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Nuclear Waste Board Meeting

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March 16, 1984

1:30 p.m.  
Hearings Room

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Building #1 - Rowsix  
4224 Sixth Avenue, S.E., Lacey, WA

The meeting was opened by Susan E. Gould, Chair.

As a result of the passage of House Bill 1637, a new member was added to the Board. Sue Gould introduced Dr. William Funk, Director of the Washington State Water Research Center, as the new member.

Senator Al Williams discussed two Senate memorials and one resolution that passed the Legislature during the recently conducted session:

SJM 127      The Legislature requests that the Department of Energy conduct studies on crystalline rock, specifically granite, to determine the suitability for a repository and for possible consideration in the first repository selection process. The Legislature also requests that the Hanford site not be recommended to the President for inclusion in the first repository selection process until the studies on crystalline rock have been performed and evaluated.

SJM 131 -      The Legislature requests Congress to immediately examine the issue of federal liability with respect to proposed national nuclear waste repositories. If Congress finds that the Price-Anderson Act is applicable to the liability of federal contractors with respect to repositories, then the Legislature requests that the liability limitation in the Act be eliminated.

SCR 142 -      If the state and the federal government enter into an agreement pursuant to the Nuclear Waste Policy Act of 1982, such agreement does not indicate acceptance of a decision to locate a repository within the state. Before any agreement is entered into by the state and federal government, the following issues should be addressed: whether foreign waste should be accepted at the repository; reasons for which the state may suspend work at the site; how the state may obtain injunctive relief; what role the state may play in the federal decision-making process prior to and if a decision is made to commingle civilian and defense wastes; the completion of an emergency response plan; and federal liability for accidents at the repository site or in transportation of waste to the site.

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In commenting on SCR 142, Senator Williams stated that in essence the Legislature supported the position that the state negotiating team had taken on the C & C Agreement.

Representative Dick Nelson gave a summary of House Bill 1637, which passed the Legislature and was signed into law by the Governor. House Bill 1637 elevates the Nuclear Waste Board to the principal coordinative role in legislative and executive branch interaction with the U.S. Department of Energy in the evaluation of a proposed site for a high-level radioactive waste repository in Washington. It delineates Board and legislative processes for consideration of state-federal agreements and site approval or disapproval.

Representative Nelson said it was important for the Legislature to catch up to the executive branch on this issue, since this is becoming a public issue, and more and more legislators are discovering this is a political issue. He felt the bill helps the Legislature to undertake its responsibility and probably only shifts the focus a little. The bill says we are going to pretty much continue to do what we are doing but it now says the Board is going to be the focal point for the activity and the Department of Ecology, which has been the agency, will support the Board's activities and will probably continue to do most of the technical work. The Board is given the authority and responsibility for making some decisions as to the whole technical review and monitoring process and ultimately it is given the authority and responsibility to recommend a C & C Agreement and other agreements, and finally, approval or disapproval.

He said the Board may delegate work they believe the Department of Ecology is equipped to carry out. He also mentioned the bill sets up a polling process for the Legislature to call itself into session, if it is out of session, to approve or disapprove a site selection, if one is made for Washington.

Senator Benitz gave what he termed a "Minority Report," stating he was not in favor of the bill. He said he thought it was not needed, and pointed out the Board should realize we are not equal partners with the USDOE in this proposed action. He said we must continue to work in a very positive fashion or it will all be for naught. When the federal government decided that the high-level waste has to be taken care of, they gave the state the opportunity to work with them. He went on to say House Bill 1637 as passed is better than it was originally, and can be made to work. He cautioned we must continue our positive work as the problem is there, the people do not understand its magnitude, and education will be an essential element.

Discussion was held on how the Board was going to handle the transition. Since the Board has considerably more authority, questions of current staffing, relationship with WDOE, separate staff for the Board were discussed. Representative Nelson said that since the bill allows both the Board and the Department to make rules, the Board could sit down the Department to decide what appropriate rules need to be promulgated. The bill, he said, reasonably contemplates the Department shall provide staff as in the past. He said he saw no strong demand for

the Board to have its own independent staff. He saw the Board taking more action, giving direction to the Department of Ecology, or seeking outside assistance.

The question was raised as to whether the Department of Ecology was responsible to the Board. Charlie Roe, Assistant Attorney General, responded that as he read the statute the Department is responsible for providing support to the Board. This means the Board is the policymaking body. He said he felt employees and staff are responsible to the Director of the Department of Ecology, and the Director is responsible to the Board.

