomass Program reflects the lack of requested funding in FY 2005 for congressionally-directed activities that were included within the FY 2004 appropriation. In fact, when compared to the unencumbered FY 2004 enacted figure, our FY 2005 request provides a significant increase for biomass activities. The termination of Congressional earmarks will not affect our R&D plan or the ability to achieve our R&D goals.

*Question 16.* The President's funding request for Industrial Technologies is decreased by \$35 million. The *Budget Highlights* states that "New projects will be selected that are unlikely to be undertaken without federal support that significantly reduce energy intensity and that are in alignment with the Administration's R&D investment criteria."

Would you please provide the Committee with some examples of the projects that The Department believes will be funded?

Answer. In FY 2005, the Department will focus on high-impact R&D *Grand Challenges* for next generation manufacturing and energy systems technologies that are in line with the Administration's R&D investment criteria. These *Grand Challenges* typically require high-risk investment for high-return gains to achieve much greater energy efficiencies than current processes. *Grand Challenges* examples include:

- cokeless ironmaking (steel industry);
- an alternative reduction technology to produce aluminum with less energy and emissions (aluminum industry);
- advanced melting technology (glass and metal casting industry); and
- distillation technologies (chemical industry).

*Question 17.* The President's budget assumes that the Southeastern Power Administration ("SEPA"), the Southwestern Power Administration ("SWPA"), and the Western Area Power Administration ("WAPA") will complete the phase out of fed-

eral power receipt financing of purchase power and wheeling activities that began in FY 2001.

However, every year since FY 2001, the Appropriations Committee has adjusted the funding to ensure that the PMAs' purchase power and wheeling activities are appropriately funded.

*Question 17-1.* Isn't it true that this funding is budget neutral from a scoring perspective, which is simply a reflection of the reality that the amounts appropriated in the budget are returned to the Treasury in the same year?

Answer. Yes, when looking at the total Federal budget (both discretionary and mandatory), PMA purchase power and wheeling activities are budget neutral. This is because the funds appropriated to the PMAs for purchase power and wheeling will generally be recovered through power rates and resulting revenues deposited into the U.S. Treasury in the same year.

*Question 17-2.* Has anyone within the Administration studied the impact of completely eliminating purchased power and wheeling funds for the PMAs and whether such a decision would reduce revenues for the Treasury?

Answer. I am not aware of any formal study undertaken by the Administration. However, the General Accounting Office conducted a study in 1990 to review the level of market activity for purchase power and wheeling services occurring across the east coast. The findings indicated the purchase and wheeling products were available in some locations, they were reliable and satisfactorily marketed. Today, the PMAs purchase power and energy to meet their contractual obligations to their customers. Some customers are able to contract for these services on their own if they choose to, or rely on the PMAs to provide these services for them. Customers currently reimburse the PMAs for these services. Eliminating Federal appropriations (costs for purchase power and wheeling activities) correspondingly reduces receipts to the U.S. Treasury by the same amount. However, if purchase power and wheeling activities are funded through the use of receipts, eliminating such funding would have no impact on Treasury receipts.

*Question 17-3.* If funding is not provided this year, how will the PMAs meet their purchase power and wheeling activities—particularly SEPA which has no transmission capability?

Answer. The PMAs are authorized to market excess power made available at Corps and Bureau of Reclamation projects not required for project use. Since their inception, the three PMAs—the Southeastern Power Administration, Southwestern Power Administration and Western Area Power Administration—have purchased power to even out (“firm up”) the PMAs' fluctuating hydropower resource, or to provide power for Federal pump-storage generating units. The latter is used by some of the PMAs to pump water at off-peak times which enables them to generate more power during peak-use times. In addition, the PMAs buy transmission services (wheeling) from other utilities in order to integrate the hydro resources to make them more dependable and to move Federal power and purchased power to PMA customer loads not serviced by Federally owned transmission lines.

The PMAs have determined to market a certain number of megawatt-hours of energy each year and guarantee such delivery by contract. Given variable reservoir and river conditions, the PMAs may need to purchase power to “blend” with the Federally-produced hydropower. This results in more firm energy that is available to meet contract commitments than might otherwise be available.

The PMAs have historically financed purchase power and wheeling services through a combination of appropriations and “alternative” financing, such as net billing, bill crediting and customer reimbursements (advances). PPW expenses are included in the rates the PMAs charge for their power, and there is no net cost to the Federal Government.

The termination of Federal funding for PPW by the PMAs will not harm the PMAs' ability to meet their power delivery contracts with customers. The PMAs have authority to use alternative financing mechanisms to make power and transmission purchases. Bill crediting and cash advances, although not standard electric industry financing methods, provide a backup funding source for the PMAs to continue PPW activities. In addition, the PMAs each have access to “Continuing Funds” in the U.S. Treasury to purchase power under certain conditions. The PMAs would, if necessary, use these other authorities to meet their contractual commitments for power delivery.

*Question 17-4.* Without sufficient funding for purchase power and wheeling activities, will the power rates of the PMAs' customers significantly increase?

Answer. If the PMA customers agree to use alternative financing methods, and if sufficient net billing, bill crediting and reimbursable authority is provided to the PMAs to support their purchase power and wheeling programs to meet their contractual requirements, there would be no impact on PMA or customer power rates.

The PMAs are authorized to market power made available at Corps and Bureau of Reclamation projects not required for project use. The PMAs have determined to market a certain number of megawatt-hours of energy each year and guarantee such delivery by contract. Given variable reservoir and river conditions, the PMAs may need to purchase power to meet their contractual commitments to customers. If sufficient funding for purchase power and wheeling was not available, the PMAs would rely on the alternative funding mechanisms noted above and customer lines credit or advances to purchase power to address variable reservoir and river conditions, to produce a more reliable product and to assure the repayment of the Federal investment.

Smaller customers of the PMAs may need to increase their power rates due to higher transaction costs incurred to obtain the same level and quality of service currently received from their PMA, but this may be partially offset by a reduction in PMA rates reflecting a decrease in purchase power costs incurred by the PMAs. For example, a small municipal electric department might need to add staff and incur other transaction costs to make purchase power and wheeling arrangements previously performed by the PMA. Other added costs may be incurred with the unbundling of ancillary service charges. If small customers are able to form associations (such as joint action agencies) to take over the PMAs' function, they could potentially continue to benefit from economies of scale, with little or no impact on their rates. It is also possible PMA customers will begin buying power for themselves and therefore will not need to rely on the PMAs for that service.

*Question 17-5.* The President's budget proposal notes that PMAs may use alternative financing mechanisms, such as net billing, bill crediting, and reimbursable authority to assist customers. Please explain these alternatives and whether or not such alternatives would provide a sufficient safeguard for PMA customers.

Answer. In addition to customers entering the market to buy power on their own, the PMAs make use of several methods of alternative non-appropriated financing in order to fund purchase power and wheeling program requirements necessary to meet the terms of their existing long-term power marketing contracts. These methods include non-Federal customer advances, Federal reimbursable financing, net billing, and bill crediting.

Non-Federal customer advances provide cash to the PMA for financing purchase power and wheeling requirements. Western's authority is derived from the Interior Department Appropriations Act of 1928, and Southwestern's authority is derived from the Energy and Water Development Appropriations Act, 2004. Southeastern does not have permanent authority to use customer advances for its programs; however, the FY 2005 budget includes language authorizing the use of \$32.7 million in customer advances for purchase power and wheeling expenditures. This provides for meeting individualized needs of specific customers; however, it does not necessarily provide for the most efficient aggregation of customer resources needed to ensure overall low-cost operations. Further, receiving advance funding from some customers is not a standard business practice and may be a heavy burden for some customers.

Federal reimbursable authority, provided in the Economy Act, allows the PMAs to perform firming and transmission services for other Federal agencies using the other agencies' appropriations or funding sources.

Net billing is a funding mechanism that can be used when a customer both buys and sells power to a PMA in the same billing period. In instances when the PMA owes the customer less than the customer owes the PMA, the PMA issues a bill to the customer that nets the two amounts against each other. In effect, the customer's funds are used to pay for the amount the PMA owes the customer. The use of this funding mechanism is constrained by receipts available within the particular billing period and the ability of customers to provide the needed resource. The use of this method does not provide for high level aggregation of requirements.

Bill crediting is a funding mechanism where one or more PMA customers sends its payment to a PMA supplier who has agreed to credit the PMA for the payment as if the funds had come directly from the PMA. The PMA credits the customer's bill as if the payment had been made directly to the PMA. This non-standard business method is constrained by revenues available within the particular billing period. It also requires the participation of suppliers who must perform special handling to ensure payments are recorded properly. This approach has not been favored by PMA customers and suppliers. In today's ever changing electrical utility industry, which exposes such purchases to modifications, such as transmission curtailments, differences between what the PMA needs (which can change on a moment's notice due to daily changes in the availability of Federal hydroelectric resources to accommodate competing uses) and what the customer purchases can cause conflict and potential litigation between the customer and the PMA.

It is the Administration's intent to encourage the three PMAs' customers to shop for their own power and transmission services. Industry restructuring and resulting competition now make it attractive for many PMA customers to enter the marketplace. For customers that are unable or unwilling to conduct these activities on their own, the alternative financing mechanisms previously discussed, subject to adequate apportionment, provide safeguards to ensure continued power delivery.

*Question 18.* The President's budget again proposes to directly fund the Army Corps of Engineers' hydropower operations and maintenance activities using federal power receipts for SEPA, SWPA, and WAPA.

Last year, the Energy and Water [Development] Appropriations Subcommittee attempted to carry this proposal. However, the Subcommittee was prevented from enacting the proposal because the CBO score for such [a] change—about \$1.3 billion—was cost prohibitive. We tried again on the Energy bill but the scoring problems persisted.

*Question 18-1.* If the Administration wants to provide funding for the Corps by allowing the use of PMA receipts, isn't the Administration sending mixed signals to Congress by simultaneously eliminating purchased power and wheeling funds for the PMAs?

*Answer.* The operation and maintenance of Army Corps of Engineer hydro power plants is clearly a Federal function, and should be funded in a timely manner that minimizes unscheduled "downtime" and results in greater power production and reliability. We believe the best way to ensure steady funding for this activity is by using receipts from the sale of power to directly fund the power plants' O&M. A similar arrangement has worked well for Corps plants whose power is marketed by the Bonneville Power Administration.

In contrast, given variable reservoir and river conditions, the PMAs purchase power to "blend" with the Federally-produced hydropower. This results in more firm energy that is available to meet contract commitments than might otherwise be available. The purchase power and wheeling activities of the PMAs are a standard function of an electric utility with hydro generation. The PMAs purchase power to "firm up" Federal hydropower and market a certain number of hours of peaking energy each year and guarantee such delivery by contract. In this era of emerging competition in the electric power industry, it is the Administration's belief that it is possible for the customers of the three PMAs to arrange for their own power purchases and wheeling arrangements without using Federal funds.

*Question 18-2.* Is CBO scoring this proposal accurately?

*Answer.* We have not seen a formal report from CBO on the scoring of this proposal. Since the Office of Management and Budget, working with CBO, has reclassified the receipts associated with Corps hydropower O&M from mandatory to discretionary, we believe that enactment of this proposal will be neutral from a budget scoring perspective.

*Question 18-3.* What steps will the Administration take to ensure that the power customers can provide some input and that the Corps will not reprogram the funds provided under this proposed change in law?

*Answer.* The customers, Corps and PMAs have formed stakeholder groups to develop a memorandum of agreement (MOA) that clearly defines the operation and maintenance activities to be completed under direct funding authority. The MOA will establish a framework to govern the respective responsibilities of the parties regarding funding maintenance, rehabilitation, or modernization activities on a system-by-system basis.

*Question 19.* The Renewable Energy Production Incentive (REPI) was created in the Energy Policy Act of 1992 to help communities served by municipal electric utilities and rural electric cooperatives (combined representing 25 percent of the industry) invest in renewable energy projects.

The Administration's budget includes recommendations to extend and expand the availability of tax incentives for wind, biomass and landfill gas facilities. REPI represents the recognition that these not-for-profit electric utilities cannot utilize such tax credits for renewable energy that are made available to private utilities and developers.

If the goal is to increase the use of renewable energy in this country, then not-for-profit electric utilities need the same type of federal incentives that Congress typically provides to for-profit utilities. What is the current backlog of projects awaiting funding through the Renewable Energy Production Incentive (REPI) program?

*Answer.* The backlog of unpaid awards from the Renewable Energy Production Incentive program is \$55.7 million. A two-tier system was established to allocate available funds in years when the demand for payments exceeded funding. To date, REPI incentive payments for Tier 1-based technologies have been fully paid. These are

technologies that have comparable tax credits, such as wind and solar. The backlog in payments consists solely of Tier 2-based technologies (open loop biomass, landfill gas) that would not qualify for a tax credit if privately owned.

NONPROLIFERATION AND NATIONAL SECURITY INSTITUTE (NNSI)

The Budget request for the NNSI located in Albuquerque was reduced from \$12 million to \$8 million—a 32 percent cut. Recently, nearly 40 individuals who worked at this security training facility were laid off and there was only a small decrease in funding from FY 03 to FY 04.

The budget justification states that this facility “is a DOE leader in the development of standardized state-of-the-art security training.” The facility also provides training assistance to the Department of Homeland Security and the Department of State for our embassies.

This facility is an important element in protecting nuclear material as well as U.S. personnel around the world.

