

The

Radioactive Exchange®

To promote the exchange of views and information on radioactive waste management

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Volume 5 Special Bonus Edition

August 15, 1986

EXCLUSIVE INTERVIEW WITH OCRWM DIRECTOR BEN RUSCHE....

Rusche: "When I said at the Markey hearing that I made the recommendation [referring to the second repository program]...that's precisely what I mean.."

On The Action Of The Senate Appropriations Committee...

Rusche: "Obviously Congress is expressing it's view as to what the pace and conditions of the program ought to be. I would say that at this level Congress is certainly not saying "Keep the program going at the same pace.."

...Complete Interview in the HLW Focus ... pg. 9

SENATE APPROPRIATIONS CUTS DOE HLW BUDGET REQUEST IN HALF INTENT IS TO STOP SITE SELECTION WORK

The battle royal expected in Senate Appropriations between Western state Senators representing the second round states and a possible partisan fight over the funding of the HLW site selection activities, ended up being a "let's cut the DOE budget party," with DOE taking a 50 percent slash in their budget request for the HLW program.

The final action was taken by the Committee on Wednesday, August 13, after a one day delay. Initially the markup was scheduled to be held on Tuesday but a proposed amendment by Senator Rudman to completely scuttle all second round activities, and the supposed development of an unacceptable compromise by one Western Senator, made the chair a bit uneasy. Therefore the Tuesday session was cancelled. Working late into the day and far into the night a compromise proposal was developed. The key players were Senator Hatfield and Johnston.

(See **Appropriations** in the **HLW Focus** pg. 5)

SE GOVERNORS DIRECT SE COMPACT COMMISSIONERS TO SELECT HOST STATE

At their "summit" conference in Charlotte, N.C., the Governors of the states that are party to the Southeast Compact directed the Southeast Compact Commissioners to select a host state for the second regional LLRW disposal facility by September 12. Six of the eight state Chief Executives attended the session. Mississippi and Alabama Governors sent personal representatives.

The group also directed the Commissioners to review the data on regional LLRW generation developed by the State of North Carolina, prior to agreeing to the final "technical scores" allotted each state in the technical scoring procedure carried out by outside contractor, Dames & Moore. North Carolina's request to have the Commissioners review their data was rejected by the Commissioners at their last formal meeting (See EXCHANGE Vol. 5 No. 12).

According to reports from several individuals who have either duplicated North Carolina's data, or conducted their own evaluation of waste volumes in the region, it is readily apparent that North Carolina continues to end up at the top of host state list.

The Commissioners are now to apply the consensus weighting criteria to the technical scores and vote on the second regional host state. This should end up being North Carolina.

Keeping the Host in the Compact

In addition to agreeing to have the Commission proceed to select the host for the second regional facility, the Governors established a subcommittee chaired by Governor Riley, with the Governors of Tennessee and Florida as members, to develop recommendations on how to keep a state from breaking away from the compact once it was designated as a host state. The three are expected to meet sometime during the National Governors' Association Annual meeting in Hilton Head, SC from August 23-25. **

NRC "WORKING DEFINITION" ON MIXED WASTE BEING DEVELOPED

By September 30 the NRC staff is expected to present to the full Commission a "working definition" of mixed waste that is intended to provide guidance to licensees on how to identify mixed waste streams. The completion of this practical guide is one of various tasks that the staff has committed to complete by the September 30 date.

Among the other items scheduled for completion and presentation to the Commission are an update on the issues that have been resolved with EPA and recommendations on the need for possible further action.

Future Actions

The planned issuance of the "working guide" to managing mixed waste, following Commission review, is but one of a series of steps that the NRC staff is scheduled to take over the next year. However, as far as the EXCHANGE has been able to determine there are currently no plans to propose a new comprehensive definition of mixed waste that would set minimum levels of contamination of either radioactive or hazardous waste that could be used to possibly categorize a "mixed waste stream" as either primarily radioactive or primarily hazardous, thereby falling under either RCRA or NRC regulation.

Under current EPA regulations a waste stream containing a RCRA-designated substance and radioactive waste is a mixed waste. **

FORMER FERNALD EMPLOYEE REVEALS DOE LACK OF REGULATION, QA AT FACILITY

In a startling and shocking statement before Congressman Markey's Energy Conservation and Power Subcommittee on August 12, Mr. Daniel J. Arthur, a former Fernald employee, presented a sweeping indictment of contractor quality assurance programs and DOE oversight at the Energy Feed Materials Production Center facility in Fernald, Ohio. Mr. Arthur was employed at the facility as a Methods Analyst-Lead-

Auditor from May 1984 to March 1986. His planned appearance was kept secret until the day before the hearing.

The former Fernald auditor began his statement with a striking description of how he found the floors and work areas at Fernald operations buildings covered with "layers of uranium dust, magnesium fluoride, green salt, orange oxide and uranium saw chips," when he reported for work. He informed the Committee that he found "no comprehensive audit program in place" and was not allowed to "pursue audits in certain critical areas of plant operation." His statement detailed poor and potentially dangerous management practices in several areas, including the processing and transportation of radioactive waste.

