DEPARTMENT OF ENERGY BUDGET AND REORGANIZATION

OVERSIGHT HEARING
BEFORE THE
SUBCOMMITTEE ON
ENERGY AND MINERAL RESOURCES
OF THE
COMMITTEE ON
NATURAL RESOURCES
HOUSE OF REPRESENTATIVES
ONE HUNDRED THIRD CONGRESS
FIRST SESSION
ON
THE DEPARTMENT OF ENERGY BUDGET AND REORGANIZATION

HEARING HELD IN WASHINGTON, DC
JUNE 8, 1993

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(III)
The Subcommittee met, pursuant to call, at 10 a.m. in room 1324, Longworth House Office Building, Hon. Richard H. Lehman (chairman of the Subcommittee) presiding.

STATEMENT OF HON. RICHARD H. LEHMAN

Mr. LEHMAN. Good morning. The Subcommittee on Energy and Mineral Resources is meeting today to review the nuclear energy programs of the Department of Energy. Our sole witness this morning is Secretary of Energy, Hazel O'Leary.

Madam Secretary, it is really a great pleasure to welcome you this morning. Thank you so much. The Department of Energy programs within the Subcommittee's purview include the Nuclear Waste Disposal Programs, both high and low level, the Uranium Enrichment Program, the Waste Isolation Pilot Plant, nuclear energy research and development, the Uranium Mill Tailing Remedial Action Program and the West Valley Demonstration Project.

Madam Secretary, I believe that yours is one of the most difficult jobs in our Federal Government. You have taken over an agency that quite frankly has to date less than a stellar record, particularly in the function that is now the department's primary work: environmental management. Your immediate predecessor certainly made efforts to reform the department, but in the end it appears he did not succeed in his self-stated goal of changing the culture.

The department is being buffeted by a fundamental change in one of its core missions—away from 50 years of nuclear weapons production and toward cleanup of the unfortunate environmental results of that production. The slow progress of the Nuclear Waste Disposal Program continues to frustrate virtually everybody.

Operation of the Uranium Enrichment Program is about to be turned over to the new U.S. Enrichment Corporation. The DOE remains responsible for the massive cleanup at the old gaseous diffusion plants.

Congress finally passed land withdrawal legislation for the Waste Isolation Pilot Plant at the end of the last Congress, but the schedule for a test phase at WIPP is already falling behind that set out in the act.
In general, relations between our Committee and DOE have not been very good in recent years—and it was not just because they were controlled by different political parties. I certainly hope and trust and know that we will be able to improve on that history. The work of the department is very important to our country. It is in all our interests that the agency be successful—and be perceived as successful—in fulfilling its mission.

Madam Secretary, I wish you the best in bringing about that success and I look forward to working with you to make it so. My focus in this morning’s hearing will be on the larger programs, namely nuclear waste management and uranium enrichment. I am especially interested in hearing about the apparent proposal to make the Nuclear Waste Fund a revolving fund and about your ongoing reassessment of the High Level Waste Program.

I would also hope to get an update on the Russian weapons uranium deal and on progress toward transition of the Enrichment Program to the Enrichment Corporation. Again, I thank you for coming this morning. I certainly look forward to your testimony, and at this time I would like to recognize the Ranking Member of our Subcommittee, the gentlewoman from Nevada, Mrs. Vucanovich.

STATEMENT OF HON. BARBARA F. VUCANOVIICH

Mrs. VUCANOVIICH. Thank you, Mr. Chairman, for holding this hearing and for recognizing me and I would like to welcome the Secretary to our Subcommittee. I look forward to hearing about the DOE programs under our jurisdiction, particularly the activities at Yucca Mountain: However, as an aside, Madam Secretary, I am quite concerned about the lack of responsiveness by your agency regarding a letter I sent to you on April 30th outlining a series of questions about Yucca Mountain. My staff received the answers very late last evening, too late to review in time for this hearing and certainly too late for me personally to review. I also was given no explanation for the delay.

But of most interest and concern to me this morning, Mr. Chairman, is the May GAO report which concludes what we in Nevada have known for some time, that the DOE has been pursuing an unrealistic deadline in their activities at Yucca Mountain and compromising scientific study in the process. The GAO says that due to scientific uncertainties, the technical activities to characterize the site may take as long as 13 years longer than expected.

The GAO report also indicates that a MRS will not be ready by 1998 and it calls for an independent review of the program.

This report is very, very troubling. To me it highlights several disturbing issues. It points out that the DOE has wasted millions of dollars, has fallen far behind schedule and has not been honest about the pace of its activities, either with Nevadans or the Congress. The answer to this criticism from the DOE when the new administration took over was, let’s step back and take a fresh, independent look at the program, as was heavily implied they would. But rather, DOE incredibly is proposing to move the Nuclear Waste Trust Fund off budget where the Congress would have less oversight and control and DOE would have almost unlimited control.
Perhaps most worrisome, but again not surprising, is that DOE, according to GAO, is attempting to meet the 2001 license application deadline by pressuring contractors to do less scientific work and to cut corners in the name of an absolutely phony and unrealistic deadline.

There are some serious open technical issues that should be closely examined by DOE and not only are they not being examined, but perhaps they are being actively suppressed. For example, the Nuclear Waste Technical Review Board has on several occasions raised concerns about DOE's strategy for dissipation of the tremendous heat that would be liberated by spent fuel over 10,000 years.

Has DOE taken note of these expert scientific concerns? No one would notice. It must be frustrating to sit on that advisory panel and listen to themselves talk with little or no scientific rebuttal from the DOE.

One other concern. How about the case of the Ghost Dance fault? I think the geologist who first mapped this geological structure must have named it Ghost Dance knowing that the DOE would swear it is just a figment of someone's imagination. Well, the Technical Review Board is sufficiently interested in the afterlife to want the DOE to hold a seance so to speak.

Let's determine whether this structure is real or imagined, not hide it under the rug of semiannual reports and talk of reconfiguring a repository design due to safety concerns. Is the Ghost Dance fault a zone for potential percolation of groundwater to repository depth or is it not? Could it have been a pathway for groundwater pumped upward by seismic and volcanic activity?

The Ghost Dance fault issue highlights the fact that DOE is continuing on a path of reckless and irresponsible action at Yucca Mountain with continued digging and the purchase of a tunnel boring machine while outside groups, such as the NWTRB and the GAO call for an independent review of the entire program.

Legislation I introduced this spring would call for freezing of the program while—I am missing a page here—while an independent review of the National Academy of Sciences takes place.

Mr. Chairman, I must say that based on all I read about Mr. Clinton during his campaign last year, I fully expected a completely different mind-set and approach to the injustice that has been done to my constituents with respect to this program. Sadly it appears that to this point I was mistaken.

However, I remain optimistic that Mrs. O'Leary and President Clinton will see the wisdom in the analysis of the GAO and the Nuclear Waste Technical Review Board by appointing an outside review group to study the entire Nuclear Waste Program at DOE.

Finally, I would urge this Committee and the Congress as a whole, in the strongest possible terms, to be ever vigilant and aggressive in its oversight of the DOE in this area. I would further urge that we oppose the revolving fund proposal for the foreseeable future until the DOE can return credibility to a program which currently has not a shred.

Thank you, very much, Mr. Chairman.

Mr. LEHMAN. Thank you, very much.

Other Members have opening statements?
STATEMENT OF HON. LARRY LaROCCO

Mr. LaROCCO. Thank you, Mr. Chairman. I appreciate your holding this hearing.

I want to welcome the Secretary to our Subcommittee. Welcome.

My principal concern today is the Department of Energy's High Level Radioactive Waste Program. I am very much opposed to the department's continuing efforts to bring high level nuclear waste into the State of Idaho for storage at the Idaho National Engineering Laboratory. The Idaho National Engineering Laboratory has already accepted more than its share of high level, low level and transuranic nuclear waste.

In fact, no other State in the entire Nation has received as much radioactive waste as Idaho. Last December, your predecessor, Admiral Watkins, asked Congress for legislation to require the department to select sites for high level radioactive waste by the end of 1993.

In a complete break from current law, this move would end the ability of governors to say no to nuclear waste in their States. Those of us in Congress with national labs, military bases and other Federal nuclear facilities in our States and districts do not appreciate this nuclear sword of Damocles hanging over us.

In fact, I believe this move by Admiral Watkins was akin to pulling the pin from a grenade, laying it down on the floor and walking out the door. Madam Secretary, I appreciate the fact that you have been involved in this issue at Northern States Power. I also understand the problem facing utilities in licensing on-site storage.

While it is true that the Yucca Mountain project and voluntary MRS efforts have been slow to yield results, they are moving forward just the same. I do not believe these temporary setbacks are reason enough to seek out a military base, national lab or other Federal facility and turn it into a nuclear waste dump over the objections of local citizens and the state's elected officials.

Madam Secretary, I implore you to take the Watkins plan off the table, put the pin back in the grenade, and reassure the citizens of my State and others that they will not be forced to take more out-of-State nuclear waste, and I have a couple of questions for Madam Secretary this morning and I have got a couple that I am going to submit in writing and appreciate the opportunity to make an opening statement, Mr. Chairman.

Mr. LEHMAN. Thank you very much.

The gentleman from Wyoming.

STATEMENT OF HON. CRAIG THOMAS

Mr. THOMAS. Thank you, Mr. Chairman. Welcome, Madam Secretary.

I too don't have a prepared statement. I am interested, however, in your views and other's views in terms of the future of nuclear power and how that particular fuel will fit into your plans in the future and of course specifically then, if they—if it does play a role in the future, what your budget proposals are to continue to do that.
Obviously if you are going to have nuclear power in our future, we have to do something about the waste problem, and my general hope is that we would move towards getting it permanently settled as quickly as we can, otherwise that is not a viable alternative. I look forward to your statement.

Welcome.

Mr. LEHMAN. Mr. Miller.

Mr. MILLER. I have no opening statement.

Welcome, Madam Secretary, and I will reserve my time for questions.

Mr. LEHMAN. Certainly.

The gentleman from Colorado.

Mr. ALLARD. Thank you, Mr. Chairman. Likewise I don't have any prepared statement. I would just like to welcome the Secretary and look forward to her comments.

Thank you.

Mr. LEHMAN. Thank you. And with that, Madam Secretary, we will recognize you for your remarks. We will put your complete statement in the record and other materials you have for us and you may proceed.

STATEMENT OF HON. HAZEL R. O'LEYAR, SECRETARY, DEPARTMENT OF ENERGY

Secretary O'LEYAR. Thank you, Mr. Chairman, and Members of this Committee. I very much looked forward to today, principally because I am well aware that at least in the last four years, relationships between the Department of Energy and this Committee could use some improvement, and I am hoping that over time and in a very short time we might seek to do that. I understand that I own a very large part of that burden.

For that reason, I would apologize both for the lateness of the testimony arriving to the Committee and certainly with respect to Mrs. Vucanovich's issue. I do apologize for the lateness of the response to your questions and would tell you that one of this Secretary's priorities is to be able to turn the mail around much more swiftly. My sense is that I will be able to do that very shortly as there are hearings in the Senate Energy Committee to confirm or at least to review the confirmation of two additional Presidential appointments to the Department of Energy very shortly bringing the number to six. This pleases me and certainly will help us with respect to moving our important work.

I want to start my formal comments by attempting to address an issue which by the very nature of the comments made by Members of this Committee we all recognize addresses one of the more contentious areas for the Nation and certainly for the Committee and the Department of Energy.

I want to start by pointing out the obvious. When you look at the budget of the Department of Energy, our Administration has very dramatically reshaped its priorities and come to some conclusions about which there is not unanimous agreement. That would be that the long-term future of commercial nuclear power is quite dubious, occasioned by the fact that we have not been able to address adequately the back end of the cycle. For that reason, as we project the need for government support for research and development and
support of commercial nuclear generation, we have dramatically reduced that budget by some 45 percent. In anyone's mind that is quite dramatic.