*Question 20.* What will be the impact of this budget reduction on staffing as a result of this 32 percent cut and can you ensure that this budget will provide sufficient funding to maintain the current level of security and training?

*Answer.* We expect no additional impact to staffing over and above the recent lay-off of contractor employees, which was the result of a contractor management decision to resolve overspending issues. In FY 2005, we will restructure the Department’s security training program to provide needed capacity for essential security courses. We will continue to conduct basic security police officer training courses at NNSI on a demand basis, as sites also adapt and transfer portions of training to meet their site-unique requirements on premises. In FY 2005, the NNSI will curtail its distance learning program using traditional learning methods in lieu of live interactive broadcasts. We will consolidate other courses in safeguards, information management systems, materials accountability, and security management for greater efficiency. An overall strategy will be introduced at NNSI whereby core capabilities are maintained as more courses are offered to Department offices on a reimbursable basis.

*Question 21.* The budget proposes the creation of a new office to [b]e called the Office of Future Liabilities and have the responsibility to manage cleanup not assigned to the Office of Environmental Management. I am not clear as to why we are creating another office charged with cleaning up DOE sites. It is my understanding that [the] cleanup cost for the new office could amount to \$15 to \$20 billion, which of course will require a substantial staff and budget to manage these efforts.

Why is the Department asking Congress to create and fund another office within the Department to address DOE cleanup? What is the estimated lifespan of this new office and what do you believe will be the total estimated cost to address the cleanup needs assigned to this new office?

*Answer.* The main focus of the Office of Environmental Management (EM) is the legacy cleanup at DOE sites where the primary mission has been completed and the site is being closed. With the support of Congress, the Department has successfully implemented an accelerated cleanup strategy at these sites. The accelerated cleanup strategy is delivering near-term and measurable results to accelerate cleanup, reduce risk, and complete cleanup at EM sites.

However, there are long-term cleanup activities that will be required at Department sites with continuing missions in science, energy, and defense that EM is not now undertaking, and long-term waste treatment and disposal activities at these sites once the EM mission is complete. There are unknown future liabilities that need to be identified.

To effectively address these long-term cleanup requirements, the Department has proposed a new Office of Future Liabilities (FL). FL will work with the line DOE science, energy, and defense organizations to develop an approach to aggregate requirements, develop integrated plans and budgets, and manage programs. FL is proposed as a small organization with \$8 million and 4 Full Time Equivalent (FTE) staff to develop the baseline for cleanup and waste management activities not currently part of the EM inventory. A rough-order-of-magnitude estimate for science, energy, and defense environmental liabilities at sites with continuing missions is \$35 billion: \$3 billion during the current budget planning period from FY 2005 to FY 2009; \$8 billion during the period from FY 2010 to FY 2025, and \$35 billion beyond FY 2025. The estimate of includes environmental activities not yet assigned to a DOE organization for action. FL will work to define the baseline for these activities and the options for organizational assignment, including the possible expansion of FL’s mission to do these activities.

## RESPONSES TO QUESTIONS FROM SENATOR CRAIG

*Question 22.* In fiscal year 2004, Congress provided DOE with \$15 million in nuclear energy funding to initiate a procurement for two competing reactor designs—one of which would ultimately be demonstrated in Idaho for the cogeneration of electricity and hydrogen.

What is the status of DOE's initiation of this procurement in the current fiscal year?

Answer. In FY 2004, the Department's Generation IV Nuclear Energy Systems Initiative continues to emphasize research and development on the Next Generation Nuclear Plant and continues collaborative research on the Lead-Cooled Fast Reactor, the Gas-Cooled Fast Reactor, and the Supercritical Water-Cooled Reactor. These systems were chosen as the best match for the future needs of the United States. Beginning in FY 2005, the Department puts special emphasis on the NGNP, working towards the potential early deployment of the NGNP as a demonstration of a promising Generation IV reactor technology. The Department has not at this time made a decision to proceed with such a demonstration plant. The budget request for FY 2005 for the NGNP is \$19.3 million. Approximately \$5 million of the \$19.3 million request for FY 2005 is slated for NGNP design activities to define future research and development requirements, with the balance being applied to critical fuel and materials research.

*Question.* Why has DOE requested no funds to continue this reactor design and development in FY 2005?

Answer. DOE's FY 2005 budget request includes \$19.3 million for research and development activities related to the Next Generation Nuclear Plant within the budget for the Generation IV Nuclear Energy Systems Initiative. Of this \$19.3 million, approximately \$5 million will be spent on design to define future research and development requirements with the balance spent on critical fuel and materials research and development.

*Question.* Is it the position of DOE that because DOE has requested no funds for the reactor in FY 2005, that DOE may divert the \$15 million it has this fiscal year for other purposes within the Office of Nuclear Energy?

Answer. DOE's FY 2005 budget request includes \$19.3 million for the Next Generation Nuclear Plant within the budget for the Generation IV Nuclear Energy Systems Initiative. In FY 2004, the Generation IV Nuclear Energy Systems Initiative continues to emphasize research and development on the Next Generation Nuclear Plant and continues collaborative research on the Lead-Cooled Fast Reactor, the Gas-Cooled Fast Reactor, and the Supercritical Water-Cooled Reactor. No NGNP funding is being diverted to any other program. DOE is committed to the Next Generation Nuclear Plant project; it is the highest priority nuclear energy R&D project in the Office of Nuclear Energy.

*Question.* Please provide a detailed breakdown of the planned uses of the \$15 million in FY 2004 and a schedule for INEEL to initiate the procurement.

Answer. In FY 2004 NGNP funding has been allocated as follows:

NGNP Fuel Development \$6.1 million  
 NGNP Reactor and Plant Design \$7.6 million  
 NGNP Materials and Turbine Development \$0.7 million  
 SBIR and Budget Rescission \$0.6 million

## YUCCA MOUNTAIN PROJECT

*Question 23.* In the fiscal year 2005 budget, DOE proposes that the Office of Civilian Radioactive Waste Management will assume responsibility for the transportation of research reactor spent nuclear fuel as well as the management and operation of two DOE-owned spent nuclear fuel storage installations—one of which is at the Idaho National Engineering and Environmental Laboratory. These responsibilities are being transferred from the Environmental Management program.

## QUESTIONS:

1) Does DOE plan to continue, in future fiscal years, to shift more spent nuclear fuel and high level waste storage functions from Environmental Management to Civilian Radioactive Waste Management?

Answer. Over the next several fiscal years, the Office, of Environmental Management plans to realign functions that do not support its legacy waste cleanup mission to other Offices within the Department. Those functions that involve the management of non-legacy spent fuel and high-level waste, and possibly some other functions, may be realigned to the Office of Civilian Radioactive Waste Management. This realignment is consistent with final disposition of spent nuclear fuel and high-level radioactive waste in a geologic repository at Yucca Mountain. At this time, no

decisions have been made regarding additional out-year realignments of spent nuclear fuel and high-level waste storage functions.

1) Where in the Nuclear Waste Policy Act does DOE find authorization for the Office of Civilian Radioactive Waste Management to be in the business of managing DOE spent fuel on DOE sites?

Answer. The Nuclear Waste Policy Act (NWPA) established the Office of Civilian Radioactive Waste Management (OCRWM) and assigned certain functions to OCRWM. Consistent with the DOE Organization Act, the Secretary may assign other functions to the Director of OCRWM in addition to those authorized by the NWPA. The Atomic Energy Act is the source of the Department's authority to manage spent fuel at DOE sites.

In order to implement the proposed realignments, OCRWM has proposed funding through two separate budgetary accounts—Other Defense Activities and Energy Supply R&D. A separate organizational structure will be established to manage the realigned activities. This will ensure that OCRWM's primary objective—development of a geologic repository at Yucca Mountain and a transportation system to ship spent fuel and high level waste—will be separate from the realigned activities. The funding for these new activities will not use monies from the Nuclear Waste Fund or Defense Nuclear Waste Disposal appropriations.

1) Is the funding transferred from EM to RW in fiscal year 2005 fully adequate for the spent fuel storage responsibility being transferred?

Answer. The FY 2005 funding requested for all realigned activities is based on funding requests in prior years for the same activities from the Office of Environmental Management. The table below provides a breakout of Fiscal Year 2005 funding proposed for spent nuclear fuel storage facility responsibilities being realigned.

1) How does the amount requested for these spent fuel storage activities in FY 2005 compare to the funding provided for the same activities in both fiscal years 2004 and 2003?

Answer. The FY 2005 funding request is based on similar requests in prior years for the same activities. The table below provides a breakout of Fiscal Year 2003 and 2004 funding for spent nuclear fuel storage facility responsibilities requested by the Office of Environmental Management.

TABLE OF FUNDING REQUESTS BY FISCAL YEAR FOR CERTAIN STORAGE FACILITIES

Storage Facility	FY 2003 (millions)	FY 2004 (millions)	FY 2005 (millions)
Ft. St. Vrain and Three Mile Island Independent Spent Fuel Storage Installations .....	4.762	4.861	5.023
Idaho Nuclear Technology and Engineering Center-666 .....	7.637	7.797	8.055

DISTRACTION FROM EM MISSION

*Question 24(2).* How is the management, handling and storage of spent nuclear fuel on DOE Sites a distraction from the EM mission?

Answer. The Office of Environmental Management (EM) is focused on accelerated risk reduction and cleanup at each of the EM sites. Currently, EM's mission includes activities related to the safe, interim storage of spent nuclear fuel at three major facilities—Hanford, Idaho and Savannah River—pending the availability of permanent disposal at a geologic repository. EM's risk reduction mission includes the retrieval and packaging of spent nuclear fuel located in degrading K-Basin wet storage pools at Hanford. It also includes the consolidation of certain spent fuel inventories at Hanford, Idaho and Savannah River to support the accelerated cleanup of those facilities and sites.

However, the continued maintenance of spent fuel and storage facilities where the inventory is in a safe condition, awaiting the availability of the repository, is not consistent with the EM's core mission of accelerated risk reduction and cleanup. These activities are being strategically transferred in response to the Top-To-Bottom Review, which found that EM was suffering from a lack of focus. These responsibilities are better suited with the Civilian Radioactive Waste Management program (RW), the office responsible for the licensing, design and construction of the repository. As such, RW will ultimately be responsible for the final management of all spent nuclear fuel within the Department.



## FY 2005 AS PEAK FUNDING YEAR

*Question 24(3).* Given that DOE has not yet begun processing high-level waste at either Idaho or Hanford into its final form for disposal—nor constructed the processing plants to do so, how can FY 2005 be the peak funding year?

Answer. For the past several years, the Administration has requested and received significantly more funding for the EM program to accelerate cleanup and reduce risk. The strategy is to invest these additional resources to accelerate cleanup and complete work sooner, resulting in cost savings in the longer term. This strategy is working; work is being accelerated. Cleanup projects are being completed years ahead of what was once thought possible. As a result, the cleanup program has been accelerated by 35 years and life-cycle cleanup costs reduced by at least \$50 billion. Because of this acceleration and reduction in life-cycle costs, we now expect that FY 2005 will be the “peak” year of EM funding and that future funding requests will begin to decrease. Our audited life-cycle projection, based on our accelerated cleanup strategies, indicates that the remaining EM scope can be accomplished at annual funding levels that are lower than FY 2005.

## IDAHO DETAILED WORK SCOPE

In response to its loss in court in Idaho over the issue of high-level waste classification, DOE has proposed a budget that sequesters funding for high-level waste in Idaho, Hanford and Savannah River, pending Congressional clarification of tank closure requirements in statute.

*Question 24(4).* In the case of Idaho, the funding sequestered is approximately \$94 million. Please provide the detailed work scope breakdown for this \$94 million, including a justification of why each piece of individual work scope is being held up by any legal ambiguity.

Answer. The Idaho work scope being held up by legal ambiguity includes activities associated with stabilizing waste residues remaining in tanks after as much waste as possible has been removed (approximately \$2 million) and design, procurement, and supporting project work on the Sodium-Bearing Waste Treatment Facility and associated operating funds (approximately \$92 million). DOE will continue to empty the Idaho tanks, through retrieval and cleaning, and consolidate removed wastes into the minimum number of tanks. Any work on stabilizing any remaining residues into a solid form is deferred. DOE’s long-standing plans for the disposition of Idaho’s sodium-bearing tank wastes were to treat them for disposal as transuranic waste at the Waste Isolation Pilot Plant (WIPP) in New Mexico. However, the July 2003 Idaho District Court decision over the issue of high-level waste classification voided DOE’s criteria for legally determining that the sodium-bearing wastes should properly be managed as non-high-level waste. Thus, development of the new Sodium-Bearing Waste Treatment Facility to prepare the tank waste for disposal as transuranic waste does not now seem a prudent use of taxpayer dollars, given the legal uncertainty that DOE can actually dispose of the tank waste at WIPP.

*Question 24(5).* Is it the position of DOE that it can dictate the timing of Congressional action on this matter, and if Congress should fail to act within that time frame, that DOE can neglect its responsibility to isolate this high-level waste from the environment?

