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2		PUBLIC HEARING					
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4		Re: U. S. DEPARTMENT OF ENERGY)					
5		PROPOSED NOMINATION OF YUCCA MOUNTAIN AS A POTENTIAL HIGH- LEVEL RADIOACTIVE WASTE REPOSITORY)					
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9		REPORTER'S TRANSCRIPT					
10		OF					
11		PROCEEDINGS					
12		Taken on Wednesday, March 30, 1983					
13		at nine o'clock a.m.					
14		At University of Nevada Student Union Building					
15		4505 South Maryland Parkway					
16		Las Vegas, Nevada					
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24		Reported by: KATHLEEN J. HEARD, C.S.R.					
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MR. NELSON: Good morning, ladies and gentlemen. I am an Assistant Manager of the DOE's Nevada Operations Office in Las Vegas. As the Department of Energy's presiding officer for this hearing, I now declare that this public hearing is open. For the record, this hearing is convened on March 30, 1983, at 9:00 a.m. at the UNLV Student Union Building in Las Vegas, Nevada.

Notice of this public hearing was published in the Federal Register on March 7, 1983. This hearing was also advertised through local news media announcements. I will conduct this hearing in accordance with the Federal Register Notice.

The purposes of this hearing are as follows:

- 1. To solicit comments on the nomination of Yucca Mountain for site characterization as a potential high-level radioactive waste repository. This site is located in Nye County, on and adjacent to the southwest corner of the Department of Energy's Nevada Test Site.
- 2. To solicit issues to be included in an Environmental Assessment supporting the Department's formal nomination of that site.
- 3. The purpose is to solicit issues to be addressed in the Site Characterization Plan which would subsequently be issued, prior to proceeding with site characterization.

This public hearing will utilize a panel comprised of three persons, including a chairperson, who are not employees of the Department of Energy, and who have not participated directly in the preparation of the proposed nomination of Yucca Mountain.

The panel, under the direction of the chairman, will conduct the oral presentations of the public at this hearing, and will be responsible for seeking clarification or expansion of relevant points made during the hearings.

The panel will also be responsible for preparing a summary report which presents the panel's concensus view of the significant issues raised by the public participants at the hearings.

A court reporter is present to prepare a complete transcript of this hearing. Anyone who wishes to purchase a copy of the transcript may make arrangements with the court reporter at their office. For the hearing held in Las Vegas, you may contact: Associated Reporters of Nevada, 600 South Sixth Street, Las Vegas, Nevada 89101. And their telephone number is 382-8778, and the cost is 15 cents per page.

For the hearing held in Reno, which is tomorrow, you may contact: Bonanza Reporters, 1111 Forest, Reno, Nevada 89509. Their telephone number is 786-7655,

and the cost is 35 cents per page.

Copies of my opening remarks, including those addresses and the ground rules that I'll go through for this hearing are available at the registration desk in case you missed those addresses or phone numbers. The entire record of the hearings, including the transcripts, will be retained by DOE and made available for inspection at the DOE Freedom of Information Office, Nevada Operations Office, 2753 South Highland, Las Vegas, Nevada 89114, between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday, except federal holidays.

The record of the hearings will also be available for inspection at libraries located in Las Vegas, Reno, Carson City, and Tonopah. The names and address of these libraries can be obtained at the registration desk.

The public may submit written comments on the proposed nominations; the issues to be addressed in the Environmental Assessment, and the issues to be addressed by any Site Characterization Plan, if developed.

These comments will be added to the hearing transcripts for both locations and become an official Departmental record of the hearings. Written comments should be mailed to reach the following address by April 25th, 1983: (And I should note that this is approximately a one-month extension beyond the date originally specified

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in the Federal Register Notice). The Federal Register
Notice is currently being published to announce this
extension. The address is: U. S. Department of Energy,
Public Hearings on Nevada Site Characterization, Mail Stop
555, P. O. Box 14400, Las Vegas, Nevada 89114.

I would now like to establish the ground rules under which this hearing will be conducted. In order to permit a significant number of presentations, a period of ten minutes has been allocated for each speaker who made advance requests to speak.

This will not be an "evidentiary" or "judicial" type of hearing. Direct cross-examination of speakers by other speakers or by the audience will not be permitted. Questions may be asked by the members of the panel here conducting the hearing. I may ask clarifying questions. Anyone present who wishes to ask a question at the hearing may submit the guestion in writing to me through the registration desk. Any question which pertains to the three purposes of this hearing, which I recited before, will be passed on to the chairman to be answered if time is If you, as a member of the audience, need available. assistance in formulating your questions or seek more information, please contact the people at the registration desk.

As specified in the Federal Register Notice,

individuals who did not make advance requests to speak may register to speak at the registration desk. An opportunity to speak will be provided if time permits. If there are vacant periods on the schedule, I will request the chairman to fill them with questions which have been submitted, planned speakers who are prepared to speak, or individuals who register to speak at the desk today.

Although you may have many concerns about a wide variety of issues and activities of the Department of Energy, please let me explain that the members of this panel only have the responsibility of reflecting public concerns expressed at this hearing which pertain to the proposed nomination of Yucca Mountain for site characterization as a potential high-level radioactive waste repository.

In order to make the best use of the time that we have, I would ask your cooperation in focusing this hearing specifically on this proposal. I am prepared to revise the closing time for this hearing to assure full public participation.

As I mentioned before, the agenda as well as other pertinent documents for this public hearing is available at the registration desk. I would appreciate it if all attendees sign the log at the registration desk some time during the course of the day.

Are there any questions on the grounds rules for the conduct of the hearing? Okay. Seeing none, let me now introduce the Chairman: John R. (Jack) McBride, who is the Chairman of the University of Nevada Board of Regents, and panel members: Dr. Peter Krenkel, Dean, College of Engineering at the University of Nevada, Reno; and Robert

Representatives of the Department of Energy are also in attendance at this hearing. The panel members will be calling on DOE to provide information about the Nevada Nuclear Waste Storage Investigation Project during the hearings when the panel feels such information would be important to the issues at hand.

Okay. With that I'd like to proceed down the agenda for the day and have our first scheduled presentation. I have the honor to introduce the Honorable Richard Bryan, Governor of Nevada, who will be our first speaker.

Governor Bryan.

Revert, County Commissioner, Nye County.

GOVERNOR BRYAN: Mr. Chairman and members of the Panel--I'm not sure my comments should be directed to the Chairman and Panel. I apologize to the audience for having my back to you, but I will do the best I can to make the presentation clear and understood.

At the outset let me say I appreciate the

opportunity to express my views today on what I regard as a critical issue of high-level nuclear waste disposal.

The State of Nevada and my office in particular have enjoyed a good working relationship with the Nevada Operations Office of the United States Department of Energy and I fully expect that that relationship will continue.

As most of you are aware, the State of Nevada is no stranger in the nuclear arena. In the interest of national defense and security, Nevada readily accepted the burden of the above ground nuclear weapons testing program during the late 1950s and early 1960s. As a result of the Nuclear Test Ban Treaty of 1962, these tests were moved underground, where they continue to be conducted, with the most recent of which being this past Saturday. As a state we recognize our responsibility in the interest of national defense and security.

Nevada has also provided one of the nation's three low-level radioactive dump sites at Beatty, Nevada. We have done this for the past 20 years, not without its various attendant problems and expense to our state.

As Governor, I have several concerns about the safety of Nevada citizens in regards to the transport of these hazardous wastes and the State is in fact currently involved in litigation aimed at closing the Beatty dump site.

Yet at the same time Nevada recognizes its obligation to share in this burden of low-level waste storage on a regional basis and to that end we are currently reviewing legislation which would make Nevada part of the Rocky Mountain Compact.

For the past three decades, Nevada, more than any state in the country, has shouldered a tremendous national burden in the nuclear field. Nevada has been proud to accept its responsibility and is continuing to fulfill this responsibility. Nevada is one of six states now being considered as the site of the nation's first high-level radioactive waste repository.

I have made my position clear on this issue. Nevada has done more than any state in discharging its responsibilities in the nation's nuclear programs. I am unalterably opposed to the placement of a high-level radioactive waste dump, either temporary or permanent, within our state. This position is based upon two circumstances. The first is this historic nuclear activity of which I have just spoke.

The second is that Nevada does not generate any of these waste materials. In fact, the West generates a very small percentage of these waste materials as contrasted to the rest of the country.

It is also unfair in my view for the rest of

the nation to ask Nevada--in light of its past and present commitments in the nuclear field--to assume this new burden.

If the federal government selects Nevada as the site for the nation's first high-level nuclear waste dump, I will exercise my veto power over that selection.

Nevada does not want a high-level radioactive dump site within its borders.

Historically, the State of Nevada has analyzed this issue from a policy perspective only, as we have not had the capability to review and interact on the technical issues. We have recently received federal funding to establish this capacity with the Nevada Department of Energy.

I believe this technical review--conducted by Nevadans--is critical. As Governor of this State, I have a responsibility to see that the environmental impact of such a proposal is fully studied. We have environmental concerns which must be addressed.

What are the potential risks to the air we breathe and the water we drink? How will the transportation for this dangerous cargo be handled? Nevadans are entitled to answers to these and other questions.

Key members of the Nevada Legislature and I were formally notified by the Secretary of Energy of the Department of Energy's intent to nominate a site in Nevada earlier this year. I would like to address now issues

associated with the Environmental Assessment and Site Characterization Plan.

First, we have requested, and the Department of Energy has agreed, that, in order to provide for additional opportunity for public involvement, a second series of public hearings will be held in Nevada between the issuance of the draft environmental assessment and the final version.

Secondly, I urge that the public comment period regarding this draft environmental assessment be open long enough for the State and public to know the comments and recommendations of the Nuclear Regulatory Commission on the proposed siting guidelines as well as their impact on this environmental assessment.

Thirdly, I urge that the Department of
Energy conduct, within the state, public meetings on an
annual basis in order for the public and others to be
briefed on the status of the site characterization activities
and to ask pertinent questions relating to these activities.
The State will be pleased to cooperate with the Department
of Energy in the development of these forums.

There are several issues that I believe must be addressed in the environmental assessment and/or site characterization plan. Included among these:

A. A comparative analysis of the Yucca

Mountain site to the other proposed sites based upon such factors as transportation risks, ground water travel time and flux and seismic activity;

- B. An analysis of rail versus truck transportation to the site;
- C. An analysis of water consumption and acquisition related to the exploratory shaft construction;
- D. An examination of impacts on air quality both at the site and in Clark County and a discussion of environmental mitigation strategies relating to the construction of an exploratory shaft;
- E. A plan for the disposal of the excavated materials from the exploratory shaft and an analysis of the impacts from chemical leaching; finally
- F. Plans for mitigation of possible impacts to the archaeological sites that may be present.

The more critical geologic and hydrologic issues must be carefully examined by Department of Energy and in turn this examination process should be described fully in these documents.

These are some of the more important issues that must be addressed by Department of Energy in the environmental assessment and site characterization plan for Yucca Mountain. The State fully intends to submit detailed written statements within the comment period and

will monitor closely Department of Energy's answers to these questions.

Mr. Chairman and members of the Panel, I thank you for your time and consideration. Later in this hearing Bob Loux of the Nevada Department of Energy will present some additional technical testimony.

Again, let me express my appreciation to each member of the Panel and to the presiding officer.

Thank you, Mr. Chairman.

MR. NELSON: Thank you very much, Governor Bryan.

Our next scheduled presentation is by the Honorable Harry Reid, representative from the Southern District of Nevada. Mr. Reid is not available to be here but Reynaldo Martinez, his administrative assistant, will present his paper. Mr. Martinez?

MR. MARTINEZ: Mr. Chairman, distinguished panelists, and participants, my name is Reynaldo Martinez. I am the Nevada administrative assistant for Congressman Harry Reid. The Congressman tried to rearrange his schedule to be present at this hearing, but was unable to do so. However, he asked me to appear in his behalf because of his personal concern about this crucial issue to the State of Nevada.

The Congressman has had an opportunity to

review in detail Governor Bryan's remarks and asked me to convey his total support for the Governor's position. The Congressman has vowed that if the Governor finds himself in the position of having to veto the location of a nuclear waste repository in Nevada, he will do all he can to sustain the veto in Washington. However, he points out that this will be extremely difficult because many states selfishly want Nevada to be a dump site so that the sites will not be located within their own boundaries.