That permits us to do two things that, in my view, must be done. Number one, concentrate more thoroughly and completely on the waste issues, both with respect to high-level civilian use and, certainly, with respect to our defense production waste. At the same time, it permits us, as one looks and examines our budget, to more carefully define our future and how we progress with respect to cleanup from the 50 years of weapons production. For this side of the budget, those are certainly the highlights.

In discussing the High-Level Radioactive Waste Management Program, it is clear to me that we are not going to satisfy everyone on this Committee by continuing to focus on the mandates that are before us. That is to continue to characterize the site at Yucca Mountain.

The Secretary and the Department of Energy has no alternative in this regard, as that is the law of the land. The things I think we can and should be addressing are the issues with respect to the scientific concerns of citizens in the State of Nevada as that characterization continues.

We have attempted to address that in this budget by quite frankly focusing additional funding on the scientific and technological study that goes on there. Having said that, I recognize that to another group of constituents, that causes concern because the criticism has been that there is too much time and energy spent there and not enough on creating the wherewithal to give us the answers about characterization. That means to continue the tunnelling at the site.

My sense is that in the four years that I will be in this job, that will continue to be the tension and my hope is that by being far more open with respect to planning and trying to share information in a more timely fashion, we will cut down some of the rancor in the system.

I want to move quickly now to discuss some of the issues opened by Members of the Committee with respect to the Uranium Enrichment Corporation. Suffice it to say that the transition manager has been on board now for almost three months. The view from the department's perspective is that that relationship and the attempt to hand off responsibilities from the Department of Energy to this government corporation continue on course and we expect those transfers to take place on the 1st of July.

We are now deeply involved in crafting language and finalizing details with respect to the lease agreement and my sense after careful review of that and spending some time with Nick Timbers, who is the transition manager, is that we proceed along the course with no unexpected bubbles and bumps along the way. Some have been concerned about the nature of the regulatory responsibility that the Nuclear Regulatory Commission would take with respect to the new corporation on July 1, and I would publicly state for this Committee, what is well-known by everybody in the industry, that we have made what I believe is a good arrangement with the Nuclear Regulatory Commission to have the Department of Energy for the interim term to be responsible for certification, that the re-
quirements for health and safety are being met in the diffusion plants and at a time certain, when the NRC and the department are comfortable with the hand over responsibility, that will take place in an orderly fashion.

My sense as the Secretary of Energy with responsibility for leadership and oversight of this transfer of responsibilities and authorities is that it goes as well as can be expected and I am at the moment feeling comfortable.

Now, having said that, I recognize that there will be some last minute things that will perhaps cause me discomfort and what I can promise to this Committee is to report anything that might be a problem and share it with you immediately, but my sense at the moment is that everything is going on course.

I think that I will at this point conclude my comments and open myself up for questions. This might meet the needs of the Members of the Committee. I want to once again pledge, first of all, my availability to this Committee, have you understand that this is a very dramatic and an almost violent shaking of responsibilities at the Department of Energy, with respect to our nuclear determination and where we are going with research and development for the mid-term, not so much the long term, and certainly, if one looks at our defense budget, while the cut has not been as dramatic, there is certainly violently shifted responsibilities there.

My final comment would be—because I know there will be questions about it—that in realigning the Department of Energy to match these new priorities, we have placed a high emphasis on nuclear safety, environmental health and safety, and the health and safety of our own employees, as well as contractors and citizens living near our sites.

This Secretary would say for the record that my sense is that this is one of our highest priorities and put it right up there with the cleanup of our weapons production sites and the work that must be done with energy efficiency as well as handling the waste portion of the nuclear cycle.

It is my pleasure to appear before you and I look forward to answering your questions.

Mr. LEHMAN. Thank you very much. I appreciate your testimony greatly.

[Prepared statement of Secretary O'Leary follows:]
STATEMENT OF HAZEL R. O'LEARY
SECRETARY OF ENERGY
BEFORE THE
HOUSE COMMITTEE ON NATURAL RESOURCES
SUBCOMMITTEE ON ENERGY AND MINERAL RESOURCES

JUNE 8, 1993
Statement of Hazel R. O'Leary
Secretary of Energy
before the
House Committee on Natural Resources
Subcommittee on Energy and Mineral Resources
June 8, 1993

OVERVIEW

Mr. Chairman and members of the Subcommittee, I am pleased to appear before you today to discuss the Department's FY 1994 budget request to fund its responsibilities with regard to nuclear energy issues.

The Department of Energy's FY 1994 budget is responsive to the President's plan for achieving national economic renewal. The President has identified the Department of Energy as an integral part of his investment program and his deficit-reduction objective. As part of his longer-term investment strategy for FY 1994-1998, the President has proposed to redirect the Department's research and development priorities. Increased emphasis has been placed on research and energy conservation; natural gas utilization, renewable energy sources and energy efficiency. As reflection of the priority change, the budget proposes elimination of the research and development funding support and related facility funding for advanced nuclear reactor technology that has no near-term commercial application. The budget request, however, retains a strong commitment to the Department's responsibilities to manage nuclear waste safely and efficiently.

You have asked me, in your invitation, to respond to a number of specific questions regarding aspects of your Subcommittee's oversight and I have included the answers to those questions in my prepared statement. There are several discrete nuclear activities within the Department's program. They include management of high level radioactive waste in accordance with the Nuclear Waste Policy Act of 1982, nuclear energy research and development, the Uranium Enrichment Enterprise, and the generic issues of radioactive waste cleanup arising from weapons system activities, including the responsibility for uranium mill tailings remediation. The role of nuclear energy in the United States, today and in the future, remains controversial. Among these activities are some of the Department's most significant and difficult challenges. Nevertheless, the budget represents a consistent approach to the nuclear issue that addresses the most critical needs of the nuclear industry and its customers.

This Administration has placed a high priority upon the responsibility to manage the nuclear waste that has resulted from commitments made in the past, both in the national defense efforts of World War II and the Cold War and in the Federal
initiatives that launched the civilian nuclear energy industry. The budget provides funding to pursue the Congressionally mandated program for the disposal of spent fuel from civilian nuclear powerplants and processed high level waste from the weapons program.

The Department’s responsibilities for uranium enrichment in support of the commercial nuclear energy industry are being transferred to the newly established U.S. Enrichment Corporation as directed by the Congress in the Energy Policy Act of 1992. Despite the complexity of the transfer and the short time provided, we are hopeful that a successful transfer will be completed by July 1, and that a strong corporate structure will be created that will ultimately fulfill the Congressional goal of full privatization.

Within the current fiscal constraints, the Administration has placed a much reduced priority upon Federal encouragement of future generations of civilian nuclear powerplants. We are continuing our cooperation with the nuclear power industry in development of a standardized design for the next generation of light water reactors. This design would provide the basis for commercial orders if the electric power industry should make the economic decisions to invest in nuclear powerplants in this decade. We have not continued funding for the development of advanced reactor technologies that do not have near-term commercialization potential. Only actinide recycle technology, which holds a potential to benefit the high level nuclear waste disposal strategy, will be continued.

Overlying the Department’s nuclear strategy are more general management approaches that will help accomplish all of our objectives more efficiently. We have reorganized the Department to consolidate functions that relate to the Department’s three major missions. Recognizing the integral role of nuclear energy within the national energy mix, the civilian nuclear waste management, nuclear research and development and our continuing involvement in uranium enrichment will be placed in the energy team.

The Federal Government’s role in nuclear energy continues to be essential, not only to the nuclear industry and its direct beneficiaries, but also to all Americans who depend upon the electric power system and who share in the consequences of our responsibility to safely and efficiently manage nuclear waste.

I will now highlight some specific program elements as you requested in your invitation.
CIVILIAN RADIOACTIVE WASTE MANAGEMENT

The Department's mission with regard to spent nuclear fuel and high-level radioactive waste is to implement the Nuclear Waste Policy Act of 1982, as amended. Our fiscal year 1994 budget request for the Civilian Radioactive Waste Management Program is $380 million. This includes $260 million from the Nuclear Waste Fund, which is funded through fees paid by nuclear-generating utilities, and $120 million from the Defense Nuclear Waste Disposal appropriation.

Our first priority in this program is Yucca Mountain site characterization and $262 million of our request is for those activities. In April 1993, I provided guidance to the Civilian Radioactive Waste Management Program to begin underground exploration at Yucca Mountain which is absolutely necessary to determine whether or not Yucca Mountain is suitable for a geologic repository. We expect to complete the 200-foot starter tunnel by the end of fiscal year 1993 and the budget request for fiscal year 1994 will permit tunneling of approximately 5,000 feet into the Mountain by the end of fiscal year 1994. We expect to begin next spring tunnel boring with a 25-foot tunnel-boring machine for which we just last month awarded the contract. The budget will permit us to continue necessary surface-based drilling and to complete two deep boreholes for downhole testing below the water table and 17 shallow boreholes for natural infiltration studies, as well as permit some drilling on two 10-hour shifts. In addition, this budget request will permit us to achieve closure at the Nuclear Regulatory Commission staff level on extreme erosion, eliminate volcanism as a site disqualifier, and complete preparation and present to the Nuclear Regulatory Commission rationale to support the initiation of the seismic hazard issue resolution topical report.

Also, as a result of my guidance to the program in April, in 1994 we are requesting $15.7 million in the spent fuel storage area that focuses on development of a multipurpose canister system concept that would provide canisters for storage, transportation, and eventually, disposal. In fiscal year 1994, this funding level will permit us to complete conceptual design and initiate certification design for a multipurpose canister. We will focus less on Monitored Retrievable Storage except to support voluntary siting activities.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

The Administration is firmly committed to honor the government's obligation to clean up the DOE nuclear weapons complex in order to protect our environment and the health and safety of our citizens. This is coupled with the determination to achieve those objectives as efficiently and cost-effectively as possible.
In your letter of invitation to testify, you indicated several environmental restoration projects which I will now discuss in detail.

Waste Isolation Pilot Plant

With the enactment of the WIPP Land Withdrawal Act in FY 1993, many new statutory requirements were imposed on DOE, the Environmental Protection Agency (EPA), and other Federal agencies. The FY 1994 request allows the Department to meet its Land Withdrawal Act requirements and to continue moving toward a disposal decision, while maintaining the readiness of the WIPP site to begin and conduct a Test Phase with limited quantities of transuranic waste when all statutory conditions have been met. The FY 1994 request of $214.2 million also encompasses funding for the continuation of performance assessment and modeling activities and ongoing non-radioactive tests and laboratory studies. A large portion of this request will allow the Department in FY 1994 to initiate key tests, such as the Los Alamos source term experiment, that the National Academy of Sciences view as critical to the demonstration of the suitability of the WIPP site as a repository.

Uranium Mill Tailings Remedial Action (UMTRA) Project

The Uranium Mill Tailings Remedial Action Project has been conducting remedial actions since 1983. Of the 24 sites, remediation has been completed at 10 and remediation is under way at 8 additional sites in 1993. The sites completed or underway account for 89 percent of the total material to be remediated. Also, over 50 percent of the more than 5,000 vicinity properties have been cleaned up. The remaining 6 sites are in advanced stages of design and will be started in Fiscal Years 1994 through 1996. The Congressionally mandated authority for the project ends September 1996. All sites will be completed or underway by that date, but several may not be completed until Fiscal Year 1997.

In 1988, Congress amended the Act to provide additional time and authority for DOE to remediate ground water at the 24 sites. In Fiscal Year 1991 the first funds were appropriated for the ground water project. The standards currently proposed by the Environmental Protection Agency provide regulatory flexibility that do not necessarily require cleanup at all of the sites. The Department is currently preparing a Programmatic Environmental Impact Statement for the Uranium Mill Tailings Ground Water Project that will present a strategy for achieving regulatory compliance but will not necessarily require costly cleanup at many of the sites. The current schedule to finalize that document is FY 1994.
West Valley Demonstration Project

In FY 1993, DOE will continue to process liquids from the first sludge washed through the Integrated Radwaste Treatment System and to prepare the Phase II Draft Environmental Impact Statement. During FY 1994, the Department expects to complete the first three sludge wash operations and conclude the vitrification mechanical-electrical contract. The Department will complete the construction, checkout, and testing of the NOx (Nitrous Oxide) System and the Vitrification Facility in FY 1995. Also in FY 1995, the Phase II Final Environmental Impact Statement will be published. Vitrification hot operations are scheduled to begin in FY 1996. We are requesting $124 million for our FY 1994 activities.