Answer. No. The U.S. Department of Energy (DOE) takes very seriously its responsibility to safely disposition wastes stored in underground tanks in Idaho, Hanford and Savannah River. However, DOE must comply with court orders resulting from litigation. Accordingly, it is DOE’s position that we cannot proceed with implementing plans to treat tank wastes if the legal basis for those plans is in question. Absent legislative modification to the definition of high-level waste, DOE is continuing to clarify the matter through the appeals process. This approach could take years and make it difficult for DOE to commit with confidence to any long-term strategy to managing and disposing of the tank waste. The Department must pursue a conservative approach that assumes that the lower court decision is upheld. This scenario further assumes the ruling is given nation-wide application and stands for the proposition that virtually all waste from reprocessing must be sent to Yucca Mountain, Nevada, regardless of risk. In the Department’s view, this will result in substantial delay and additional expense in removing and disposing of this waste—delay and expense not driven by public health and safety considerations. In fact, such delay could create the potential for serious health and safety risks to workers and members of the public by leaving the waste in tanks longer and risking leaks to groundwater.

In any event, the Department will take all appropriate means to mitigate the risk potential until the issue is resolved.

## PRICE-ANDERSON ACT

*Question 25.* Please provide DOE's views on the impact of the failure to renew Price-Anderson Act indemnification—since the commercial provisions of that authority have already expired and the authority for DOE contractors will expire at the end of this year.

Won't the lack of Price-Anderson authority negatively impact the numerous DOE site contract re-competitions planned for the next several years?

Answer. In 2002, the authority for NRC to extend Price-Anderson protection to new commercial nuclear powerplants and for DOE to extend such protection to new DOE contractors expired. Congress included interim authority in the 2003 Defense Authorization Act. This authority expired for commercial nuclear powerplants at the end of 2003 and will expire for DOE contractors at the end of this year.

Without Price-Anderson protection, no new commercial nuclear powerplants will be initiated. Likewise, without the authority to include Price-Anderson indemnification in its contracts, competition for DOE's largest and most important contracts will be detrimentally affected. In order to assure any competition, DOE will have to use other mechanisms (such as Public Law 85-804) to indemnify its contractors or risk discontinuance of important missions.

These other mechanisms may not be available for all contracts and are less effective than Price-Anderson. Price-Anderson is the only source of indemnification that Congress designed specifically to assure prompt compensation to those who may be damaged by a nuclear incident without unnecessarily cumbersome litigation. The absence of Price-Anderson indemnification in a contract also denies DOE the ability to exact civil or criminal penalties for a contractor's failure to comply with DOE's nuclear safety regulations.

## RESPONSES TO QUESTIONS FROM SENATOR ALEXANDER

## LEADERSHIP CLASS COMPUTATIONAL FACILITY

*Question 26.* The Congress appropriated an additional \$30 million in funding above the President's request to the Department of Energy's Office of Science in FY 2004 to start the development of a leadership class computational facility based on recommendations by the High-End Computing Revitalization Task Force. I would prefer that we put at least \$25 million of these funds toward developing a leadership class computational facility. I would like an explanation of the plans that the Department has for these funds and also an explanation of the Department's plans for the funds requested in the President's budget for high performance computing.

Answer. The Department is acting to pursue a leadership class computing system for the computational science community, and we believe that our current plans for spending these additional appropriated funds comports well with the guidance provided by the Congress in the FY 2004 Conference Report. We have allocated \$5 million of the \$30 million you reference to the National Energy Research Scientific Computing Center (NERSC) in order to provide additional near-term resources for today's scientific computing users. In a complementary move, we issued a call for proposals to the Office of Science laboratories on February 23, 2004 to begin development and deployment of a Leadership Class computer for open science. We expect responses to this call by April 1, 2004, with an award of the remaining \$25 million around April 15, 2004.

In FY 2005, we expect to continue both our enhanced investment at NERSC and our investments in a Leadership Class Computer for the Nation. These investments will be complemented by critical investments in high-end computing research including relevant software and applied mathematics areas. All of these investment decisions will be made within the context of the work of the High-End Computing Revitalization Task Force.

*Background*

## Office of Science Notice to SC Laboratories

*Leadership-Class Computing Capability for Science*

SUMMARY: The Office of Advanced Scientific Computing Research (ASCR) of the Office of Science (SC), U.S. Department of Energy (DOE), hereby announces its interest in receiving applications for leadership-class scientific computing capability in support of both the ASCR and the broader SC research programs; as well as other capability-limited federally-funded computational science activities. Prospective applicants should observe that:

1) The focus of the proposed effort should be on capability computing in support of high-end science—rather than on enhanced computing capacity for general science users;

2) Proposed activities should be designed to support computational science applications research areas relevant to the mission of the Office of Science, as well as those of other federal agencies;

3) The proposed activities should include a plan for an active dialogue with industry, universities, and other laboratories and centers in order to maximize the dissemination of information, promote and support technology commercialization, and avoid unnecessary duplication of effort;

4) Multiple year funding is anticipated, but not guaranteed. Applicants may request periods of performance ranging up to five years;

5) Only Office of Science Laboratories are eligible to respond to this solicitation.

6) The proposed effort must be a user facility providing leadership class computing capability to scientists and engineers nationwide independent of their institutional affiliation or source of funding.

More specific information on this solicitation is outlined in the Supplementary Information section below.

**DATES:** The deadline for receipt of formal applications is 4:30 P.M., E.S.T. Friday, 2 April 2004, in order to be accepted for merit review and to permit timely consideration for award in Fiscal Year 2004. Decisions are expected on or about 15 April 2004.

**ADDRESSES:** All applications, referencing this notice, should be sent by e-mail to Ms. Jane Hiegel at: [Jane.Hiegel@science.doe.gov](mailto:Jane.Hiegel@science.doe.gov) with a copy to Dr. Gary Johnson at: [Gary.Johnson@science.doe.gov](mailto:Gary.Johnson@science.doe.gov). Responses to this solicitation should be in either Microsoft Word or Adobe Acrobat (.pdf) format.

**SUPPLEMENTARY INFORMATION:** DOE's Office of Science, in order to accomplish its mission, is faced with the need for computing capability that far exceeds what is currently available from commercial sources. The Office of Science's needs are documented at the Ultrascale Simulation for Science web site: <http://www.ultrasim.info/index.html>, and in the report from the Science Case for Large-scale Simulation (ScaLeS) workshop: <http://www.dev.pnl.gov/scales/>.

In March of 2003, the High End Computing Revitalization Task Force (HECRTF) was formed to address this problem at the inter-agency level and additional information may be found at its web site: <http://www.itrd.gov/hecrtf-outreach/index.html>.

This solicitation is part of ASCR's response to the need for leadership-class computing for capability-limited science applications. ASCR announces its interest in receiving applications to provide leadership-class scientific computing capability for scientific areas that support the missions of the Office of Science and those of other federal agencies.

Proposals should include a plan for playing an active role in maintaining a dialogue with industry, universities, and other laboratories and centers in order to maximize the dissemination of information, promote and support technology commercialization, and avoid unnecessary duplication of effort.

Proposals must include information on the specific computer architecture or architectures to be provided over the life of the project as well as a list of the target scientific application areas and data that supports the ability of the proposed architectures to provide computing capability that enables science that could not be accomplished elsewhere in this time frame.

The funding appropriated for this solicitation covers only a single year—FY2004. However it is anticipated—but not guaranteed—that, at a minimum, level funding will be available to support activities in the years beyond FY2004. The proposed period of performance may be as much as five years.

#### *Collaboration*

Applicants are encouraged to collaborate with researchers in other institutions and to include cost sharing wherever feasible.

#### *Program Funding*

It is anticipated that up to \$25 million will be available in Fiscal Year 2004. It is anticipated that one (1) award will be made. Multiple-year funding is not guaranteed. Applicants may request periods of performance ranging up to five years.

#### *Merit Review*

Applications will be subjected to scientific merit review (peer review) and will be evaluated against the following evaluation criteria, which are listed in descending order of importance codified at 10 CFR 605.10(d):

- 1) Scientific and/or Technical Merit of the Project;

- 2) Appropriateness of the Proposed Method or Approach;
- 3) Competency of Applicant's Personnel and Adequacy of Proposed Resources;
- 4) Reasonableness and Appropriateness of the Proposed Budget.

The evaluation under item 1, Scientific and/or Technical Merit of the Project, will also consider the following elements:

- a) The relevance of the proposed target high-end computational science application areas to the missions of the Office of Science and those of other federal agencies.
- b) The focus of the proposed effort on leadership-class capability computing in support of high-end science—rather than on enhanced computing capacity for general science users.
- c) The potential of the proposed project to make a significant impact on the targeted high-end science applications areas.

The evaluation under item 2, Appropriateness of the Proposed Method or Approach, will also consider the following elements:

- a) The quality of the plan for making the proposed leadership-class computer available as a user facility to scientists in the targeted application communities including:
  - a. Supporting services such as archives and visualization;
  - b. Supporting remote access to the computer and the data it generates;
  - c. Planning for outreach to the targeted application user communities;
  - d. Managing user access and user support; and
  - e. Responding to special requirements from targeted application communities.
- b) The extent to which the project incorporates broad community (industry/academia/other federal programs) interaction and outreach.
- c) Quality and clarity of proposed work schedule and deliverables.

The evaluation under item 3, Competency of Applicant's Personnel and Adequacy of Proposed Resources, will also consider the following elements:

- a) The availability of appropriate physical facilities, computer network connectivity and system management and operation staff to support operation of a leadership class computer;
- b) Quality of the physical environment for both research activities and computer and networking operations;
- c) Quality of the physical and cyber security plans for the project.

The evaluation will include program policy factors, such as the relevance of the proposed research to the terms of the announcement and the agency's programmatic needs. Note: External peer reviewers are selected with regard to both their scientific expertise and the absence of conflict-of-interest issues. Non-federal reviewers will often be used, and submission of an application constitutes agreement that this is acceptable to the investigator(s) and the submitting institution.

#### *Submission Information*

The Project Description must be 20 pages or less, exclusive of attachments. It must contain an abstract or project summary on a separate page with the name of the applicant, mailing address, phone, FAX and e-mail listed. The application must include letters of intent from collaborators (briefly describing the intended contribution of each to the research), and short curriculum vitae for the applicant and any co-PIs. Applicants must disclose all information on their current and pending support.

To provide a consistent format for the submission and review responses to this notice, the preparation and submission of the budget portion of responses to this notice must follow the format guidelines given in the Application Guide for the Office of Science Financial Assistance Program, 10 CFR Part 605. Access to SC's Financial Assistance Application Guide is possible via the World Wide Web at: <http://www.science.doe.gov/production/grants/grants.html>. The necessary budget forms are available at: <http://www.science.doe.gov/production/grants/Forms-E.html>.

DOE is under no obligation to pay for any costs associated with the preparation or submission of applications if an award is not made.

#### OFFICE OF SCIENCE 20-YEAR FACILITY PLAN

*Question 27.* I am also very concerned with the lack of funding for the Department's 20-year facility plan for the Office of Science. The Department took the first step toward putting our nation back in the leadership in science and technology by

developing this comprehensive plan. Our investments in science are investments in jobs. I would like to know how the Department plans to make these facilities a reality with essentially a flat budget. I specifically would like to know what time line the Department envisions for making the top five priority facilities a reality.

Answer. The 20-year facility plan, which is not a budget document, reflects our vision of the future of the Office of Science. Affordability of these facilities will depend upon many factors in the future, and the list of facilities may change as science priorities evolve and mature. In the FY 2005 request, funding is provided for the top 5 facility priorities in the plan as follows: ITER \$7,000,000; Ultrascale Scientific Computing capability \$38,212,000; Joint Dark Energy mission \$7,580,000; Linac Coherent Light Source \$54,075,000; and Protein Production and Tags \$5,000,000. If the multilateral negotiations are successful, ITER construction is expected to begin in FY 2006. The Ultrascale Scientific Computing Capability is not a traditional facility, and some research and development was already started in FY 2003. Construction start decisions for the Linac Coherent Light Source and the Protein Production and Tags facility will be considered as a part of the normal process for preparing the President's future budget requests. We consider the above facilities to be near-term priorities for the next decade.

#### SUPPORT AND MAINTENANCE AT THE TEN SCIENCE LABORATORIES

*Question 28.* I am concerned with the Department's budget request for science laboratories infrastructure with in the DOE Office of Science budget. Although I realize that last year's budget request had some one-time expenditures which resulted in a budget request of \$54 million, I am still concerned that the Department is not investing enough in infrastructure that is needed to support the new and existing user facilities. I would like the Department to elaborate on the adequacy of the \$29 million request for infrastructure to support the ten science laboratories. I would also like the Department to provide an explanation of their plan to address deferred maintenance at the ten science laboratories.

Answer. The request is sufficient for the current Office of Science (SC) Laboratories Infrastructure (SLI) projects underway. SC's infrastructure revitalization needs are real and significant and will be addressed in FY 05 by re-balancing existing budgets to increase General Plant Project (GPP) funding, increasing maintenance investments, and, in some select cases, using alternative funding approaches that comport with the budget scoring guidelines of the Office of Management and Budget and the Congressional Budget Office.

The overall reduction of \$25,190,000 in the SLI program is driven by two components: a \$9,941,000 reduction in the SLI Health and Safety Improvement (HSI) subprogram and a \$15,368,000 reduction in the SLI construction subprogram.

With regard to the HSI subprogram reduction, Congress appropriated \$9,941,000 in FY 2004 to address the OSHA and NRC identified health and safety deficiencies and recommendations for improved health and safety practices at SC laboratories. This \$9,941,000 is sufficient to address the most significant health and safety issues at the laboratories so additional funds are not requested in FY 2005. SC will continue to study this issue in order to determine if health and safety issues remain after these funds are expended.