Additionally, Congressman Reid wanted to convey to this panel that it is critical that the Department of Energy's environmental assessment address the impact that storing high-level nuclear wastes would have on our tourism economy.

The Congressman is deeply concerned that our state will suffer greatly from a public perception that Nevada is not a safe place to be. He feels the Las Vegas Strip should not be the Love Canal of the nation. Who would want to take a vacation to Love Canal? We all know that Nevada does not need any more publicity that is detrimental to tourism.

Congressman Reid wants the members of this panel to be aware of the impact of a nuclear waste disposal site on every individual in Southern Nevada. The stigma would damage our major industry, tourism, and it would

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instill a deep-seated fear about the safety of our family and friends.

Thank you.

Thank you very much, Mr. MR. NELSON:

Martinez.

Let me make one administrative note that I omitted before. We've been assured by the University that there's adequate free parking and in coming in this morning It was pretty clear that there was; however, if there are any problems in this regard, please bring them to the attention of the registration desk and we'll see if we can fix whatever problem exists.

Next is an introduction to the DOE program, the DOE's representative from the Department in Washington. James J. Fiore will now provide information on the Nuclear Waste Policy Act. Mr. Fiore?

MR. FIORE: Good morning. My name is James I am in charge of the Department of Energy's Nuclear Nevada Repository Project in Washington, D.C.

On January 7, 1983 the Nuclear Waste Policy Act was signed into law. This Act establishes a process and a schedule for the development of nuclear waste repositories. This process includes numerous reviews of the Department's plans, data, and documents by the states, general public, Congress, and other federal agencies.

There will be many opportunities for issues and concerns to be raised which the Department must then address and include in the development of these repositories. For the selection of the first repository site, the Department of Energy is required to nominate at least five sites as suitable for site characterization.

By no later than January 1st, 1985, the Secretary of Energy is required to recommend three of the nominated sites to the President for more extensive characterization as candidate sites. No later than March 31st, 1987, the Secretary is to have recommended one of the sites for the first repository to the President and the President is to have recommended this site to Congress.

In order to provide sufficient time prior to the March 1987 date to characterize and evaluate the three sites under consideration for the first repository, DOE expects to have recommended those three sites to the President by the early fall of 1983.

Under the provisions of the Nuclear Waste

Policy Act, before nominating any site DOE must hold public
hearings in the vicinity of such site to inform the
residents of the area of the proposed nomination of such
site and to receive their comments.

At such hearings, DOE must also solicit and receive any recommendations of such residents with respect

to issues that should be addressed in the environmental assessment which must be prepared and will accompany the site nomination, and in the site characterization plan which is to be prepared after approval of the site for characterization.

The Nuclear Waste Policy Act also requires the Department of Energy to issue general guidelines for the recommendation of sites for repositories and that these general guidelines be evaluated in the development of the environmental assessment and site characterization plan for candidate sites.

Proposed general guidelines for the recommendation of sites for nuclear waste repositories were developed by the Department and published in the Federal Register on February 7, 1983, and were made available to the States and the public.

Public hearings on the proposed guidelines have been held in Chicago, New Orleans, Washington, D.C., Salt Lake City, and Seattle. After considering both oral and written comments from the public, consulting with the Council on Environmental Quality, the Administrator of the Environmental Protection Agency, the Director of the U. S. Geological Survey, and interested Governors, and obtaining Nuclear Regulatory Commission concurrence, the Department of Energy will issue these guidelines in final

form.

Under the provisions of the Nuclear Waste

Policy Act, DOE must publish the siting guidelines in final

form by no later than July 6, 1983. These proposed siting

guidelines are not the subject of today's hearing; however,

they are available to facilitate public comment on the

proposed nomination of the Nevada site.

As required by the Act, the Department notified those states which are considered to have potentially acceptable sites. On February 2nd, 1983, Governor Bryan was informed that the Department believes that Nevada contains a potentially acceptable site on and adjacent to the Nevada Test Site in Nye County. Five other states also received similar letters. I would now like to briefly discuss what work went on in the Department prior to the passage of the Nuclear Waste Policy Act.

In fulfilling its responsibilities, the Department has previously examined a full range of alternatives for commercial nuclear waste disposal which were discussed in a final environmental impact statement published in October 1980.

In a decision published in May 1981 the

Department concluded that placement in deep mined geologic repositories was the preferred means of disposal of highly radioactive wastes. Congress has confirmed its preference

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for geologic disposal by passage of the Nuclear Waste Policy Act.

Deep mined geologic repositories will be constructed in carefully selected geologic formations at a depth of up to several thousand feet. The selection of sites for construction of such repositories requires the careful screening of various regions and selective evaluation until specific sites are found which appear to possess suitable natural barriers for isolation of the Once potentially suitable sites are found, detailed examination will be required, including the excavation of shafts down to the proposed repository depth.

The Department has, of course, been conducting investigations of possible sites for repositories for many The initial recommendation, to consider deep bedded salt formations for disposal of radioactive wastes, was made by a committee of the National Academy of Sciences in 1957. Experimental work was conducted in bedded salt in Kansas in the mid to late 1960's, and the investigation for potential sites in New Mexico began around 1972 upon the recommendation of the United States Geological Survey.

After these early studies, it was determined that many types of geologic media throughout the United States should be studied as a systematic, broader based program.

As a result, in 1976 the National Waste
Terminal Storage Program was established by the Energy
Research and Development Administration, a predecessor
agency to the Department of Energy, to provide the research
and development needed to support the assessment of
suitability of several rock formations, including salt,
tuff, granite, and basalt, as a nuclear waste repository.
Sites containing these rock types are located throughout
the United States.

Dr. Vieth will shortly discuss the work to date on the Nevada site and will explain the proposed site characterization activities.

I would like to again refer to the Nuclear Waste Policy Act of 1982 and its provision in Section 112 that the Department hold hearings in the vicinity of a site to inform the residents of the proposed nomination of such a site for site characterization. This hearing is being held in accordance with the provisions of the Act.

The Nevada site is being proposed for nomination today for site characterization. At least three of the five nominated sites will be recommended to the President for detailed characterization. The sites approved by the President for detailed characterization will undergo geologic, hydrologic and geochemical evaluation to determine their long-term performance as a repository.

These evaluations will be conducted to support the recommendation by the Secretary of Energy to the President and the President's recommendation to Congress in 1987 for the first repository site. The President's recommendation will be accompanied by a detailed Environmental Impact Statement.

Therefore, the actions associated with the nomination of the Nevada site for characterization, are solely for site evaluation and not the construction of a repository and do not involve the placement of any nuclear waste at Yucca Mountain in Nevada.

I would like to stress that the Department is required by the Act to work closely with the states in the development and implementation of the repository program.

In addition, I personally and the other DOE people involved in the repository program are committed to soliciting and most importantly addressing the concerns of the states and the general public.

Regardless of the requirements and schedules in the Act, the program will simply not be able to proceed unless we do listen and respond to these concerns.

Thank you.

MR. NELSON: Thank you, Mr. Fiore.

Next on our agenda is Donald L. Vieth who will present the technical part of the Nevada program.

MR. VIETH: This morning, I want to take some time to use visuals to address three major topics as they relate to nuclear waste repositories. This is an effort to help put in perspective the things that we are proposing to do in Yucca Mountain.

As Jim Fiore said, there is no commitment to put a repository at Yucca Mountain at the present time but the purpose here today is to explain various factors of the concern or interest to people. The three things I want to address today is basically the nature of a repository, disposition of radioactive waste material, and I will try to address the issue of transportation.

Obviously the things I will say this morning will not be conclusive but I hope they'll give the people a perspective of the care that has been taken in terms of radioactive materials.

The third is to describe the activities that we have done in the Nevada Test Site and to try to explain the nature of the site characterization, the activities that we will conduct over the next few years until the time of 1987 when the site of the first repository will be identified.

What I have behind me on the slide is the climax facility which is on the northeast side of the Test Site. It is an experimental facility, it is not a

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permanent disposal site. We have developed this beginning in 1978 as a demonstration in development to get test information on how materials such as granite, hard brittle rock would react under the thermal load which is associated with radioactive waste. What it is here is a representation of what a repository might look like in its operational phase.

One of the words I'd like to address is the word dump. It is a term, a colloquial term, that has come to be used to define what repository might be. The point here is that the word dump connotes a slovenly operated, highly disorganized, potentially vermin infested kind of operation. I think this slide will give you an indication something to the contrary, that the repository will be a highly-organized, well-operated, well-regulated facility that will potentially avoid those kinds of things that are associated with dumps.

Moving on to the next issue having to do with transportation. As the Governor pointed out this morning, there is significant concern about transport of materials such as radioactive waste and toxic materials. Let me try to put that in perspective.

Over the last two years, 1981 and 1982, the transport of toxic materials across the United States resulted in a number of accidents. Look what happened in

Livingston, Louisiana, in 1982. In September of 1982, 2,000 people were evacuated from their homes when tank cars derailed. Now, in 1981 and 1982, there were somewhere in the neighborhood of about 40-some instances like this resulting in approximately ten deaths, over 200 injuries and somewhere in the neighborhood of 24,000 people being evacuated from their homes for periods of one to ten days.

By contrast, in the nuclear business over the last ten years, no such type of accidents have occurred. The situation is that no one has been evacuated from their home because of the transport of high-level radioactive materials.

Now, on the screen behind me, there is an example of the kind of cask that is used to transport high-level radioactive material. In this particular case, this is a transport truck that is used to deliver one of the 17 fuel elements that is used in the testing at the Nevada Test Site, primarily at climax to deliver that material to the EMET facility.

Now, this shows the size of the cask being unloaded from the truck once it's inside of the hot bay, and this shows that it's being prepared by the staff at the EMET facility for unloading; that people can work close to these casks.

Here they are in their normal protective

clothing that is required when they work in such a facility, and this shows the spent fuel element being removed from the cask in preparation for encapsulation in the stainless steel sealed canister.

Now, at this point what I would like to do is show a film of some of the tests that were run for the Department of Energy by Sandia National Laboratory.

As the Governor pointed out, many people have been concerned about whether or not the casks that are used to transport these materials could survive the normal type of highway accidents that are anticipated and so Sandia conducted a series of four tests to look at—or five tests to look at the type of accidents that might occur. And I'd like to show that film for you at the present time.

(Thereupon the film entitled "Five Full Scale Cask Tests" was shown.)

MR. VIETH: As I said at the outset, that film and those sets of tests were not totally conclusive in terms of proving the absolute safety of transport of high-level radioactive materials, but it does give you I think a very graphic representation of the capability that we have in terms of protecting these materials during shipments.

There will be obviously additional requirements

in terms of analysis and proof in terms of protection of safety and the analysis of specific routes and so on to a repository but I think this gives a fairly graphic representation of the capability of the transport mechanisms that we have to protect the health and safety of the population under the most severe kinds of accidents that are known to occur on the highways.

Now, let me turn my attention to the site characterization activities that we have been conducting and that we will continue to conduct at the Nevada Test Site to determine whether or not the Yucca Mountain location is an acceptable site for a high-level radioactive waste repository.

Well, I've got a few slides left to show what the casks looked like in terms of it being able to maintain its integrity after the impacts of those crashes and that's the nature of the kind of damage that the casks received.

Now, let me turn my attention to the site characterization activities. The specific project that is responsible for doing the Nevada nuclear waste storage investigation project is directed by my office. Now, this map is to give you an orientation of where the Nevada Test Site is with regard to Las Vegas and Lathrop Wells, Beatty and Tonopah. It is a site that is located basically on

three sides by the Air Force bombing and gunnery range.

Closer, this is a map of the Nevada Test Site, a 1350 square mile area, roughly ten percent larger than the State of Rhode Island and the area we're looking at, the area of interest, Yucca Mountain, is indicated by the orange rectangle on the southwest corner of the Nevada Test Site.

It will be an area that straddles the NTS, the Air Force bombing and gunnery range, and BLM land.

This is a map that shows the area of interest. The white outline in sort of a teardrop shape is the area that we're looking at, roughly 1200 feet below the surface in which we believe a repository can be located. The blue dots represent the bore holes that have been drilled to date in order to gain the information about what is the nature of the geology and hydrology below the surface of the earth.