National Low-Level Waste Management Program

The National Low-Level Waste Program implements the responsibilities assigned to DOE by the Low-Level Radioactive Waste Policy Amendments Act of 1985 (Public Law 99-240). The Department provides continuing assistance to states and compact regions in meeting their responsibilities as outlined under this Act and also is developing a program for disposal of greater than Class C low-level radioactive waste from Nuclear Regulatory licensees.

Attempts to establish low-level waste sites by the Department of Energy have proven to be somewhat less than successful. In spite of the incentives and penalties established in the Low-Level Radioactive Waste Policy Amendments Act of 1985, it is clear that with the recent disapproval of the proposed Illinois site and the delays in the licensing process in California, no new sites can be expected to open in the immediate future.

We will however continue to assess the State/compact compliance and begin the return of rebates as required by Public Law 99-240. This issue has been under review by the Department's Office of General Counsel for sometime now. We are committed to completing the analysis as a priority action in preparation for a Federal Register notice on our final position to be issued this month.

We will complete several analyses of economic and institutional issues related to viable disposal options for greater-than-Class C low-level waste. In FY 1994, our request of $11.4 million will provide the resources for this program to continue to be focused on technical assistance being requested by states and compact regions and on acceptance by the Department, of greater than Class-C low-level waste.
NUCLEAR ENERGY

The Office of Nuclear Energy has the responsibility for ensuring that nuclear power can continue to make a significant contribution to the Nation's energy needs. In setting budget priorities for energy programs, within the constraints of deficit control, the Administration has reduced the emphasis on research into advanced nuclear technologies in favor of emphasis on conservation and renewable energy sources. The nuclear R&D program includes $84.7 million for termination activities and $182.2 million for continued program activities as compared to our FY 1993 level of $345.4 million for program activities.

Our civilian reactor R&D budget gives priority to advanced light water reactors, which have more potential for near-term application. Our goal is to achieve standardized designs which have been certified by the Nuclear Regulatory Commission.

The ALWR program is a Government-industry cooperative program with a minimum of 50 percent share by the private sector. It will lead to resolution of all safety issues, with full public participation prior to beginning construction and it will provide for standardization of designs, which will result in a better estimate of the cost of the plant prior to construction. Funds for Light Water Reactor program activities will permit receipt of the Nuclear Regulatory Commission's certification of all four Advanced Light Water Reactor designs by 1996. Also, the funds will support standardized Advanced Light Water Reactor designs by 1996 with an additional $157 million from industry, and will permit demonstration of the Nuclear Regulatory Commission's license renewal process which, if successful, could support the continued safe and efficient operation of many of these power plants for up to 20 years beyond the period of their current licenses. Projections indicate that 66 GWe could come from the renewal of licenses for currently operating powerplants.

In keeping with the Administration's policy of curtailing funding for nuclear R&D which has no near term commercial application, the Advanced Liquid Metal Reactor design and the Modular High Temperature Gas-Cooled Reactor design programs will be canceled. The facilities at Argonne National Laboratory-West, Idaho used to support these research and development programs, and nuclear energy operations at the Energy Technology Engineering Center in California, will also be phased out. The budget request for FY 1994 includes $84.7 million for shutdown and closeout activities.

The only advanced reactor program remaining will be the actinide recycle technology demonstration program. The actinide recycle program will evaluate the technical and economic feasibility of an innovative nuclear fuel cycle technology. The Fuel Cycle Facility and the Analytical Laboratory at Argonne National Laboratory-West will be operated to support the actinide recycle
program. The actinide recycle funding request is $15.0 million in FY 1994; $6.9 million is requested in the facilities budget for continued operation of the required facilities.

URANIUM ENRICHMENT

The Energy Policy Act of 1992 transferred most uranium enrichment functions from the Department to the newly established United States Enrichment Corporation, effective July 1, 1993. The responsibility for production and marketing of enriched uranium will transfer to the Corporation, although the Department will continue to own the gaseous diffusion plants where the uranium is enriched. The Corporation will lease the facilities from the Department, and will reimburse the Department for the cost of administering the lease. In addition, the Department will have an ongoing oversight role of the operation as well as responsibility for some facilities that will not be leased by the Corporation.

Environmental remediation responsibilities related to pre-existing conditions resulting from enrichment operations conducted by the Department prior to July 1, 1993, remain the responsibility of the Department. Funding to be provided from the newly established Uranium Enrichment Decontamination and Decommissioning Fund will assist in paying for the remediation. Included in the FY 1994 budget request for the Office of Nuclear Energy Uranium Enrichment Program is $160.0 million for the final demand charge payment to the Tennessee Valley Authority as part of a July 1987 contract settlement.

CONCLUSION

The FY 1994 budget process has initiated the redirection of Departmental priorities. Further work will be required. To that end, I launched a comprehensive policy review of all critical Departmental missions. I expect this review to contribute to a rethinking of the Department's fundamental responsibilities, and how those responsibilities are carried out. My aim is to build a strong consensus among internal and external parties on Departmental priorities, ways of achieving results rather than merely managing programs, and means to a more comprehensively coordinated energy policy among departments and agencies.

Mr. Chairman, I believe that the FY 1994 budget request for the Department of Energy, and particularly the programs I have discussed in this statement are sound and balanced, and provides strong support for our missions. I look forward to working with Congress to enact this budget.
Mr. LEHMAN. Under the Energy Policy Act that we passed last year, the Uranium Enrichment Enterprise is going to be transferred to the U.S. Enrichment Corporation. I believe that is scheduled to happen in about three weeks.

Could you give us the status of that? Are we on schedule? Have board members been named?

Secretary O'LEARY. Mr. Chairman, we are indeed on schedule and for the Department, on schedule has had to do with several pieces. Certainly the naming of board members, which continues to be an issue is now being reviewed by our Administration. My sense is that that will occur in due fashion.

I don't want to mislead this committee that that will occur exactly on July 1. My sense is that it cannot occur on July 1st because the number of processes which must be gone through before formal nominations can be made. But we are very much in the process from the Department's point of view of discussing a list of names of people who might be nominated for the five positions.

In my own view, more importantly, the process issues involving the transfer of responsibility from the Department of Energy to the new Enrichment Corporation are very well on track, most of those being bound up in the lease agreement, which is now in negotiation between the Department and the transition director's office. And those are very much on track and I am, as I indicated earlier, feeling as comfortable as one can feel when you are in the midst of such an intricate passing off of responsibilities and authorities.

Mr. LEHMAN. Very good. And how will the regulation of gaseous diffusion plants be handled in the interim until the NRC sets up some standards?

Secretary O'LEARY. Well, the Department of Energy is establishing its own set of standards and procedures which, while we have talked about them and used some expertise on staff at the NRC and others to establish, I don't want to lead this Committee to think that they are blessed by the NRC.

We spent some time over the last four or five months that we have been in office reviewing with staff and then with the Chairman of the NRC what would be the most appropriate means of passing responsibility. After serious discussion with the NRC, the determination was that there should be this interim step where the Department maintains responsibility for oversight and in a time, which I hope will be as short as six months, when the Department can certify to the NRC that it is appropriate in our view for the pass off to take place, we will do so.

Mr. LEHMAN. Thank you. With regard to WIPP, under the WIPP Land Withdrawal Act, DOE must submit a set of test plans to EPA before any tests involving wastes can be carried out.

EPA has recently rejected the plans that DOE submitted. They said they were incomplete, I believe. Do you expect to be able to work out a test plan that is going to be agreeable to them over at EPA or is it more likely that you are going to proceed with tests that don't involve waste in place at WIPP?

Secretary O'LEARY. I expect to be able to work out a plan that is agreeable to EPA. I say this for two reasons, and want to point out to you that I believe our Administration is working a little more closely with some of our sister agencies. Both administrative
secretaries, that is, Hazel O'Leary and Carol Browner, have discussed this issue and we agree that it can be solved. I am able to report to you that staff on both sides of the Mall have discussed this issue and we are very certain that a test plan can be worked out, which will be agreeable to EPA. In my view, looking back to the Carter Administration, when I had some responsibilities for working with EPA, I can tell you that the relationship is very much improved and it is because we spend time just talking to each other about issues rather than shooting our issues over the transom.

Mr. LEHMAN. Do you share your predecessor's opinion that it is necessary to place wastes at the WIPP facility in order to show compliance?

Secretary O'LEARY. My sense, Mr. Chairman, is that while it is not absolutely necessary, it would be useful to be able to place some small amount of waste, but I am very well aware of the impression that was left under the last Administration that the plans for using large amounts of waste to test out the reliability of the plan struck many as being an apology for creating a repository.

I am well aware of that fact and will tread very cautiously on that edge to the point of reducing the amount of waste that we are now recommending, such that the complaint is now on the other side. So once again, we are in the middle in trying to handle this in a very responsible way.

Mr. LEHMAN. You propose using less waste—

Secretary O'LEARY. That is correct.

Mr. LEHMAN [continuing]. Than your predecessor?

Secretary O'LEARY. That is correct.

Mr. LEHMAN. Does that mean that some of the other costs, like staffing, would be less?

Secretary O'LEARY. Well, unhappily, the size of the waste to be managed does not reduce the requirement to staff dramatically so that one accomplishes a large savings. I think rather the way we are going to accomplish savings and we have begun to identify them now, is to look at redundancies in our system and how we might manage both our contract relationships and our people in a way that simply cuts out redundancy and is more efficient.

I wouldn't so much look for it here but I think you have every right to look to the Department to hand up those savings and I will commit that we will do that.

Mr. LEHMAN. Thank you. With regard to high level waste, you recently recommended that we take the Nuclear Waste Fund off budget, and I believe you submitted that to Mr. Panetta over there at OMB. That would leave us with a-I guess a hole in the budget of $300 million.

Do you have any idea as to how we ought to make that up?

Secretary O'LEARY. Well, my sense is, one, that the revolving fund had sat out there, and I want to be very careful with this because my administration has no point of view. The Secretary has a point of view and I want to make that very clear.

You will hear from me perhaps shortly in a more official way. I hope we will be singing the same tune, sir, but my sense at the moment is since we have used that fund rather as a paper account, that we ought to focus on how we can continue the sense that the revolving fund is available for the balancing of the budget or to be
used as offset against deficit, while at the same time permitting the Department access, at least to those funds that represent future revenues and the interest. As has been pointed out in several discussions, you would recognize it this year, the budget request for the High-Level Civilian Nuclear Waste Fund is less than the interest earned on the fund to date.

I recognize once again, as is always the case with these waste issues, that this is not an easy issue and there will be people on each side of it. And I will look forward to being able to address this issue in a more formal manner when my Administration has come to some conclusion on it.

Mr. LEHMAN. Do you want to address the GAO report? They didn't really put the cabash on the revolving fund but they did find some objections to loosening up the purse strings before some management issues had been resolved.

Secretary O'LEARY. I would express that, and I am also well aware of the tension created in the Congress when it would appear that by taking the fund off budget, Congress now has no authority to dictate and direct how money should be spent. Once again, it occurs to me that there might be a process that helps us address this issue.

With respect to the GAO findings, it would be very convenient for me to simply look back and say, well, that was another Administration, but I am not that foolish any longer. We are almost six months into it. Clearly the issues involving management and some of the concerns with respect to whether there has been enough scientific work, whether the technical work has been appropriate, or answers the correct questions, remains an issue to be opened.