In response to the question of what sort of any agreement or contract was necessary, Mr. Roe said this could be accomplished by an informal working relationship or some sort of interagency agreement.

Further discussion looked at responsibilities of the Board under the law, authority to issue regulations, relationship with WDOE, and funding procedures.

Ms. Gould said that since she was announcing her resignation from the Council and the Board effective April 1, she felt there was a need to discuss the time constraints which would now be put upon the Chair in order to ensure continuity with the program and facilitate the naming of a replacement. Since SB 4534, which provided for a salary for the Chair, did not pass, discussion followed concerning the possibility of future compensation for a Chair, and the possibility of staff support for this position.

Senator Williams said he felt it was not too late to look at some form of compensation for the Chair, and even staff support directly responsible to the Board. Concern was expressed about two parallel staffs, and Dr. Brewer stated the office had the authority and the means to take on people on a temporary basis to give staff support to the Board.

Concerning the issue of compensation for the Chair Mr. Roe said as a legal issue, it would be of some relevance to know what the intent of the Legislature was in not passing SB 4534. If there were an implicit or expressed ban, there would be a problem. Senator Benitz added that the fact the bill failed twice in the Senate should have some influence on the Board's action. The attorneys were asked to study the issue and try to establish legislative intent, and report back to the Board.

The Chair added she would appoint a transition committee to work with the attorneys to study this issue, as well as staffing issue, any rules and regulations that need to be promulgated and any other pertinent issues, with a report back to the Board at the next regular meeting, April 20.

Senator Williams said now that the structure is established, with the Legislature having its own separate role, the Board now being the policy-making body primarily representing the administrative branch of government, and with good liaison between the Board and the Legislature, there should be few, if any, basic changes coming out of the

Legislature. He added the Legislature, through the Science and Technology Committee, will be staffed through its own grant, which has been received.

With the adoption of Senate Concurrent Resolution 142, the Legislature indicated that the process of negotiation on the C & C Agreement now underway should continue with the negotiators giving special attention to several issues identified in the resolution. These are: 1) foreign wastes, 2) reasons for suspension of work at the site, 3) how the state may obtain injunctive relief, 4) state role in the federal decision making process for commingling defense and civilian wastes, 5) completion of an emergency response plan, and 6) federal liability for accidents at the repository site or during transportation.

Don Provost said the U.S. Department of Energy and the Nuclear Regulatory Commission have a concern about the state using the same negotiating team under the new statute, and perhaps starting over on the negotiations. There have been no negotiating meetings during the Legislative Session. Tentative plans call for the state team to meet early in April, with a meeting of the full team to follow.

A motion was made and seconded that the Board ratify the appointment of existing C & C state team and to instruct the team to continue and, if possible, conclude any negotiations and report back to the Board. The motion was carried on a voice vote, and the state C & C Negotiating Team will remain, as follows: David Stevens, Chairman; Don Provost, Nick Lewis, Chuck Lean/Charlie Roe, Elaine Rose, Ted Hunter, and the Chair as an ex-officio member.

Comments were made and it was reiterated the Board give directions to the team on key issues, and suggestions for resolving them. An additional comment supported the team's conducting an analysis of the Concurrent Resolution, looking at the possibilities for achieving those goals in the negotiating process.

The Chair asked how much of this negotiating was to be done in the executive area, and the suggestion was made that a memo be circulated to the Board. Don Provost thought the first meeting with the state team and USDOE would no doubt readdress each issue and a write-up could be sent to the Board. Members wanted a broad-based summary sent to the Board in the meantime, and it was agreed that would be done.

Sue Gould then briefly reported on the Advisory Council meeting that morning, stating the same issues of legislation, transition, and federal activity were covered. No particular positions were taken by the Advisory Council.

Don Provost reported on the status of federal activities. He had attended the Waste Management '84 meeting in Tucson, Arizona, a symposium on screening and site characterization for high-level waste repositories. The status of proposed USDOE and USEPA regulations, as well as the Mission Plan and schedules were reviewed at that meeting. Arrangements for state participation in USDOE/NRC negotiations on the siting guidelines were made.