Now, let me go back and explain a little bit about the history of how we got to the Nevada Test Site. In 1976, as Jim Fiore said, is when the Energy Research and Development Administration launched the NWTS program. Thirty-six governors at that time received letters indicating the interest of the Department in geologic formations on their site. At that time the strategy and the technical basis for the program was to identify the first two repositories, the first two of six in salt and

after that additional repository sites would be located in other geologic media such as granite or tuff or argillite and so on. But at that time the focus was on salt. The major effort of the entire program was to identify those sites in the United State where salt could characterize them.

In 1977, we had enough comment that said geologic media as a basis for screening for repository sites was too narrow and that there was strong indication that the Department should expand its capability for a screening for sites to include prior land use. The Nevada Test Site along with the Hanford Reservation were identified as potential sites because of their previous commitment to nuclear activities and potential and actual contamination of those sites with radioactive materials from those activities.

The word "reluctant" shows there primarily because at that time our interest was primarily in salt. By August of 1976, we had reached an agreement with the weapons community who had first call on the Nevada Test Site. The first year that we looked at the Site was to determine whether or not we could be compatible or a repository would be compatible with the weapons test program.

The outcome of that discussion with the weapons community was to relocate the entire project in

the southwest corner of the Test Site, roughly an area of 245 square miles out of the 1350 available. And by April of 1979 we had completed the screening of potential sites on a sort of a technical basis to identify that Yucca Mountain was the site that was really the one that had the best opportunity of housing a repository.

But in addition to prior land use, the Nevada

Test Site had a number of factors that made it very

attractive from the point of view of a repository.

The first one was, it was located in a closed geologic or hydrologic basin. Now, what does that mean? It means all the water that falls within that basin basically drains toward the center. The water does not discharge into a major river or other body of water that will move out to the sea, and so all the water that comes into that basin eventually is eliminated by evaporation or transpiration. There were great flow paths between the potential repository site and the discharge point where the water, the ground water might come back to the surface. There was great depth to the water table, roughly 2,000 feet—1800 to 2,000 feet were the distances between the surface and the water table that were anticipated at that time.

The geologic material, the tuff, is a material that has unusually high absorptive characteristics

That means they can chemically react with the radionuclides that might get into the ground water, much as an ion exchange column does in your own home to soften water. You put in the sodium and it takes out the calcium. A similar kind of action will take place naturally in this type of geologic material. The land is arid, potentially the most arid land in the entire United States receiving approximately six inches of rainfall a year.

There is a multiplicity of these natural barriers between where a repository might be and the discharge points, and on top of that it was already on government-owned land. So these were the factors that led to the Energy Research and Development Administration to consider the Nevada Test Site in addition to the prior land use arguments.

Now, this is a view of Yucca Mountain. This is north looking south towards Lathrop Wells. You can see the mountain which is in the background. Yucca Mountain is this structure here in the background so the area we're looking at is roughly about two miles long and roughly one mile wide underneath the mountain there.

This is just another shot of the same mountain above Crater Flats looking east towards Jackass Flats.

Another shot sort of from the northwest looking southeast across the mountain, so this gives you some idea of the area

that we're looking at as a potential repository site.

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Now, earlier in this discussion the Governor brought up that one of the things that we're going to have to be concerned about in Nevada is the ground water. of the factors that makes Yucca Mountain very attractive from a repository viewpoint is that a horizon 1200 feet below the surface of the mountain puts it roughly 600 feet above the ground water table. This means that when a repository is sealed in this kind of material it will not eventually be inundated by water. The waste packages will not be in a standing pool of water. The water flux that is present in the unsaturated zone is very low. estimated that somewhere between five and ten percent of the water that flows or lands on the surface as a result of rainfall actually penetrates into the formation and would pass through the repository horizon so this makes it one of the very attractive features from keeping radionuclides out of man's environment. Water is the most credible scenario by which radionuclides would be brought back to man's environment and this shows very positively that the waste will be kept a great distance from the water.

The hydrologic studies show that the fluctuations of the water table in the area are roughly plus or minus a hundred feet; so with the 600 feet separation between the water table and the repository, we believe that there is sufficient reason to believe that it will never be inundated.

Again looking at the site, the point that I want to make here is where bore hole G-4 is located on that map is where we will do the next major step in site characterization and that is the construction of the exploratory shaft. That site was selected for a number of reasons.

The topography is certainly a very important reason in terms of building surface structures. It's also selected to be a given distance from the boundary so that the site characterization activities can obtain the maximum amount of information.

This is the drill rig that was drilling G-4, the exploratory bore hole that was completed I believe in October, November of last year.

Now, exactly what is an exploratory shaft? The exploratory shaft is an engineering structure that allowed one to get from the surface to the horizon underground that he's interested in. In our particular case, it will be a structure that's mined to about 14 feet in diameter and finished to a size of about 12 foot that will provide skips in the mucking operations and the personnel cages to get people down to the horizon and the material that is being mined back to the surface.

This is a slide that indicates the nature of one of the characterization activities that will take place underground. One of the things that we have to do is determine what the lateral continuity of the rock is as an indication of what potential construction problems we might run into and what are the potential concerns for waste isolation and there will be a number of holes drilled off, roughly 2,000 feet in length from that central shaft in order to get core to evaluate the potential construction

problems that we might see.

This is a layout. This would be looking down from the surface on the planned view of what the underground workings associated with the exploratory shaft would be and in these various nooks and crannies in that operation, there will be a number of different tests made to evaluate ground water travel time from the surface to the horizon to understand what the flow rate is, what the flux of water is, to get information on the engineering structures, the requirements for the implacement holes for waste packages and concerns for retrievability will all be investigated for this exploratory shaft.

Now, what are the other technical concerns that we have about the site that still need to be resolved?

We've identified a number of them. One of them is volcanism; two, tectonic in-situ stress associated with the geological

formation, concerns over seismicity, the ground's motion that is associated with both natural events and weapons tests. We'll be looking at the ground water flow, both in terms of defining a flow pattern, the time that it takes for the water to get to the accessible environment and we'll be looking at the characterization of the unsaturated zone.

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Now, if one stands on the crest of Yucca Mountain and looks westward into Jackass Flats, you can see the salt cinder cones.

One of the most productive pieces of technical work that we've done so far is to explain why volcanism does not represent a major threat to the site. Other things we'll be looking at have to do with the tectonics and the seismicity.

This slide, if you can see the red lines on it, indicates the faults that have been active in quaternary times; that means last million and a half to two million years.

We'll be determining what the potential motion is from those sites and what impact they would have on a repository located at Yucca Mountain. The seismic network is in place to measure the movement along these faults, the ground motion in various places to pinpoint the sources of earthquakes and also to provide some

information about the weapons testing.

Other things that are looked at are the site characterization activity associated with the faults, is the trench across the faults to obtain samples of material that are in the fault as the basis for age dating to see the last time a fault has moved. So this will be one of the activities that is part of site characterization.

A major activity in site characterization is the drilling of holes. Since the earth is opaque, you cannot see down below the surface of it, the way that one gets an impression or an understanding of what is below the surface is to make these drill holes and to retrieve core basically that looks like this. And from this core one can eventually create a picture somewhat like this that explains what are the various geologic formations as a function of the depth and it's a function of spacal distribution across the surface of the earth.

In addition, the other thing we will get from the bore holes have to do with the hydrology. The most important thing is to understand the water table because it indicates the direction and velocity of flow. The pink lines on this sketch, which you can see, is a regional map of the hydrologic conditions around the Nevada Test Site.

You can see the Nevada Test Site, the outline

of it there on the left-hand part of the screen. Those pink lines represent the levels of water above sea level and the variation of those lines indicate that there is a gradient, that is, there's a difference in the head as a function of space and what we know is that basically water moves perpendicular to those lines and so this will give us by making these measurements and establishing these kinds of maps, we'll be able to determine what the direction of flow is and form measurements of the permeability and the hydrolic conductivity in these bore holes, we'll be able to get a handle on how fast the water is moving.

Right now we're focusing on drawing a similar map around Yucca Mountain so we can make a very good estimate of what the ground water flow path is and travel time to the accessible environment and release of radionuclides into the environment is a major criteria by which the Nuclear Regulatory Commission will make a judgment as to the viability of the site.

Another thing that we still have to do is understand how the water moves in the unsaturated zone. We believe that the water moves down. We still have to be able to estimate how fast it's moving, what the flux is and what the potential is for moving radionuclides out of the waste package and into the water table.

This is a very simple diagram indicating the

This is a very

potential schedule. The things that we have to do basically in 1983 is to go through and finish the nomination of Yucca Mountain as a site which will require the environmental assessment to be prepared to go along with that nomination and then to potentially recommend the site. The recommendation of the site as a candidate site is an absolute prerequisite in order to build the exploratory shaft.

In viewing the length of time that is required in order to have the data by the 1986 time frame, that exploratory shaft has to be started reasonably soon since it takes a finite amount of time, maybe a year and a half to build that exploratory shaft and to leave approximately a year to a year and a half of testing time at the bottom of that shaft.

So that's the end of my remarks in terms of trying to communicate three major things: One, what a repository will potentially look like; two, some background information for those that are concerned about the transportation of high-level radioactive materials to a repository site; and, three, to try to identify what are those things that are associated with site characterization that will take place during the next three to four years.

Thank you.

MR. NELSON: Okay, thank you, Don.

At this point we're going to take a break.

We're a little ahead of schedule and I think then we'll pick up and start with the presentations as they're available, so let's take about a ten- to 15-minute break and at this point then we'll start over.

(Thereupon a recess was taken, after which the following proceedings were had:)

MR. NELSON: Okay, I'd like to reopen the hearing and proceed with the scheduled presentations and other presentations that have been requested.

At this point I would like to introduce Jack McBride, who is panel chairman, who will run the rest of the hearing and introduce the various speakers that will address the panel today.

Jack?

MR. McBRIDE: Thank you.

I want to reiterate what Bob had said earlier meaning that we are not employees of DOE, we're not associated with DOE. Our role here as public members is to represent you to see that there is a fair open hearing; that you have presented your cases; that we take that and digest that material, prepare a final report to the Commission which represents your views, so I just want to reiterate that point.

Since we're ahead of time, I would like to

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take the liberty of exercising power of the chair and ask Mr. Hank Greenspun if he'd like to have a few minute at the podium now.

Mr. Greenspun?

MR. GREENSPUN: Thank you, Chairman McBride.

As a preface, it was not my intention to come up here to speak today or give testimony but sitting here and listening, I feel an urge just to express myself because frankly, and I'll be very brief I promise you that, I've been attending meetings of this type practically since before 1950 and before the Test Site was established.

In fact, I was probably the first newsman accredited to the Nevada Test Site and I've had the privilege and pleasure of listening to very eminent representatives of the Department of Energy, the Nuclear Regulatory Agency, practically every department of government. They were very impressive, just like the former witness here was, and I want to compliment you on it.

years, all the analyses, the glory promises made for the safety of the Nevada residents, how the underground water supplies will not be effected because it takes two years to penetrate 600 feet, but they don't tell you how long it would take for that water to penetrate to the underground apertures if there's an atomic blast or nuclear blast at

the Test Site and new fissures are created in the earth.

And if anyone has any question about what these atomic

blasts can do, I'll be happy to take you to my apartment

on the 28th floor, and any time one of them goes off, the

chandeliers are all over the place and the water in the

pool goes over the side and inundates the 27th floor.

That's over 80 miles away, a hundred miles away, so if you have a repository just a short distance from the Test Site, and I have seen the crashes of the trucks on the roads, and I was impressed beyond measure. Unfortunately, when a chemical truck explodes or is in an accident, we vacate the entire area and you clean it up with dioxin or whatever it may be; only takes you 20 years to accomplish it. But what if there's an accident? Still there are human beings involved in the process of containing all the radioactive material.

If just one of them go wrong on a Nevada highway, just one, and it doesn't withstand all that shock or it's in the repository and a blast from the Test Site might go awry--it has done that in the past--who knows what the implications of that would be? No human being on this earth can stand here and say that the ultimate safety standards have been reached where Nevada residents will be protected beyond measure.

In talking about the transportation containers,

themselves, may be perfectly safe, but with the proliferation of nuclear waste those commercial wastes and military wastes coming across Nevada highways, that we are the sole repository, those trucks will be coming over here with frequency; that there will be no room for any pleasure cars to be on those roads. Because we did a study years ago and one of the university professors helped us and they showed the frequency of just the low-level waste--and we were the only ones here--that those trucks would be coming over one every ten minutes—the way nuclear waste is proliferating in this country. You might dispute that, I don't know, but I just had this professor do this study for us and there was one every ten minutes.