I will say now, for the record, that early on in my confirmation hearing when I talked about some study of the management of this program, I seemingly created for myself lots of discomfort. On the one hand by suggesting that the first review ought to take place in the Department of Energy so that the Secretary, not with an attitude from an outsider, but suddenly the person responsible now for the overall program, understood what was going on and had opportunity to review all that the staff had done over the years that we are accomplishing and will continue to accomplish.

With respect to the so-called outside and independent review which I spoke of. It had then, and it continues to be my opinion, that I thought that a review might occur with the many groups of people who were dissatisfied with the management of this program over the past five or six years, might come together in what I called the consensus process and look at some facilitation that might lead to a discrete examination of all of the data that now exists with studies that have been done of this program, and might take a look at two issues.

Number one, what is to be done in the short term from 1998 to the year 2010, and more importantly, where do we go and how does one pronounce the progress and the continuation of the work at Yucca Mountain. I am today in a position to tell you that groups of people representing a broad spectrum of interests have attempted to come together in a consensus mode using the Keystone Center as their facilitator.
My sense, just at the beginning of this week is that, as is always the case with these "dialogues," the beginning has not been auspicious. What has been reported to me is that there is a real inclination on the part of all involved, and I would call that States, industry, regulators, community groups and environmentalists, to look at the first issue, i.e., what do we do and how do we do it to meet the need from 1998 to the year 2010. And I think that will go forward.

Of greater concern to me is that there appears to be no desire on the part of all people who came to the table to go forward to take a hard look at what is going on at Yucca Mountain. That now raises once again the question of the "independent review." Finding myself in that place, it is clear to me that I have got to go back and come up with another suggestion.

My sense is that I would hope that the Keystone process can continue. If it does not, it is clear to me that I have got to respond to that issue in another way and I would hope to do it within the next month.

Mr. LEHMAN. I am sure we will continue a discussion of Yucca Mountain in a second when I recognize Mrs. Vucanovich. But I just want to be clear though on the proposal to OMB; that would mean that the expenditures over there would not be subject to an appropriation by us; is that correct?

Secretary O'LEARY. My sense, Mr. Chairman, is yes, that is correct, in that that Committee and no other Committee who has appropriations oversight is going to be very comfortable with that fact of life. We need to come up with some process that gives you a high level of comfort or some level of comfort.

Mr. LEHMAN. And a further concern, beyond just removing it from the appropriations process, would be that we might lose our ability to—certainly for the degree of control we have now, but also maybe even for oversight.

Secretary O'LEARY. My sense is that it is not in the Nation's best interest for you to lose ability for oversight, nor would it be in my best interest.

Mr. LEHMAN. Thank you very much.

Mrs. VUCANOVICH. Thank you very much, Mr. Chairman, and the discussion about the independent review, I am not certain just where you are on this, considering that GAO and the Nuclear Waste Technical Review Board and the legislation I have introduced calling for independent review, your discussion with the Chairman, I am not sure.

Are you saying you will look at that or is that something down the line or what are your plans about an independent review? I am not certain what your answer was.

Secretary O'LEARY. From the very beginning, my intention had been that, number one, the Secretary had to undertake her own review. That was clear, and I came to the table understanding that and directing that that be done.

Secondly, it was also clear to me that with respect to the many outside, third-party reviews that have taken place, that the individual reviews themselves got us nothing in terms of consensus from the various constituencies interested in these issues.
So whenever I spoke of independent review, I was consensus building, and perhaps I expressed myself poorly, but that had always been my concern and my desire.

Now, I then focused on, "the so-called Keystone-like process" that was introduced by the National Association of Utility Regulators, and upon which many others appeared to be signing on. I thought there was great momentum to get that done. It now appears there is great momentum to do some thinking about nuclear waste issues, civilian nuclear waste issues for the, if you will, the mid-term, 1998 to 2010, from that group, which would meet part of my requirement and expectation that there would be "an outside review." I was after consensus building. Where is the answer that doesn't keep us fighting with each other? I know that that sounds foolhardy but that is still my goal.

With respect to the longer term and the focus on Yucca Mountain, it has been reported to me that this group of environmentalists, ratepayers, regulators, utility executives and government officials cannot reach consensus, that there even should be dialogue on that issue.

So that puts me now in the dilemma of saying, I have got no new look or fresh look at Yucca, which I understand is something that you want very much. I am saying, where I go from here very much depends upon whether the Keystone effort can be stimulated again, and I would like that to occur.

If that does not occur, then I have a responsibility to try and have what you are calling an independent review and what I am now and have from the very beginning been calling a reaching of consensus with respect to all the data that is now on the table. I feel I have got to come back with something else.

I also would like a month to determine whether or not the Keystone effort can be ongoing. Now, I will go further. I will tell you and the Committee entirely that there are two views in mind. Number one, we start again with another outside group, another commission, who will now examine the Yucca Mountain project, or we do something much more short term, much more accelerated so that we are not spending a year to come to conclusions again, over which generous and gentle and reasoned people will still differ.

We will still have no consensus, which has always been my goal. If you will give me a month to figure out how to do that, one, I promise to come and talk to anyone who wants to talk to me about it and put together something that makes sense. I don't want to leave anyone with a misunderstanding.

I have a mandate to continue to characterize the Yucca Mountain Site. It is my firm intention not to back off that mandate until and unless the Congress of the United States so directs me to do otherwise.

Mrs. VUCANOVIĆ. I understand what you are saying, Madam Secretary, and I am just talking about the Keystone effort, I am curious to know whether our State, the State of Nevada or any of the local affected governments, the counties, were invited or participated in that Keystone effort.

Secretary O'LEARY. It is my understanding that, yes, they were invited. In my case, I specifically issued an invitation, and it has also been reported to me that, across the board with respect to the
State of Nevada, there was a disinclination, that is, the State declined to participate.

Mrs. VUCANOVICH. Just once more about the independent review, and I keep hearing about the slippage in the High Level Waste Program and if it is as severe as the GAO says, and I am looking at costs of the Yucca Mountain program, costs which a lot of people think are out of hand already.

The estimated total cost today is $6.3 billion and some people are saying that it would grow another $1.8 billion if the program slips again. Again, how in the world can these costs be justified without an independent review?

Now, you are asking for a month and I am perfectly willing to say that is legitimate, but I think it is a very serious consideration when we are looking at the costs of this program.

Secretary O'LEARY. I am very comfortable with a very hard look at how monies are being spent and whether the Department is in point of fact getting value received for the dollars spent. For those of you who had absolutely nothing to do over the weekend, you could have read some testimony that I gave last week on the Hill with respect to how we intend to be managing all of our contract work, and the world is aware of the fact that this work is done principally through contractors.

I believe that the Department itself must refine its processes for requiring work, for measuring that it has been done and it has been done in a quality way. I think in that regard the review that I have ongoing addresses that.

It is also the work of the GAO to provide that kind of guidance to us and on many occasions, as the Secretary of Energy and this one included, has gone outside to take a look at that piece. In my own mind, in this month what I have got to do is discreetly pull apart functions and come back with a logical recommendation with respect to how we examine each one of these issues. I am very, very comfortable having anyone “audit the financial responsibility of the Department of Energy.”

I see that as a discrete issue, and I think you and I will agree, and this entire Committee and I will agree about how we will handle that. My issue then begins to be how redundant should the audit be, but clearly some review should take place.

Mrs. VUCANOVICH. Thank you. A couple of other questions, then I am going to submit the rest of them for the record. Can you assure the people of the State of Nevada that neither the test site, the Nevada test site, nor the Yucca Mountain site, would be the location of an interim nuclear waste storage facility? Is that under consideration at all?

Secretary O'LEARY. One, it is clear to me that under the Act that now mandates all of our functions and behaviors, that that would not happen. I think that is it.

Mrs. VUCANOVICH. Doesn't the purchase of the tunnel boring machine reflect DOE's intention to pick Yucca Mountain as the site for the repository?

Secretary O'LEARY. With respect—all that I know and have understood about this program leads me firmly to conclude, and always to be able to say without one blink of an eye, that the only way one can understand whether we can go forward with Yucca
Mountain is to complete the examination of the underground site. That was the purpose of the purchase of the machine and the tunneling, which must occur in order to permit us to come to the conclusion of whether or not this is the appropriate site.

Mrs. VUCANOVICh. One other question. Before I state the question, I know that you have mentioned visiting various sites, as a matter of fact all of the sites, and I have invited you by letter to visit Yucca Mountain and as Secretary, I would like to extend that invitation again. I am not certain whether you have been there before.

Secretary O'LEARY. I have been to Yucca Mountain and I would be pleased to return. I have an outstanding commitment to the Governor to show up sometime this summer and I would—

Mrs. VUCANOVICh. I hope I have an opportunity to be with you there at the same time.

Secretary O'LEARY. Thank you. And I would like very much to coordinate the planning for that trip so that we can be certain that you will be in attendance.

Mrs. VUCANOVICh. Thank you very much. One other question and then I will submit the rest of them for the record.

What steps will you take to implement the recommendations of the May 27 GAO report?

Secretary O'LEARY. We are beginning now to fully digest that report. I would like to be able to provide for the record, rather than to give you off the top of my head, exactly what has been planned and provide, as is required by the rules of this Committee, an interim answer and then share with you, in detail, step-by-step how we intend to implement the recommendations.

[The information follows:]

**HIGH-LEVEL WASTE**

What steps will you take to implement the recommendations of the May 27 GAO Report?

The referenced General Accounting Office Report recommends that the Secretary of Energy review the program's goals and objectives in the context of the present program's low funding priority for Yucca Mountain.

Shortly after my confirmation, a review of the Civilian Radioactive Waste Management Program was initiated that will address the General Accounting Office concerns. We met with many interested parties and reviewed numerous written reports related to the program. We found during this preliminary review that the program needs to refocus its efforts to improve in two broad areas: increased emphasis on the highest quality scientific work and the more effective inclusion of external parties in program development and implementation. As part of my ongoing review, we will include a process for thoroughly airing critical issues facing the program with parties external to the Department. This consultative process will place special emphasis on Governors and other elected or appointed officials with constituent responsibilities affecting the program. Any redirection of the program and subsequent revision of the program's technical, cost, and schedule baselines will occur after the review's completion.

Mrs. VUCANOVICh. Thank you, Madam Secretary, and thank you, Mr. Chairman.

I yield back the balance of my time.

Mr. LEHMAN. Thank you. The gentleman from Idaho.

Mr. LAROCCH. Thank you, Mr. Chairman. As I mentioned in my opening statement, I have some very serious concerns about the left-over policy from the Bush Administration. I am sure, Madam Secretary, you can anticipate my question with regard to the Wat-
kins Plan, with regard to forced MRS, with regard to moving some waste to bases, nuclear facilities such as the Idaho National Engineering Laboratory.

What is your position on the old administration's plan?

Secretary O'LEARY. To use the language that you have used, let us say that the grenade is a dud and I will put the pin in it as soon as possible.

Mr. LAROCCO. Okay. Will you seek authorization from Congress for a forced MRS?

Secretary O'LEARY. I have been very careful to try and not signal policy direction to be taken, principally because I am depending so much upon my firm hope that some consensus might be reached out of this dialogue that is just beginning.

I think we have to give that process a fair time to bear some meaningful results and if that does not occur, it is clear to me that then our Administration has a responsibility to come forward with a recommendation, and I have every intention of doing that.

In my own mind, I think we can give it six months. I think I have got to watch it and share with Members of this Committee whether progress is being made, and I intend to do that.

Mr. LAROCCO. My next question will, I think, further indicate my concern about the facility at the INEL, and I have a copy of the Department's phase-out plan for the Idaho Chemical Processing Plant before me and it is dated October, 1992. The report describes current waste storage buildings at the INEL, Idaho National Engineering Laboratory.