He went on to say the Nuclear Regulatory Commission decided to take a detailed view of the proposed Guidelines submitted to them by USDOE in December. Following the hearing on January 11, at which David Stevens testified, along with representatives of other candidate states, the NRC decided seven major points should be addressed by USDOE before they could concur. Primary concerns were engineered barriers and unspecific guidelines with more specific information needed regarding their implementation. As a result, NRC and USDOE are meeting each Wednesday to negotiate these seven points. The meetings are public in that interested parties can attend, but not participate. (A copy of the preliminary decision by the NRC was distributed to each member of the Board.) These meetings are being monitored by the states, with a qualified representative of the National Governors' Conference in attendance. Should the difference be resolved, concurrence could be about April 4. The rest of the schedule could then go forward. The staff report has gone to the Commission, and the NRC will accept comments on their report.

Concerning the EPA standards, Mr. Provost discussed Draft #3, which was distributed to the Board. He said EPA, USDOE, and NRC are now negotiating to try to arrive at a set of regulations. It appears there will be no opportunity for state comment. The draft copy of the Science Advisory Board recommendations, which is a secondary report, has been received, and the states will be able to comment on this report.

Mr. Provost discussed the draft Mission Plan on which the states and others were asked to comment. Following the strong criticism which resulted, the USDOE is now considering these comments. At the Tucson meeting it was agreed a letter should be sent to USDOE to address the concerns of the states, industry, NGA, and the environmentalists, specifically devising a better management scheme, including the role of MRS, and addressing the issue of transportation. They would also encourage the appointment of a permanent director for the Office of Civilian Radioactive Waste Management.

The question was asked about the prognosis of selecting a permanent director. Mr. Provost replied the nomination has been sent to the President by USDOE, and is now going through security clearance. The process is taking longer than anticipated.

Discussion followed on the proposed program guidelines, and Mr. Provost said should agreement be made with NRC on the seven issues, this would lessen the concerns of the State of Washington a great deal. Representative Nelson wondered if there were any of the NRC concerns that would be inconsistent with our state's position. Mr. Provost replied there was nothing of consequence. He added that a part of the decision made by NRC was determined by the states' testimony on January 11. He said there was supposed to be a comment period on the NRC document, and he thought the deadline was to be April 4.

Following further discussion it was moved and seconded that the Board request the Department of Ecology staff to continue to review the guidelines issue and prepare a comment letter generally supportive of the NRC position. The motion was carried.

The Chair then asked the attorneys if there were any other issues of potential litigation, and Chuck Lean replied that Section 119 of the Act gives the state the authority to seek review with the United States Court of Appeals on any final actions of the Secretary of Energy, the President, or the Nuclear Regulatory Commission. That includes all of the guidelines, specifically the environmental assessment required to be done under the Act. He added we would not wish to bring a lawsuit just to bring a lawsuit, but should there be good reason, we would be more apt to name the lack of specificity on the Guidelines, a feeling shared by many states. The other set of standards being proposed are those of the EPA. He said he thought the states have had a lot less concern with those, as they are more specific. He also said that should it be necessary to bring a lawsuit after the Guidelines and regulations are issued, there would be six months' time to do so.

He also mentioned we would be looking, from a legal point of view, at the environmental assessments for five sites, including Hanford, being prepared by the USDOE. It is conceivable, he said we could be challenging one or more of these. All the big decisions that come later under the Act are potentials for litigation - nomination of the sites, etc. Also a potential is the Mission Plan, as to how they are going to interpret the Act and how they are going to implement their job. Other questions then are presented, such as MRS, and how it relates to the selection of a repository.

Mr. Lean proposed the attorneys for the Department of Ecology review the potential and need for litigation and present it to the Board in writing as an information alert to the Board. Mr. Roe emphasized the value in pointing out our concerns now to have them on record, rather than bringing them out in a court of law.

Charlie Roe said another area of concern was water rights. He said the USDOE had announced to the state they would not comply with state law and that they have water rights based on federal law, and we have announced to them we seriously doubt this.

Don Provost made the remark that other states are also looking into ways to sue USDOE and he felt it was good to think about these possibilities for litigation.

Further discussion pointed out the time to put on record our concerns is during the comment period to document any possible litigation. Charlie Roe announced there would be a meeting next month of the National Association of Attorneys General Energy Committee, chaired by Washington State Attorney General Eikenberry, and one day of that meeting will be held to evaluate the litigation strategies discussed. He said when he had the final agenda, he would provide the Chair of the Board a copy.