Now, can you imagine those big gigantic vehicles coming over our Nevada roads one every ten minutes?

I don't know why the Strip isn't up in arms about this.

There will be no room for tourists to come in.

I heard the Nuclear Regulatory Agency mentioned here. Mr. Chairman, I want to tell you our dealings with the Nuclear Regulatory Agency. My reporter sitting over there, Mary Manning, she can tell you when we called them, what guidelines do they have for the safety of Nevada residents, and they start going through tomes and they can't find any. They're so confused, they are so jumbled and that goes for most of the departments of

government. You can't get a straight answer out of them when you try to get to the facts. What are the facts?

You'll never get a straight answer out of them and that's why as impressive as you people sound, I am not impressed because we've been dealing with them for 35 years. And everything they have told us in the past has either been a miscalculation, has been in error, or it's been outrageously false.

Mr. Chairman, you are dealing here with the lives of not only the present citizenry of Nevada, our children, our grandchildren, but you are dealing with future generations yet unborn going into thousands of years when you fool with this stuff and you object to it being called a dump. Because it has a wonderful facade, it looks good, it's still a dirty dump! No matter what you call it, it has no constructive value here. It has no benefit that it can do for the citizens of Nevada, it's just a dumping ground. No matter how you clothe it or what canisters you put around it, it's still a dump and we don't want to be the dumping area of the entire nation.

The Governor explained to you how we have fulfilled our patriotic mission in the testing program and even though you may be against it philosophically you still have to support it because the future of our nation might be involved. But we don't have to support these

dump sites. We have done our bit as the Governor has told you, so what I want to say, Mr. Chairman, I fully support the Governor's testimony, and as an additional document to my unprepared testimony, I would like to submit the "Where I Stand" column in today's paper and the "Where I Stand" column in yesterday's paper written by my son as part of our testimony here today. And I want to thank you for your indulgence.

MR. McBRIDE: Thank you, Mr. Greenspun.

If you would give the reporter that copy and we'll get a copy of yesterday's. Thank you, Mr. Greenspun.

Mr. Robert Loux, Department of Energy, State of Nevada. Bob?

MR. LOUX: Good morning.

Mr. Chairman, Members of the Panel, I am

Bob Loux with the Nevada Department of Energy representing
the State of Nevada at these hearings. As most of you are
aware, the Governor presented his views earlier on this
most important issue.

As the Governor described, the State of Nevada has been involved in this issue of high-level waste disposal primarily from a policy perspective since the inception of the investigations in Nevada. More recently, the State played an important role in shaping the law, the Nuclear Waste Policy Act of 1982, which now guides the

national program to locate and construct the nation's first high-level radioactive waste repository.

As Mr. Fiore described, the Act provides for specific interactions between the federal government, the states, and the public.

These hearings being conducted today and tomorrow in Reno are examples of this interaction that the Act requires. It is only through these types of forums and interactions that a program of the magnitude and importance of the disposal of high-level radioactive materials can proceed with the public's confidence.

We hope that hearings and/or public informational meetings continue on a regular basis to provide for the public's knowledge and understanding of this most critical issue.

As was mentioned previously, the State of Nevada has not been overly involved in the technical issues associated with the site characterization activities conducted by U. S. DOE. However, now with the financial assistance of the DOE, the State, within the Nevada Department of Energy, is assemblying a technical staff to review, verify and monitor these technical investigations.

We believe that it is essential that the State begin to acquire this expertise, as it will primarily be the technical issues, geologic stability, hydrology and

geochemistry among other disciplines, that will ultimately determine the suitability of the Nevada site.

I would like now to expand upon several specific issues that were raised by the Governor and that we believe ought to be addressed in detail in the environmental assessment and site characterization plan.

First, the Act requires that a reasonable comparative evaluation be conducted, comparing this site in Nevada to the other sites under consideration. While there may be some difficulty in completing this activity as each of the sites proposed are in different geologic media and utilize different data bases, it is critical that the State and the public know the favorable and less favorable characteristics of each site so that some understanding can be gained regarding the isolation capability of each site and how one site might be preferable to another.

It is especially important to focus upon the site's natural geologic and hydrologic features as opposed to human engineering components. These former factors, we believe, have a greater capacity for isolation over time than engineering factors, although the latter clearly can enhance this isolation in the short term.

We would hope then that this comparative analysis focusing upon each site's natural characteristics

would include: Site geometry, Geohydrology, Geochemistry, rock characteristics, tectonic environment (both natural and man-induced), human intrusion, surface characteristics, environmental protection and socioeconomic impacts. In this latter area, it would be important to know at the earliest possible date firm numbers on employment impacts and the increased demands on community services.

The area of transportation of these highly radioactive materials is of vital concern to the State of Nevada. In 1974, Governor O'Callaghan's Task Force on Radioactive Materials expressed concern on this matter, as did the Nevada Legislature in 1975.

This body is again, during this current legislative session, is expressing concern over the issue of transportation of these materials. AJR 15 of the 1975 Legislature and the current AJR 11 of this session require that should Nevada be selected to host this type of facility, that the waste materials enter the State by rail only. The State of Nevada is again expressing this concern today, and hopes that DOE will provide for a detailed analysis of the costs and risks associated with this method of transport.

In this context we urge DOE to look at the construction of a rail spur that will route directly to the Nevada Test Site, avoiding any and all metropolitan

da Test Site, avoid

areas.

Next, the State has concerns regarding potential environmental impacts from the excavation of the exploratory shaft. We hope that the impacts on air quality and water quality are examined in great detail with particular emphasis upon mitigating strategies.

We are curious to know the plans for the disposal of the large amounts of materials that will be excavated from this shaft; how DOE will minimize the amount of air-borne particulates, especially zeolites; and what effect the disposal of these materials will have upon water quality.

We need to know the amounts of water that will be required during shaft construction and how will it be acquired and released after use. The answers to these questions will have a great impact on the quality of life in Southern Nevada at a time when the protection of our economic lifeblood, tourism, is most critical.

We urge that the public comment period on the draft environmental assessment be open long enough so that the State and the public can know the remarks and concerns of the Nuclear Regulatory Commission on the recommendation of sites for repositories. These draft guidelines must be published in final form before the comment period can be closed on the draft environmental assessment, which is

closely tied to these guidelines.

Finally, we also hope that the Site

Characterization Plan contains a clear understanding of

the conclusions that DOE has already reached regarding the

site suitability and a candid description of the issues

or technical questions that need resolution during detailed

site characterization.

My office fully intends to submit more detailed written comments to DOE on issues that should be addressed in this environmental assessment and site characterization plan by the April 25th deadline. And we will play an active role in commenting upon the draft environmental assessment when it is issued.

As the Governor has indicated, the State of Nevada and the Nevada Operations Office of the DOE have had a good working relationship over the past several years, and we hope as the State begins to focus upon and takes a good hard look at the adequacy of the technical program, that this relationship will continue.

Thank you, Mr. Chairman.

MR. McBRIDE: I hope since we're running earlier that people on the program we scheduled later are here. I want to ask if Frank Caine is present to come forward.

Frank?

MR. CAINE: Mr. Chairman, my name is Frank
Caine and I'm the president of the Southern Nevada Building
Trades Council and business agent for Ironworkers Local 416.

My purpose in appearing today is to comment on the proposed nuclear waste storage at the Nevada Test Site and Mercury. We in organized labor have a deep interest in all Test Site activities and are very proud of our contributions to the many programs conducted there over the years.

We are now deeply concerned over the establishment of a nuclear dump site at the Site. We don't believe all the conflicting hysterical comments we read about every day yet are not totally reassured that this activity is foolproof and a hundred percent safe recognizing that there is risk in anything that you do.

Progress can come to a screeching halt without some risk. We now ask that people lower their voices and give this program the benefit of calm study and professional evaluation. We will not blindly endorse moving ahead but we will insist that calm judgment be based on fact.

I personally don't get turned on by loud and unknowledgeable voices just being against anything nuclear. We recognize the necessity for improving our country's energy supply and the very specific need to

1 reduce our dependence on outside supply. We recognize and 2 are extremely proud of our contributions to the outstanding 3 safety record compiled at the Nevada Test Site. We recognize the tremendous economic impacts and the great 4 5 number of potential jobs that will develop. We therefore 6 will insist that the program receive a fair and unemotional 7 evaluation; that safety values for both personnel and 8 property be properly defined; that proper safequards be 9 thoroughly aired; that decisions based on calm reason

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prevail.

MR. McBRIDE: Thank you.

Ann Zorn?

MS. ZORN: Mr. Chairman, my name is Ann Zorn, and I am speaking for the League of Women Voters of Nevada and the League of Women Voters of the Las Vegas Valley today.

The League recognizes that whatever the future course of the nuclear industry in the United States, this country now has the unwelcome task, but absolutely essential task, of disposing permanently of the accumulated wastes from 40 years of commercial and defense nuclear activities.

The decisions on particular sites and disposal systems must be made with full and effective public

Thank you.

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Associated Reporters of Nevada

participation and we welcome this opportunity to take part.

We trust that a complete and open exchange will be pursued
by all involved in this critical effort, both those
responsible for developing and carrying out the project and
those of us who are vitally concerned because of the
immediate impacts upon our area.

The proposal to nominate the Yucca Mountain site did not come as a surprise considering the geological and hydrological nature of the area and the history of the Department of Energy's Waste Management activities at the Nevada Test Site. However, we do find it inconsistent to rely on the Prior Land Use approach for justification when the section of Offsite Hazards in the Guidelines indicates that potentially adverse conditions would be created by siting the repository "close enough to an atomic energy facility to compromise or interfere with the use of that facility for defense purposes."

Yucca Mountain straddles two federal defense installations, the Test Site on one side and the Air Force range on the other. How will the repository site affect the operations on these facilities?

Although the choice of a site already under federal control and one which is also already contaminated by radioactivity has political and administrative advantages, such a choice could prove to be incompatible with the basic

missions of the Test Site and its Nellis neighbors.

Furthermore, the prime criteria in site selection should be the scientific and technical ones which are related to the requirements for safe long term disposal. Prior land use is a political factor which should be considered among the "favorable" or "adverse" conditions affecting the choice of a particular site which is judged suitable to contain the wastes on the basis of its geological, hydrological and other characteristics.

Considering the long time periods involved, we cannot rely on institutional controls or engineered barriers to maintain the integrity of a repository once it has been closed. It is most important that the site itself serve as the principal barrier to the release of radio-activity to the environment over thousands of years.

Redundant engineered barriers will be necessary to provide a "defense in depth", but sites which do not qualify on the basis of their inherent scientific and technical capabilities to safely hold the wastes should be ruled out of consideration. Man-made barriers should not be allowed to compensate for poor geology or other characteristics.

When the Environmental Assessment and the Site Characterization Reports are prepared, we wish to stress consideration of the following:

An emphasis on the examination and thorough evaluation of the potential seismic and volcanic activity in the area.

A thorough documentation of the hydrology of the area particularly as it might impact the Amargosa Valley.

A full scale evaluation of the transportation impacts and possible mitigation measures. If Yucca Mountain were to be selected as a repository site, there would be serious and significant impacts upon the population and economy of Southern Nevada from the large number of waste shipments which would converge on a relatively small but well-populated area over a limited number of safe routes.

We must be concerned about getting the wastes safely across the Colorado River when the only access is the highway across the _Hoover Dam. We must be concerned about taking wastes by either truck or rail over the rugged terrain along the Colorado and then safely past Boulder City and the Las Vegas Valley communities.

We must be concerned about the fact that the route to the Test Site and Yucca Mountain is the major north/south highway in the eastern part of the state. And we must be concerned about the impacts of such travel upon the roads themselves.

We've been asked also to evaluate the state

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and local emergency response capabilities necessary to cope with any radioactive waste related accidents and what measures could be taken to mitigate the costs to the state and local governments.

Socioeconomic impacts should address not only local labor markets and growth problems but also how the tourist industry would be affected by comings and goings of waste shipments to a nearby high-level waste repository.

We hope that you will look at an operations design which would minimize the amounts of handling or temporary storage of the waste containers at the site before final emplacement.

And we would like a delineation and explanation of any responsibilities this state or its local governments would be expected to assume. Any costs involved should be shouldered by the federal government as a matter of equity since Nevada neither produces nor benefits from the commercial nuclear operations.