His revelations are particularly significant for two reasons. First, DOE officials did not refute his devastating testimony; and, second, the reported degree of laxity or non-existence of DOE oversight over the contractor's quality assurance program, (which is the operating arm of the Department self-regulatory program) will heighten Congressional interest in enacting legislation that would no longer allow DOE the authority to regulate its own nuclear facilities.

One bill that could achieve the latter objective is Congressman Wyden's proposed legislation HR 4848, which would give EPA jurisdiction within federal nuclear facilities. It was successfully reported out of the Congressmen Markey's Energy Conservation Subcommittee on Thursday, August 14 on a strictly partisan vote (See story below).

Waste Incidents Described

In his testimony Mr. Arthur provided specifics on two radioactive waste management practices that would have affected public health and safety far beyond the physical boundaries of the facility. According to his statement, while doing an audit in 1985 he discovered that radioactive waste was being burned in an incinerator licensed only for solid non-radioactive

materials. "Management promised to correct the situation," he reported, "but when I followed up to check corrective actions I found that they had not corrected the situation." He then added that in May of this year the Ohio EPA shut down the incinerator because they discovered radioactive ash.

Another waste management related incident concerned the shipment of radioactive materials in "T-hoppers" from Fernald to the Hanford LLRW disposal facility. Arthur was charged with investigating the overall transport operation following a DOE investigation into an incident involving the arrival of an externally contaminated Fernald "T-hopper" at Hanford. DOE completed the investigation, submitted a report to Westinghouse and instructed them to comply with the report's recommendations. Within a month Westinghouse sent DOE a letter guaranteeing that they were in compliance. However in his follow-up audit Arthur found "fourteen areas that were deficient" and on February 18 Hanford reported receiving "another contaminated T-hopper from Fernald."

Charges DOE Audits Non-existent

The former Fernald lead auditor revealed in his closing remarks that to his knowledge during the two years he worked at Fernald "a DOE representative never audited our procedures or set foot in our office; even though our department was in charge of upkeep of all procedures. DOE had a very low profile at Fernald."

DOE officials at the hearing did not attempt to challenge Mr. Arthur's testimony or his credibility. In fact, the DOE site manager, Mr. Reafsnyder, responded that he would fully investigate Mr. Arthur's charges and circumstances that led to his resignation.

MARKEY COMMITTEE CLEARS BILL TO PUT DOE FACILITIES UNDER EPA REGULATIONS

On Thursday August 14, Congressman Markey's Energy Conservation and Power Subcommittee reported out legislation, HR 4848, initially introduced by Congressman Wyden of Oregon, that would if enacted,

place DOE nuclear facilities under EPA regulation. The legislation was adopted by a 10-6 partisan vote after a substitute offered by ranking Republican minority member Congressman Moorhead was defeated by the same vote margin.

Congressman Moorhead's substitute allowed DOE to continue to self-regulate its nuclear facilities but would have required the periodic reports to Congress.

Would Overturn By-Product Definition

The Bill finally reported out by the subcommittee was a substitute amendment offered again by Mr. Wyden. It would:

- authorize EPA to develop a separate set of regulations governing radionuclide releases from DOE nuclear facilities.
- gives EPA full authority to administer and enforce the regulations.
- allows EPA to sue DOE for non-compliance.
- prohibits exemption of hazardous waste streams from RCRA regulation because of the presence of Atomic Energy Act-defined by-product materials in the waste stream.
- removes existing federal government 'immunity from prosecution' protections.

The provision allowing for RCRA regulation of hazardous waste streams would overturn DOE's proposed by-product definition, which has just been incorporated into the recently executed EPA-DOE-State of Colorado Compliance Agreement covering Rocky Flats. **

UPDATE..EPA ACTION ON TOXIC EMISSIONS FROM INCINERATORS

The August 11, edition (Vol.5 No. 13) of the EXCHANGE reported that the Natural Resource Defense Council, and the states of New York, Connecticut and Rhode Island filed petitions with EPA calling for the regulation of toxic pollutant emissions from municipal incinerators. Over the past week the EXCHANGE has had the opportunity to discuss these actions with the pertinent EPA headquarters staff and has been given the following information:

- o The action taken by NRDC, EPA and at least one of the petitioning states, New York, is the direct result of a court settlement agreement reached in May of this year regarding a suit filed by the petitioners in October of 1984.
- o The initial suit sought EPA regulation of polycyclic organic materials (POM).
- o In the settlement of the suit, NRDC agreed to petition EPA for regulation over the sources of POM's and EPA agreed to issue a regulatory decision.
- o The sources of POM's identified in the settlement were municipal incinerators and coal-fired boilers.

In order to develop the necessary background material for decisions agreed to in the settlement of the suit EPA staff is conducting a comprehensive study of the pollutant emissions problems with the intent of completing the effort by the spring of 1987. Then, based on the review of this report, a regulatory decision will be rendered.

Action Could Affect LLRW Incinerators

This regulatory initiative could have a significant impact on state and-or federal air quality permit issuance for proposed centralized LLRW incinerators. **

the HLW Focus

of the Radioactive Exchange®

(Appropriations from pg. 1)

The critical elements were that no specific language would be included in the Committee report delineating just what specific programs DOE would cut, but that the cut would be deep enough to make it practically impossible to carry out any site selection activities.