Nancy Kirner stated she wanted to go on record she thought the Board should approach this whole question in an impartial and open-minded manner and not approach these issues in too negative a manner. The Chair agreed and explained the reason for doing this was to protect the

interests of the citizens of the state and the need was there to cover in case of litigation. Ms. Kirner expressed her support, but simply did not want it misconstrued in the minds of the public or USDOE.

Mr. Lasmanis asked if after the issues were identified would there be a call for litigation. Mr. Lean replied only after the Board decided there was need for litigation and so instructed the Attorneys General would a suit be filed. He also said he would hope the Board would provide the attorneys instructions and assistance on any technical points.

Representative Nelson expressed his opinion that the Board needed to be in a good legal position, not to sandbag the process, but because the state would want it to be fair.

Mr. Lean observed that once the NRC and USDOE had settled their difference the Guidelines would no doubt be adopted as quickly as possible. He said someone is likely to sue, and may include all the candidate states.

Mr. Roe added lawsuits are not brought to kill a project, but are many times filed to be sure the federal government is carrying out its responsibilities in accordance with the statutory mandates from Congress. He said this is what is being discussed over EPA, USDOE, or NRC rules or regulations.

Dr. Brewer stated there is no issue in the state examination at Hanford that is more important than ground water. He cited the study done by USDOE, which has been disproved by Golder's report for us, by USGS, and by the NRC. Among the unknown factors is whether there is a fracture zone under the Columbia which would cause the water to come up in the Columbia River, rather than passing under the Columbia and the Snake, as the USDOE report indicated it would.

Since no one knows what the direction, rates, nor the boundary conditions around the Pasco basin and movement of ground water are, the NRC has suggested USDOE spend three to ten million dollars in drilling core wells and doing more testing over the next couple of years. This will only be done around the repository site itself.

#### Well Sampling Project Proposal

We anticipate receiving a proposal from the College of Engineering at Washington State University to do a specific technical job in the hydrology area. This proposal to the Board will be contract with Washington State University to do a well sampling to establish hydrology boundary conditions. This testing will be conducted mainly outside the Pasco Basin to collect data at 70 points. He said he hoped to have the proposal to present to the Board at the next meeting, and might be able to send it before that date to the technical members of the Board for their review. Ray Lasmanis noted that the Geology Division, together with WSU, has been financing some well logging, and wonder if it would be included in the proposed survey. Dr. Brewer said checking would be done to prevent overlap, but there has not been an organized and

systematic job done to establish some baseline data. He said further he and some of the Ecology people would communicate with DNR to see just what this proposal should have.

Dr. Brewer went on to explain the wells being tested would be "borrowed" before the irrigating season begins, and when the pumps are pulled. These would all be existing wells, and the cost would be approximately \$2,000 per well. He said they would be looking for stratigraphic information and wanted to get head in the wells. In discussion Dr. Brewer confirmed that this study would be working with information produced by the former Task Force, and would work with USDOE and NRC. NRC is more concerned with the areas on the reservation, and the Task Force was looking more at the regional aspect.

The question was raised as to whether we should be advising the USDOE to do this research, rather than our assuming the cost of the project. Dr. Brewer said the original proposal came to us. Mr. Watson pointed out that the Board did advise USDOE the hydrologic system should be looked at in its entirety and they should expand their studies to cover the entire Pasco Basin. Dr. Brewer went on to say this project would be done in coordination with USDOE who would help us to design the program. It would be a complement to the work they are doing. He went on to say USGS has the information which so far they have refused to release to anyone. Mr. Provost added this is a study that is necessary, and we have the resource in the University to do the job. Our suggestion is that the funding would not come out of our current grant. We would go to USDOE to negotiate a grant separate from ours to utilize the equipment that is already paid for and provide the information that is needed. The information will go into the USDOE system and become a part of the data and we have the opportunity to get the work done at a reasonable cost.

Representative Nelson wondered if the Task Force of USGS, USDOE, and PNL had come to some agreement as to what the issues are and what needs to be measured. Mr. Provost said they have been holding meetings and have set up a very preliminary modeling scheme. USGS has a program collecting data around the outside. They are trying to get some boundary conditions for their models and identify them. This is a slow process, but they have identified the areas in which they need more data. He said it is a step-by-step program but they agree the area where we plan to collect data is an area where they do need more information.