Finally, a little nit-picking on the vagueness in the guidelines in certain sections. It is difficult to believe there are no adverse conditions related to the hydrology of potential sites. If nothing else, the negative side of the favorable conditions should be considered.

The use of some qualifying adjectives in some

sections leaves the reader with questions in mind. example, in the section regarding the host rock's thickness 2 3 and lateral extent, an adverse condition is restriction of 4 the lateral extent of the rock to "a small portion of the 5 site". How small is "small"? 6 Do you think it's bigger than a bread box 7 You need a little bit better characterization. 8 The prime concern of the League however is 9 that the repository site--wherever it is located--is the 10 safest and most secure facility that can be found using

the most exacting scientific and technical criteria; and

that the public and the state and local governments have

full opportunity to participate in and affect those final

Thank you, sir.

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decisions.

MR. McBRIDE: Thank you, Ms. Zorn.

Mr. Stephen Rohl? Did I pronounce it right,
Stephen Rohl? I assume he's not here. Let's skip on to
Judy Treichel. Pardon me if I pronounce it wrong, Treichel.

All right. We'll call on Bill Vincent. I thought I saw you back there, Bill.

MR. VINCENT: My name is Bill Vincent and I am the southern coordinator for Citizen Alert.

To paraphrase the French Statesman Clemenceau, who said war is too important to leave to the generals,

nuclear waste is much too important to leave to the Department of Energy.

The selection of Yucca Mountain on the Nevada
Test Site for a high-level nuclear waste repository raises
serious questions for state and local governments and
residents. These questions concern the health, safety and
well-being of this and future generations; social, economic
and emotional impacts that require careful study and the
financial means to deal with them. These groups must be a
part of the decision-making process.

If Yucca is found suitable by DOE standards, then presumably it would become a permanent repository, perhaps a constantly expanding one, and perhaps eventually a storage for transuranic waste--plutonium--the most highly radioactive offal of all. So the bases for decisions now being made must be carefully examined and questioned because the decisions relate to effects which last thousands of years, in a sense forever.

Let me say for the record, Citizen Alert is opposed to building a home in the West for the unwanted dregs of nuclear power plants from which we get not a watt.

The State has contributed more than its share in accommodating nuclear experiements and toxic dumps. This new proposal presents a double-barreled danger, one from the site and the other from transporting the waste

through the state, through our cities.

In the Rationale for the Technical Guideline, page 5675, is the statement: "The possible advantages of reducing waste transportation must be weighed against the safety margins provided by the environment and geologic conditions of considered sites."

If any effort has been made to identify acceptable sites near waste producers we are not aware of it.

There are now stored in bathtub coolers at nuclear plants more than 10,000 metric tons of spent fuel rods. By the time those plants, if not more are built, are retired, they will have created some 48,000 additional metric tons.

Marvin Resnikoff, a physicist and project director at the Council on Economic Priorities, estimates there will be "up to 120 trucks on the road every day by the year 2,000."

How many of these will be wheeling through Boulder City, Henderson and Las Vegas, or Caliente and Tonopah? And they may well be carrying containers of questionable integrity.

Container design and testing took place 20 years ago. Standards for heat and impact resistance have been challenged from many quarters, the latest in a

two-year study by the Council on Economic Priorities. It found that spent fuel shipping casks are not designed to withstand high-speed collisions and cannot retain their integrity under intense heat from fires which might follow such accidents.

Resnikoff, who authored the study, said in a collision and fire the heat could overpressure the container.

"Just like a pressure cooker, steam would escape through the valve, and radioactive particles would be carried off in the escaping steam."

This leads us to the question of who picks up the responsibility and the tab for manning the clean-up crews' training, the needed equipment and the expense of dealing with an accident? Is this another burden Nevada will be asked to share?

Of course, there will be no other jobs related to a repository--and I might add that no one is more in favor of jobs than we are--but what price may we pay if we accept the facility, or it is forced down our throats.

Just one accident, even a small one, would attract nationwide media attention. Tourists might become hesitant to spend their vacations here, or even weekends. The image of Nevada might change from that of Fun City to Atom Alley. We would have lost our main industry for a burial ground employing an insigificant number of people.

There has been a lot of unseemly haste in the selection of Nevada Test Site and Hanford, Washington, as locations for the first repositories. The Nuclear Waste Act set a deadline of January 1, 1985 to study characterization of potential sites and narrowing the field to three. But the DOE has truncated this important period to eight months, making a rational screening process impossible. And instead of preparing environmental assessment of the five nominated sites after promulgation of guidelines, DOE has already drafted assessments prior to public comment on the proposed guidelines.

DOE admits in the guideline preamble that it "may not be possible in preparing the environment assessment to provide complete evaluation of the site against all siting guidelines."

The Union of Concerned Scientists pointed out that "to a considerable extent, this 'impossibility' is due to DOE's deliberate attempt to subvert the rational decision-making process established by Congress by rushing headlong to nominate sites prior to thorough review under final guidelines. DOE has already announced it proposes to nominate the Hanford Site in Washington and the Nevada Test Site. DOE's schedule makes a mockery of these guidelines, and only confirms the belief that DOE has no intention of utilizing them in choosing sites, but rather

plans to give pro forma approval to those sites it has already selected."

The NTS and Hanford head the list because of a third screening procedure DOE has gratuitously added to the legal requirements to consider specific geologic media and to focus on particular hydrogeologic settings. The DOE's addition identifies federal lands already dedicated to nuclear activities.

The Union of Concerned Scientists and this third factor "is completely at odds with the statutory directive that the guidelines 'shall specify detailed geologic considerations that shall be primary criteria for the selection of sites in various geologic media.' Nowhere in the NWPA is there any hint that existing federal nuclear reservations should be primary criteria for site selection or considered 'favorable conditions' in screening sites."

Thank you.

MR. McBRIDE: Bill, I just have one point of clarification. Was that a quote from the Concerned Scientists that you were referring to that the decision has already been made on Hanford and NTS? Is that a quote from that document?

MR. VINCENT: I don't have it appended here.

It's from the bulletin issued by the Union of Concerned

Scientists.

MR. McBRIDE: But that's where it came from. 1 2 What's what I wanted to find out. 3 MR. VINCENT: Yes, mm-hmm. MR. McBRIDE: Since we're ahead of time, I 4 5 can understand why some of these people perhaps aren't here 6 yet. Let's get on with it and ask if Stephen Rohl is here. 7 Judy Treichel? How about James Owen? We're a little early. 8 MR. OWEN: I'm James Owen and I'm an alfalfa 9 farmer so I'm more or less representing agriculture, and the 10 farmers in our area asked a number of different questions. 11 One of them was, are the nuclear fuels of 12 high value as resources? Are they strategic material that 13 should be considered in emergency preparedness planning? 14 Are they cost effective fuels for nuclear fusion power 15 plants? Are there significant advantages to locating 16 a nuclear power plant close to a nuclear waste repository? 17 Are there significant advantages to locating a nuclear 18 decontamination facility close to a nuclear waste repository? 19 Could nuclear waste canisters and contents 20 be indistinguishable from MX missile canisters and contents? 21 Will the answers to questions one through six lead to the 22 conclusion that the Yucca Mountain repository would be 23 vital to the well-being of the United States? 24 Would a proposed railroad be available to 25 Nevada commercial users? Is there any site in the 48

contiguous states that is as remote? Could more than one repository be located on or adjacent to the Test Site?

What repository needs can be supplied from the immediate area and the immediate region and in what time frame?

What capabilities at the repository could benefit the immediate area, weather station information, seismic

information, hydrogeological information, geochemical

8 information and ground water information?

We suffer from a dearth of this. In most agricultural areas there's very detailed information. The Amargosa Valley has practically none. Could utilization of the Delphi techniques solicit and receive more usable input from the public, local and state officials? Would a Delphi panel of respected representatives representing irrigation, domestic livestock and the energy industry local and state officials with some nuclear training provide more effective public input?

A more informed panel. Should such a Delphi panel have security clearance for maximum effectivity?

I'd like to note that there are local men who are in these various disciplines and at one time have held various levels of security clearances.

That's the extent of my comment. Thank you.

MR. McBRIDE: Thank you. Any questions?

Thomas Trotter? Is Mr. Trotter present?

Gregory Millspaugh?

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MR. MILLSPAUGH: I'm Gregory Millspaugh. Thank you, Mr. Chairman.

For the record, my name is Gregory Millspaugh and I'm here to represent and to present the petition passed by the Republican party of Clark County. I would like to read that resolution into the record if I may.

Whereas, Public Law 96-386 was passed by the United States Congress on October 7, 1980 to mandate the creation of a National Magnetic Fusion Engineering Center for the development of Fusion technology; and

Whereas, the advent of Fusion technology would provide America with an unlimited source of energy that would eliminate the creation of radioactive fission waste products from fission reactors and would eliminate the creation of acid rain and particulate air pollution from combustion fueled power plants; and

Whereas, it has become obvious that the Department of Energy intends to establish Nevada as the dumping ground for the nation's high-level fission reactor radioactive waste; and

Whereas, the Department of Energy has failed for over two and a half years to comply with the specific intent and language of public law, and has suppressed the development of the most feasible alternative to waste

producing fission reactors; now, therefore,

Be it resolved, that the Clark County Republican Central Committee go on record that:

We urge the United States Department of Energy to designate, establish and develop an operational National Magnetic Fusion Engineering Center at or near the Nevada Test Site--NRDS; and

Be it further resolved, that we urge the Governor and Legislature of Nevada to oppose and to veto the designation of Nevada as a site for a permanent high-level nuclear waste burial facility unless and until a National Magnetic Fusion Engineering Center is fully operational, with any nuclear waste facility operated as a retrievable storage site under the administration of the Fusion Engineering Center; and

Be it further resolved, that this resolution be forwarded to Secretary of Energy Hodel, the Nevada Congressional delegation, and the Governor and Legislature of Nevada; and

Be it further resolved, that this resolution be submitted to the record of the Department of Energy's public hearings on high-level waste storage in Nevada.

In support of this resolution, Mr. Chairman, several comments. Public Law 96-386 passed in 1980. We're now looking at two and a half years later because the

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Congress even at that earlier date recognized the Department of Energy was dragging its feet in the development of the most suitable technology for a long-term energy production, a technology that is absolutely essential for the long-term economic and strategic defense capabilities of the United States.

With the recent comments by President Reagan that he foresees the need of advanced weapons technology for defensive systems as opposed to offensive nuclear missiles, where he sees the need to change this nation's strategic doctrine from reliance upon mutual assured destruction with the use of offensive weapons and instead to rely upon the capacity of the United States to defend itself against any imposed threat from abroad, and where he has stated that these technologies would involve such things as laser technology and high energy beam weapons; where these technologies will take vast amounts of energy and where it would be impossible for existing means of energy production to provide raw power necessary to operate such defensive systems, the creation of nuclear fusion, the controlled power of the sun is a vital aspect of the very capacity of this nation to defend itself.

Further, the existence of fusion technology would offer this nation and the world a future in which nuclear waste products, fission, would no longer be created

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in the first place, it would not be a matter we would have to dispose of the products, we wouldn't have them being This technology has made rapid scientific advances at such places as Princeton University within the last six months, yet the time frame for the actual development of the Department of Energy's own plans and programs for fulfillment of public law that has been on the books for two and a half years is being slowed down, not sped up.

The time frames for the production of reports that were mandated by public law to be made by January 1 of 1981 have not yet been made. Requirements for public reports to be done by July 1 of 1981 might be available by summer of this year at the earliest.

The technology that was proposed for engineering prototypes of fusion reactors that would have been mandated to be in operation by 1986 will not even be introduced and started for construction phase by that It is clear that fusion technology is being time. deliberately suppressed. It is clear that that suppression is being done in order to excuse the expedition of the nuclear waste disposal facilities for the fusion industry.

It is clear that once a nuclear fission waste dump has been established, then and only then will the Department of Energy proceed with the development of nuclear

fusion. Ah, gee, shucks, we're sorry about this, we've already got the facility, we've already got the dump, now here's the technology, we don't really need the dump after all, so sorry.

That has been the pattern of history and the conduct of operations in the State of Nevada far too long. That is not to be taken as a condemnation of the operations of personnel within this state, it is rather an indication of a policy at the national level. Nevada happens to have only two congressmen. Historically we've only had one up to this point. For that reason we have a very small voice. It's always easier to put things where there isn't going to be too much flack or there isn't going to be too much public discussion.