The compromise language, introduced by Chairman Hatfield and adopted by a unanimous vote, is as follows:

"The Committee..... provides \$380,000,000 for the Nuclear Waste Disposal program. This funding reduction is to be applied against the entire program efforts including site-specific activities for the first and second waste repositories and site-specific work at a monitored retrievable storage facility which is neither authorized nor funded."

Senator Johnston followed the Chair's opening remarks endorsing the Committee's action.

Laxalt Flails DOE

Upon approval of the cut, Senator Laxalt took the opportunity to express his views of the Committee action and DOE's program. In his commentary he recalled how he has continually been told that DOE's work is sloppy, the staff arrogant and the selection process makes no sense. He reminded the members of the twenty-three law suits that have been filed challenging various DOE activities. In closing he remarked that in his view it was "highly improbable that high level nuclear waste would ever be disposed

of in the continental U.S." and suggested that an international repository should be considered. **

DOE ESTIMATE OF MRS COSTS MUCH TOO LOW SAYS GAO

The EXCHANGE has learned that a just completed GAO analysis concludes that DOE's cost estimates for the Monitored Retrievable Storage facility (MRS) are "much too low". Furthermore, the GAO is said to conclude that in later years, the costs associated with an MRS could warrant an increase in the 1 mil per kilowatt hour HLW fee.

Though, the EXCHANGE was unable to obtain a copy of the report which is to be released shortly in the form of a GAO fact sheet, it has been determined that GAO attributes the low estimates to DOE not including the costs associated with state and local government impacts.

The analysis was conducted at the request of Congressmen Udall and Markey but the staffs of either Congressmen would not reveal the contents of the report or confirm our information regarding its conclusions. **

NRC SAYS YEAR DELAY IN HLW PROGRAM NO PROBLEM

In an August 12 letter responding to an inquiry from Senator Bennett Johnston, Acting NRC Chairman Thomas Roberts states that "the Commission believes that a temporary legislative suspension, even as long as one-year, of DOE's site-specific repository development work, need not

necessarily affect its waste confidence decision, the licensing or the continued operation of commercial nuclear power plants."

In an August 5, letter the Senator requested the Commission's views on what the impacts of a delay in the HLW schedule would be on "1) its decision in the 'Waste Confidence' proceeding on the availability of spent fuel storage or disposal as a consideration for commercial power reactor licensing; 2) the prospects for issuing operating licenses to the 26 nuclear power plants now under construction; 3) the continued operation of the 101 nuclear plants with operating licenses; and 4) the Commission's research and regulatory development programs in the high-level waste area."

Though the overall response is qualified, in that the Acting Chairman says that the effects of a delay are unpredictable, the view expressed on all points is that the program will not be seriously impaired.

Waste Confidence Decision Cited

In support of the statement that a one year suspension would not affect the Commission's waste confidence decision, Mr. Roberts cited portions of the published decision wherein the Commission:

"found reasonable assurance that one or more mined geologic repositories for commercial high-level radioactive waste and spent fuel will be available by the years 2007-09." And..."found reasonable assurance that, if necessary, spent fuel generated in any reactor can be stored safely and without significant environmental impact for at least 30 years beyond expiration of that reactor's operating license, either onsite or offsite, and that safe independent spent fuel storage capacity will be made available, if needed."

The Acting Chairman added that:

"The Commission believes that timely attainment of a repository does not require DOE's program schedule to adhere strictly to the milestones set out

in the NWPA over the ... duration of the repository development program. Delays in some milestones as well as advances in others can be expected."

NRC Work May be Suspended

In response to the last issue raised in the Senator's letter, regarding NRC's research programs, Commissioner Roberts provides the view that the "NRC would likely suspend activities related solely and specifically to the review of those DOE site-specific activities for which DOE may not spend funds in the fiscal year in which the suspension is in effect." **

ENVIRONMENTAL STUDY FAULTS SAVANNAH RIVER LAB ON DISPOSAL PRACTICES

The final report of a five year study conducted by the Environmental Policy Institute (EPI) of Washington, D.C. contends that "the 300 square mile site [of the Savannah River Plant (SRP)] and the shallow aquifers above the Tuscaloosa are so severely contaminated that it is reasonable to conclude that it has been treated by the federal government as a national sacrifice area for the U.S. nuclear weapons program." According to EPI, the study is based on official records that have been released to the public by DOE or obtained by Freedom-of-Information-Act requests.

The authors of the report, Argon Makhijani of the Capital Institute of Technology, and Robert Alvarez and Brent Blackwelder of EPI, charge that the "management at SRP (both DOE and its contractor, Dupont) have cut corners and chosen cheaper and riskier options" in dealing with the liquid, high level defense wastes stored in tanks at the facility. As of August 1 South Carolina Governor Riley's staff had not received copies of the report and therefore had no comments. SRP Manager Bob Morgan explained that the report is currently being reviewed by Dupont at DOE's request. This review is expected to be completed by mid-August and released to the public.

Key Findings And Conclusions

itled "Deadly Crop In the Tank Farm", the report emphasizes that most of the SRP facility is obsolete and its design entirely inadequate for currently performed activities. The authors contend that radioactive and toxic non-radioactive materials have contaminated the aquifers beneath SRP, and that, "in twenty years compared to the predicted time of hundreds of thousands of years," plutonium has migrated into the groundwater. DOE and Dupont are faulted for continuing to routinely discharge toxic and radioactive materials into the soil despite the contamination problems.