With regard to the SLI construction subprogram reduction, the \$15,368,000 reduction was a hard decision, resulting from our prioritization of SC research requirements within our budget.

The FY 2005 budget was based on our plan to re-direct the FY 2003 and FY 2004 funds from the canceled Pacific Northwest National Laboratory (PNNL) "Laboratory Systems Upgrade" project to other on-going SLI projects. In particular, we had planned to redirect these funds to the "CEBAF Addition" at Thomas Jefferson National Accelerator Facility (TJNAF) and the Brookhaven National Laboratory "Research Support Building" to accelerate their completion. This plan was rejected by appropriations committee staff. We therefore plan to consider options to use this funding for the development of a project or projects that will accommodate the scientific work funded by the Office of Science at PNNL.

While the SLI construction subprogram funding has decreased, GPP funding across Office of Science programs has increased \$8,215,000. This shift reflects the numerous smaller construction needs (i.e., those less than \$5,000,000) that are of high importance but need not be addressed with line item funding.

In addition, SC has set a goal for maintenance funding of 1.4% of replacement plant value (RPV) for conventional facilities in FY 2004 and, 2.0% of RPV for FY 2005. The change in total maintenance funding from FY 2004 to FY 2005 will result in an additional -\$35,000,000 to sustain facilities if we meet this 2.0% goal. Maintenance

nance at SC laboratories is funded from laboratory overhead which represents a cost to all programs sponsoring work at the laboratory.

SC sites are developing a number of alternatively financed projects including housing, office buildings, and utility system replacements. These proposals are not yet fully developed, nor are their selection and internal Administration review processes fully developed.

We have made substantial progress on the backlog of deferred maintenance, reducing it from \$649,000,000 at the end of FY 2001 to \$491,000,000 at the end of FY 2003. This downward trend is significant and we expect to continue it.

SC funding for capital renewal and excess facilities disposition also helps reduce the deferred maintenance backlog. For example, in rehabilitating a building or utility, replacing a building or demolishing a structure, numerous deferred maintenance items are also eliminated, which helps reduce the deferred maintenance. Such funding will continue in FY 2005 though at a somewhat reduced level.

DEPARTMENT'S PLANS IN HELPING THE OAK RIDGE COMMUNITY ACHIEVE FINANCIAL  
SELF SUFFICIENCY

*Question 29.* I have a strong interest in the relationship between the Department of Energy and the Oak Ridge community in my state. Oak Ridge is one of only three Manhattan Project atomic energy communities that have a relationship defined statutorily with the federal government. In the FY04 energy and water appropriations bill, the Congress had urged the Department to work with the city and county officials to develop a plan to help the Oak Ridge community achieve financial self-sufficiency. I would like an explanation of the Department's plans in helping the Oak Ridge community achieve financial self-sufficiency.

*Answer.* The Department of Energy (DOE) (and its predecessor agencies) along with its major contractors, have worked and continue to work closely with the city of Oak Ridge and organizations within Oak Ridge associated with economic development to assist in their attempt to attain self-sufficiency. This assistance has taken many forms, including direct and indirect land transfers, financial payments, facility and infrastructure transfers, and planning assistance.

Of the initial 58,575 acres acquired for the Oak Ridge Reservation, almost 25,000 acres have been transferred or conveyed to the city of Oak Ridge or other entities which support the city for a variety of purposes including, schools, housing, industrial park developments, recreational parks, utilities and roads. In addition to land transfers, DOE has granted many easements, licenses, permits and leases to the city of Oak Ridge and to others within the city. These have been for a myriad of purposes that have supported community development, including the construction of roads and utilities, public greenways, telecommunication towers, use of rail facilities, barge facilities and buildings in the East Tennessee Technology Park.

In addition, financial assistance payments and Payment in Lieu of Taxes (PILT) payments have been made to the city. The financial assistance from 1960 through 1986 totaled \$69,403,970. The 1986 payment included a \$22,254,187 payment that covered financial assistance expectations through 1995. PILT payments resumed in FY 1996 and to-date, the city has been paid \$8,113,017.

One of the keys to supporting the development within the city of Oak Ridge has been working closely with the Community Reuse Organization of East Tennessee (CROFT). By pursuing transfers of under-utilized federal assets to the commercial sector through CROFT in the form of facilities, land, equipment, and technology, new businesses have been created, existing businesses have been able to expand, and displaced workers have been given an alternative to leaving the region in order to find work.

In the spring of 2003, title to a 500-acre new greenfield industrial park named Horizon Center was transferred to CROFT. This high amenity park is perfectly suited to high-tech, high-wage, highly rewarding jobs necessary to sustain economic growth in a global economy. The first company to locate there, Theragenics, is now in an ideal location to draw from the technology resources of the Oak Ridge National Lab and the region's trained and experienced labor pool.

The competitive cost effectiveness of a brownfield setting may be more suitable to a company's business strategy. Therefore, DOE is making the Heritage Center available. CROFT operates Heritage Center, as a second industrial park. Heritage Center, also known as the East Tennessee Technology Park, offers extensive utilities and transportation infrastructure and is comprised of both facilities and land parcels available for commercial development. To date, CROFT has leased approximately 80 facilities to approximately 40 separate companies. Over the next several years as DOE's Environmental Management Program continues its Accelerated

Cleanup Plan for Heritage Center, additional facilities and land parcels will become available to the commercial sector.

DOE recently transferred 182 acres of DOE lake access land to help establish a housing development. The city of Oak Ridge and DOE are also working to transfer over 200 acres contiguous to Wisconsin Avenue for expansion of a housing development.

In 2002, with the support of the city, DOE committed to pursue the transfer of the Vance Road Facility in Oak Ridge to the Methodist Medical Center, which is contiguous to that facility. This transfer process will likely begin in CY 2005 when the facility is completely vacated and cleaned. This will allow this community based medical facility to expand its facilities and services to the community.

DOE contractors have also been committed to the support of Oak Ridge. As an example, UT-Battelle, the contractor for the Oak Ridge National Laboratory (ORNL), has provided enhancements to Melton Hill Lake which increases its drawing power as a premier competitive rowing course used by many colleges. In addition, UT-Battelle is currently heavily invested in and committed to planning for a new high school for the city of Oak Ridge, including commitment of about \$150,000 to assist in the planning and design. UT-Battelle is also loaning executives from the lab to continue to assist the city in this effort.

At the same time, ORNL continues to contribute to the economic development of the region through its activities to transfer technologies to the private sector. As research and development of technologies mature to the point where private sector companies can successfully manufacture or deploy the technology in a cost-effective manner, these companies tend to remain in the Oak Ridge and east Tennessee area, furthering the economic development and providing careers in science and technology.

Lastly, the major contractors, including UT-Battelle, BWXT Y-12, Oak Ridge Institute for Science and Education, and Wackenhut pay various taxes dependent on their individual situation. These range from state sales tax, use taxes, business tax, and property tax, etc. These taxes total about \$2,380,000, and the city of Oak Ridge receives a portion of that back from the state.

#### RESPONSES TO QUESTIONS FROM SENATOR MURKOWSKI

*Question 30.* The Department of Energy (DOE) Budget Highlights states that the DOE FY 2005 budget includes \$43 million within the Environment, Safety and Health program, to accelerate the processing of claims required as part of the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). The DOE further states that the \$43 million, together with the additional funds provided in FY 2003 and funds to be reprogrammed in FY 2004, will enable the DOE to complete the processing of the applications currently on file with the DOE in FY 2005, up to the point of review by a Physician Panel, and completely process all of the applications through the Physician Panels in FY 2006. The Department has implemented reforms that have already improved performance from a rate of 30 cases per week in 2003, to over 100 per week by the end of the year.

1) The DOE has spent many millions of dollars over the past several years and processed only a tiny fraction of pending EEOICPA Part D applications. DOE's budget request states that the Department has instituted a series of reforms to improve its claims processing performance.

- Specifically what are these reforms?
- Why should the Committee have any confidence that the new claims processing rate will be maintained or improved?

Answer. The Department has instituted a series of reforms to improve its applications processing performance, highlights of which include:

- the revision to the Physician Panel Rule issued as an Interim Final Rule on March 17, 2004. The revised rule is expected to double the productivity of the Physicians Panel process,
- a reprioritization of work on Part D applications so as to expedite the processing of the greatest number of cases and move to the front of the queue those applicants we believe are most likely to receive the greatest benefit from the program. Specifically, we have moved those applications relating to beryllium, silica, and asbestos exposure to the front of the queue, as well as those applications which have already received a positive determination from the Part B program. In addition, we are processing applications from living applicants first because of the availability of medical benefits for living applicants in most State workers compensation systems, and are awaiting dose reconstructions for those

remaining applications where dose reconstructions are pending from the Part B program.

- the implementation of 17 of 21 recommendations made by The Hays Companies, a management consulting company, hired to analyze our processes and make recommendations on how to improve the program. The attached chart details those recommendations and DOE's implementation of them. Of the remaining four recommendations, DOE rejected two, because they recommended limiting access to the program as a way to limit the growth in the backlog of applications; and DOE has under consideration two recommendations.
- an aggressive, and multi-agency coordinated set of initiatives to recruit physicians, and
- the creation of a new advisory committee focused on the implementation of Part D process improvements and the development of additional process improvements.

However, these procedural and policy reforms are only one part of an integrated four-part program to achieve the elimination of the backlog of cases by the end of 2006. The other elements of the plan are:

- Legislative changes: the Secretary submitted legislation to amend the EEOICPA statute on March 29, 2004. The legislation would eliminate the pay cap on physicians and expand hiring authority for them. If enacted, these changes would significantly increase the supply of physicians willing and able to work on Physician Panels, and would greatly expedite processing of applications.
- Budget: an appropriations transfer for FY04 of \$33M and a FY05 budget request of \$43M. These funds will provide for the contractor support, staff and other resources needed to ramp up the number of determinations from approximately 35 per week today to 300 per week in FY05.

The Department believes such a plan is very feasible and that the Department's analysis is credible in its projections. First, we have already achieved three- to six-fold improvements in the application processing and Physician Panel determination processes in the last six-months through the execution of other program changes and resource increases. This has demonstrated the Department's ability to quickly accelerate its production given adequate resources. Second, most of these recommendations were previously suggested or supported by Congress, other Federal Agencies, the Department's previous Workers Advocacy Advisory Committee, or other outside groups such as workers advocacy organizations, labor unions, consultants like the Hays Group, and the General Accounting Office. Finally, as the attached letter details, the American College of Occupational and Environmental Medicine believes our plan will get the Part D program "back on track."

2) I understand that DOE is working on a Plan to address the unacceptable rate at which DOE has been processing claims and perhaps other issues concerning implementation of the EEOICPA.

- What is this Plan?
- What will it include?
- When will it be available to this Committee?

Answer. The Department's plan to eliminate by the end of 2006 the current backlog of Part D applications pending at DOE has been submitted to the Committee as well as to your office. The Plan involves four components that, together, should enable us to increase Physician Panel determinations from 35 per week to 310 per week. The four components areas discussed above: performance improvements, the revised Physician Panel rule, enactment of the proposed legislation and approval of our budget requests. This plan was discussed during Under Secretary Robert Card's Senate Energy and Natural Resources testimony on March 30, 2004, and also has been presented to the House of Representatives and several House and Senate committees.

3) The DOE FY 2005 budget request includes \$43 million to accelerate the processing of claims under the EEOICPA. However, there is another equally, if not more important part of the EEOICPA implementation for citizens of Alaska and many other states. That is the willing payor issue. In Alaska, we currently have an unacceptable situation. Former workers or survivors of workers have received positive Physician Panel determinations. DOE has adopted these findings. Yet the workers have not received a penny. Nothing. Worse yet, many of these elderly and ill Alaskans are now having to fight with insurance companies and endure expensive, time consuming and mentally and physically debilitating litigation trying to secure compensation under the EEOICPA. I know DOE is aware of this situation. Yet the DOE budget is deafeningly silent on this issue.



- What does DOE propose to address the willing payor issue?
- I understand DOE may believe it is doing all it can to address the willing payor issue consistent with the authority DOE has under EEOICPA. Is this correct?
- If yes, can we expect a legislative proposal from DOE suggesting how EEOICPA can be modified or what new legislation could be enacted to remedy the current willing payor fiasco?
- If not, please explain why DOE does not plan to offer a legislative remedy for a program that DOE acknowledges is not working.
- Will the Plan DOE is working on include a proposal to remedy the willing payor issue?

Answer. The Department is addressing the “willing payer” issue by working hard to identify DOE contractors who may be directed not to contest workers’ compensation claims filed by workers who have received positive Part D Physician Panel findings. The Department is not proposing legislation that would change the Part D benefit provided by current law because: 1) Congress determined after multiple proposals and much debate to create the benefit currently provided by the statute; and 2) it will be many months before a sufficient number of cases will be completed through the States’ workers’ compensation processes in order to provide sufficiently large data sets of results to offer somewhat statistically significant results about the benefits provided under state workers’ compensation systems. The Department believes it is fully and fairly carrying out the requirements of the law.