For that reason it's always been easier to put things here in Nevada.

We should like to go on record and make it very clear that a policy where Nevadans take things in silence has come to an end.

Thank you.

MR. McBRIDE: Thank you. Since we have time in the program, I have a written submission I'd like to read into the record submitted by Patricia A. Keenan for herself, address being 4767 East Welter, Las Vegas.

"If you really wanted to hear what people

have to say on this subject in a public hearing, why did you schedule this meeting at nine a.m. on a Wednesday when so few people are free to attend?

"It is my carefully considered opinion that Nevada should not be a site for high-level or any other level of nuclear waste dumping. If we refuse to participate in making a home for these toxic and dangerous materials, eventually the makers of nuclear waste will be forced to rethink their priorities and either make less or find ways to convert the material to harmless energy forms. I feel strongly that the current nuclear waste accumulations can stay exactly where they have been produced, as apparently the people there didn't mind having the stuff under their noses. If, when Nevada refuses to accept the nuclear garbage, other people elsewhere get upset, perhaps the administrators responsible will be forced to, as stated above, rethink and find more positive solutions to the nuclear waste problem.

"If the government overrides the will of the people on this dump site, it will be yet another horror story in the annals of Nevada's experience with toxic wastes, and another black mark against the U.S. and Nevada governments in the book of concern with the safety and well-being of citizens."

Signed Patricia A. Keenan.

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I'll again ask if either Stephen Rohl or Judy Treichel have appeared. Judy? Sorry, we called you earlier. We're running ahead of time so you are on the program.

MRS. TREICHEL: I can't speak to this subject as a scientist or an engineer. I am a member of the Clark County community and I can speak as a wife, mother and a citizen who has tried to do her homework.

Our home is in the northwest area of Las

Vegas with the back of our property bounding on the

Rainbow Expressway which is Highway 95 near where it meets

Tonopah Highway. A quick look at the map tells us all that

Highway 95 has to be the routes to Yucca Mountain; the route

to transport the most deadly substances that science has

been able to produce.

We know how terrible these high-level radioactive wastes are when they are just sitting still. Putting them in motion multiplies a lot of danger factors and the further the material travels, the more increased the risks. It is my feeling that the transportation problem is the most difficult issue in this matter. It is also the issue we know the most about; certainly accurately enough to know that there are accidents.

The National Safety Council can tell us how many highway mishaps occur during each average hour, and

as I say, we know a lot about transportation issue.

We have lots of data concerning transportation in general, safety on the highways, accident rates, weather factors, et cetera. Our present level of knowledge can deal relatively accurately with these things; whereas, we have absolutely no experience or track record in radioactive waste permanent storage burial.

Our experience with toxic chemical waste is horrifying. The point is, we are dealing with the matter of the disposal of materials that must be handled in a manner that is fail-safe for hundreds of thousands of years. We know that during just one generation's lifetime we've created a host of monsters in our disposal of other deadly, but much less dangerous substances.

As we watch the daily developments in the E.P.A. drama we are to suppose that nuclear waste disposal would be a perfectly safe operation in which we can rest assured that because DOE and EPA say that it will work, that it actually will work.

When you question uncertainties and you want to weigh the risks in a matter like this where national security creeps in and also the promise of some jobs, you're called a radical idealist. In Times Beach and Love Canal don't you suppose that lots of folks wish that someone had said, "Wait a minute."

So, we have a situation we know very little about, where we gain our knowledge after the fact and also the transportation issue where our data is so tested that we can be told with surprising accuracy how many will die during how many accidents on any given week. And if the National Safety Council were here today they could guarantee one fact unconditionally—there are accidents. As a matter of fact, it would seem wise to include the National Safety Council in meetings like this.

For these reasons I believe that on-site storage is the only sensible solution to radioactive waste disposal and storage. I read recently that an official of the NRC supported technology to expand on-site storage research. In accordance with Sections 112 and 114 of the Nuclear Waste Policy Act of 1982, the Secretary and the President are required to consider the need for regional depositories.

Public Law 97-425 indicates this as well.

On-site storage would make those determining the advisability of locating a nuclear reactor in a particular area also address the question of its byproducts. The costs and dangers, all of the dangers, are aspects of that facility.

It has to be the responsibility of the using area whether the plant is commercial or military. On-site storage reduces the number of workers handling this terribly

dangerous fuel and waste and puts the responsibility where it belongs. When a new nuclear facility is planned and feasibility studies done, the waste issue should be one of the most if not the most important consideration. The life expectancy of the plant is about 40 years. The half life of the waste is over 100,000 years.

I recently read a lot of the available material on the Clinch River breeder reactor being considered for construction in Tennessee. There was absolutely no mention made of plans for waste disposal. That plant will create tremendous amounts of plutonium as well as other waste and the waste disposal isn't even considered publicly.

So what happens eight billion dollars down the road when everyone involved is in trouble financially as is the case with a lot of nuclear installations? Where does the money come from for the fail-safe waste disposal? How concerned will Tennessee industrialists with money problems be about the health and safety of all the people between Tennessee and Nevada?

The record shows that rather than accept the responsibility and cost for the highest and best safety standards these folks would see Nevada as a far away spot with not enough people to worry about. It's not like we haven't seen a "what the hell" attitude from these same industries in other waste disposal situations and the

Environmental Protection Agency is seemingly unable to do very much about that. It's easy to imagine that Nevada is the best answer for waste just simply because it's far away.

As a member of this community I am glad that we don't have any nuclear power facilities. If one were proposed my first concern would be the waste. The waste issue alone would make me opposed to the plant.

As a Nevadan, I oppose this disposal site because I don't feel that we should be responsible for the awful results of military adventure and the nation's nuclear power industry. Nevada, Utah, and all areas downwind have paid a tremendously high price in terms of suffering and death since the dawn of the nuclear age thirty-some years ago and with each new state of the nuclear adventure came assurances to all of us, there is no danger--we repeat, there is no danger.

As a member of a chapter of Clergy and Laity Concerned, I object because I feel that throughout our nuclear history unacceptable dangers have been frivously termed acceptable. As a mother who lives and is raising a family less than a child's stone's throw from Highway 95, I object to being a resident of a potential peace time ground zero.

Thank you.

MR. McBRIDE: Thank you. 1 Stephen Rohl? Is Barbara Trees present? 2 3 Evelyn Kimberly? MISS KIMBERLY: I hope I can be heard, I 4 5 haven't been hearing very well myself. MR. McBRIDE: Could you introduce yourself, 6 7 please? MISS KIMBERLY: I have been interested in 8 the discussion of safety of transportation or lack of 9 safety of transportation--10 11 MR. McBRIDE: Excuse me, ma'am--12 MISS KIMBERLY: -- and the same for the 13 deposit of high-level--14 MR. McBRIDE: Could you introduce yourself 15 first, please? 16 MISS KIMBERLY: Oh, I am speaking only for 17 myself. I am Evelyn Kimberly and I do live at Overton and 18 puts me a little closer even than some other people as 19 far as that goes, and as I say, I'm interested in this 20 discussion but I can't bring myself to study about it and 21 to deal with it and to speak of it now at least. 22 I would have been interested in it before 23 the first nuclear power plant opened. I would be interested 24 in it if nuclear power plants were phasing out and were

ceasing to make the waste and we wanted to clean up what

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already exists in the country. But now my only answer to the idea of depositing high-level nuclear waste from power plants at Yucca Mountain is, don't make the high-level waste from nuclear plants to have to be deposited.

MR. McBRIDE: Thank you. Is Richard Wyman here?

MR. WYMAN: I'm Richard Wyman, Professor of Engineering at UNLV.

I am presenting this testimony today in favor of locating a terminal waste storage facility at the Nevada Test Site, specifically at Yucca Mountain.

For the past five years I have been on Peer Review committees reviewing geologic and engineering data, exploration results, physical tests and other site selection criteria.

The Yucca Mountain site should be selected because it meets all of the several basic criteria for long term geologic storage of high-level waste. The site is remote from population centers, yet has a supply of sophisticated technicians and labor available from the Nevada Test Site.

It is in a stable geologic setting which will provide safe underground storage in the special canisters for thousands of years as their heat and radioactivity dissipate.

It is necessary to provide a facilty of this type to prevent the radioactive material from harmful contact with biological species. A permanent site must be selected soon as the material from nuclear reactors

continues to accumulate in temporary storage.

The technical aspects have been thoroughly reviewed by independent experts in the various scientific fields. The studies have shown that there is no further need for concern as to the long-term safety of the site.

This facility will provide long-term economic benefits to Southern Nevada through employment, transportation and construction. The University of Nevada, Las Vegas Department of Engineering stands ready to assist in various technical aspects, and to provide continuing education in support of this.

In particular, I would mention a few things regarding Yucca Mountain. It's advantageous to Nevada and the nation. It is not a dump, it is to be a retrievable storage facility. It will provide safe geologic storage for an indefinite future away from the "biasphere".

Many of the worst case possibilities have been studied, perhaps all of them havebeen studied, at least all of them have been addressed. First off, it is in a dry environment, noncorrosive, water will not enter the special canister. If it did, however, there are natural

barriers for radionuclide transportation. The rocks contain zeolites which perform an ion exchange operation. If the material ever moves, it will not move far as most of it is insoluble. If it ever did get to the water table, being in this dry environment and so on, it would take tens of thousands of years for it to surface and radio-activity would have been reduced to nothing in that time.

When the water does surface, it is not in a populated area, it is in the Death Valley and Ash Meadows area.

The mountain is structurally stable, there are no recent or active faults. For surface construction, earthquakes can be handled by design, also subsurface.

Worst case earthquakes can be handled by engineering design during the retrievable period.

No explosive volcanic activity has taken place there for periods in excess of many millions of years. Worst case would not hurt the repository if a quiet intrusion did occur. There are no other demands on the land, no mineral deposits, no oil, no forests, no farms, no unique scenic value, little value for grazing or other uses. It is already in a withdrawn area.

Fifth, the Nevada Test Site's intrastructure is available, skilled professionals readily available for handling this type of material. It would be of economic

value in the long run to Southern Nevada, a steady high tech employer for many decades. Thank you.

MR. McBRIDE: Thank you, Dr. Wyman.

Stanley Stringham?

MR. STRINGHAM: Mr. Chairman, ladies and gentlemen, I appreciate this opportunity to express myself as a private citizen.

So far all that has been said is that mostly it sums down to that we don't want it here and this goes true of almost every state that is under consideration, as I understand it.

I want to make a simple suggestion that I think is practical. Why couldn't we go into the Aleutian Islands and deposit all of this up there in huge block buildings properly canistered to hold it for years to come and in the meantime set up a special action committee, the same as they did to go to the moon, the same as they did to split the atom in the first place, and have them go into reworking the plutonium and the other dangerous products so that they can be reused in their energy.

I don't think there's very many people that realize, really realize, the energy there is in uranium.

One block of uranium like the tip of your finger, the size of a cube of sugar, has 81 million horsepower. One simple little cube of sugar. The Nautilus went 365,000 miles around

the world, many of them under the ice caps, and the size of the Nautilus driving it through the waves, and you know what it takes to drive your car to Salt Lake and back which is—or Los Angeles and back for just gasoline. What do you think the energy was that the Nautilus used for the 365,000 miles? Exactly the same amount of uranium as one gallon of water weighs, eight and a half pounds of uranium.

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This is the kind of energy that we're talking about and it's far too valuable for the future of the world and mankind where half the world goes to bed every night hungry, at least that's what I'm told. I've been more fortunate up to now. But let me say this, the future of the world has got to have the energy to produce food and they have got to organize to save our topsoil and build more dams and do other things necessary to set up huge food products for the future. And they're going to have this energy to do it and it's the only energy that is big enough, great enough and clean enough although they say it's terribly bad as to what it is. And I think if anybody understands it, Mr. Greenspun has given us a good example of what it is. If it's just hidden out here at various places around the country to leak down into the water supplies and do otherwise because it takes hundreds of thousands of years for it to dissipate that energy and its lethal doses that it can give mankind.