With respect to the long term management of the liquid HLW in the tanks and the plan to glassify this waste, the report finds that the glassification plans..."face some serious problems." Instead of recommending expedient action on the Defense Waste Processing Glass Vitrification Facility (DWPF), the authors recommend immediate solidification through calcining. This recommendation is clearly at odds with Governor Riley's efforts to speed the development of the DWPF.

Recommendations

In addition to recommending that DOE not be allowed to regulate itself or its contractors, the report recommends:

- o prohibiting SRP from producing any more HLW radioactive liquid waste until all the long term questions are resolved
- o the solidification of the existing waste through calcining;
- o the development of remote equipment and methods to protect the health and safety of the workers;
- o stopping the practice of using soil as a disposal medium; and,
- o the immediate cleanup of contaminated aquifers. **

GAO REPORT ON SRP WASTE MANAGEMENT CONTRASTS WITH EPI STUDY

A GAO report on the Savannah River Plant's radioactive waste management practices, released by Senator Hollings office on

August 9, contrasts somewhat with the recent EPI study (See story above). Though the GAO analyses, conducted at Senator Hollings request, reports that "within the [SRP] plant boundary...some of the surface streams contained elevated levels of radioactivity, and the soil and groundwater at several waste storage and disposal sites were highly contaminated with radioactivity," it does not fault DOE or Dupont's current or planned management practices as does the EPI study.

Senator Hollings' Response

Senator Hollings released a statement saying that the GAO report confirms the information his office has that parts of the SRP reservation are highly contaminated, and his belief that some form of long-term institutional control will be needed once the facility is decommissioned. The South Carolina Senator recognized that DOE and SRP management are making a good faith effort to clean up the contaminated areas and institute effective monetary practices. Though GAO concluded that contamination of the Tuscaloosa aquifer was remote, he emphasized that, even if the chance was remote any chance of contamination was of great concern.

The GAO report does not address the health and safety aspects of SRP waste management or the disposal of hazardous waste. Only the environmental impacts of the facility's radioactive waste management practices were reviewed. In conducting the analysis GAO reviewed current Dupont waste management practices, examined information on radioactivity releases into the environment, compared the releases to applicable standards, "reviewed assessments and comparisons made by organizations other than SRP," and identified and assessed current and potential environmental problems.

Offsite Contamination Found Negligible

The GAO analysis of Dupont's records found that "radioactive releases from SRP's operations has very little impact outside the plant boundary. GAO cites Dupont's 1984 report which shows that "tritium and

occasional traces of strontium-90 were the only two radionuclides that could be detected in the Savannah River using routine analytical methods."

By using "very special low-level analysis techniques" GAO acknowledges that Dupont did detect "very low levels of cesium-137." However, concentrates of all three radionuclides were found to be "less than one percent of DOE's offsite concentration guides."

GAO further reveals that though Dupont did detect tritium and very low levels of Cs-137 at two "downriver public drinking water treatment plants, the average concentrations during 1984 were only 8.5 and 12.5 percent, respectively, of EPA's public drinking water standard."

State inventory data from Georgia and South Carolina are said to be in agreement with Dupont's limited measurements made in 1982 by EPA's Eastern Radiation Facility are also cited as in general agreement with the Dupont reports.

On Site Groundwater Contamination

As concluded by EPI, GAO also determined that "groundwater was highly contaminated with radioactivity at the low-level waste burial ground, some of the seepage basins, and the high level waste tank farms." Large amounts of soils were also determined to be contaminated. However, GAO states that Dupont's evaluations show that "except for tritium, there has been very little movement of the radionuclides because of the retention capability of the soil around the sites."

A Dupont analysis of an onsite accidental

leak from a HLW storage tank is said to demonstrate that most of the resulting radioactivity will not reach groundwater for "thousands of years" and the resulting contaminated groundwater would not discharge into a surface stream for "over a million years." Over this time period the "radioactivity will decay to very low levels."

Contamination of the Tuscaloosa

The GAO did explore the possibility that radionuclide releases from SRP could reach the Tuscaloosa Aquifer. It is reported that SRP and Dupont officials agree that there is a remote possibility that this could occur. GAO cites DOE and Dupont as saying "if radionuclides did reach the aquifer it would take about 200 years for the radionuclides to discharge into the Savannah River," and at this point the concentration would be very low and would be "further diluted by riverwater before reaching the public drinking water treatment plants located 60 to 70 miles downriver."

Long-Term Institutional Control Necessary

Because of the highly contaminated areas on-site, GAO concluded that "DOE may have to maintain long-term institutional control over the low-level burial ground, several of the seepage basins, and the high-level waste tank farms." GAO further cites: "for example,...an EIS issued in 1977 showed that these waste sites would remain contaminated with radioactivity for the foreseeable future even after production operations ceased and that their restoration might not be technically or economically practical." **

Interview

ON THE DOE HLW REPOSITORY DECISIONS ... BEN RUSCHE, DIRECTOR, OCRWM

The following interview was conducted with Mr. Rusche by Radioactive Exchange publisher, Edward L. Helminski on Friday, August 8th, and Wednesday, August 13.