Representative Nelson recalled one of the critical issues USGS raised was that there may not be enough time given the 1990 date to develop this data, and wondered if they had come to any conclusion. Mr. Provost said he thought the USDOE unofficially agrees in that position.

Mr. Lewis wondered how the proposed testing would fit in with the overall strategy. He suggested the department staff prepare an overview of the project and lay out the strategy for the office to conduct these tests, rather than having USDOE do it.

Mr. Watson agreed and said this may be a very worthwhile piece of research to recommend to USDOE to carry out, and only as a last resort, if we felt our position could not be upheld without having that information and DOE could not do, should we go ahead. Dr. Brewer said the work could be carried out by seeking additional funding, or reprogramming of unspent funds which would not impact any other part essential parts of our program, such as staffing, public information, etc.

Mr. Lewis continued he thought it was up to USDOE to do the studies necessary to prove their case. Then, it would be our right to step in if we felt they were not doing it. Dr. Brewer replied this is one of those cases -- if this work is not done, no technical person in state government could say they have the Pasco Basin hydrology under control. This could go into a lawsuit, he said.

Mr. Lasmanis added he felt as a bare minimum the state should be in a position to have some first-hand knowledge to bring to USDOE. We should have enough well information to be able to prove there are two aquifers in the Pasco Basin -- one shallow, and one deep. He said this could have a marked impact on the whole project.

Mr. Watson said that since the proposal will be presented at the next meeting of the Board, we could revisit our strategy at that time and make a decision on the well-testing program.

#### Waste Management Symposium

Don Provost next reported on the Waste Management 1984 Symposium held in Tucson, Arizona the week of March 12. He said 900 people were in attendance at the meeting, including Nancy Kirner of the Radiation Control Section of the Department of Social and Health Services. He said Congressman Udall spoke on the first day of the session, and brought the newspaper article covering his speech. (see attached). The main concerns expressed at the meeting were the lack of leadership, as there is still no permanent Director of the Department of Waste Management in USDOE. In the general session concerns about the Mission Plan were also expressed by the EPA, the Governors' Association, the NRC, and industry. At the noon luncheon the first day Commissioner Victor Gilinsky of the NRC delivered a speech in which he stated he felt the Act should be amended to put more emphasis on MRS and reduce the role of a permanent repository. Mr. Provost said this set the tone for discussions during the entire week. (See attached for copy of write-ups.) He said the rest of the week was fairly technical and he was disappointed with the USDOE progress on the Mission Plan, but impressed with the Department of Defense progress on defense wastes - especially at Savannah River. He said the WIP Project in New Mexico, which is the salt project for military transuranics, is in the construction phase. They are ahead of schedule and are significantly under costs.

Nancy Kirner added there was no way to take in all that was presented with concurrent meetings on high-level, low-level, defense and any other wastes. She said her main concern was Monitored Retrievable Storage. With slippage in the USDOE time frame she said MRS seems to be getting

more favorable press. Industry is upset because it postpones the permanent solution to the problem, but it does buy the ability to sit back and not be driven by the Congressional deadlines to make sure the final repository is done right the first time. When asked, Ms. Kirner said the question of open-ended MRS, which could change the whole concept of geological versus surface storage, did come out by Ben Cooper of the U.S. Senate Science and Technology Committee. He spoke in terms of 200 to 300 years, but the wastes would still have to be disposed of eventually.

Don Provost added there is the question of what is MRS - is it an insurance policy, or is it an integral part of the solution. He said the USDOE is having difficulty with this question, and Golder and Associates have been hired to help them work this out. He said we should be hearing more about this. He said the Gilinsky speech stirred up the issue, and added Gilinsky would be off the Commission in July. A replacement is being sought.

#### NRC/USDOE Workshop

Dr. Brewer reported on the most recent NRC/USDOE Workshop held in Richland March 13 and 14. This one dealt 90 percent with seismic predictions, and approximately 40 people were hosted by USDOE to brief NRC. He said they are approaching a point where NRC is asking USDOE to do something they have never done before. In this case they are asking USDOE to create a seismic model that will give 50,000 years of prediction. USDOE is objecting in an intelligent way, and compromise will be reached in due time, he said. He continued that the meetings are useful in that information gathered by USDOE is available immediately, without the usual long reporting period. They are particularly valuable to this office, he said, as he was allowed to make a remark critical of one aspect of their seismological treatment and put them on notice that this would become an issue to us. As the office develops its planned "Issues" file, this will be properly inserted.