The Department is providing all assistance allowed by law to Part D applicants in Alaska. Some of these applicants are calling the program management directly to get answers to their questions. The Department is happy to provide this type of support as these cases represent some of the initial claims entering into a State workers’ compensation process. And, the Department is providing access to all available resources in order to ensure these applicants obtain answers as quickly as possible. In addition, the Department is developing a “post-panel determination” assistance program to help our applicants with the filing of their State workers’ compensation claims. This program will provide applicants with assistance on the rules and procedures for filing State workers’ compensation claims in their respective States. Certain elements of this assistance are already in place, and the program will be fully implemented within the next several months.

4) The FY 2005 DOE budget request notes that DOE plans to request reprogramming of some FY 2004 funds to improve implementation of Part D of the EEOICPA.

- When will this request be forthcoming?
- Can you now share with us the amount you will ask to reprogram?
- What will these reprogrammed funds be used for?

Answer. An FY04 appropriations transfer request for \$33.3 million was submitted to the appropriate committees of Congress on January 30, 2004. A copy of the appropriations transfer request letter is attached. The President’s FY05 budget requested \$43 million. We do not anticipate any additional reprogramming requests of FY04 funds.

These funds are an integral component to eliminating the backlog by the end of CY06 and will be used to ramp up all aspects of DOE’s Part D operations and to provide additional assistance to workers after they receive their determination from the Physician Panels. In the twelve months after approval of the appropriations transfer, the funds will be used to eliminate the backlog of approximately 9,000 field data collection requirements for the applications, develop an additional 15,000 cases up to the Physician Panels and process an additional 5,000 cases through the Physician Panels. In the following twelve months the Department plans to increase the Physician Panels’ determinations rate by an additional 300% providing for an additional 15,000 cases through the panels. In order to accomplish these goals the Department will need an additional 40 case manager and an additional 135 support staff. The Department has also requested that NIOSH recruit the equivalent of 25 full time equivalent (FTE) physicians by September 2004, and 60 by June 2005. Of note, the Department’s plan to eliminate the backlog of applications by the end of 2006 is based, in part, on receiving the requested FY04 appropriations transfer funds in April 2004.

5) I understand DOE will be reconstituting the Worker Advocacy Advisory Committee. I further understand that before this Committee was terminated, it included recognized experts in the workers’ compensation area and offered some very valuable advice to the DOE.

- When will the new Advisory Committee be up and operating?
- Does DOE plan to staff the Committee with the same individuals who worked on the original Committee, or with people of similar credentials?

Answer. The Workers Compensation Assistance Advisory Committee is in the process of being established. It is not a reconstituted version of the previous Workers Advocacy Advisory Committee, but a new Committee established for the new purpose of advising the Department how best to execute the current Part D program. The previous Committee was established to advise the Department on how best to set-up the Part D program. It was not terminated, but rather its charter expired, as do the charters of all Advisory Committees established under the Federal Advisory Committee Act. We expect to hold the first meeting of the new Advisory Committee in April 2004. Several members of the former Worker Advocacy Advisory Committee have been nominated for this new Committee, and their nominations are being actively reviewed now. The Secretary will select members with the skills and experience to address current operational issues faced by DOE and the Part D program.

6) I know DOE understands that the Physician Panel review of applications can constitute a tremendous bottleneck in the rapid processing of claims.

- What does DOE propose to do to avoid having the Physician Panel reviews dramatically slow down the claims processing?

Answer. The regulatory changes that DOE has implemented and the legislative changes DOE has proposed are expected to increase the rate of Physician Panel determinations sufficient to eliminate by the end of 2006 the backlog of Part D applications currently pending at DOE, provided Congress gives DOE sufficient funds to do so. The regulatory changes DOE has already implemented permit a Physician Panel to be composed of a single qualified physician. Permitting single-physician Panels will immediately double the number of Panels available to review completed applications and will also simplify logistics by largely eliminating the time expended in coordinating and attending conferences, teleconferences, or meetings.

The proposed legislative changes will remove the current statutory cap on the pay of Physician Panel members and expand the hiring authority for these physicians, thereby greatly expanding the pool of physicians who may want to work on this program. The medical community has told us that the current statutory pay cap on physicians is half the standard consulting rate. Empirically, this substandard pay has resulted in our part-time physicians on average spending only three hours per month reviewing cases.

#### DOE'S ARCTIC ENERGY OFFICE

*Question 31-1.* Why has DOE chosen not to include the Arctic Energy Office in its budget request?

Answer. At the requested budget level for oil and gas, DOE decided it would not identify a specific line for Arctic research. This does not preclude funding Arctic projects consistent with program priorities. However, any funding for Arctic research would be at a significantly lower level than the previous appropriations as a result of the overall decrease in funding for oil and gas.

#### RESPONSES TO QUESTIONS FROM SENATOR BUNNING

##### PADUCAH CLEANUP FUNDING

Kentucky recently signed onto the DOE's accelerated cleanup plan. Part of the purpose of the plan was for Kentucky to receive adequate funding to cleanup the site in a more efficient and timely manner. Despite this, however, the President's budget request has asked for only \$92.8 million for cleanup at the Paducah site. There are still a lot of areas at the site that require cleanup.

*Question 32.* Why did the DOE ask for nearly \$30 million less than last year's appropriation for cleanup?

Answer. The decrease in the EM budget request for Paducah cleanup funding, funded in the Uranium Enrichment Decontamination and Decommissioning Fund, is due to the completion of several cleanup projects in FY 2004, including the north/south diversion ditch project, the dismantling and removal of all the piping and equipment from Sectors 1 and 9 in building C-410, and preparation of Sectors 2 and 3 for dismantling and piping equipment removal. These completions, in combination with modest increases in other projects, reduced our requirements for Paducah cleanup in FY 2005 by \$27.4 million.

The FY 2005 funding request fully supports the cleanup commitments set forth in the Agreed Order signed with the Kentucky regulators at the end of last fiscal year. No impact is expected to our new accelerated 2019 completion schedule.

*Question 33.* At last year's DOE budget hearing, I asked Secretary Abraham why zero Paducah claimants had received compensation under Part D of the Energy Em-

ployees Occupational Illness Compensation Program Act. Today, Paducah still has zero claimants out of now more than 2,200 claims receiving any compensation for their illnesses due to their work with toxic substances at the Paducah DOE site. The DOE has requested over \$40 million to deal with the backlog of the more than 20,000 claims it has received nationwide.

- Why should Congress give the DOE more money to fix a problem that the Department has been unable to resolve in the last three and a half years?
- What are the DOE's plans to move the cases through the Physician Panels?

Answer. After a four month top-to-bottom program review, the Department developed a comprehensive and coordinated plan that should eliminate the current backlog of Part D applications pending at DOE. The Department's operational improvements over the last six months demonstrate that this plan is achievable and credible with sufficient funding. In the past six months, the Physician Panel determinations have increased nine fold and the Department believes that over the next twelve months it is well positioned to increase the determinations three-fold and an additional three-fold twelve months later. This assumes that Congress approves the proposed legislation that the Secretary transmitted to Congress on March 29, 2004 and approves the FY04 appropriations transfer request submitted to Congress on January 30, 2004. (Copies of the appropriations transfer request and the proposed legislation are attached.) The elements of the plan:

- the revision to the Physician Panel Rule issued as an Interim Final Rule on March 17, 2004. The revised rule is expected to double the productivity of the Physician Panel process.
- a reprioritization of work on Part D applications so as to expedite the processing of the greatest number of cases and move to the front of the queue those applicants we believe are most likely to receive the greatest benefit from the program. Specifically, we have moved those applications relating to beryllium, silica, and asbestos exposure to the front of the queue, as well as those applications which have already received a positive determination from the Part B program. In addition, we are processing applications from living applicants first because of the availability of medical benefits for living applicants in most State workers compensation systems, and are awaiting dose reconstructions for those remaining applications where dose reconstructions are pending from the Part B program.
- the implementation of 17 of 21 recommendations made by The Hays Companies, a management consulting company, hired to analyze our processes and make recommendations on how to improve the program. The attached chart details those recommendations and DOE's implementation of them. Of the remaining four recommendations, DOE rejected two, because they recommended limiting access to the program as a way to limit the growth in the backlog of applications; and DOE has under consideration two recommendations.
- an aggressive, and multi-agency coordinated set of initiatives to recruit physicians, and
- the creation of a new advisory committee focused on the implementation of Part D process improvements and the development of additional process improvements.
- Legislative changes: the Secretary submitted legislation to amend the EEOICPA statute on March 29, 2004. The legislation would eliminate the pay cap on physicians and expand hiring authority for them. If enacted, these changes would significantly increase the supply of physicians willing and able to work on Physician Panels, and would greatly expedite processing of applications.
- Budget: an appropriations transfer for FY04 of \$33M and a FY05 budget request of \$43M. These funds will provide for the contractor support, staff and other resources needed to ramp up the number of determinations from approximately 35 per week today to 300 per week in FY05.

*Question 34.* The GAO has told me that many of the workers at the Paducah plant will not have a willing payor even if their claims are determined valid. This problem was identified by your advisory committee nearly 2 and a half years ago.

- Does the DOE ever plan to address this issue?
- Will any of the \$40 million that DOE is requesting for the Energy Employees Occupational Illness Compensation Program be used to help resolve this issue?

Answer. The Department is addressing the "willing payer" issue by working hard to identify DOE contractors who may be directed not to contest workers' compensation claims filed by workers who have received positive Part D Physician Panel findings. The Department is not at this time proposing legislation that would change

the Part D benefit provided by current law because: 1) Congress determined after multiple proposals and much debate to create the benefit currently provided by the statute; and 2) it will be many months before a sufficient number of cases will be completed through the States' workers' compensation processes in order to provide sufficiently large data sets of results to offer somewhat statistically significant results about the benefits provided under state workers' compensation systems. The Department believes it is fully and fairly carrying out the requirements of the law.

The Department is providing all assistance allowed by law to Part D applicants. Some of these applicants are calling the program management directly to get answers to their questions. The Department is happy to provide this type of support as these cases represent some of the initial claims entering into a State workers' compensation process. And, the Department is providing access to all available resources in order to ensure these applicants obtain answers as quickly as possible. In addition, the Department is developing a "post-panel determination" assistance program to help our applicants with the filing of their State workers' compensation claims. This program will provide applicants with assistance on the rules and procedures for filing State workers' compensation claims in their respective States. Certain elements of this assistance are already in place and the program will be fully implemented within the next several months.

*Question 35.* In the Fiscal Year 2003 Defense Authorization Bill, I helped add a provision which was intended to strengthen industrial and construction safety protections for workers at DOE sites. Recently, the DOE proposed regulations for these protections which appear to actually weaken safety protections. Can you explain to me why allowing contractors to develop their own safety standards and eliminating DOE Order 440.1A will increase safety protection for workers.

Answer. Please see attached letter to Senator Bunning.

#### DUF<sub>6</sub> STATUTORY DEADLINE

The DOE has requested \$55.9 million for the DUF<sub>6</sub> facility. Under current law, construction of the DUF<sub>6</sub> facilities at Paducah and Portsmouth is supposed to begin by July 31, 2004. I have heard concern that this deadline may not be met because the DOE may delay issuing a required environmental impact statement or making a determination about whether the contractor has an adequate percentage of foreign ownership control.

*Question 36.* Does the DOE plan to meet the statutory deadline?

Answer. Yes, groundbreaking at both sites is planned for July 2004.

#### COAL RESEARCH & DEVELOPMENT FUNDING

*Question 37.* Coal plays a vital role for the energy in our country. Do you think the DOE funding for coal research and development will help bring clean coal technology into the commercial sector quickly?

Answer. Yes, it will. Clean coal technology is already entering the commercial sector. For example, low cost SO<sub>2</sub> scrubber technology developed in partnership with industry is broadly deployed. Low NO<sub>x</sub> combustors, which were developed with DOE money, have been deployed on over 70% of the coal power plants capable of using them.

The Clean Coal Power Initiative (CCPI) is now taking the next generation of clean coal technologies currently leaving the laboratory stages and demonstrating their commercial feasibility as a final stepping stone to their commercial deployment.

THE SECRETARY OF ENERGY,  
Washington, DC, March 5, 2004.

Hon. JIM BUNNING,  
U.S. Senate, Washington, DC.

DEAR SENATOR BUNNING: Thank you for your February 6, 2004, letter providing comments on the Department's notice of proposed rulemaking for Title 10 of the Code of Federal Regulations, part 851, "Worker Safety and Health." We have added your letter to the public file for the worker safety and health rulemaking.

Protecting the health and safety of workers at DOE sites is a top personal priority for me. The incidences of injury and days lost as a result of workplace injury have fallen at DOE for the third straight year and are now well below the rates experienced in private industry. I am pleased that in the legislation instructing us to promulgate this legislation, Congress recognized DOE's impressive record by directing us to promulgate a worker health and safety rule that "provides a level of protection for workers at [DOE] facilities that is substantially equivalent to the level of protection currently provided to such workers at such facilities."

I am determined that the end-product of this rulemaking will be one that meets Congress's direction and my own commitment that DOE promulgate a rule that builds and improves on the level of protection that we currently provide.

Since publication of the notice of proposed rulemaking on December 8, 2003 (68 FR 68276), the Department has received significant concerns and comments from several parties, including the Defense Nuclear Facilities Safety Board (DNFSB). Therefore, I directed that our rulemaking be suspended on February 27, 2004 to allow the Department time to consult with DNFSB to resolve its concerns and to consider the views of other interested stakeholders as appropriate (69 FR 9277). We are in the process of engaging in consultation with the DNFSB and evaluating all of the comments received to identify the major issues and recommendations for further rulemaking actions. Please be assured that we have noted and will give appropriate consideration to the issues and recommendations discussed in your comment letter.