Ben, in testimony before the House Energy Conservation Committee you said that you "recommended" the second round site selection process be delayed, when in earlier testimony the impression was given that you "supported" the decision once it was made. How was the decision made? Did the Secretary make it and ask your staff to consider its implications or were you considering this action on your own?

Well, the questions, in a sense, are inseparable. The way the Secretary and I interact is somewhere between me being part of a decision and recommending action -- in a way both roles are sort of the same thing. I am not the ultimate decision-maker, so in that sense it's clear that the Secretary, under the Act, retains and is obligated to retain the ultimate decision-making authority over such matters as this. He and I have been extremely close and I doubt if even he could separate the difference between considering a decision together, recommending it and being involved in it. What we do is just talk about the matter and he makes the decision. I'm not trying to evade the question, but I think you're trying to make something that's not really there.

In the past couple of weeks DOE's General Counsel forwarded papers to Congressman Markey that included an options papers on the implications of delaying the second round that were prepared by your Chicago staff for you. Most of the analyses dealt with the political implications of various possible decisions. Yet you and the Secretary maintain that the decision was not politically motivated.

These papers were not submitted to me. They were prepared by the Chicago office staff for their own use in discussions with me on the second round program.

If you didn't direct the staff to prepare these option papers why are there two versions, one with a May 1 date, another with May 13?

We had more than one meeting. We had a meeting on the first and then a meeting later on.

But was the staff directed to consider the options for delaying the second round?

I asked them to consider impacts on the second repository program if the schedule was changed.

For the second round repositories?

For the second round repositories.

The staff papers only analyze terminating the program. Why didn't they consider various degrees of delay?

If you were considering impact what would you consider as the maximum impact? The maximum impact would be to terminate some portion of the program. That's what they were asked to look at. What would be the impacts and costs, and what were the alternatives on how it could be done. It was pretty straightforward.

But they didn't look into intermediate periods of delay, only postponing the program indefinitely?

That's exactly how the matter arose. As I've said in half a dozen places and ways, as part of our ongoing review of scheduling and planning I asked the Chicago office to analyze the impacts of delaying the program as far back as Fall of last year. Twice since I have been here we have changed the schedules.

Secretary Hodel and I recognized after I got here that the program was just out of phase with the Nuclear Waste Policy Act. The Act established a set of dates that said the first repository decision ought to be made, and then a couple of years later the second repository decision ought to be made. And, we were on a schedule that looked like it had some potential for having the second repository consideration proceeding on a pace faster than the first one. The decisions were not the same decisions but they certainly were not in line with the Act. So we changed the schedule. We changed it again, and the Project Decision Schedule (PDS) that was published last spring showed about 1993, not 1989, as the date when the second round site characterization recommendations would be made. Not a word was said when that change was made.

Even last fall we looked at whether the timing of the scheduling of the first repository program relative to the second was right. The end of the year came and the EIA data appeared and the design of the program had taken on some additional dimensions. We looked again. The question was whether to proceed with the Area Recommendations Report (ARR) in January. We decided that we didn't have adequate confidence in the timing of the first repository effort because we lacked at least two things. One was we didn't have the EAs finished at that time. The other was we didn't yet have a thorough consideration in hand on how we were going to make the decision on the first three sites. We also did not have the President's decision, nor were we sure we would get it after the recommendation was made. Remember, under the Act the President has the opportunity to defer the decision and send it back for six more months of work.

So, given the status of the first round selection process, we decided to go ahead with the ARR draft. And we did. And we received a lot of comments and got involved in a lot of meetings. And what people seemed to want to do was say that's the only thing that happened. They are saying that we looked at all that was happening, the comments being sent in, and went back to smoke filled rooms and said "Ah, ha. This

is more than we can take." But it's just not so.

I'm not trying to downplay the fact that those reactions were real. There were some awfully tense reactions. I had countless meeting with members of Congress from second repository states and the Secretary visited two or three delegations as we worked through that period of hearings and briefings.

But what really happened in addition to that -- what brought us to consider delaying the second round -- was that we finished the first round EAs and had concluded that the basis for nomination was well founded. We looked at the 23,000 sets of comments that we received on the first round EAs and we didn't find anything that said they had fatal flaws. On the contrary, we found many things that, considering the questions, gave us added confidence. We'd gotten into the methodology development business and worked out a way to have the Academy review it. And on April 10th I got a letter from the Academy that said "the methodology looks good. We don't know for sure what all the answers are, but it looks like you are doing a good job." This response gave us considerable confidence that from a technical standpoint we had a methodology that was a valid basis for developing meaningful information for me and for the Secretary. And we did.

Now, come May 1st, we had the EAs pretty much in hand. We had the methodology pretty much in hand and walked through it. In fact, the methodology document was finished on May 5th. We had begun discussions with the White House -- I say "we" -- the Secretary had begun discussions with the White House and informed them that we were looking toward a mid-May timing for the recommendation. If you recall, the President went to the Summit at about that time and because of that it appeared that the timing was going to get shifted a week or two. Now, with all this completed on the first round decision, I told the Secretary it was time to look at the schedule for the second repository. And I outlined the four options that are in our response to Congressman Markey. They are

very straightforward. Following that, about a week before the final decision -- I don't know the exact date -- in another discussion meeting that we had, the Secretary came to the conclusion that, given these four options and these circumstances, the third option (the one we announced) was a good course if the President acted promptly. And I sure agreed with that.