In this report on page 101 the report says:

The CPP-603 underwater fuel storage facility is a concern in several respects for continued fuel storage. The integrity of the concrete basin walls and fuel storage monorail system during a seismic event is a concern. There is no evidence that the building was designed using modern seismic criteria. Another concern is the observed corrosion of the fuel baskets and storage equipment. Recent inspections have revealed gross corrosion of the fuel baskets and yokes. The potential for a severe seismic event to cause a criticality has not been fully evaluated yet, but is a concern. A third concern is potential leakage through the basin walls into the environment. There is no indication that this has occurred but the concern increases as the facility ages. The general concern is the equipment failure rate, because much of the facility is well beyond the design life. Equipment failures are frequent and costly.

The report goes on to say that the building was designed and built in the late 1940s and had a service life of 30 years. It also says that the Department's goal is to move the waste out of the building by the year 2005.

What makes this even more amazing is the fact that nearby this building is a building that was built in 1984 that has available space to store the waste, yet the Department refuses to move the waste. It sounds to me that CPP-603 is a potentially leaky, outdated building that will have serious problems if Idaho has an earthquake before the year 2005. I know this is not acceptable to me and I can't believe it is acceptable to your Department.

Is it possible, Madam Secretary, for the DOE to investigate options that will speed up the removal of this waste?

Secretary O'LEARY. Yes, it is possible and I personally commit to you to do that.

[The information follows:]
Yes. The phaseout of the three basins (North, Middle and South) in CPP-603 is proceeding. Actions are underway to place the fuel and the equipment in CPP-603 into a safer configuration. When these recovery actions are complete, fuel compatible with storage in the new fuel facility (CPP-666) at the Idaho Chemical Processing Plant will be transferred to CPP-666. Some of the fuel in the CPP-603 storage basins is incompatible with the storage in CPP-666. This fuel is planned to be placed into dry storage. The technical capability needed to prepare this fuel for safe dry storage is being developed and this is the key issue driving the length of the schedule. Current plans call for all spent fuel to be removed from the CPP-603 North and Middle basin (which would be most affected by a seismic incident) by the end of the calendar year 1997 and from the South basin by the end of the year 2005. We are evaluating this schedule and any feasible option that can expedite the schedule is being explored.

Mr. Larrocco. Thank you. With regard to WIPP, I have some concerns over what you said about reducing the amount of fuel that is going to be used for tests.

Let me just say in very lay terms, as I understand this process, it was very involved and in the land withdrawal and moving that process through the Congress last year. We finally got it done, amazingly.

My concern is that after a five-year test period, that if we don't have the right amount or the required amount, requisite amount, whatever is required for empirically studying this over a five-year period of waste there, after five years, somebody who doesn't want that repository opened is going to say: We can't open it because we didn't have enough waste.

And so this is the balance, I know, but we have been waiting to start shipping waste out of Idaho to that site. Those are my concerns with regard to that and I am hopeful that now that we have an administration that wants to govern, that things will move ahead.

I heard what you said with regard to your relationship with the Environmental Protection Agency. Those are my concerns.

Secretary O'Leary. I clearly understand the nature of your concern. I was trying, in my opening statement, to relate to each and every one of you the precarious position of the Department in the middle. And that is to try and satisfy scientific concern, concern of political perception, real perception and fear, and come upon the right number.

It was necessary to achieve that balance to satisfy many people who have both oversight responsibility and advisory responsibility, with respect to that project, and finally, to the regulators. My sense is that we are in the right place and I hope that what I can do, in exchanges like this, and in other fora is create enough of a record to leave the clear sense that the scientific consensus drove this decision and not the political perception.

I think that is my job, and so I am delighted that you have asked that question of me today. I think we are focused on the right amount and I will try to leave enough record behind me to have it stand up over the years.

Mr. Larrocco. I appreciate that. I consider that a sincere and dedicated attempt to make it bulletproof, and it is my job to send to you in this hearing the message of the people of Idaho.

Secretary O'Leary. I understand.

Mr. Larrocco. We want the waste to start being on the trucks going out, not just coming in.
Secretary O'LEARY. I understand.
Mr. LAROCCHCO. I yield back the balance of my time.
Thank you very much, Madam Secretary.
Mr. LEHMAN. Thank you.
Chairman Miller.
Mr. MILLER. Thank you, Mr. Chairman, and thank you, Madam Secretary, for your time and your appearance here this morning. It is rather obvious from your testimony, and from the questions, that you have inherited a number of the most sticky problems that this government has before it with respect to its energy needs and its environmental obligations. But we have confidence that you will be able to work many of those out and obviously this Committee, Chairman Lehman and myself and the Members, would like to help you in any way that we can.

We worked very hard on WIPP in the last session of the Congress. Many suggested it was something we should not have gotten involved in, that it had no prospect of success within the legislative framework and I think in fact we proved them wrong. We stand ready to assist you in that same vein of trying to solve some of these problems that have been bounced around for an awful long period of time.

I have a couple of questions. They are not in the nuclear area, but they are of concern to me as Chair of the Committee, and our ongoing stewardship of resource management. One I have written to you about and that is the question of the renewal of the WAPA contracts and the time period for that, and it is really not a question. I just want to ask that before any decision be made, you and I have an opportunity to talk on that issue, to go through it, so that without prejudging the terms and conditions of the contracts, the purposes or anything else, that we just make sure that we, the government and the people of this country who are paying the freight, are in sort of a maximum position of flexibility to determine our future resource needs and obligations in this country with respect to WAPA as we have in water and other areas. I would just make that request, that we have an opportunity to sit down and to discuss that before any decision has been made.

I know my staff has been talking to yours and they have been very, very cooperative, and I wanted to leave that request with you.

Secretary O'LEARY. Fair enough. I will commit to do that. It is my understanding, however, that my staff has worked up a recommendation that may meet and take care of your major concerns.

Mr. MILLER. I hope so. I just want to make sure we are in the same vein. I must say I am dealing here now in the realm of rumors, but if there is any discussion with respect to the outer continental shelf where we have a Presidentially bipartisan, Congressionally mandated moratorium in most areas that this Committee be involved very early on in those discussions.

That is not to suggest that that will happen or the change will take place, but simply that we have been very involved in that over the last 20 years and both with the rewriting of the Act and the issues surrounding various moratoriums, both in the coast lines of the Lower 48 States and certainly with respect to Alaska where a number of leases are currently in controversy.
So, again, if any discussions are going to be undertaken, we would like this Committee to be involved at the very earliest stages with respect to those issues.

Secretary O'LEARY. Fair enough. Let me say this: First of all, I would want to take this out of the realm of rumor and tell you exactly where we are. The Department has undertaken an initiative to try and collect the various studies which are now on the shelf and have not been addressed.

The last one done by the National Petroleum Council on the natural gas industry and looking at some recommendations they have made with respect to increase production, which concerns me a great deal as we move forward to stimulate that marketplace, and equally as important, how do we stimulate production if it is cost effective and environmentally correct in petroleum production, as I look at the projections for the increase in imported petroleum end products that one can expect in the United States during my tenure and over the next 20 years.

We have sought to indicate that we are anxious to work with the industry and all interested parties. That certainly includes the Congress, to try and review every suggestion that is on the table to see what needs doing further.

It was never my intention to leave the impression that the Alaska National Wildlife Refuge (ANWR) was up for grabs. With respect to the outer continental shelf, I know the very delicate nature of the negotiation that had to occur in order to result in legislation. I would not dream of taking a step without coming to the Congress and I can assure you personally that I would be talking to you.

Mr. MILLER. Thank you very much. I appreciate that.

Thank you, Mr. Chairman.

Mr. LEHMAN. Thank you. Madam Secretary, I have some additional questions with regard to how you are spending money at Yucca Mountain, but rather than ask you to get too specific right now, I will submit those to you and ask you to respond to them in writing.

I would like to ask you a general question. Both GAO and WTRB have complained that the Department is overemphasizing schedules at the expense of perhaps the scientific integrity of the programs.

I would like to have your response to that assessment and how you address the question of deadlines versus scientific credibility.

Secretary O'LEARY. Well, I could again point to the past but I won't. I think we have to draw the line in the sand and own that our Administration took over on the 21st of January. I believe, if those two bodies were now examining what is occurring at the Department of Energy, and if there were a consideration that we, or criticism that we, were pushing responsibility to meet milestones ahead of scientific integrity, the criticism would be minor because we have sought to adjust in that area.

As one responsible for the overall management of the Department, my balance will always be, what are the measures for progress in every program area? And there have to be milestones, there have to be dates. You don't overcome the sense of the lack of trust in the Department by simply hitting the milestones, if there is some reason not to. I would point out the steps we took
at Hanford when it was clear to us that the milestone, which was the building of the vitrification plant, before we understood why and what we were building, was a milestone that no reasonable person would seek to meet.

So I believe it is important to share data and when the milestones are inappropriate, to say so and negotiate the fact that they won’t be met. Now, having used Hanford as an example, I recognize that I place myself in jeopardy leading every community to believe that the Department will never honor its commitment.

I think there has got to be a rational balance. I understand it is now my job to conduct myself and provide the leadership to the Department so we are providing that balance.

Mr. LEHMAN. Thank you.

Finally on another subject, the proposal to purchase highly enriched uranium from dismantled Russian nuclear weapons presents us with an opportunity to meet three objectives: One, national security, at least we are permanently removing that material from their arsenal. Two, we can help them with hard currency and keeping some of those people in their nuclear industry working and hopefully we could also reduce the cost of nuclear-generated electricity here at home, and I would like to ask you this morning to provide us with a brief status on negotiations in this deal.

Secretary O'LEARY. Well, those negotiations, which have taken some of my time since I have been at the Department, in my view, are going along on course. We had signature on the blanket agreement very early on in our Administration and issues involving transparency have been concluded. There are some initials on the document at the moment.

My sense is, again, and I always hesitate to say this, that I cannot think of anything that would stand in the way of progress on concluding this negotiation, and actually having a signed document. As you may well know, at the end of this month, Prime Minister Chernomyrdin will be in the United States meeting with Vice President Gore.

My sense is that we will have things pretty well wrapped up at the conclusion of that meeting and I see nothing that could stand in the way of progress.

Mr. LEHMAN. What are the sticking points? Price and verification of course; is that correct?

Secretary O'LEARY. Price surely, which will always be the case, and negotiation on both sides with respect to the source in Russia and from the Russians’ point of view with respect to the United States. Certainty on their part that we are, in fact, using the blended material for civilian production and as has been reported to me by staff who have just returned from Moscow, that those negotiations are proceeding as smoothly as one could expect at this term of the negotiation.

Mr. LEHMAN. Will we get it at a price that is beneficial to our utilities?

Secretary O'LEARY. Absolutely, Mr. Chairman.

Mr. LEHMAN. You promise me that?

Secretary O'LEARY. I do promise you that.
Mr. LEHMAN. Our concern is we would pay more for it than utilities could get it here and we would have to make up the difference from somewhere, perhaps from the general revenues.

Secretary O'LEARY. I understand your concern and I think that is an issue that is being watched by others than the Secretary of Energy and we are watching it well indeed.

Mr. LEHMAN. Well, thank you very much. I have additional questions with regard to actinide recycling funding and Mr. Richardson submitted some questions with regard to the Indian provisions of the Energy Policy Act, and I think to let you go, we would just submit those to you in writing and you can respond to them to the Committee in the next couple of weeks.

Secretary O'LEARY. I will indeed.

Mr. LEHMAN. I have no further questions.

Mrs. VUCANOVICH. I have no further questions.

Thank you very much.

Mr. LEHMAN. Thank very much for your testimony this morning. We certainly appreciate it.

[Whereupon, at 11:05 a.m., the Subcommittee was adjourned.]
High Level Waste

1. The GAO reports that for fiscal year 1992, the waste program spent $109 million on activities related to accepting waste and pursuing other objectives, and $166 million on the Yucca Mountain Project. Of that $166 million for Yucca Mountain, only $60 million was spent on site investigation, and the remaining $106 million was spent on “infrastructure activities” supporting the scientific investigation. Please explain what these “infrastructure activities” are that have been receiving the bulk of the funding?

2. Why has only 22 percent of the program’s budget been going to the issue that should be the number one priority: finding out whether Yucca Mountain is suitable?