I am personally committed to ensuring that any rule we promulgate is constant with the principles I have outlined here and will see to it that appropriate changes be made to the proposed rule to meet these goals.

Sincerely,

SPENCER ABRAHAM

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*Question 38.* The former worker medical screening programs received \$14.95 million in Fiscal Year 2004. Yet the DOE recently indicated it only allocated \$9.7 million in FY 04 for this purpose. Please explain what happened to the \$5.25 million that was appropriated for this purpose within the Office of Environment, Safety and Health account, and why the total \$14.95 million has not been used for its stated purpose?

*Answer.* The Occupational Medicine/Worker Medical Surveillance program was identified at a level of \$14.950 million in the Health line item in the President's FY 04 budget. EH intends to support the program at this level. This program includes both the Former Worker Medical Screening Program and the Former Beryllium Worker Medical Screening Program.

The FY 04 funding level was arrived at through extensive discussion with the Principal Investigators of each of our studies. Funding provided are those funds agreed upon between DOE and the Principal Investigators of the site-specific studies across the DOE. The funding levels are sufficient, as agreed upon by the Principal Investigator, to fully fund their project in FY 04. The site-specific studies will be fully funded at \$12.574M in FY 04. Of the \$12.574M, \$1M is congressionally directed to support medical screening at the Gaseous Diffusion Plants. In addition, \$2.161M is included to fund ORISE in support of their beryllium lymphocyte proliferation testing and analysis, and beryllium surveillance activities, also in support of the Worker Medical Surveillance Program.

The Department is looking to transition the program from these site specific activities to a nation-wide program in FY 05 to provide medical screening to all former DOE workers, regardless of their physical location. This move to a nation-wide program is also anticipated to make a greater percentage of funds available for former workers medical screening by reducing the overhead charges from the existing dozen Principal Investigators. The remaining funds of \$2.376M (\$14.950-\$12.574) will be used in support of the transition to the nation-wide program.

All the \$14.950M will be used in support of the Worker Medical Surveillance Programs.

#### RESPONSES TO QUESTIONS FROM SENATOR BINGAMAN

*Question 39.* The Department is proposing to create a new office called the "Office of Future Liabilities". In volume 4, page 187, it states that this Office will "manage environmental liabilities not assigned to the Office of Environmental Management." The next sentence then says "These needs are expected to grow substantially due to the back log of environmental liabilities at active DOE sites."

Can you explain (1) approximately how much will this budget grow beyond its fiscal year 2005 \$8 million?

*Answer.* FL is proposed as a small organization with \$8 million and 4 Full Time Equivalent (FTE) staff to develop the baseline for cleanup activities not currently part of the EM inventory. The future size of the FL organization will be determined through the initial planning activities to define the baseline for environmental activities and to establish organizational assignments within the Department for carrying out these activities.

## LOS ALAMOS CORRECTIVE ACTION ORDER

Since November 2002, the Department has been in negotiation with the State of New Mexico over its corrective action order for the Los Alamos clean up. I understand that for fiscal years 2003 and 2004, when the corrective action order was issued, the Department has held back \$69.5 million of the budgeted amount of \$214 million, or roughly 33 percent.

*Question 40.* Can you explain the substantial rationale based on change of work scopes why the Department has held back 33 percent of the clean up funds and does the Department have similar hold back plans for fiscal year 2005?

Answer. In accordance with Congressional direction, the Department has been restricted in fiscal years (FY) 2003 and 2004 from providing certain funds for cleanup at sites where the Department has not entered into agreement with State regulators consistent with the intent of the Department's accelerated cleanup reform initiative. In FY 2003, in accordance with Section 315 of H.J. Res. 2 (January 23, 2003), the Department was restricted from releasing \$26.4 million to Los Alamos. For FY 2004, consistent with Report 108-357 (November 7, 2003) accompanying the FY 2004 Energy and Water Development Appropriations (H.R. 2754), the Department likewise was restricted from releasing \$26.6 million to Los Alamos. In March 2004, the Department and the State of New Mexico reached agreement on all issues associated with a Consent Order for cleanup at the laboratory. In the judgment of the Assistant Secretary for Environmental Management, the Consent Order is consistent with the Department's accelerated cleanup initiative. The Consent Order will be made available for public comment prior to signature and execution by the Department and the State. As a result, the Department released the accelerated cleanup funds.

## NWSA LEGISLATIVE STRATEGY

The Department last year proposed to legislatively amend the Nuclear Waste Policy Act to reclassify high-level waste left over as residue in reprocessing waste storage tanks at Hanford and Idaho.

*Question 41.* If the Department were to pursue this legislative strategy, do you have an estimate of the additional TRU waste that would be bound for the Waste Isolation Pilot Plant?

Answer. Prior to the Idaho District Court decision, DOE had planned to dispose of approximately 2.2 million gallons of tank waste from Hanford and Idaho as transuranic (TRU) waste, based on the Department's interpretation of the Nuclear Waste Policy Act. The legislative clarification that the Department would pursue would not increase the estimate of 2.2 million gallons.

The Department has experienced embarrassing delays over the Energy Employees Occupational Illness Compensation Program Act.

*Question 42.* Beyond simply increasing the number of physician panels, does the Department support developing mechanisms for establishing new cohort classes of illnesses, which the Department of Labor can act quickly on?

Answer. The statute and Executive Order 13179 designate HHS as the agency responsible for deciding whether to add classes of employees to the Special Exposure Cohort (SEC) for the Part B program. HHS is currently in the final interagency review process for its Proposed Rule for procedures to consider and make these determinations. The only role the law provides for DOE in the SEC process is to provide access to relevant information on worker exposures to HHS and the Advisory Board on Radiation and Worker Health, and DOE stands ready to provide such assistance. SEC is not part of the Part D program for which DOE has responsibility; it is used only in the Part B process. That is why increasing the number of Part D Physician Panels is not related to developing mechanisms for adding new classes of employees to the SEC.

## TRUPACT III CONTAINER

As you know, the NRC has recently approved regulations for licensing new TRUPACT III containers as part of the effort to speed up waste shipments to the Waste Isolation Pilot Plant. On page 198, volume 5, of the fiscal year 2005 budget, the DOE proposes submitting a TRUPACT III license to the NRC.

*Question 43.* If the DOE were to submit a license for a TRUPACT III container to the NRC, would the DOE agree to perform full scale testing of a TRUPACT III container and compare it to computer models to ensure its safety as was performed similar to the TRUPACT II's?

Answer. DOE would follow the U.S. Nuclear Regulatory Commission's (NRC) requirements for certification of TRUPACT III containers. At this time, DOE is not contemplating additional analyses or testing beyond what NRC requires.

*Question 44.* This year the OMB gave the environmental management program a Program Analysis Rating of 26 out of 100, while the Office of Science got score ranging from 82-93 percent.

Given these scores, why then, did the EM program's funding increase by 6 percent by \$433 million while the Office of Science declined by 2 percent or \$68 million?

Answer. Environmental Management's (EM) total Program Assessment Rating Tool (PART) score for the FY 2005 cycle was 61 out of 100 (rated Adequate).

Since 2001, a top priority for the EM program has been to reform and refocus its program to reduce risk and make cleanup more efficient and cost effective, EM's budget request for FY 2005 represents the peak year of investment in this strategy. The out-year funding profile begins to reflect the dramatic cost savings from this approach.

It should be noted that PART scores are just one of many factors that are considered in making resource allocation decisions. PART helps managers identify areas for improvement, and is considered along with other factors in determining the resources required to meet our strategic objectives. The level of resources requested for both the Environmental Management program and the Science program are considered sufficient to achieve the Department's mission in these areas.

#### FUSION DOMESTIC RESEARCH

*Question 45.* The FY04 Energy and Water Appropriations Conference Report states, and I quote, that "The conferees strongly caution the Department against submitting any future budget requests for ITER that are funded at the expense of domestic research." This reflects the recommendations of the recent National Academies Burning Plasma Report and the DOE'S own Fusion Energy Sciences Advisory Committee. And yet the proposed budget makes precisely those cuts. The number of vital run weeks at each of the three major magnetic fusion facilities is slashed from 18 to 14, and the long-term fusion technology program is zeroed out, in part to pay for preparation for ITER construction. If, as part of our nation's effort to reduce our dependence on foreign oil support for fusion has become a major priority of this administration as it has claimed, and if the U.S. is expected to make a serious scientific contribution to this new international endeavor, how can these cuts be justified?

Answer. The FY 2005 budget request does not reduce the overall level of domestic fusion research to any significant extent as a result of ITER preparations. Where appropriate, domestic fusion experimental, theoretical and enabling technology research is reoriented more toward the needs of ITER. This research is performed by existing fusion scientists and engineers. Only a very small amount, on the order of \$1,000,000 of the ITER preparations, is for industrial preparations at this time. This reorientation of fusion research has resulted in some shifts in priorities, such as reducing facility operating time and focusing technology more on the near term, but overall the domestic fusion research is not reduced to any significant extent. This reorientation of the fusion program is consistent with the National Research Council recommendation to include ITER as part of the fusion program due to its significant interfaces with all parts of the program.

*Question 46.* Is the Administration or the Energy Department concerned about the expiration of the ESPC authority? Does the Administration or the Energy Department have a plan for meeting the Federal government's energy savings goals without this means of financing energy efficiency improvements? Do you have a legislative strategy for extending the authority for ESPCs?

Answer. The Administration is very concerned about the expiration of ESPC authority, and we hope that the Congress will reauthorize the use of ESPCs as soon as possible. Without ESPCs, we do not believe that the Federal government will meet its energy efficiency and renewable energy goals.

The Department supports comprehensive energy legislation that contains a reauthorization of ESPC authority. In the absence of such legislation, we also would support a stand-alone provision for the reauthorization of ESPCs.

*Question 47.* Please provide copies of the budget request for the Marshall Islands Program, Office of Health, including a breakout of major program elements for fiscal years FY03 (as funded), FY04 (as funded), and FY05 (as requested).

Answer. The following chart shows the breakout of funding for fiscal years FY03 and our anticipated expenditures for FY04. The costs in FY04 are less than FY03 because our contractor will be evaluating the current data that has been collected over several years and generating reports. There will be no need for a trip to the Marshall Islands by the contractor in FY04 to collect additional data.

The Department does not request funding for the Marshall Islands Program as a separate line item. It is part of the overall Health line for the Office of Environ-

ment, Safety and Health. The request for the Health budget line in FY05 is \$45,222,000.

UNITED STATES DEPARTMENT OF ENERGY  
MARSHALL ISLANDS PROGRAM BUDGET SUMMARY FY2002-2004

[Dollars in 000's]

Program element	FY 2003 (actual)	FY 2004 (estimate to date)
Medical care—general .....	\$1,025	\$ 900
Medical care logistics—general .....	947	900
Medical care logistics—patient referrals .....	368	300
Subtotal, Special Medical Care Activities .....	2,340	2,100
Radiological monitoring—general .....	2,177	1,600
Radiological monitoring—plutonium urinalysis .....	323	150
Radiological monitoring logistics—general .....	1,285	550
Subtotal, Radiological Monitoring Activities .....	3,785	2,300
Technical support .....	175	0
Capital equipment: .....	0	0
Total, Marshall Islands Activities .....	\$6,300	\$4,300

RESPONSES TO QUESTIONS FROM SENATOR AKAKA

*Question 48A.* I am pleased to see the increase for hydrogen production—\$14.9 million from FY 2004 to FY 2005—in the Hydrogen Technology Initiative. The budget document states that the majority of funding will focus on renewables.

(1) What percentage of the line item will be allocated to renewables?

EERIE FUNDING TABLE

[Dollars in 000's]

Hydrogen technology—EERE Only	FY 2004 request	FY 2004 Comp. approp.	FY 2005 request	\$ Change
Production and Delivery R&D .....	23,000	22,564	25,325	+2,761
Storage R&D .....	30,000	29,432	30,000	+568
Infrastructure Validation .....	13,160	18,379	15,000	-3,379
Safety, Codes & Standards, and Utilization .....	16,000	5,904	18,000	+12,096
Education and Cross-Cutting Analysis .....	5,822	5,712	7,000	+1,288
Total, Hydrogen Technology .....	87,982	81,991	95,325	+13,334

Answer. The requested \$13.3 million increase in Hydrogen Technology funding from FY 2004 to FY 2005 includes funding for production and delivery; storage; infrastructure validation; safety, codes & standards, and utilization; and Education and Cross-Cutting Analysis as shown in the table below.

Of the \$25.3 million requested in production in EERE, \$19 million is for renewable hydrogen production and delivery technology and \$6.3 is for distributed natural gas reforming technologies. In addition, approximately \$25 million in additional funding is being requested from other offices within the Department for hydrogen production from coal and nuclear energy.



*Question 48B.* I am pleased to see the increase for hydrogen production—\$14.9 million from FY 2004 to FY 2005—in the Hydrogen Technology initiative. The budget document states that the majority of funding will focus on renewables.

(2) Do you project that this increase, which is modest, will be enough to make hydrogen production costs from renewables competitive with non-renewable production, such as from natural gas or coal, over the next five years?