So, when I said at the Markey hearing that I made the recommendation and I'm a party to it, that's precisely what I mean. I didn't go to him and say "you have got to do this for these reasons. It's the only option you've got." We sat down and talked about it just like you and I would. We both came to that conclusion. So I am an inseparable party to the conclusion. He didn't make the decision without talking to me. And I didn't make the recommendation as an unequivocal statement that this is the only option. My confidence and his confidence in our perception of the issues led us to that conclusion.

Was the White House or the President involved in the decision to postpone the second round?

To the best of my knowledge, the President had no input on the decision. That's the best of my knowledge. If he talked to the Secretary on it, that's between him and the Secretary. The Secretary and I have had no discussion which would suggest that was the course. I believe that the Secretary has said that was the case, but I shouldn't put words into the Secretary's mouth.

I can tell you as a matter of fact from my standpoint, I know of no feedback from the White House to that effect.

Ben, some of your staunchest supporters in Congress are saying that you surely did not make this decision. It was not your style. You had been keeping them well informed of any planned program changes. Then along comes this surprise. One could surmise that you were under a gag rule not to inform key Congressional leaders.

Absolutely not.

Why didn't you contact Senator McClure or Udall, or Senator Laxalt for that matter.

I had contact with all of them during the period.

But prior to the final announcement?

I had contact with them even the week before the announcement.

But they didn't know of the decision.

The contact was not to tell them what the decision was going to be. The decision, in both cases, was the Secretary's decision to make and you don't go around and talk to all your friends when you are working on a decision for the Secretary. The Secretary made the decision and that is precisely the way it was. It's not my role to say "here's what I'm telling the Secretary, what do you think about it?"

But every administration checks out decisions with key leaders in Congress. Why didn't the Secretary do so on this one?

I suspect that the Secretary's defense is that he had determined to the best of his ability not to allow this to become a political or partisan political issue. I've heard him say it time and again to Mr. Broyhill. I've heard him say it to the Minnesota delegation that he met with. I heard him say it to the Maine delegation that we met with -- that he was not going to become a party to the program becoming politicized. For that reason he didn't go to members of our party and say "what do you think about this? Can you stay with us? or you can go talk to other people."

At the recent Interior hearing Secretary Herrington admitted that because of the second round decision, the second round site characterization recommendations would not be made by the date set in the Nuclear Waste Policy Act. When, however, you have been pressed about changing the 1998 spent fuel acceptance deadline, you have evoked the fact that Congress set that date in the law and the Department views this as a mandate from Congress that must be met. Why is one deadline more sacred than the other?

First, in addition to Congress setting the 1998 deadline, the Department has contractually obligated itself with all of the utilities to meet it. So, we have not only a Congressional mandate to deal with, we have embodied that mandate in a binding contractual relationship to other parties who are affected.

In the case of the '89 second round site characterization date, I think you and anybody else who cares to look at the Act just cannot do it with your eyes open and not recognize that those dates were set by Congress with very limited information. Every one of the dates prior to '86 were not met. And we have not met them for exactly the same reason -- we thought the time allowed was not adequate to accomplish the purpose.

You remember when I was confirmed I told my confirming committee that if I was ever faced with the task of doing the job right, or doing it on time, I was going to let time slip. I did that with guidelines. I did it with EAs. I did it with the decision for the President. Not a word has been said about the fact that we were 14 or 15 months late on the first repository decision. I believe that date was January '85. Not a word has been said about it. Did we violate the law?

Yes.

We believe we did not violate the law because what we did was tell Congress in the Mission Plan that we didn't think we could make the '85 date and do a responsible and appropriate job. That was just management prudence in our judgment. We told the Congress to take another year-and-a-half to do it.

But in deciding on all prior delays you informed Congress beforehand. You were given their tacit approval, so to speak, to violate the law.

And we'll have precisely that approval, and not very tacit. Come 1989, if we don't make the date, Congress will have three years to have considered the question.

But, having made this decision to delay there is no way to make that 1989 date.

Sure there is. You can't mean to say that what we've done since May, between May and August, makes that date go from meetable to unmeetable? That's not realistic.

The Secretary, at the Udall hearing, conceded that the deadline would not be met.

What he said was that we would reconsider the decision in the '90's. However, I would emphasize that we could not make the 1989 date had we continued. We had already published that 1993 was going to be the date, not 1989, and we've not had one question. We put this date in the ARR, in the PDS, in all of the planning documents we've published and in much of the information we have. 1989 was not a date that we thought we could meet, or a date we ought to meet. This was all well before we made the announcement on May 28th, and not one word of comment.

However, you were still proceeding programmatically.

Yes, but NOT toward '89. We consciously delayed from '89 to '93 at two different decision points.

But the announcement stated "We are delaying, indefinitely, site selection." That is not the same thing.

That's just a journalistic way of putting it.

No, it's not journalistic. The announcement leaves no other interpretation but that the second round has been cancelled.

Well, that's just wrong. The House has already voted to appropriate about \$30 million for a "cancelled" program.

But that is for non-site selection activities.

Yes, for non-site selection. That's going to be very important work when we crank it up in the middle '90's, if that's what we decide to do. How can you say we have

cancelled the program? How can anybody say it? They can only say it if they want to make the point. They don't want to talk about the program. They're trying to draw some extreme view out of what is a very measured, and I think prudent, set of management choices.