Low-Level Waste

3. DOE has some support responsibilities in the low-level radwaste disposal program. One of those is to decide whether generators or states should receive surcharge rebates under the Low-Level Waste Act. States are to receive the rebates if they are providing disposal capacity, and generators are to receive them otherwise, according to the Act.

4. Given that only the Northwest and Southeast Compacts are actually providing disposal capacity at present, do you feel that it sends the right signal to the other, tardy states to give them these rebates on the basis of contracts with the Southeast Compact?

Actinide Recycle Funding

5. With respect to R&D funding for advanced reactor technologies, your testimony states that “only actinide recycle technology, which holds the potential to benefit the high level nuclear waste disposal strategy, will be continued.” Later you state that the actinide recycle program “will evaluate the technical and economic feasibility of an innovative nuclear fuel cycle technology.” If we aren’t going to use taxpayer funds to support the advanced liquid metal reactor design—a decision which I support—why does it make sense to continue funding the fuel cycle that is unique to that reactor?
6. To make any significant dent in the current nuclear waste problem, wouldn't it be necessary to build dozens of new liquid metal reactors and run them for many decades?

7. Haven't several reputable independent analyses concluded that such a scheme cannot provide an economically competitive alternative to repository disposal of spent fuel?

8. How can a few years of technological demonstrations realistically evaluate the real-world economic feasibility of this technology?
Questions from Chairman Lehman

High-Level Waste

Question 1: The GAO reports that for fiscal year 1992, the waste program spent $109 million on activities related to accepting waste and pursuing other objectives, and $166 million on the Yucca Mountain Site Characterization Project. Of that $166 million for Yucca Mountain, only $60 million was spent on site investigation, and the remaining $106 million was spent on "infrastructure activities" supporting the scientific investigation. Please explain what these "infrastructure activities" are that have been receiving the bulk of the funding?

Answer: "Infrastructure" costs are made up of compliance activities such as environmental regulations, safety and health regulations, interacting with oversight bodies (Nuclear Waste Technical Review Board, Nuclear Regulatory Commission, etc.) and stakeholders; and administrative activities such as managing the project, rent, phones, etc. The science and technical work cannot be done without also doing the supporting compliance and administrative activities. For instance, before a hole can be drilled many permits from the State are required and numerous procedures and plans must be approved to ensure applicable Department of Energy Orders will be implemented as well as Department of Labor, Occupational Safety and Health Administration rules and regulations.

Regarding the Yucca Mountain infrastructure estimate provided in the General Accounting Office report, many of the activities included by the General Accounting Office in
this category directly support the scientific work at the Yucca Mountain site. Examples include performance assessment activities: rock sample management; project-level quality assurance; environment, safety and health activities; information management; and project management. Whether these activities are categorized as "infrastructure" or "scientific/technical" involves subjective judgment; however, all these activities are necessary to ensure that the scientific work has the requisite documentation. Finally, "infrastructure" also includes the financial assistance payments to the State of Nevada and affected local governments specifically identified in the FY 1992 appropriation bill.
Why has only 22 percent of the program's budget been going to the issue that should be the number one priority: finding out whether Yucca Mountain is suitable?

The General Accounting Office's assertion that only 22 percent of the Program's budget has been allocated to Yucca Mountain site characterization is somewhat misleading. The Nuclear Waste Policy Act of 1982, as amended, requires not only the characterization of the Yucca Mountain candidate repository site, but also authorizes development of a Monitored Retrievable Storage facility and a transportation system. The Act also mandates that both the repository and the Monitored Retrievable Storage facility be licensed by the Nuclear Regulatory Commission. This, in turn, requires the development and implementation of rigorous quality assurance and regulatory compliance programs to ensure public health and safety and the integrity of scientific data. In addition, the Act places substantial institutional requirements on the Department. The Department must be responsive to a wide array of stakeholders, including the Congress, the Office of Management and Budget, the General Accounting Office, the State of Nevada, affected State and local governments, affected Indian Tribes, nuclear utilities, Federal regulatory agencies (Nuclear Regulatory Commission, Environmental Protection Agency, Department of...
Transportation, etc), other oversight bodies such as the Nuclear Waste Technical Review Board, and the public at large. Satisfying the information requirements of these organizations and entities requires significant resources. Finally, the Department must continue to support the traditional program and project management functions that are necessary to manage, integrate and control the components of the civilian radioactive waste management program.
QUESTIONS FROM CHAIRMAN LEHMAN

Question 3: DOE has some support responsibilities in the low-level radwaste disposal program. One of those is to decide whether generators or states should receive surcharge rebates under the Low-Level Waste Act. States are to receive the rebates if they are providing disposal capacity, and generators are to receive them otherwise, according to the Act.

Answer: The Low-Level Radioactive Waste Policy Amendments Act of 1985 (the Act) directs the Department to rebate surcharges to States and compacts that have, by January 1, 1993, "provided for disposal of all low-level radioactive waste generated within such State or compact region." The Department is the administrator of an escrow account into which surcharges have been paid, and is responsible for making payments of surcharge rebates associated with the January 1, 1993, deadline from the monies in the escrow account. States that met the 1993 deadline are to receive rebates; however, if a State did not meet the deadline, the rebate is to be paid to the generators within that State from whom the surcharges were collected. Because most States have been granted temporary disposal access to the Southeast Compact’s Barnwell facility, States and compacts contend they have provided for disposal in accordance with the Act and should receive the rebates; on the other hand, generators maintain the temporary disposal access which has been arranged (until June 1994) does not meet the intent nor the letter of the Act. This issue and the views of the generators and States are being evaluated within the
Department and we expect to announce a decision within the near future.
Question 4: Given that only the Northwest and Southeast Compacts are actually providing disposal capacity at present, do you feel that it sends the right signal to the other, tardy states to give them these rebates on the basis of contracts with the Southeast Compact?

Answer: The Department considers the issue to be whether temporary and conditional access as provided by South Carolina extending access to its regional disposal facility to waste generators outside the Southeast Compact, until June 30, 1994, is sufficient to meet the requirements of the Act.

As stated previously, the Department is currently evaluating this issue and it will base its decision on the Act's requirements for States/compacts to meet the 1993 deadline, after fully considering the comments provided by generators and States in response to the Federal Register Notice entitled, "Surcharge Rebates; Eligibility Criteria and Procedures for the January 1, 1993, Deadline of the Low-Level Radioactive Waste Policy Amendments Act of 1985" published on September 30, 1992.
QUESTIONS FROM CHAIRMAN LEHMAN

Question 5: With respect to R&D funding for advanced reactor technologies, your testimony states that "only actinide recycle technology, which holds the potential to benefit the high level nuclear waste disposal strategy, will be continued." Later you state that the actinide recycle program "will evaluate the technical and economic feasibility of an innovative nuclear fuel cycle technology." If we aren't going to use taxpayer funds to support the advanced liquid metal reactor design--a decision which I support--why does it make sense to continue funding the fuel cycle that is unique to that reactor?

Answer: The focus of the Actinide Recycle Program is to study the feasibility of reducing the volume and half-life of commercial nuclear waste. Since the principal area of technical uncertainty is the fuel cycle, it makes sense to use the available limited funding to focus on the most important aspects of the program. Potential deployment of the actinide recycle system, including the advanced liquid metal reactor, would depend upon a number of marketplace and policy factors including, of course, the economic and technical results of the proposed research and development activities.
To make any significant dent in the current nuclear waste problem, wouldn't it be necessary to build dozens of new liquid metal reactors and run them for many decades?

Analysis indicates that one liquid metal reactor would need to be deployed for every 3-10 light water reactors, depending on the assumptions. Each of these reactors is designed to operate for 60 years, and during this lifetime these reactors potentially could make a significant contribution to waste management while at the same time generating economical electrical power.
Haven't several reputable independent analyses concluded that such a scheme cannot provide an economically competitive alternative to repository disposal of spent fuel?

No. The Lawrence Livermore National Laboratory Study, to which you may refer, estimates that reprocessing of existing fuel would cost more than twice the estimated cost of repository disposal. However, the study only looked at the cost of repository versus cost of reactors. The study did not consider the entire system. More recent preliminary Oak Ridge National Laboratory analysis has found that significant economic benefits, amounting to $10 to $40 billion net present value over a period of 60 years, could potentially be realized with deployment of actinide recycle technology.
Question 8: How can a few years of technological demonstrations realistically evaluate the real-world economic feasibility of this technology?

Answers: The technical demonstrations build on nine years of previous work at Argonne National Laboratory. Three to four more years is sufficient to evaluate the real-world economic feasibility of this technology.
Indian Provisions in Energy Policy Act

1. What steps are being taken to implement the Indian provisions of the Energy Policy Act of 1992?

2. Will there be funding available this year for tribes wishing to take advantage of the Indian provisions in the Energy Policy Act of 1992?
QUESTIONS FROM REPRESENTATIVE RICHARDSON


Question 1: What steps are being taken to implement the Indian provisions of the Energy Policy Act of 1992?

Answer: DOE is currently in the process of developing a plan to implement these provisions, which will include a process for tribal consultation and involvement, a defined program that meets tribal needs, and ensures fairness in competing for program dollars.

DOE is committed to working with Indian tribes to assist them to develop their resources. It is a high priority of the Department to integrate Native American interests into its present programs through their participation in future procurements. DOE will encourage our industrial partners to include Native Americans in their proposals.
QUESTION 2: Will there be funding available this year for tribes wishing to take advantage of the Indian provisions in the Energy Policy Act of 1992?

Answer: No funds were requested for implementation of the Indian provisions of the Energy Policy Act of 1992 (EPACT) in the Department's FY-1994 budget. Once a plan for implementation of Title XXVI is developed in consultation with Indian Tribes, the Department will be better able to define funding requirements.
OTHER QUESTIONS SUBMITTED IN WRITING

1) It is my understanding that the Department and the State of Idaho are in general agreement on the terms and scope of an Environmental Impact Statement of the waste program at the Idaho National Engineering Laboratory. If DOE has conceded to doing everything that the State of Idaho has requested in terms of the scope of the EIS, why won't DOE enter into a court-approved order codifying those plans?

2) The State of Idaho has requested that there be no more shipments of spent fuel, including naval fuel, to INEL until completion of the EIS. The Department has said that it is not possible to store the naval fuel at the shipyards. The Department says they need to bring the naval fuel to Idaho to inspect it. However, according to Mr. Richard Guida, the Associate Director for Regulatory Affairs of the U.S. Naval Nuclear Propulsion Program, less than 20% of the fuel is inspected anyway. Couldn't DOE ship only the fuel that is examined at the site and leave the other 80% at the shipyard?

3) By the Department's own admission, waste storage building 603 is unsafe. A nearby storage building, building 666, was built in 1984, and has available storage capacity. The Department could improve safety by moving the fuel from building 603 to building 666. In the interest of safety, shouldn't the Department transfer this waste?

Over the next decade, spent naval fuel will continue to be sent to building 666. Next March that building is projected to run out of space. To make more space in building 666, the Department has begun the Rack Reconfiguration Project in the building. This project is estimated to cost $80 to $120 million dollars. Under the new storage design, the Department will be putting more fuel in the same space, thus putting the fuel closer together. The Department has said that they will study the safety of this proposal in a site-wide EIS, but they want to go forward with the "re-racking" before they complete the EIS.

Do you support this "shoot first, ask questions later" policy? Do you believe that it is consistent with the National Environmental Protection Act? Aren't we taking a risk in spending $100 million on a project before the EIS has been completed?

In light of all of these considerations, wouldn't it make more sense to take only the waste that the Navy needs inspect, move the waste from building 603 to the safer building 666, and hold off on a $100 million project until the EIS is completed?
QUESTIONS FROM REPRESENTATIVE LAROCO

Question 1: It is my understanding that the Department and the State of Idaho are in general agreement on the terms and scope of an Environmental Impact Statement of the waste program at the Idaho National Engineering Laboratory. If DOE has conceded to doing everything that the State of Idaho has requested in terms of the scope of the EIS, why won't DOE enter into a court-approved order codifying those plans.