Answer. The FY 2005 request of \$19 million for renewable hydrogen production keeps us on track to meet our 2010 goal of \$3.90 per gallon gasoline equivalent (delivered, untaxed). In fact, based on alternative renewable technology pathways for hydrogen production, we now believe we can achieve a more aggressive target of \$2.85 per gallon gasoline equivalent by 2010. Even this more aggressive target will probably not be competitive with production of hydrogen from natural gas in 2010 in most markets, but continued research will lower costs further. The FY 2005 request for hydrogen production from distributed natural gas is \$6.3 million and from coal is \$16 million. Our strategy for energy security is to have multiple pathways for hydrogen production from domestic energy resources.

*Question 48C.* I am pleased to see the increase for hydrogen production—\$14.9 million from FY 2004 to FY 2005—in the Hydrogen Technology initiative. The budget document states that the majority of funding will focus on renewables.

(3) What is your estimate of the funding necessary to make renewable production realistic and affordable for the future?

Answer. For research and development, the funding needs are difficult to estimate and depend on technical advances made by DOE and other government agencies, industry, and/or other governments. We will focus on making incremental progress toward reducing costs of hydrogen production from renewables, and our funding requests each year will reflect our estimated needs to achieve our targets.

*Question 48D.* One question I have is about the decrease in funding for Vehicle Technologies by \$21.3 million dollars and the increase in funding for the Fuel Cell Technologies program of \$12.3 million dollars.

(4) Of the fuel cell increases, can you please explain what proportion of those increases support the FreedomCAR Partnership objectives? And can you please provide the budget details to my staff.

Answer.

#### FUNDING SUMMARY

[Dollars in 000's]

FreedomCAR & vehicle technologies	FY 2004 request	FY 2004 comp. approp.	FY 2005 request
Vehicle Systems .....	14,514	14,335	13,883
Innovative Concepts .....	500	494	500
Hybrid and Electric Propulsion .....	49,563	45,002	51,821
Advanced Combustion R&D .....	37,085	54,405	35,936
Materials Technology .....	39,640	39,744	39,799
Fuels Technology .....	6,800	16,494	6,800
Technology Introduction .....	5,900	4,939	6,014
Technical Program Mgmt. Support .....	2,121	2,095	1,903
Biennial FreedomCAR Peer Review .....	1,500	494	0
Program Total .....	157,623	2	156,656
Hydrogen, fuel cells, and infrastructure technologies	FY 2004 request	FY 2004 comp. approp.	FY 2005 request
Production and Delivery .....	23,000	22,564	25,325
Storage R&D .....	30,000	29,432	30,000

Hydrogen, fuel cells, and infrastructure technologies	FY 2004 request	FY 2004 comp. approp.	FY 2005 request
Infrastructure Validation .....	13,160	18,379	15,000
Safety, Codes & Standards, and Util. ....	16,000	5,904	18,000
Education and Cross-Cutting Analysis .....	5,822	5,712	7,000
Total, Hydrogen Technology (EWD) .....	87,982	81,991	95,325
Transportation Systems .....	7,600	7,506	7,600
Distributed Energy Systems .....	7,500	7,408	7,500
Stack Component R&D .....	28,000	25,186	30,000
Fuel Processor R&D .....	19,000	14,815	13,858
Technology Validation .....	15,000	9,877	18,000
Technical Program Mgmt. Support .....	400	395	542
Total, Fuel Cell Technologies (Interior) .....	77,500	65,187	77,500
Program Total .....	165,482	147,178	172,825

The entire increase of \$12.3 million from the FY 2004 appropriated levels to the FY 2005 request in the Fuel Cell Technologies (Interior) directly supports the objectives of the FreedomCAR Partnership. For instance, the increase in Stack Component R&D addresses key FreedomCAR Partnership fuel cell objectives for decreasing cost and improving durability.

In addition, the increase in Technology Validation directly addresses safety issues, vehicle/refueling interfaces, and evaluation of fuel cell vehicle performance and durability issues by obtaining data under real operating conditions. This data will reveal understanding of degradation and failure mechanisms of fuel cell vehicles and engines, which will help focus fuel cell research under the FreedomCAR Partnership.

The decrease in Fuel Processing R&D reflects a decrease in outyear funding commitments as a result of conducting the FY 2004 Go/No-Go decision for on-board fuel processing.

#### NATURAL GAS TECHNOLOGIES PROGRAM

The Department of Energy is requesting \$26 million in the FY 2005 budget for the Natural Gas Technologies Program. One of the goals of the program is long-term production of natural gas from the U.S.'s vast deposits of methane hydrates. This little-understood resource could also provide more detailed information on greenhouse gases and the mechanisms necessary to reduce carbon dioxide. We need to continue and increase this commitment to invest in basic research.

*Question 49(1).* Given the stated commitment of the Department to affordable natural gas, why has the Department's funding request decreased? Starting with FY 2003, funds have declined over 43% to the proposed FY 2005 budget request. Is the Department not committed to innovative research and resource assessment for gas technologies? Does the funding request reflect the Department's commitment to the program?

Answer. Evaluation of this program under the Program Assessment Rating Tool (PART) found that it frequently duplicated private sector R&D efforts, and lacked a rigorous peer review process. Although the PART scores increased from 34% to 48% for oil and 32% to 44% for natural gas, PART still rates these programs as "ineffective." The reduced funding represents a reordering of the priorities to focus on activities like natural gas production from hydrates and LNG safety that require a Federal presence to attain the President's energy security, Clear Skies and Climate Change goals, or are long term, high risk activities. The Administration believes that Oil and Gas R&D are important to ensuring the energy security for the Nation.

The program will continue to fund advanced research for more efficient and environmentally sound technologies such as finding beneficial uses for water that is produced in association with oil and gas, and will ensure that each project will work

toward the goals of the program. In addition, DOE will perform important research to ensure government decision making occurs using the best available science.

*Question 49(2).* A key component of the Natural Gas Exploration and Production—Sustainable Supply Program is to support the Liquefied Natural Gas importation initiative. How does this promote the over-arching goal of decreasing the nation's dependence on imported energy sources?

Answer. LNG imports will be needed to augment U.S. production, which is projected to be unable to fill increased demand.

U.S. demand for natural gas is increasing and this increase is forecast to continue. EIA (AEO 2004) projects that natural gas demand will grow by nearly 40% by 2025 C from 22.78 Tcf in 2002 to 31.41 Tcf in 2025. However, domestic supplies have been unable to satisfy natural gas demand and this "gap" is expected to widen. Natural gas imports (with Canada supplying the vast majority via pipeline) have made up the deficit. By all accounts, increases in Canadian imports are not viable.

Natural gas imports are needed to augment U.S. production. LNG can supplement U.S. supplies in the near term. With respect to natural gas, world resources are significant with "stranded gas" unable to reach potential markets unless using LNG. At the beginning of 2003, known world natural gas reserves were 5,500 trillion cubic ft—60 times the volume of gas consumed that year.

According to EIA's Annual Energy Outlook (AEO) 2004, "Just a few years ago, it was believed that natural gas supplies would increase relatively easily in response to an increase in wellhead prices because of the large domestic resource base. This perception has changed over the past few years. While average natural gas wellhead prices since 2000 have generally been higher than during the 1990s and have led to significant increases in drilling, the higher prices have not resulted in a significant increase in production. With increasing rates of production decline, producers are drilling more and more wells just to maintain current levels of production." EIA's AEO 2004 further states: "LNG imports are expected to constitute an increasing proportion of U.S. natural gas supply . . .". Total net imports are projected to supply 21 per cent of total U.S. natural gas consumption in 2010 (5.5 TCF) and 23 percent in 2005 (7.2 TCF), compared with recent historical levels of around 15 percent. Nearly all of the increase in net imports, from 3.5 TCF in 2002, is expected to consist of LNG.

*Question 49(3).* Are funds being diverted from programs that investigate such sources as methane hydrates to the Sustainable Supply initiative, and if so, how does this contribute to long-term energy independence?

Answer. No, funds are not being diverted. The Exploration and Production program has been integrated into a Sustainable Supply program that is focused on creating public benefits by investing in research that the gas industry would not take on itself. We are focusing on long-term, high-risk research and data analysis that is critical to policy makers. Our efforts have potentially high payoffs for the public.

The budget for the methane hydrates program reflects a long time horizon and our need to prioritize within the Fossil Energy program to address other issues, such as Liquefied Natural Gas (LNG), with a shorter time frame for realizing benefit to the taxpayer.

*Question 50.* I am pleased that the budget includes \$5.6 million dollars for the National Nuclear Security Administration's Off-site Source Recovery Project, which will help collect unwanted radioactive materials and prevent them from being used as radiological dispersal devices. I am also pleased that there is \$3 million dollars budgeted within the Office of Future Liabilities to begin an Environmental Impact Statement for a facility to permanently dispose of these sources.

While this is a good first step, I remain concerned about the progress being made in this area. This disposal facility is necessary to close the loop on the life-cycle of these sources once they are collected, and should continue to be a priority for the DOE.

Questions:

*Question 1.* How will the transfer of the Off-site Source Recovery Project to the National Nuclear Security Administration affect the Department's ability to develop a permanent, safe, and secure disposal facility for these sources?

Answer. The transfer of the function for recovering unwanted radioactive sources and providing interim safe and secure storage has no impact on the function of permanently disposing of these sources. The National Nuclear Security Administration can continue to identify and recover such sources and put them into secure storage to prevent them from being potential used in radiological dispersion devices. Such sources will be one waste stream that will be disposed in a facility or facilities developed for the disposal of all Greater Than Class C (GTCC) low-level radioactive waste, as defined in the Low-Level Radioactive Waste Policy Act Amendment. De-

velopment of such disposal capability must take into account projections for quantity and forms of sealed sources but the transfer of responsibility for recovering and storing such sources has no impact on developing disposal capabilities.

*Question 2.* Is the \$3 million dollars budgeted for the environmental impact statement for the Greater-Than Class-C waste adequate to allow for the exploration of disposal alternatives?

Answer. Prior year funds have already been obligated to start work on the environmental impact statement. The additional \$3 million requested for FY 2005 will complete all activities associated with the environmental impact statement.

*Question 3.* Could you elaborate on the Department's plan to proceed with the development of a facility to permanently dispose of these wastes?

Answer. The Department's plans for developing capabilities for disposing of Greater Than Class C (GTCC) low-level waste are focused on the National Environmental Policy Act (NEPA) process. This process sets the overall framework for the federal government to make decisions that may have an impact on the environment. The Department will prepare an environmental impact statement pursuant to NEPA to address disposal of GTCC low-level waste. As part of the EIS process the Department will: 1) develop estimates of the inventory of such wastes including forms of the waste and specific radiological and chemical characteristics; 2) identify alternatives for providing disposal capability, including technologies to be used and sites to be considered; 3) evaluate the impacts of these alternatives (including both environmental and socio-economic impacts); and 4) address environmental and regulatory issues in developing GTCC low-level waste disposal capabilities. Upon completion of the EIS, the Department will prepare a Record of Decision documenting how it intends to develop GTCC low-level waste disposal capability. This may include a single facility or a set of facilities.

The Low-Level Radioactive Waste Policy Act Amendments stipulate that the Nuclear Regulatory Commission (NRC) will license facilities for disposing of GTCC low-level waste. DOE will need to submit a license application to the NRC demonstrating it can safely construct and operate such a facility. The NRC will then license the facility(s) according to its licensing processes.

#### RESPONSES TO QUESTIONS FROM SENATOR FEINSTEIN

##### REQUEST FOR RNEP RESEARCH

*Question 51.1* Has the Department of Defense requested research to be conducted on either the Robust Nuclear Earth Penetrator or other earth penetrating nuclear weapon? If there is no requirement from the Department of Defense, then why is the Department of Energy conducting this research?

Answer. On January 18, 2002, the Nuclear Weapons Council, composed of the National Nuclear Security Administration (NNSA) Administrator, the Undersecretary of Defense for Acquisition, Technology, and Logistics and the Vice Chairman of the Joint Chiefs of Staff requested the Air Force to lead the current joint Department of Defense-NNSA feasibility, design definition, and cost study of the Robust Nuclear Earth Penetrator.

The request for RNEP research is consistent with the recommendations of the December 2001 Nuclear Posture Review Report and the January 2001 Capstone Requirements Document for the Defeat of Hard and Deeply Buried Targets.

##### ADVANCED CONCEPT RESEARCH ACTIVITIES

*Question 51.2* Recently, Ambassador Brooks wrote to the Directors of the Weapons labs that they are now "free to explore a range of technical options without any concern that some ideas could violate a vague and arbitrary limitation" and encourages design teams "to take advantage of this opportunity." Yet Congress is on the record in the FY 2004 Energy and Water Appropriations bill expressing its concern about advanced concepts work, fenced two-thirds of the advanced concepts funding and in the 2004 Defense Authorization bill, places a clear limit between research and design and development engineering. Given the clear statement of congressional intent I am concerned about National Nuclear Administration and Department of Energy intentions. Please provide detailed in a classified annex, if necessary, of exactly what research activities you plan to undertake and your understanding of what limitations are in fact in place.

Answer. In section 3116 of the FY 2004 National Defense Authorization Act, Public Law 108-136, Congress repealed the 1994 restriction on low yield weapon research and development, giving NNSA the opportunity to direct the laboratories to explore concepts in this regime. The Act also fully funded the Administration's request for this important national security work as did the Senate passed version of

the Energy and Water Development Appropriations bill. The single committee that differed was the House Energy and Water Development Appropriations Committee. In the Appropriations Conference, the conferees reached the compromise of fencing two thirds of the funds pending the receipt of a report that is a product of a Department of Defense planning.