Let's jump to the 1998 deadline again. Your view -- the Department's view -- is that you are obligated to meet this date.

We are obligated just as much as we can be obligated.

Do you believe this date can be met?

I believe we can meet the '98 date if we stay on the schedule that we are on. But, consistent with the very statement I made at my confirmation, if we get to 1989 and 1990 and find that our site characterization is either incomplete or inadequate, and we don't have the essential sound basis for making a choice -- in other words, if we are not ready, I will do just what I've done in the cases with the EAs. I will say that the data are inadequate and we need another year or two or five and the 1998 date is no longer meetable.

But you will inform Congress beforehand.

I'll say it when I find it. Just like I have here. I don't see where there's a distinction to be made.

I'll guarantee that there is not one member on the Hill who in the Summer of 1984 received the information concerning the first round delay more than four hours before it was released to the public. Because I was the party who did it and I know it. It is not a bit different than this decision.

When we published the draft ARR in January, I didn't go up and talk to Senator McClure and Congressman Udall and say, "Now do you like this. Do you think some states are going to be happy about this...." We did try to contact them, as we should before a public announcement is made, but not in the sense of having their reaction and in some way possibly providing input.

Let me add. The one thing that stands out in the May 28th announcement is that the selection of the three sites and in particular the five nominees were not met with surprise by anybody because we had come through the EA process. Now some could argue that they didn't think Hanford was going to be selected, but that was not a big surprise. What is happening now is that this "not a very big surprise announcement" is being held up against the hold on the second repository decision which was a decision that had not been previously delineated in the same kind of sense. But that "not previously delineated decision" is not a bit different from the "not previously delineated decision" to delay the draft ARR in January, or the "not previously delineated decision" on the five nominees in December of '84. At least in my mind they are not.

All things considered Ben, in view of the the public outcry and the political pressure that could be expected, why was the announcement made on May 28 to "indefinitely postpone" the second round? Why not just postpone the release of the final ARR for a set period of time, which was almost expected by most people?

We certainly could have done that but other factors weighed more heavily in the Secretary's view.

What other factors?

Confidence in and completion of the first repository decision was the main one. Along with the fact that all of the data we were receiving on spent fuel and the time the second repository would be needed were just out of phase with the program schedule.

Your statements that with the first repository in place the fuel acceptance rate would only be 3,000 metric tons per year leaves a lot of waste at reactor facilities.

I rather suspect that we're going to have to have a second repository. I've said so and the Secretary has said so. But the time we need it, based on the designs we are now working on, leads to a timing of about 2020. And to do that and now spend \$600-800 million, maybe a billion dollars, between

now and the mid-90's is just an effort that's unnecessary. Therefore we came to the conclusion -- the Secretary came to the conclusion -- I came to the conclusion that that's not a prudent management judgment.

Now if we didn't have confidence in the first repository proceeding, which is clearly the objective of the Act, I believe we would have continued with the second repository. If the President had looked at the data and the Secretary's recommendation and said "I'm not ready for this. I need six more months of study. Go back and look again," or if he disapproved it, then we would have kept right on our course with the second repository.

And let me add one thing, that on April 23 when I testified before Mr. Markey and Mr. Broyhill, and they were just beating on me about the second repository, I made a very special point to indicate that the factors that I have enumerated today were factors that we were weighing. I think the question was asked, Do I think we'll need a second repository? My answer was given that with the 70,000 metric ton limit, I believe we probably will. And they said, but the timing for that second repository may well deserve consideration and when we had this set of information in hand we ought to go back and take a look at it. And that set of information was confidence in the first repository, data on the spent fuel horizon and some impression about MRS. And those are the factors that I mentioned then and also the factors that I enumerated when the Secretary and I made the announcement on the 28th.

But you also said that Congress put the second repository in the Act and you therefore would pursue it until Congress said differently.

And we haven't changed that. We are going to consider it. We are going to make good. In fact, I'm proposing to spend \$25-30 million a year for the next five years instead of \$100 million a year or ten years, and going to be ready to proceed on that course in the mid-ninetys, unless Congress directs me to do otherwise.

Let's leave the decision on the crystalline program and talk about the selection of Hanford as one of three first round sites to be characterized. There is persistent talk within the technical community that Hanford is not a technically or geologically qualified site. Do you have confidence in its meeting the necessary performance criteria?

The real question about Hanford is going to be how much it costs. None of the information from the staff leads me to believe that questions about the basalt fracturing, that are not yet fully defined, are factors that are going to be insurmountable.

There are many mining engineers, there are many geologists. I have no indication from our staff that the question as to whether the site can isolate the material is a real question. In the post-closure consideration all of the data we had, admittedly not complete because we had not completed the characterization, leaves one with a very comfortable conclusion. No question that, in comparison to the other five sites that were nominated, Hanford does not produce as optimistic a result but it is far, far better than the standards.

The question that is more legitimate to consider is, not how do you deal with basalt fractures, but is there possibly some feature or phenomenon that basalt might offer that we won't know about unless we go down there and look.

The real issues that our studies thus far indicate is that Hanford is going to be very expensive. And, if it is very expensive it will probably not be the site that is chosen if its ability to isolate is not superior to some of the other sites.