Answer: The issue of a court-approved settlement order is no longer relevant at this stage since the United States District Court for the District of Idaho issued an order on June 28, 1993, that requires preparation of a comprehensive site-wide Environmental Impact Statement at the Idaho National Engineering Laboratory. This Environmental Impact Statement will evaluate the direct and indirect environmental effects of all major Federal actions involving the transportation, receipt, processing, and storage of spent nuclear fuel as well as a range of reasonable alternatives. DOE is enjoined from any further transportation, receipt, processing, and storage of spent fuel at the Idaho National Engineering Laboratory until the comprehensive Environmental Impact Statement is completed, reviewed, and any challenges to the statement are resolved. The Department is currently evaluating the possibility of an appeal of the district court's decision.
Question 2: The State of Idaho has requested that there be no more shipments of spent fuel, including naval fuel, to INEL until completion of the EIS. The Department has said that it is not possible to store the naval fuel at shipyards. The Department says they need to bring the naval fuel to Idaho to inspect it. However, according to Mr. Richard Guida, the Associate Director for Regulatory Affairs of the U.S. Naval Nuclear Propulsion Program, less than 20% of the fuel is inspected anyway. Couldn't DOE ship only the fuel that is examined at the site and leave the other 80% at the shipyard?

Answer: As stated in the Government's responses to the State's interrogatories in the Idaho spent nuclear fuel law suit, and in Mr. Guida's January 25, 1993, deposition, all spent naval fuel is visually examined at the INEL. These examinations include internal and external surfaces. Mr. Guida went on in his deposition to state that less than 20% of the spent naval fuel subsequently receives more detailed examination. Mr. Guida went on to explain how examination of all spent naval fuel has been done since the beginning of the Program, how the examinations remain a critical part of ensuring continued safe and reliable naval reactor fuel performance, and how they support increases in naval reactor core lifetimes which minimize the number of shipboard refuelings and the amount of spent fuel generated. Several pages from Mr. Guida's deposition are attached illustrating these points.
Answer 2 (continued):

Second, the question implies that the Program knows in advance which fuel cells require more detailed examinations. This is not the case. Many of the detailed inspections are performed only as a result of the discovery of conditions during the visual inspections that every fuel cell receives. Because there is no way to predict in advance which fuel cells might exhibit conditions requiring further detailed investigation, there is no way to determine which specific fuel cells should be shipped to Idaho. Again, the excerpts from Mr. Guida’s deposition refer to this.

Finally, even if identification of the “right” 20% was possible, the Government would still run out of containers to store the remaining 80% of the spent naval fuel at shipyards before the INEL Environmental Restoration and Waste Management Environmental Impact Statement is estimated to be completed. As a result, the question would not avoid the resulting shutdown of the refueling and defueling of the Nation’s nuclear powered warships and layoff of several thousand shipyard workers, as described in several filings before the Federal District Court.
A. What we have are data on occupational exposure
of the people who work at the expanded core facility.
That information has not been supplied, but can certainly
be supplied. The occupational exposure of those workers
is extraordinarily low, and it is documented, completely
documented, and reported as part of the Idaho National
Engineering Laboratories occupational exposure of its work
force reports.
So we can make that information available to
you.
I would say -- excuse me for just adding one
point. I would point out that nowhere in the naval
reactors program have we ever exceeded Federal limits on
radiation exposure. And the same is certainly true at
BCF.
Q. I turn your attention to Exhibit 3, the response
to interrogatory number 10.
A. I'm there.
Q. And, specifically, I direct your attention to
the first sentence of that response, where it is stated
that all spent naval nuclear cores received at BCF are
visually examined. Is it true that the cores are
examine, or only the individual fuel assemblies making up the core?

A. When we refer to a reactor core, what we mean is the fuel assemblies that constitute the core. So our statement that all cores received are visually examined means that every fuel module, or fuel cell as we call it, that constitutes that core has received a visual examination.

Q. Has the visual inspection of fuel modules or cells removed from operating ships in the last five years indicated any unexpected conditions that led to the need for additional inspections of that fuel?

A. Yes.

Q. How often?

A. Typically, the examination of both the interior and exterior surfaces of the fuel will reveal conditions that will require further examination, resolution, technical evaluation, assessment. Several times a year this will occur.

The results that come from those types of visual examinations are then reported to the design and manufacturing engineers at our Bettis or Lewis power...
Laboratories, our two DOE GOCO facilities.

government-owned contract operating facilities, which
design and support manufacture of new fuel. The results
are assessed relative to our manufacturing standards and
core design standards and fed into the continuing process.
Because it is a continuing process of evaluating those
standards and upgrading those standards.

Those standards then are used, of course, or
they affect the design of new fuel, as well as the
manufacture of existing fuel.

Q. Could distortions of the fuel modules or cells
due to irradiation heat and fission be determined during
the removal of the fuel assemblies from the shipboard
reactors?

A. If the distortions are so severe as to impact
the removal of the fuel, then indeed you would detect it
when you tried to remove the fuel. The types of
distortions we're talking about here are not of that
character. We're talking about much more subtle, much
smaller distortions which have great consequence with
respect to the use of that information in the design and
fabrication of new fuel.
In other words, in order for me to determine, for me to design a fuel that would have a certain lifetime and be able to sustain a lifetime that I want it to sustain, I must have a database of information that describes how my fuel -- how this type of fuel has performed in service over a certain period of time. That database is constructed by performing the kinds of examinations, visual and other than visual exams, that we have referred to here. It's constructed in that fashion, and then one draws from that database the information one needs to design and support the manufacture of new fuel.

The critical element here is that the fuel itself from any given reactor, although it may be from a reactor of a design that's already sustained several different examinations, have seen different environmental conditions at the time of its operation. It may have operated longer, a couple of years longer than other fuel of the same design. It may have withstood chemistry conditions in the primary coolant that are different. When it was manufactured, it may have been closer to a tolerance than other fuel.
So, the bottom line is, every spent fuel module has its own history, manufacturing history and operational history associated with it. So the information that one learns from examination of that spent fuel is unique to that specific module.

Q. When was the last time that a visual inspection of spent naval fuel resulted in a change of material selection or manufacturing process?

A. There is no way I can relate specific information that derives from the examinations, whether they be visual or non-visual, to specific changes in the way we design or manufacture our fuel. And the reason for that simply is that since it is an ongoing process, if I, a design engineer and I have now been supplied the following report of the results of visual exams or other types of examinations, I take that into consideration as I now seek to determine should I revise my standard, should I make changes here, there, or whatever.

My recommendation, then, to the Government as to what that standard should say will reflect what I have considered in the way of the information provided to me. But it isn't a situation where there is a tag, this piece
of information resulted in that change to the
manufacturing standard or design standard.

Usually it is a much more subtle thing of, if I
determined that there happens to be a discoloration on the
surface of this particular fuel module that has seen this
type of service, this type of neutron fluence, which is
the number of neutrons going through the surface, et
al., then that would move me in the direction, all
other things being equal, of changing the heat treatment.
perhaps, of that, you know, that type of material. But
then I would have to consider that relative to a host of
other data that has also been supplied from the
examination process.

So, it is all an integrated package of
information that comes from examinations that the
ingineers that have to assess to determine what should or
shouldn't be done in the way of design standards and
manufacturing standards.

Q. Are visual inspections of spent naval fuel the
only source of information that the Naval Nuclear
Propulsion Program relies upon in confirming the adequacy
of new design features?
A. They are the most important and critical elements, but they're not the only element. The other elements that we use are computer codes, certainly, computer simulations of -- or transport calculations of how material would behave over a period of time under certain neutron bombardment, et cetera.

We also rely upon materials test data from the advanced test reactor located at the Idaho National Engineering Laboratory, where we irradiate specimens -- where the DOE irradiates specimens, because it's not a naval reactors program facility. So we take that data as well.

The only data that we have of an operating character, where the longevity of the thing you have operator tested is comparable to what you want in the way of what you're going to design comes from spent fuel inspected from naval ships.

An example was the Enterprise. We want to examine that fuel after 20 years of service. There is no test data we get from ATR comparable to that. There the test data is an accelerated test, where the data are obtained after just a much shorter period of time, under
much more stringent conditions, under much more difficult
or vigorous conditions.

Q. Is it true that visual inspections of spent
nuclear fuel that has not experienced worst case accident
conditions can provide little or no information about the
assurance of the fuel to operate satisfactorily under
those accident conditions?

A. No, that is not true.

Q. Could you elaborate?

A. Certainly.

The performance of fuel that has withstood
long-term exposure to an operational environment, and in
the case of Enterprise again, that's 20 years of
operation, reveals a great deal about its ruggedness and
integrity, ability to withstand ... its ability to
withstand its very challenging environment over a long
period of time.

When we design a core, we predict that the fuel
will distort or will behave in such a fashion as to change
its dimensions by a certain amount over a certain period
of time. The same codes that are used to predict
distortion of fuel also are used. The same types of
calculations are done to determine how the fuel would
behave in an accident scenario, in scenarios where it
experiences temperatures and conditions that are beyond
what it would normally see under routine service.

That having been said, if I have a situation
where I have predicted a certain performance of the fuel
over 20 years, at the end of that 20 years, I predict that
it will look -- it will have a certain appearance, a
certain visual appearance with respect to whether it's
distorted by more than what I predict or not. Then,
comparing that to the actual results qualifies the models
that I have used to determine whether the fuel is going to
behave as I predicted, obviously.

As I say, the same types of transport
calculations and the same types of calculations as to how
the core will distort under more severe conditions which
will occur over a shorter period of time, but obviously
be, for example, of higher temperature, as opposed to over
a longer period of time but at a lower temperature, come
as close to reality as one can get.

If I'm trying to qualify a model, it's much
better to have actual data on long-term performance as
I've just described, then, it is to have information that is conjectural or is not measurably. It comes from some source other than the actual test of materials.

Q. Is it true that only a small portion of the selected cores that are received at the expended core facility are given the more detailed examinations referred to in the response to interrogatory number 10?

A. It is true that the fraction of fuel which receives examinations beyond visual represents a relatively small fraction of all of the spent fuel that is received at ECF.

Q. Can you give me an approximate percentage?

A. Yes.

Q. What is the percentage of selected cores that are given the more detailed examinations?

A. Less than 20 percent. And again, that is on a fuel module basis, not just a core basis.

Q. Generically, what type of equipment is used to visually examine externally the spent naval fuel that is received at the expended core facility?

A. When you say examine externally, are you then excluding the internal?
QUESTIONS FROM REPRESENTATIVE LAROCCE

Question 3:

By the Department's own admission, waste storage building 603 is unsafe. A nearby storage building, building 666, was built in 1984, and has available storage capacity. The Department could improve safety by moving the fuel from building 603 to building 666. In the interest of safety, shouldn't the Department transfer this waste?

Over the next decade, spent naval fuel will continue to be sent to building 666. Next March that building is projected to run out of space. To make more space in building 666, the Department has begun the Rack Reconfiguration Project in the building. This project is estimated to cost $80 to $120 million dollars. Under the new storage designs, the Department will be putting more fuel in the same space, thus putting the fuel closer together. The Department has said that they will study the safety of this proposal in a sitewide EIS, but they want to go forward with the "re-racking" before they complete the EIS.

Do you support this "shoot first, ask questions later" policy? Do you believe that it is consistent with the National Environmental Protection Act? Aren't we taking a risk in spending $100 million on a project before the EIS has been completed?

In light of all these considerations, wouldn't it make more sense to take only the waste that the Navy needs inspect, move the waste from building 603 to the safer building 666, and hold off on a $100 million project until the EIS is completed?

Answer:

The Department does indeed agree there are major safety concerns at the old Fuel Storage Facility (CPP-603). These concerns are being actively addressed and include:

(1) systematically identifying fuel storage issues and root causes of problems, (2) prioritizing resolution of critical issues in fuel storage consistent with governing safety documents, (3) a program and schedule to remove all fuels from CPP-603, (4) upgrading storage equipment, racks, and
procedures, and (5) applying lessons learned from spent fuel storage activities within the Department and in the private sector.