1 Now, I wish to ask that the committee really 2 give this a thorough consideration. Over there in Alaska 3 they already have camps, military camps with airplanes to 4 supervise the area so they would know it's under careful 5 protection and they could build these things on some of 6 those islands that are used for nothing else at all and 7 they're away from all of the possibility of contamination, 8 So thank you very much. 9 MR. McBRIDE: Thank you. 10 MR. NELSON: Jack, could I make an announce-11 There's an emergency message for Tom "Morrow", who ment? 12 is representing the City of Las Vegas, and will you please 13 go to the desk if you are here? 14 MR. McBRIDE: I'll go back again. Is 15 Stephen Rohl in the audience? How about Barbara Trees? 16 Since we have no other --17 MR. NELSON: I have one other thing. 18 MR. McBRIDE: Alice White? 19 Excuse me, are you Stephen Rohl? 20 MR. ROHL: Yes. 21 MR. McBRIDE: Could you wait until Mr. Rohl 22 gives his presentation? 23 MR. ROHL: Thank you. My name is Stephen 24 Rohl, Stephen C. Rohl. I'm representing myself today. 25 I've worked for an international environmental organization that is studying this subject and has no national policy at this time. So please accept my remarks, gentlemen. They're made respectfully as a private citizen concerned about his state and the welfare of his climate.

I must wonder about city and county and state officials who I suspect may have not had ample time to respond to this hearing. The notice was made not quite too long ago. I don't know exactly how many days but I know even just my personal self, my busy schedule did not allow me to peruse the informational documents and I can only imagine the city, county and state tribunal officials had great difficulty in alloting time on such short notice.

And I must wonder also, my concept of freedom of speech does not include a time limit which this hearing obviously does.

I would like to enter into the record a quotation by Dr. Helen Caldicott, M.D.

"There is no safe amount of radioactive material or dose of radiation. Why? Because by virtue of the nature of biological damage done by radiation, it takes only one radioactive atom, one cell and one gene to initiate the cancer mutation cycle."

This plan must be halted for three distinct reasons if this process is to have validity. Quoting now

from the Information Document for the nomination of Yucca Mountain as a potential high-level waste repository, under PL 97-425, 1983, page five.

"The Nevada Test Site was selected for study in 1977 primarily because of its prior usage, prior usage in nuclear weapons testing."

This is not the case. Nuclear weapons testing continues at an accelerated rate at this site and is most likely given the larger budgets in this area to continue at a much increased rate. The idea or the concept that testing went on as a prior usage should be deleted from the document, this hearing and this concept of a high-level nuclear waste repository. It is boldly irresponsible to assume the two testing should coexist and provide—and I'm quoting from the document again—

"A site that will provide protection for the health and safety of the public and the environment."

This would be laughable if it were not actually being proposed at this hearing. Tectonic, seismic, geologic and hydrologic problems are not something I'm necessarily qualified to speak about, but I am qualified in my own studies to speak about the civilian and military separation of the use of nuclear power and waste as being abrogated in a very fundamental fashion.

Nuclear testing is definitely of a military nature. The idea of a peaceful atom is a conflict in terms-contradiction in terms. It is public knowledge also that plans for a breeder reactor to produce weapons grade plutonium is being considered at the same site. Such plans must be factored into any assessment.

This issue of the separation of the civilian and military uses of nuclear waste leads us directly to the second reason why this plan must be halted; suitability of the Department of Energy to conduct this assessment and accept responsibility for the protection of the public health and safety. The idea that the Department of Energy is conducting operations for the civilian good is fallacious and entirely without merit. Fully 57 percent of its budget is dedicated to weapons research. It is staffed by a plethora of bureaucrats retired from the military here in Nevada. Its primary and only goals are military related.

The Department of Energy continues to refuse to accept responsibility for the deaths of thousands and the genetic mutations of millions currently living and yet to be born from years of above-ground testing and venting during its early incarnation as the Atomic Energy Commission and its current status as the Department of Energy. The names have been changed and not necessarily to protect the innocent. Who are these victims? They are

infants, they are embryos, they are the elderly and they are all of us, every person in this room, every person in this city and every person on this planet.

A most recent example of the DOE's concern for the public welfare would be David Miller's reply to an inquiry from Citizen Call confirming the venting of Baneberry September 26, 1980. Many, many hours after it actually vented, "I don't know why you people are so concerned over safety. You all have chlorine in your back yards and gasoline in your garages," end quote, as if to equate these practices with the dangers of radiation to us all.

Rather than a servant of the people, the Department of Energy is quite obviously the servant of corporate utility and defense for the sake of continued profit at the expense of American lives and the human gene pool on this planet.

Quoting now from the book, "Killing Our Own" by Norman Soloman and Harvey Wasserman:

"Dosimetery badges are built around a special film designed to record gamma radiation, but other lethal forms of radiation escape the badges. A 1980 study by the Nuclear Regulatory Commission found that 80 percent of all radiation monitoring devices tested failed to come within

50 percent accuracy. The study involved a sample of 90 percent of the radiation dosimetery industry. When test badges were exposed to levels of radiation corresponding to a major nuclear accident, the extreme doses went undetected. The response by the Health Physics Society, which sets monitoring standards however was not to improve the technology but rather to relax the dosimetery standards making it easier for the industry to pass more tests. This information was gleaned from Performance Testing of Personnel Dosimetery Services, Report Of A Two-Year Pilot Study, October 1977, December 1979, NUREG/CR 1304."

The fact is that the history of the Department of Energy's mandate to protect the health and safety of the American public is a sad one of obfuscation and classification of pertinent data and technical information, coverup, misinformation, character assassination, stonewalling and lies.

Since the days of above-ground nuclear testing to Three Mile Island, this agency has served none other than itself. It has maintained a standard of irresponsibility unmatched by few in its relations with the public and press, state and local governments and tribal councils. It is imperative that our state,

city and county governments form councils and committees to oversee this entire process from beginning to end. It will be expensive and time-consuming and entirely necessary. Just as with the proposed siting of the MX missile system several years ago, it was the city, county and state that provided the most unbiased and realistic data as the Air Force attempted to wash its hands of charges manipulating the data.

In New Mexico where a similar project is underway, the relationship between the Department of Energy and the State has disintegrated to a flurry of Freedom of Information Act requests and we are likely to expect the same.

In fact, the siting of the entire operation was rotated from north to south after months of the State's insistence that hydrological data be obtained from an area where it was mysteriously absent. Such is a single case among many of local government's relations with the Department of Energy.

Regretably it is inevitable that this issue in this region is likely to be the same.

The siting of a high-level radioactive waste repository at Yucca Mountain deserves no further consideration unless, one, the Department of Energy is relieved of its responsibility or lack thereof in this manner and

be replaced by a civilian authority; two, the immediate halt of a military-related research at the site, in particular, nuclear weapons testing, planning for the future siting of a breeder reactor, especially in that it will be producing weapons grade plutonium.

Three, it is imperative that city, county, state and tribal governments be intimately involved in this process and that they be reimbursed for their expenses and time at the expense of the federal government which has foisted this project and responsibility for it upon them.

A fitting conclusion, the words of a great leader and humanitarian just a few months before his tragic death. Quoting now:

"The number of children and grandchildren with cancer in their bones, with leukemia in their blood or with poison in their lungs might seem statistically small to some, in comparison with natural hazards, but this is not a natural health hazard and it is not a statistical issue. The loss of even one human life or malformation of one baby, who may be born long after we are gone, should be of concern to us all. Our children and grandchildren are not merely statistics to which we can be indifferent."

President John F. Kennedy, July 1963.

Thank you.

MR. McBRIDE: For the record, do you want to make a comment on this? We have one more speaker. Do you want to make a comment later?

MR. VIETH: Yes.

MR. McBRIDE: Okay. Alice White.

MRS. WHITE: My name is Alice White, I'm speaking for myself. I'm employed by Martin "Fine" as a governess.

I'm here to protest this nuclear dump site for several reasons. First, it will be hauled over our highways and each and every one of us is in danger. Also we are dependent on tourists in this state. If we don't have tourism here, we're not going to have anything.

New Jersey is already giving us a good run for our money and by putting the nuclear dump site in here, we're finally signing our death warrants in this respect.

Also, I agree with Governor Bryan and Mr. Greenspun, our children's futures are in this. How many of you have gone to the schools, talked to the children, seen how they fear they are not going to grow up, that they're going to die of cancer, leukemia and every other horrible thing? Did you ever listen to them wake up at night screaming because they think they're going to die before they reach 21?

Gentlemen, talk to the children, listen to what the children are saying, then decide if you want to put this dump site in here.

Thank you.

MR. McBRIDE: Is Barbara Trees present?
We're a little ahead of time but since we don't have any speaker scheduled at this time, I'm going to recess the meeting at this point until two o'clock. We will stand in recess until some additional speakers have filed their intentions to speak or the last remaining speaker appears. So we will reconvene at two o'clock.

(Thereupon a lunch recess was taken, after which the following proceedings were had:)

MR. McBRIDE: I'd like to call this afternoon's session to order.

I do have two people left over from this morning assuming they are here. I understand there are some other individuals but hopefully at the end of this presentation we'll have time. Is Thomas Trotter here? He's the director of planning for Nye County. He's not here.

How about Barbara Trees? I believe I have a request.

MR. NELSON: I think there are some others

1 typed up or whatever.

MRS. JENKINS: There are three more that just came in.

MR. McBRIDE: I regret we're so far ahead of schedule because it does throw things out of order and people are not here. I mean, I'm appreciative of the fact that some presentations have been concise and it will certainly help us in preparing our report.

I also would like to announce that if any other members that are here that have spoken this morning feel that they did not have adequate time to address the subject, in view of the fact that we do have time in our schedule today, that if they will indicate at the desk they wish another ten minutes we'll entertain that request. I do ask that that comment please be germane to the issues that we have and that is pertaining to the site itself, pertaining to the environmental statement or pertaining to the site characterization plan.

So if there's anyone that feels they didn't have adequate time, would they please notify the desk and we'd be happy to schedule them.

How about Morris Greenburg, is he present?

MR. GREENBURG: Yes, I am.

MR. McBRIDE: Would you come forward, please, and introduce yourself and who you represent?

MR. GREENBURG: My name is Morris Greenburg and I'm a local resident here. When you just made--I wasn't here at this morning's session. When you made a statement pertaining to the site itself, do you mean as to the location in this area?

MR. McBRIDE: Yes, this particular site, not talking about other sites but this particular site.

MR. GREENBURG: Whether or not we want it in this area?

MR. McBRIDE: Yes, anything you want to say.

MR. GREENBURG: In noting the protests of the outcome of the missile burial sites in the past 15 years and the results thereof to certain areas in this country, it seems that the people responsible for choosing those sites are long gone and can no longer be held personally responsible in making it a strictly government issue which is long gone.

The only thing we have left are communities of people who have been crippled, who have been diseased and who have been killed all for the sake of this so-called progress, as you call it. The same thing pertains now to this particular area.

When the results of making this a burial site begin to show five, ten, 15 years hence, all of the governmental people who stand to profit from this particular

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job done will be long gone to their just rewards be it a villa in the Mediterranean or a ranch in Santa Barbara alongside Ronnie. One never knows, but the people who live here and suffer because of this will once again have to turn to a blank area looking for judgment for the injuries that are done to them and it's my personal opinion that these sites do not belong in Nevada so close to Las Vegas, so close to Reno, so close to any area populated here.

We've had enough of it here in the past 25 years and it's high time it was put out to where the people who are advocating this sort of thing have it in their neighborhoods instead of in Nevada.

That's all.

MR. McBRIDE: Thank you. I should say for anybody who has come in late who were not here this morning, this panel is not employees of the Department of Energy, we are a public panel. We are an objective panel. sole responsibility is to hear your side of the story, take those comments that you make and present them to the best of our ability in a report to the Department for their consideration of things that must be considered as representative of you as the citizens of the area. are not advocating. We're not employees of the Department, we're public citizens like you are. We're here to interpret

what you are saying and put it in a concise manner both of 1 2 what is said today and tomorrow in Reno. 3 MR. GREENBURG: May I add something? 4 understood from the article in the newspaper that mentioned 5 two names, Mr. Miller and a Mr. Vieth, would be here, in 6 the Review-Journal telling about this program. It was there 7 three days ago. 8 MR. NELSON: I believe that would be Mr. Vieth. 9 Mr. Vieth is in the front row in the red tie. Mr. Miller is the Director of Public Affairs for DOE's Las Vegas Office 10 11 and Mr. Chris West is here representing. 12 MR. GREENBURG: Mr. McBride, those are the 13 people I'm addressing my remarks to, not to the local 14 citizens. 15 MR. McBRIDE: Thank you. 16 We have a Robin Jenkins that wishes to speak. 17 Is Robin present? 18 MRS. JENKINS: Can you hear me? 19 MR. McBRIDE: You are going to have to pick 20 that mike up. 21 MRS. JENKINS: Like that? 22 MR. McBRIDE: Yes, that's fine. 23 MRS. JENKINS: Yes, my name is Robin Jenkins, 24 and I also will be making a few comments directed towards 25 I'm a free-lance journalist representing myself.