The worst thing we could have done at this time, in my opinion, was, on the basis of some speculative consideration, remove a site from consideration because it looked like it was going to be too expensive or conversely, choose another site because it looked like it was going to be the cheapest site. I'd much rather have this discussion than have somebody ask me why did you pick

the cheapest site? Why didn't you look at that site that might be even better. But you don't know until you take a look.

I'm prepared to recommend that we spend the money to look at that site as opposed to spending about the same amount of money to look at another site when the only other option you have is another salt site. We have a fair degree of confidence in salt as a generic medium because of the extensive salt mining that has been done and not very much more is going to be learned except about that specific site. And so it will be much more instructive, and possibly have a much higher potential for paying off, to look at Hanford than to look at another site.

Ben, The Senate Appropriations Committee just adopted language appropriating \$380 million for the HLW program with cuts in the budget to be applied against the entire program efforts, including site specific activities for the first, second round, and the MRS. Do you see this level of funding and the manner of the cut severely hampering your activities?

"If this reduction in funding is to prevail and become "the appropriation", it would have a significant effect on our schedule. How much it will affect the schedule, I can't tell for sure.

Would you be able to carry out any site characterization activities?

That depends both on the final language and the final funding level. You recall the House funding level was much closer to our request. So there are still some, how shall I put it, accommodations or adjustments that are going to have to be made between the two bodies.

If the ultimate compromise is somewhere around \$450-500 million, and the language was left very general, leading you to cut the program across the board in some manner that reflects the same percentage cut in each program, would the site characterization activities be able to be undertaken?

I don't know. Site characterization, per se, is under way in one sense. We are

working on the site characterization plan for all three sites right now. That is, we are working on the the major prerequisite, to get the site characterization plan prepared, reviewed, and properly put in place with state input and NRC input. So in effect, some site characterization is already underway and at that funding level and with that kind of general language we would continue.

Some people, however, hold the view that site characterization is only drilling wells and taking borings and beginning to sink the shafts. These activities would become much more problematic at this level of funding because the timing for such work depends not only on the funding level, but the prior activities before the actual shaft work. And that, of course, depends on the funding level. The predictions were that work would begin in late '87 on actual shaft construction at the two federal sites. There's not much likelihood of beginning shaft work on the salt site in '87.

This funding level has the potential for causing both of pieces of shaft work for the federal site to possibly move beyond '87. I just can't tell that until I've had chance to do some more specific rescheduling.

You know some of these things you can reschedule and stretch out and everything just kind of mushes along. Other things are the type where the amount of money you need is "X". If you get "X" you can do it and if you don't get "X" you can't do it. Some tasks are the type that from a pure management or planning standpoint, you must do "A" before you do "B". "A" may be big and get stretched out, and "B" not very big. Or the other way around.

Senator Hatfield, in his remarks prior to offering the unanimously agreed to appropriations language, said that the level of funding put the program on hold for a year. Do you agree?

If we spent \$380 million we would certainly be doing some work. \$380 million is far more than what is needed just to pay the salaries of the people that are here. But then you get into all kinds of procurement

actions that are underway. Senator Hatfield's comment is correct in this context. We probably couldn't proceed with some of these procurements because we wouldn't have authority to complete a contract that was in negotiation. In that sense the contract would be put in hold until a subsequent year when additional funds are made available. On the other hand, for some of the planning activities, things just get stretched out and some work could be done, perhaps. These are the kind of things I've got to look at before I try to make too sharp a prediction on what the impact would be.

How do you personally view this cut? Is it a "lack of confidence" vote by Congress? Do you feel you can do your job properly?

Well, I will repeat, I am disappointed because to do the job we thought we needed, and we requested \$769 million. Obviously Congress is expressing it's view as to what the pace and conditions of the program ought to be. I would say that at this level

Congress is certainly not saying "Keep the program going at the same pace." On the other hand, it's certainly not an action that dictates throwing up your hands in despair and walking away from it. I think it's more reflective of the circumstances of the moment and the fact that this year is one in which we have made major progress, reached major decisions, and brought various people to quite sharp perceptions as to what the program is and what it is about.

I don't find it at all surprising that we have a lot of points of view on the subject. We found the same thing in the House. We don't know what is going to happen on the floor of the senate.

If you end up with \$450 million or less, will you resign as Director of the program?

I have no intention to resign. I came to do the job and the job is develop a repository for nuclear waste. ****

WRAP UP (HLW)

IN THE CONGRESS

PRICE-ANDERSON The Commerce Committee completed mark-up of the Price-Anderson Reauthorization Bill providing for a 6.5 billion dollar limit on the total amount of retrospective premiums to be paid by all the utilities in the case of a nuclear incident. The annual amount would be limited to \$10 million dollars per utility. The Committee also approved indexing the aggregate maximum to the inflation index.

On the waste side the Committee basically adopted the Energy Subcommittee language that had been added to the Interior version of the bill. Practically speaking this means that under the Commerce proposal DOE is to accept unlimited liability for nuclear waste related activities. In addition, due to an amendment introduced by Wyden, DOE facilities which are operated by contractors or by the DOE itself are subject to unlimited liability for nuclear incidents.

Enjoy the rest of the Summer ...

The Exchange Offices will be closed until September 1