Dr. Brewer showed USDOE the Repository Schedule he distributed to the Board, and stated updated schedules would continue to be given the Board as necessary. He went on to say USDOE is making an heroic effort to comply with the schedule, but they are also acutely aware of criticisms of incomplete data. As a result they are making additions to their own staff to bear on the problem.

#### RFP Status

Dr. Brewer then reported on the Contractor/RFP status. The RFP went out on March 2. The Bidders' Conference will be held with the four finalists on March 19, which will give the bidders the opportunity to question the office. The proposals will be due on the 6th of April and negotiations with the selected prime contractor could begin by the 18th of April.

He asked if the Board wants to become part of the contractor-selection process. Discussion followed, and the decision was made to have Richard Watson and Nancy Kirner, members of the RFQ team, to continue to serve

as Board representative on the selection process. They will report to the full Board at the April 20 meeting.

The announcement was made that Sue Gould would be appointing a Transition Team to develop plans for the new responsibilities of the Board.

Dr. Brewer introduced Gary Rothwell, who has been loaned to the office by the Department of Ecology to help implement administrative functions and assist the Transition Team.

Mr. Lewis suggested that Mr. Watson, as Acting Chairman of the last portion of this meeting, draft a letter of appreciation from the full Board to Sue Gould for her dedicated work for the Council and the Board. A motion to this effect was made, seconded, and unanimously carried.

The meeting was adjourned.

# Udall assails nuclear waste program delays

By Steve Meissner  
The Arizona Daily Star

3/12

Rep. Morris K. Udall accused Energy Secretary Donald P. Hodel yesterday of dragging his feet on a program for storing nuclear wastes.

Udall also said he will introduce legislation to pay for continued research into the use of copper containers to store the wastes.

In a speech to the 10th annual Symposium on Nuclear Wastes being sponsored here by the University of Arizona, Udall charged that Hodel has set up an Office of Civilian

★ Study says many copper facilities may shut for good if copper prices don't top \$1 a pound. Page 1D.

Radioactive Waste Management in name only.

No director has been named yet for the office, and its affairs are being managed "by a bunch of people who have the word 'acting' in front of their titles," Udall complained.

Because of this, little action has

been taken on a 1982 Udall-sponsored bill that requires the federal government to establish a waste-storage program by the end of the century for the tons of nuclear byproducts that are being generated by civilian nuclear power plants, he said.

The problem can't be solved by legislation, Udall added. "The nuclear waste policy act I authored in 1982 gives them all the tools that they need," Udall told reporters after his speech. "It's a question more of leadership."

By 1985, the energy secretary is

supposed to recommend some proposed underground sites for permanently storing nuclear wastes. The president is supposed to recommend a final site to Congress by 1987, and storage is supposed to begin in 1998.

Udall said yesterday that it will be hard for the department to meet that timetable unless it begins to act quickly.

Udall also said he will submit a bill that will add \$2 million to \$3 million to the Energy Department's appropriation for next year to pay for ad-

See UDALL ACCUSES, Page 4A

## Udall accuses Hodel of stalling

Continued from Page One  
ditional research into using copper containers for nuclear wastes.

Ultimately, a Udall aide said, \$8 million to \$10 million will be needed over three to four years to complete research into nuclear wastes.

Copper is likely to be a more expensive storage material than the stainless steel containers also being studied, but Udall said it could provide a safer storage medium "by a factor of 100 or more."

Andrea N. Dravo, an aide to Udall's House Interior Committee,

said stainless steel storage containers could be expected to last about 1,000 years, but copper containers, if stored in the proper rock formation, would last 100,000 to 1 million years.

The money Udall wants to appropriate would be needed to "confirm" studies done in Europe showing that copper is a preferable storage medium, Dravo said.

Because the Energy Department stopped research on copper containers several years ago to concentrate on stainless steel, the department would have to "catch up" with European research, she added.

# Official against permanent waste storage

By Jane Kay  
The Arizona Daily Star

•Burying highly radioactive nuclear wastes "forever" makes the public uneasy and forces the government "to make decisions for 50,000 years," a Nuclear Regulatory Commission official said yesterday.

Commissioner Victor Gilinsky — who ends 10 years on the NRC in July — told a nuclear-waste symposium at the Tucson Community Center:

"It's better to have spent fuel rods where we can get to them. My personal view is, don't put them in permanent storage."