We understand our advanced concepts activities to have the following limitations: for all research and development activities involving new or modified warheads in phases prior to phase 3 or 6.3, we are limited to the funds authorized and appropriated for that purpose, which in FY 2004 is \$13.5 million of which \$7.5 million is for the RNEP study, and of the remaining \$6 million, \$4 million is fenced until ninety days after a DOE-DoD stockpile plan is submitted to Congress. Any engineering development or later activities involving the Robust Nuclear Earth Penetrator or new low yield nuclear warheads must be specifically authorized by Congress (PL 108-136, Section 3116, paragraph (c) and Section 3117). For any other new or modified weapons work in phase 3 or 6.3 or later, with some specific exceptions, we must request funds as a separate dedicated line item (PL 107-314, Section 3143, subparagraph (b)(2)).

A detailed report of the Advanced Concepts Initiative activities in FY 2004 is being prepared for Congress and will be delivered soon.

#### NNSA ADVISORY COMMITTEE

*Question 51.3.* Last July, Administrator Brooks announced the decision to dissolve the National Nuclear Security Administration Advisory Committee. This panel not only provided an advisory role on our nuclear weapons programs but also provided transparency to Congress and the American people regarding how decisions were being made regarding our nuclear stockpile. Why did the Department of Energy decide to dissolve this important advisory committee, particularly when the Administration is proposing to double and triple funding for controversial programs seeking to research and develop new or modified nuclear weapons?

Answer. The committee's charter expired and was not renewed. It had always been intended that this would be an experiment. The decision not to renew the charter was based on: (1) the contrast between the form of advice (long-term, detailed studies) that the Committee appeared to prefer and the more ad hoc approach that the NNSA Administrator and his senior staff preferred; and (2) the substantial administrative burden of supporting the committee. Some former Committee members (including its Chair) still provide advice through other mechanisms. In addition NNSA gets input from the U.S. Strategic Command Strategic Advisory Group, the Defense Sciences Board, the Secretary of Energy Advisory Board and the national Academy of Sciences/National Research Council.

*Question 52.* As you may know, existing contracts between PG&E and Western Area Power Administration expire on January 1, 2005. It is my understanding that Western Area Power Administration is looking at alternatives that are subject to the Department of Energy's authority. Can you detail for me the criteria with which you will make a decision regarding Western Area Power Administration's future, particularly relating to how it will affect electricity reliability and cost of electric power?

Answer. The criteria used by the Western Area Power Administration (Western), as described in its June 24, 2003, *Federal Register* notice, are flexibility, certainty, durability, operating transparency and cost-effectiveness.

Flexibility preserves the ability of Western to join a Federal Energy Regulatory Commission-approved and certified regional transmission organization in the future and to adapt to ongoing changes in the electric utility industry.

Certainty assures that cost-of-service rates remain stable and predictable. Western further defined certainty as having stable rates and charges so Western and its customers will be able to continue engaging in long-term business planning and to undertake prudent long-term commitments under a reasonable risk management planning horizon.

Durability assures operating protocols are well established and subject to minimal changes over time. This definition also included business processes; major changes in business processes can significantly impair the efficiency and ability of individual organizations to respond effectively because of the need for increased staffing and resources.

Operating transparency minimizes operating impacts on third parties. Western defines this factor as Western's ability to operate the Federal system with minimal impacts on third parties.

Cost-effectiveness minimizes cost shifts and considers the relative cost and benefits to Western's customers. Cost-effectiveness also includes the concept of ensuring

that the overall cost of system operation and delivery of Federal power is kept as low as possible consistent with sound business principles.

During the public process, the California Independent System Operator and several other commenters expressed a desire to include reliability as an additional evaluation category. However, Western decided not to include reliability as a separate evaluation criteria because, under existing Western Electricity Coordinating Council and North American Electric Reliability Council operating criteria, Western must assure that, whichever operational alternative is ultimately selected does not negatively impact third parties. Consequently, Western determined that adopting this criteria would be redundant.

*Question 53A.* Can you tell me how the Administration will overcome the barriers in its way regarding storing and shipping hydrogen, finding renewable sources from which to develop a hydrogen economy; and how to make the cost of hydrogen fuel cells equal to regular gasoline?

Answer. The Department has developed detailed multi-year research plans which describe the technical approaches to overcoming the barriers to a hydrogen economy. These plans are based on a year-long effort among the Department, industry, academia and other groups that resulted in a National Hydrogen Energy Roadmap for hydrogen production, delivery, storage, conversion, applications, as well as codes and standards and education. Our detailed plans include interim milestones to track progress and "go/no-go" decision points to down-select best approaches to overcoming each of the barriers. In May 2003, the Department hosted a Basic Energy Sciences Workshop to develop and document the basic research needs for the hydrogen economy. This report and the Department's multi-year plans are available at [www.eere.energy.gov](http://www.eere.energy.gov).

*Question 53B.* Can you tell me why the Administration does not more aggressively fund technologies that are available today, such as hybrids, to bridge the gap between purely gasoline vehicles and the hydrogen economy?

FUNDING SUMMARY

[Dollars in 000's]

FreedomCAR & vehicle technologies program	FY 2004 request	FY 2004 comp. approp.	FY 2005 request
Hybrid and Electric Propulsion .....	49,563	45,002	51,821

Answer. The Department does support hybrid-electric vehicles through its FreedomCAR and Vehicle Technologies Program. In fact, the Department is requesting more than \$51 million for hybrid and electric propulsion activities in FY 2005, a 15% increase over FY 2004 appropriation levels. This effort focuses on removing the barriers to efficient, cost-effective hybrid vehicles by improving both the performance and potential cost of the components that make up a hybrid system.

Improving hybrid technologies (e.g., batteries or capacitors for energy storage, power electronics for energy conversion and management, and efficient electric traction motors) will assist in the application of hybrid technologies across the entire vehicle market, an important objective of the FreedomCAR Partnership. Advances in hybrid technologies also contribute to bridging the gap to hydrogen fuel cell vehicles.

Finally, the President's National Energy Policy recommended that consumer tax credits for hybrid vehicles be passed by the Congress. We hope the Congress will soon adopt such a tax credit as part of comprehensive energy legislation.

PERCHLORATE REMEDIATION

There are 44 states in which perchlorate use and manufacturing has been confirmed. Twenty-five states, including California, have reported perchlorate ground and surface water contamination. California obtains approximately 30% of its drinking water from groundwater sources. Current perchlorate remediation efforts are costly and time consuming.

*Question 54.* Has any national laboratory been afforded the opportunity and funding to conduct a study to determine cost effective processes for perchlorate remediation to address this national problem?

Answer. The national laboratories have performed scientific research on perchlorate. The following is a synopsis of two ongoing projects:

- The Oak Ridge National Laboratory has been researching perchlorate treatment and recently developed a new methodology to degrade perchlorate in regenerant solutions using ferrous iron and/or non-toxic organic reducing agents.
- Through the National Nuclear Security Administration Service Center in Albuquerque, Los Alamos National Laboratory and the Pantex Plant have developed a measurement technique for extremely low levels of perchlorate. The technique, liquid chromatography mass spectrometry mass spectrometry (LC/MS/MS) has been demonstrated to reliably measure perchlorate in groundwater in concentrations well under one part per billion.

## CLIMATE CHANGE

*Question 55.* I remain very concerned about this Administration's lack of real action against climate change. I believe that we need to make emission reductions mandatory now, and that we need to work again with the rest of the world to finalize a version of the Kyoto protocol. The President, however, has said that the Administration would instead focus on research and improving our scientific understanding of climate change.

Given the President's stated commitment to such research, I would have expected a significant request for climate change research. However, the line item in this budget is only \$3 million, and it appears that much of this research will focus on researching fossil fuel energy sources.

How do you plan to use this money and how do you explain the request for only \$3 million in the climate change line item? Does this indicate a change in the Administration's position on climate change?

Answer. The Bush Administration remains committed to a comprehensive, innovative program of domestic and international initiatives to reduce greenhouse gas emissions. The Administration believes that the aims of the United Nations Framework Convention on Climate Change (UNFCCC), to which the United States is a party, can be accomplished in one of two ways—through short-term regulations like those that would be mandated by the Kyoto Protocol, or through the development of new, low- or zero-emissions energy technologies that will allow us to make larger, long-term reductions in emissions while fostering economic growth.

President Bush has chosen the latter approach. The Bush Administration will spend approximately \$4 billion during this fiscal year on climate change science and technology activities. President Bush also supports an additional \$4 billion in tax incentives over the next five years to spur these clean, renewable energy and energy-efficient technologies.

The \$3 million line-item referred to in the question is a modest, but important part of the President's National Climate Change Technology Initiative (NCCTI). It will explore, through competitive solicitations of research grant proposals, novel concepts, technologies or technical approaches, not elsewhere covered, that could, if successful, contribute in significant ways to the reduction, avoidance or permanent sequestration of greenhouse gas (GHG) emissions.

In FY 2005, the Department will spend nearly \$2 billion on the research and development of low-emitting or non-emitting energy technologies and practices that reduce, avoid, or sequester emissions of greenhouse gases. For example, the President's FY 2005 Budget requested increases of \$110 million for U.S. participation in four international climate change technology initiatives: the Hydrogen Fuel Initiative, Carbon Sequestration, Generation IV Nuclear Systems, and the International Thermonuclear Experimental Reactor.

International cooperation is a key aspect of our technology approach, and we are pleased to be partners with the U.K. and/or the European Union in four of our most important multilateral efforts to address the risk of climate change. The Administration has also negotiated climate change agreements with 13 countries or regional groups that together account for a significant amount of global greenhouse gas emissions.

As we work on developing these long-term breakthrough energy technologies, we are also taking action in the near-term. Two years ago, President Bush set an aggressive national goal of reducing greenhouse gas intensity 18 percent by 2012. Since then we have vigorously pursued that goal many successful Federal programs, including: DOE's Climate VISION program, which involves voluntary, industry-wide commitments to reduce emissions in 12 energy-intensive sectors, and EPA's Climate Leaders, which involves 50 major companies that have developed comprehensive climate change strategies with corporate-wide emissions reduction goals. The USDA has also modified its farm conservation programs to encourage farmers to set aside farmland for carbon sequestration.

## ENERGY TECHNOLOGY ENGINEERING CENTER (ETEC)

The Department of Energy used to develop ballistics missiles at the Santa Susana Field Laboratory in Simi Valley, California. Over the decades, this site has become highly contaminated with radiation, mercury, lead, PCBs, dioxins, and other highly toxic chemicals.

For those of you who have never been there, the Santa Susana site is located on a hillside up above a community, and poses a health risk to the people who live in the valley below.

The Department of Energy is fully aware of this contamination, and the threat that it poses. As a matter of fact, in a 1995 agreement, the Department of Energy entered into a Joint Policy with the Environmental Protection Agency in which it committed to clean its sites—nationwide—to standards consistent with the EPA's Superfund cleanup standards, irrespective of whether the sites were on the National Priority List of Superfund sites.

It now appears that the Department of Energy has decided to renege on its promises to the community, to the EPA, and to my office that it will provide sufficient cleanup of the site. The Department of Energy is even going so far as to refuse to fund the EPA or anyone else to conduct a separate, independent survey of the contamination in the area.

I was dismayed to learn that the Department of Energy's final cleanup plan does not meet the Federal health and safety standards deemed necessary by the EPA. And in fact, your Agency's plan is to remove just 2 percent of the nuclear contaminated soil, an action that EPA feels is insufficiently protective of human health and the environment.

*Question 56(1).* Can you explain why the Department of Energy will not conduct a full cleanup of the site?

Answer. DOE is meeting all of its commitments to the U.S. Environmental Protection Agency (EPA) and site stakeholders, including the State regulator site cleanup requirements. The preferred cleanup alternative contained in the Environmental Assessment for the ETEC site released on March 31, 2003, is being implemented at the site. Cleanup of the site under this alternative is fully protective of human health and the environment using the 15 mrem dose exposure per year, a cleanup standard which is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and agreed to with the California Department of Health Services. This cleanup standard meets the level that EPA has stated is fully protective of human health and the environment. Furthermore, in employing this cleanup standard at the ETEC site, the residual risk at the site will fall within the CERCLA risk range of  $10E-4$  to  $10E-6$ .

## INDEPENDENT MONITORING OF RADIOACTIVE CONTAMINATION

*Question 56(2).* Can you explain why the Department of Energy has reneged on its promise to fund an independent monitoring of radioactive contamination?

Answer. We are unaware of a commitment by the U.S. Department of Energy to fund an independent radiological survey of the Energy Technology Engineering Center (ETEC) site. The Department will be conducting a survey when cleanup is complete to verify that the cleanup objectives have been met. In March 2003, the U.S. Environmental Protection Agency's (EPA) then Acting Administrator, Marianne Horinko, and DOE's Assistant Secretary, Jessie Roberson, discussed this matter. In a letter dated September 11, 2003, Ms. Roberson stated the overall conclusions from these discussions were that DOE will not separately fund EPA to conduct a separate radiological survey or an historical site assessment (HSA) of the ETEC site. During the discussions, it was agreed DOE will conduct a final verification survey of the site that will incorporate certain elements from EPA's proposed HSA work scope. This survey will be designed and executed in a manner such that it can clearly verify that the established cleanup objectives and standards for the ETEC site have been met.