Buildings CPP-603 and CPP-606 both contain spent fuel storage basins. The phaseout of CPP-603's three basins, (North, Middle, and South) is proceeding. Actions are underway to place the fuel and the equipment in the facility into a safer configuration. When these recovery actions are complete, fuel compatible with storage in CPP-603 may be transferred to CPP-666. Only part of the fuel in the CPP-603 storage basins is compatible with storage in CPP-606. The technical capability needed to prepare this fuel for safe dry storage must be developed and this is the key issue driving the length of the schedule. Current plans call for all spent fuel to be removed from the CPP-603 North and Middle basins by the end of calendar year 1997 and fuel from the South basin by the end of calendar year 2005. Transfers of spent fuel from CPP-603 to CPP-606 can and will proceed, regardless of whether all or only part of the projected spent naval fuel shipments are received at CPP-606.

Prior to the June 28, 1993, order from the Federal District Court, DOE was preparing an Environmental Assessment for re-racking three of the six CPP-606 storage basins. Re-racking would have been needed to preserve future CPP-606
storage options for consideration in the Idaho National Engineering Laboratory (INEL) Environmental Restoration and Waste Management Environmental Impact Statement (EIS), by creating additional space through tighter spacing within the existing storage basins. This interim action would not have prejudiced the final EIS decision because the additional storage capacity would not be used until after the EIS was issued. As a result of the court decision, DOE is reevaluating its position on re-racking. This project is estimated to cost only $18 million, not $80 to $120 million.
QUESTIONS FOR SECRETARY O'LEARY
FROM MRS. VUCANOYICH

-- Given that GAO, the Nuclear Waste Technical Review Board, and legislation that I have introduced all call for an independent review of the program, Why have you not taken steps to arrange such a review ? and secondly, will you undertake one ?

-- Can you assure the people of the state of Nevada that neither the Nevada Test Site nor the Yucca Mountain site will be the location of a interim nuclear waste storage facility ?

-- Doesn't purchase of the Tunnel Boring Machine reflect DOE's intention to pick Yucca Mountain as the site for the repository ?

-- What steps will you take to implement the recommendations of the May 27 GAO Report ?

-- What did you mean a few weeks ago when you said at the National Press Club that DOE has a "moral obligation" to meet the 1998 date in which DOE has to accept spent fuel from utilities ?

-- I am told that in an exchange between you and Mr. Myers of the Appropriations Committee on April 21, you said "Its not a scientific problem we have at Yucca, its political." Did you say that and if so, what did you mean by that ?
-- The GAO has recommended that the Nuclear Waste Trust Fund not be taken off-budget. Given your support for taking it off budget, will you accept the GAO recommendation or ignore it?

-- Last year, Admiral Watkins in a letter to Sen. Johnston proposed that Yucca Mountain be licensed under a phased licensing process where small amounts of waste would be brought to the site after the license application is submitted. Does DOE support the concept of phased licensing? Why or why not?

-- In your recently announced reorganization, the Director of the Office of Civilian Nuclear Waste Management now reports to the Deputy Secretary. This would appear to violate the Nuclear Waste Policy Act of 1982 as amended. Why the change?

-- When do you expect to announce the name of the Director of the Nuclear Waste Office? Is Mr. Dan Dreyfuss a candidate for that position?
QUESTIONS FOR REPRESENTATIVE VUCANOVIĆ

High-Level Waste

Question 1: Given that GAO, the Nuclear Waste Technical Review Board, and legislation that I have introduced all call for an independent review of the program, why have you not taken steps to arrange such a review? And, secondly, will you undertake one?

Answer: Although numerous internal reviews of the program have been conducted, I have committed to initiating an independent management review of the Yucca Mountain Site Characterization Project. This effort may produce recommendations for actions that could be undertaken to enhance the program. I will be consulting further with the State of Nevada along with you and other members of the Congressional delegation as I bring this planned review into place.
High-Level Waste

Question 2: Can you assure the people of the State of Nevada that neither the Nevada Test Site nor the Yucca Mountain site will be the location of an interim nuclear waste storage facility?

Answer: Section 145(g) of the Nuclear Waste Policy Act of 1982, as amended, prohibits the construction of a Monitored Retrievable Storage facility in the State of Nevada. In addition, the Nuclear Regulatory Commission's implementing regulations state in Section 72.96(b) of Title 10, Code of Federal Regulations, that a Monitored Retrievable Storage facility must not be sited in any State in which there is located any site approved for site characterization for a high-level radioactive waste repository. Unless there is a change in the legislation and the regulation, the Department is prohibited from establishing a Monitored Retrievable Storage facility in the State of Nevada. As I stated in my confirmation hearing, I intend to comply with all legislation in implementing the nuclear waste management program.
QUESTIONS FROM REPRESENTATIVE VUCANOVIČ

High-Level Waste

Question 3:  Doesn't purchase of the Tunnel Boring Machine reflect DOE's intention to pick Yucca Mountain as the site for the repository?

Answer: Construction of an exploratory tunnel is not a commitment on DOE's part to construct a repository. In-situ testing at depth is required by the Nuclear Regulatory Commission; see 10 CFR 60.15b which states: "Unless the Commission determines with respect to the site described in the application that it is not necessary, site characterization shall include a program of in-situ exploration and testing at the depths that wastes would be emplaced." In the Nuclear Regulatory Commission Final Rule for Disposal of High-Level Radioactive Wastes in Geologic Repositories: Licensing Procedures, it states "The Commission believes that in-situ testing at depth is an essential technique for DOE to obtain sufficient data to determine whether and to what extent the surrounding geologic medium is suitable for hosting a geologic repository. The Commission interprets the phrase 'in-situ testing at depth' to mean the conduct of those geophysical, geochemical, hydrologic, and/or rock mechanics tests performed from a test area at the base of a shaft excavated to the proposed depth of a potential repository in order to determine the suitability of a particular site for a geologic repository." Mechanical excavation of the exploratory tunnel, using a tunnel boring machine, was specifically recommended to DOE by the Nuclear
Waste Technical Review Board because this excavation technique would reduce the disturbance to the rock walls, allowing more reliable conduct and interpretation of in-situ testing. Should in-situ testing determine that Yucca Mountain is not suitable, further excavation will cease and the Department is committed to restoring the environment at the site.
QUESTIONS FROM REPRESENTATIVE VUCANOVIČ

High-Level Waste

Question 4: What steps will you take to implement the recommendations of the May 27 GAO Report?

Answer: The referenced General Accounting Office Report recommends that the Secretary of Energy review the program's goals and objectives in the context of the present program's low funding priority for Yucca Mountain.

Shortly after my confirmation, a review of the Civilian Radioactive Waste Management Program was initiated that will address the General Accounting Office concerns. We met with many interested parties and reviewed numerous written reports related to the program. We found during this preliminary review that, the program needs to refocus its efforts to improve in two broad areas: increased emphasis on the highest quality scientific work and the more effective inclusion of external parties in program development and implementation. As part of my ongoing review, we will include a process for thoroughly airing critical issues facing the program with parties external to the Department. This consultative process will place special emphasis on Governors and other elected or appointed officials with constituent responsibilities affecting the program. Any redirection of the program and subsequent revision of the program's technical, cost, and schedule baselines will occur after the review's completion.
QUESTIONS FROM REPRESENTATIVE VUCANOVIČ

High-Level Waste

Question 5: What did you mean a few weeks ago when you said at the National Press Club that DOE has a "moral obligation" to meet the 1998 date in which DOE has to accept spent fuel from utilities?

Answer: The Department is committed to carrying out its responsibilities under the Nuclear Waste Policy Act of 1982, as amended, which charges the Department with disposing of the Nation's spent nuclear fuel and high-level radioactive waste. We remain convinced that the Department has a moral obligation to meet the 1998 date for spent fuel acceptance.
High-Level Waste

Question 6: I am told that in an exchange between you and Mr. Myers of the Appropriations Committee, you said, "It's not a scientific problem we have with Yucca, it's political." Did you say that and if so, what did you mean by that?

Answer: My comment to Mr. Myers was intended to convey the concept that, based on the historical progress of the Department's Civilian Radioactive Waste Management Program, the political and institutional challenges of siting, constructing and operating a geologic repository for spent nuclear fuel and high-level radioactive waste are, in many respects, more daunting than the technical challenges that need to be addressed and resolved.
Questions from Representative Vucanovich

High-Level Waste

Question 7: The GAO has recommended that the Nuclear Waste Fund not be taken off budget. Given your support for taking it off budget, will you accept the GAO recommendation or ignore it?

Answer: The referenced General Accounting Office recommendation is a recommendation to the Congress, rather than to the Secretary of Energy, because any modification of the current funding mechanism for the Civilian Radioactive Waste Management Program requires legislative action. The General Accounting Office recommendation reads as follows: "In view of the current status of the disposal program, we recommend that the Congress defer consideration of legislation that would change how funds are provided to DOE from the Nuclear Waste Fund for use on the disposal program until (1) the Secretary of Energy has completed the review of the disposal program that we recommended; (2) an independent review of the program, such as that recommended by the Nuclear Waste Technical Review Board, has been completed; and (3) appropriate legislative, policy, and/or programmatic changes to the program have been implemented."

Thus, the General Accounting Office did not recommend that the Nuclear Waste Fund not be taken "off-budget," but rather that the Congress defer consideration of such a proposal. We would, of course, abide by and implement whatever legislative action the Congress takes on the funding issue.
However, we strongly believe that, if the Program is to make the requisite continued progress toward waste acceptance and disposal by the Federal Government, while also minimizing ultimate total Program costs, an alternative mechanism must be found that provides higher and more predictable funding levels for the Program.
High-Level Waste

Question 8: Last year, Admiral Watkins in a letter to Senator Johnston proposed that Yucca Mountain be licensed under a phased licensing process where small amounts of waste would be brought to the site after the license application is submitted. Does DOE support the concept of phased licensing? Why or Why not?

Answer: The Department is continuing to consider alternative licensing strategies. One such alternative was mentioned in the letter from Admiral Watkins to Senator Johnston of January 12, 1993. That alternative as well as alternatives outlined in the April 1993 report of the DOE Task Force on an Alternative Program Strategy, entitled "Proposed Alternative Strategy for the Department of Energy's Civilian Radioactive Waste Management Program" will be subjected to a thorough external consultative process as part of the ongoing review of the Civilian Radioactive Waste Management Program.
Question 9: In your recently announced reorganization, the Director of the Office of Civilian Radioactive Waste Management now reports to the Deputy Secretary. This would appear to violate the Nuclear Waste Policy Act of 1982, as amended. Why the change?

Answer: Section 304(b) of the Act, which establishes the functions of the Director of the Office of Civilian Radioactive Waste Management, states the Director "is subject to the general supervision of the Secretary...[and] shall be directly responsible to the Secretary." The reporting relationship recently established is in keeping with the terms of this section. By assigning day-to-day responsibility for monitoring the activities of the Office to the Deputy Secretary, the Secretary is assured that this priority program will receive the highest level of attention on a continual basis. Notwithstanding this assignment, however, the Director is still under the general supervision of the Secretary and is directly responsible to the Secretary. The proposed changes in DOE's management structure are intended to facilitate a more responsive, efficient and effective organization.
QUESTIONS FROM REPRESENTATIVE VUCANOVICH

Question 10: When do you expect to announce the name of the Director of the Nuclear Waste Office? Is Mr. Dan Dreyfus a candidate for that position?

Answer: The President has not yet stated his intent to nominate a Director of the Office of Civilian Radioactive Waste Management. That position along with other remaining appointments in the Department will be announced as the President completes his review of candidates. We expect the process to proceed quickly.

Dr. Dreyfus has been serving since February of 1993 in the position of Special Assistant to the Secretary. In that capacity he performs a variety of assignments within the Department.