Non-retrievable storage "poses enough questions so we won't be confident when it's complete," he said.

Sources say Gilinsky has come out strongly against permanent disposal because his NRC term expires June 30.

His remarks were not popular among the bulk of the 750 participants at the University of Arizona-sponsored symposium.

Many want the Department of Energy to meet a specific schedule to construct a permanent repository deep in the earth for high-level wastes, as set forth in the Nuclear Wastes Disposal Act of 1982.

Such industry associations as the Utility Waste Management Group and the Atomic Industrial Forum are pressing the Energy Department for the completion of a geologic depository in 1993.

Louisiana, Mississippi, Nevada, Texas, Utah and Washington are under consideration, if the experts choose granite, tuff or basalt sites. Also, 17 other states — not including Arizona — are under consideration for possible crystalline sites.

"The public is uneasy in making a decision

that we'll have to live with forever," Gilinsky said.

"The public demands extraordinary precautions. It makes me wonder if we've taken on too big a burden," he said.

His advice to the nuclear experts was to use the part of the act that allows Congress in 1985 to set up a central "monitored-retrieval site."

Wastes could be stored and monitored — above or below ground — but not sealed in deep vaults, he said.

"We need to think seriously about this alternative. It makes more sense to start with something we know how to do," he said.

Last month, Gilinsky testified before the House Interior Committee's energy and environment subcommittee, reciting a litany of failures by the utilities to build and operate safe plants.

Government and industry had pressed for the nuclear-disposal act, sponsored by Democratic Rep. Morris K. Udall of Arizona, because it would cover the Achilles-heel argument that nuclear power is an inappropriate technology to solve the nation's energy problems because it lacks a program to dispose of dangerous wastes.

Environmentalists had supported the act with a proviso for strong state participation in site selection.

But Gilinsky said the NRC is "simply not in a position to resolve all the states' issues."

He said, "the act can't work in an atmosphere of hostility," but the ground is "well laid out for guerrilla warfare."

"We must put cooperation ahead of deadlines."

"The federal government is thinking of short-cuts to save time," he said. The schedule is already three years behind.

The Energy Department is using a "limited work authorization" provision in the act to start construction of a repository three years before the NRC would finish its approval process.

Gilinsky, calling it "a recipe for trouble," said it would put the NRC in the same position as on licensing nuclear plants. By the time the NRC decides, the utility is well along in the projects. Then the NRC must either go along with an unsatisfactory state of affairs or is accused of holding up a vital, expensive project, he said.

"We mustn't do it with a first-of-a-kind nuclear repository," he said.

Gilinsky proposed removing the Office of Nuclear Waste Management from the Energy Department. He called for an independent entity, a separate government agency, with "a less political cast."

In 1975, the DOE took over promotion of nuclear power when the NRC was given the responsibility of regulation.

The Environmental Protection Agency upped its first recommendation of controlling the wastes from 10,000 years to 50,000 years, he said.

"That's a couple of Ice Ages. We can't set up standards which are simply impossible," he said.

"I don't think you can make decisions for 50,000 years," Gilinsky said.

Used fuel rods from reactors contain plutonium, uranium 239, cesium, krypton gas, strontium and iodine 131. For example, iodine 131 loses half its radioactivity in 1 million years.

By 1993, the nation's high-level nuclear waste stockpile will reach 50,000 metric tons, according to the Office of Technology Assessment. That includes only commercial reactor fuel rods and excludes spent fuel and other high-level wastes from the Department of Defense.

## Nuclear waste may be hauled across state

By Jane Kay  
The Arizona Daily Star

Thousands of trucks and rail cars carrying highly radioactive waste are expected to travel through Arizona when permanent burial sites open in 1998, a Sandia National Laboratories official said yesterday.

The most highly traveled alternative transportation routes under consideration by the federal government include Interstates 8, 10 and 40 and possibly state and county roads.

J.W. Cashwell, a transportation specialist at the Sandia labs in Albuquerque, showed the preliminary maps of U.S. highways that will be used as major corridors to ship spent fuel rods to permanent storage sites from 80 nuclear power plants and military waste sites.

"You can see how it could cause some concern from local folks," Cashwell told participants at the 10th Annual Symposium on Nuclear Wastes sponsored by the University of Arizona.

The federal government is charged with accepting high-level wastes for monitored storage by 1998. Officials are leaning toward building permanent repositories for deep-earth burial of high-level wastes. The sites have not been chosen.

States under consideration are Louisiana, Mississippi, Nevada, Texas, Utah and Washington because of natural geologic sites of salt, tuff, basalt or granite. Crystalline sites in 17 other states — excluding Arizona — are also being investigated.

Sandia scientist Marcella Madsen estimated that while shipping nuclear waste over the projected operation period for a repository — 28 years — there will be 38 traffic accidents from repository operations in addition to the 97,000 expected on those roads for that time under normal conditions.

Madsen's model predicted that there would also be 28 additional latent cancer fatalities from the repository operations over the same period of time, compared to 117,000 cancer fatalities nationwide from

normal background radiation in the environment.

But Wisconsin Department of Administration official Robert Halstead criticized Madsen during the symposium for failing to include extra fatalities caused by unpredictable catastrophes.

"To not include a possible catastrophic event is as obvious as only giving the worst-case scenarios. People have a right to know this.

"The DOE (Department of Energy) goes out of its way to minimize transportation risk. As a state official, I'm caught in the middle," Halstead said.

Madsen promised to meet with Halstead, but another Sandia official at the symposium said it would take reams of data to make such an assessment, adding, "When someone's 10 feet away, you can't even predict" the effects.

Under the Nuclear Waste Policy Act of 1982, the Department of Energy is responsible for determining the occupational and

public risks in the event of a nuclear accident occurring in transit.

The federal government has authority to enforce the routing, and a state cannot constrain traffic, Cashwell said.

The act calls for using the most direct interstate highway, bypassing cities where other roads are available. Commercial carriers will be used to the extent possible, he said.

Sandia estimates that the repository will receive 10 trucks and two rail cars a day.

"Even if there is no accident, low levels of radiation are emitted from the shipment," Cashwell said.

He told the participants that the cities, states and the public "will demand greater detail."

Currently, the utilities store the spent fuel rods on their property. But by 1998, if estimations for working reactors hold up, they will produce spent fuel rods that exceed

current on-site storage at a rate of 1,500 metric tons a year.

Commercial nuclear power uses nuclear reactions to create heat that in turn produces steam to power an electricity-producing generator. The fuel for a nuclear power plant consists of pencil eraser-size pellets of uranium oxide that are sealed in metal tubes and bundled into fuel assemblies.

In the core of a nuclear reactor, neutrons cause atoms of uranium 235 in the assemblies to split into atoms of lighter elements, releasing radiation and energy. The irradiated or spent fuel contains plutonium, uranium, cesium, strontium, krypton gas and iodine 131.

The spent fuel remains potentially hazardous for hundreds to millions of years.

If such radioactive atoms are taken into the body in water, food or inhaled particles, the radiation they emit can cause cancer, birth defects or genetic mutations, according to the federal Office of Technology Assessment.

NUCLEAR WASTE BOARD  
REPOSITORY SCHEDULE

<u>EVENT</u>	<u>NWPA SCHEDULE</u>	<u>AUTHORIZED DELAY</u>	<u>- Mo.</u>	<u>LIKELY DATE</u>
NWPA ENACTED	12/82	-		(SIGNED 1/83)
GUIDELINES FOR SITING	2/83	-		5/84 FINAL
EPA STANDARDS - 40CFR 191	-	-		4/84
DOE MISSION PLAN - COMMENTS 4/84	12/83 DRAFT	-		6/84 FINAL
ENVIRONMENTAL ASSESSMENTS - ALL SITES	1/85	-		9/84
NOMINATE AT LEAST 5 SITES FOR CHARACTERIZATION; RECOMMEND 3 TO PRESIDENT; WITH EA'S AS BASIS	1/85	-		1/85
SITE CHARACTERIZATION PLANS	BEFORE EXPLORATORY SHAFT	-		-
PRESIDENT RECOMMENDS 1ST SITE; WITH EIS, SCP, COMMENTS	3/87	+	12	12/90
APPLICATION TO NRC TO CONSTRUCT	5/87	-		2/91
PRESIDENT RECOMMENDS 2ND SITE	3/90	+	12	12/94
NRC DECISION ON 1ST SITE	1/89 TO 5/90	+	12	1/95
NRC DECISION ON 2ND SITE	1/92	-		1/99
1ST REPOSITORY OPERATIONAL	1/98	-		2003 ?
1ST REPOSITORY SEALED	-	-		2053 ?

3/16/84 WAB