I also belong to several environmental groups.

I would like to say that the health danger that the American people face today because of the military nuclear lobby is so staggering that most Americans have chosen apathy and fear, but now they're waking up, they must wake up, because they are on the brink of death.

The Department of Energy must not make the mistake of thinking that Nevadans neither appreciate their land nor recognize the threat of nuclear poisoning to our life.

A grass roots movement is now underway among the people. It is making them aware of their responsibility to future generations. It will be impossible to turn Nevada into a nuclear dump because the people here know that the military/industrial complex is lying when it says that nuclear waste and nuclear bombs are harmless and necessary.

As an expectant mother, I speak for unborn generations. Take your weapons, take your nuclear wastes away! The forces of destruction and sheer madness of the military cannot overcome the great creative energy that will soon make itself heard in the voice of the people.

Again, I repeat, no nuclear dump site anywhere in Nevada; go away!

MR. McBRIDE: Thank you, Mrs. Jenkins.

Winona McDonald?

MRS. McDONALD: My name is Winona McDonald and I'm representing myself and I ask that there not be a nuclear waste repository here in Nevada. I think that the people of Nevada have suffered enough.

I've lived here since 1953 and at that time my husband, my son and my daughter and I used to watch the blasts go off and we used to drive up the road towards Tonopah and watch them from a hill up there.

Since then my husband is dying of lung cancer. I have had surgery for cancer; I am now being treated for bladder problems. My daughter has not been able to conceive and my son has fought Wagoner's granule anatosis for four years. They think they have a cure now, the doctors in the University Hospital in Tucson, but if so, he'll be the second person in the world that's ever been cured of this disease and they treat it with chemotherapy. It's a blood disease very similar to leukemia.

I think that my family has suffered enough and I'm sure that what's happened to us is caused from the bombs that used to go off and I don't want to see any grandchildren, because I do have an adopted grandson, and I don't want to see him go through what his mother, uncle and his grandparents have. And I hope that they can find some other way to dispose of this rather than putting it in Nevada.

Thank you.

MR. McBRIDE: Thank you, Mrs. McDonald.

Mr. Thomas Trotter? Barbara Trees?

MRS. TREES: My name is Barbara Trees and I'm here representing myself.

MR. McBRIDE: Could you pull that top microphone down like that? Thank you.

MRS. TREES: My name is Barbara Trees and
I'm here representing myself. I feel that I should mention
it's a shame that this meeting was called as a public
hearing at a time when most people are not available to
come to a public hearing; I think that's a real problem.
I think there are a lot of people who have a lot to say
about this issue.

After assurances that above-ground testing posed no threat to health and safety, government credibility is extremely low in Nevada. The safety records for toxic dumps elicits images of a Frankenstein monster which cannot be controlled by its creators.

The Nevada experience of toxic wastes as government priorities on nuclear matter is dismal and the fact that the government will override the will of the people on this dump site no matter what they say, does not indicate the policy of a democracy. I believe that the people of Nevada don't want this dump site here and we

feel--I feel very strongly that if we allow it, it will assist the government in perpetuating this toxic waste problem and if we do not accept the dump site, maybe it will make people rethink their priorities and we shouldn't have the dump site here.

Thank you.

MR. McBRIDE: Thank you, Mrs. Trees.

I would like to comment though in relation to your earlier statement. It is unfortunate it's hard to pick a time to suit everybody, particularly in a 24-hour town. But I want to make sure that you all understand that the document will be held open for any written comments until April 25th. So anyone that you know that wishes to make a statement, please submit it in writing and it will be part of this document.

MRS. TREES: Thank you, Mr. McBride.

MR. McBRIDE: Still waiting for Thomas

Trotter. Are there any other pending requests at the

desk, do you know, Mr. Nelson? Is Mr. Ted Wilson present
to speak?

Yes, go ahead.

MR. WILSON: My name is Ted Wilson and I'm representing myself.

This here atomic waste can be sealed off and I can seal it off. The only reason I came by here today, I

thought it was going to be college students here and I can tell them something to help them in their future generations. I could have sealed it off a long time ago but I learned one thing, they're not after sealing it off, it's a political issue. It can be moved here in the State of Nevada. It's just as safe as the lightbulbs up here. It doesn't make any difference and it has more rights to be in Nevada than any other states in this country because it is less populated and less agricultural.

The President has a right to put it in the State of Nevada and there's only one thing that can stop you from doing that is that waste itself. The waste must dictate itself whether it can be moved or whether it cannot be moved and waste must dictate itself whether it is safe or whether it is not safe to man, vegetation or life.

The answer is because the atomic energy does not give off waste and it's not harmful if it's handled right and it can be handled right.

I thought there was going to be some of the college students in here and I would tell them, but it's a political issue. It's still like it is.

Thank you very much.

MR. McBRIDE: I think one of the reasons the college students aren't here is because of the Easter break and they are all probably out on other activities.

Associated Reporters of Nevada

MR. WILSON: Thank you very much.

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MR. McBRIDE: Since I don't have any further requests, I'm going to declare a recess until I receive such a request. We'll be here. We'll stay here until such time as it's evident that no other presentations are going So we'll stand in recess until someone files to be made. a request at the desk.

> (Thereupon a recess was taken, after which the following proceedings were had:)

MR. McBRIDE: We're ready to go back in I understand that the long lost Mr. Trotter has been found and apparently he had car trouble so he just arrived, and I would like to ask him if he would make his presentation.

Mr. Trotter?

MR. TROTTER: Thank you.

Mr. Chairman and Panel, my name is Thomas Trotter, I am the Director of Planning for Nye County, Nevada. Our offices are located at the County seat, Tonopah, Nevada. The Nevada Test Site, the proposed Yucca Mountain repository site, and the surrounding land areas are under the Nye County Board of Commissioners and this department's jurisdiction.

The issue of the "proposed nomination as a repository" was discussed in an open public meeting with

the Board of Commissioners and it is their belief that insufficient information about the project has been generated to date to allow for a formal response. However, it is my task to suggest areas of study to be evaluated in the environmental assessment and site characterization process.

Nye County, Nevada, over an extended period of years, has enjoyed a cooperative, positive, businesslike relationship with the U. S. Department of Energy, Nevada Operations Office and its Nevada Test Site.

The Board of Commissioners and their administrative departments are optimistic that throughout the site selection and environmental assessment process, open dialogue and a mutual resolve to work cooperatively will exist. The inclusion of an elected County official on the hearing team is an ambitious step in the public review process. We commend this approach!

It should be noted, however, that some 93 percent of Nye County is under federal government control. Of that percentage, some 20 percent comprises the Nevada Test Site, the bombing and gunnery range.

Due to the Yucca Mountain site being wholly within D.O.E. controlled property, full public environmental scrutiny will in all probability not be possible.

Statements are made in the information document that the proposed action is not a major federal

action and does not require an environmental impact statement, however, an assessment is called for by the Nuclear
Waste Policy Act of 1982. The new law requires a procedure
for site selection that by design involves public hearings,
numerous review stages, environmental assessments, and
consultations with local and state officials.

In what stretch of the imagination does the creation of a permanent repository for in excess of 8,000 tons of high-level radioactive waste not become classed as a major federal action? Irrespective of that "quirk of law", major impacts upon this county and within the area will occur.

A construction work force for this project, estimating 3,000 to 5,000 temporary workers, with a permanent work force between 800-1,200 is likely to substantially impact the county. As you are well aware, northern Nye County has recently been seriously impacted by Anaconda's Nevada-Moly Project, with a construction force of 750 temporary workers, and 350 permanent work force.

Your project, some three times the size of the Moly Project, would more than strain county services.

Substantial costs will be incurred through the county's participation. Adequate and reasonable costs should be paid to the State and County for the purposes of planning for, and the mitigation of adverse social,

economic and environmental effects of the proposed actions upon the County and its residents.

The town of Beatty, and the settlements in Amargosa Valley are targeted as major growth centers in Nye County. Hydrologic aquifer resources will be the major source of domestic and agricultural water for these communities.

Potential radioactive contaminants suspended in the hydrologic underflow originating from Yucca Mountain, could jeopardize the health, safety and welfare of those residents living in these communities.

Additionally, a large master-planned community is proposed within the hydrologic basin supporting a projected 30 to 40 thousand population. Endangered species are located in the hydrological basin, totally dependent on the existence and maintenance of that aquifer. The relationship of aquifer dynamics and movement of radioactive particulates must clearly be resolved.

The Yucca Mountain and its surrounding area is highly mineralized. Active human intrusion is likely in the near future. Mining activities could displace aquifer and suspended radioactive materials.

The transportation of high-level nuclear wastes, either on-site or inter-site(s) is not addressed.

The contents of the information document

1 references situs performance requirements of the site 2 characterization process. Several of these topics will 3 be of particular importance to Nye County, and they are: 4 (a) Impacts of decision process with 5 respect to state and local laws; 6 The hydrology, especially surface-water/ 7 ground-waste disposition and chemical, biological and 8 ecological composition of adjacent water courses, as well 9 as flood protection measures; 10 Ground-water uses, specially regional 11 ground-water aguifers used for human activities; 12 Locations and distances to points of 13 surface-water use, all; 14 The value of the impact of the proposed (e) 15 action. 16 Your own "information document for the 17 proposed nomination of Yucca Mountain"...states that the 18 site characterization process and the report is, and I quote, 19 "an entirely new document", and with reference to geologic 20 disposal "there is no body of experience upon which to 21 draw requirements for a regulation". 22 It is our professional opinion that the 23 environmental impact assessment process, as described, is 24 incomplete and does not address topics which we now 25

respectfully request the D.O.E. to incorporate into the

assessment work program, and with my submission I have a two-page attachment.

Several of these I will verbalize on the record and the rest I'll submit in writing. Issues such as impacts upon work force, again, water supply, examine the effects of the proposed action upon the local labor force, the delivery of public services, public safety services, public protection needs such as police, fire, et cetera; public health needs, hospital, ambulance; public facilities, waste and refuse and so forth. It's our opinion that anything that has to do with the work force, related impacts have not been spoken to.

Setting aside all the technocratic language and expert testimony, the ultimate test will bear upon the findings that "there is reasonable assurance that there is no unreasonable risk to public health, safety and welfare."

With that I submit it. Thank you.

MR. McBRIDE: I have a question. I wonder if the County has-- You talked about socioeconomic impact. What would your position be in terms of say that you needed additional schools? Would you take the position that the government should provide for the operation or--

MR. TROTTER: We have not suggested that.

All I'm saying is that there are issues within the assessment

process that in our opinion have not been identified and 1 2 impacts will occur and we feel particularly strong that 3 the communities of Pahrump, Amargosa and Beatty would be 4 impacted by workers both on a temporary and a long-term 5 basis and these issues ought to be addressed. We've not 6 drawn any conclusions with respect to that. Thank you. 8 Any questions? MR. McBRIDE: 9 MR. TROTTER: Thank you. 10 MR. McBRIDE: Thank you, Mr. Trotter. 11 Next we have a request from a Mr. Brooks 12 that wanted to speak.

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MR. BROOKS: I'm not a public speaker and I'm a little nervous here. First of all, I'd like to thank you all for giving me the opportunity to speak here. If this were El Salvador, I don't think the citizens would be able to speak out like this.

First of all, I understand that the nuclear waste that would be going to the dump site or repository at the Test Site is going to be coming from existing power plant waste. As a possibility, might it be nuclear weapons waste?

MR McBRIDE: That report has not been reconciled yet.

MR. BROOKS: Possibly in the future it could

open up to nuclear-related weapons waste?

MR. VIETH: The Nuclear Waste Policy Act gives the military the option to make a decision whether or not they will build their own repository or send their waste for repository and I think they have two years to make that decision.

MR. BROOKS: Okay. I wondered. I won't talk about it now since first of all I don't think the Department of Energy should be dealing in any manner with nuclear weapons related waste at the disposal site. I think that should be a separate matter and addressed at a public meeting on weapons related waste so that the Department of Energy can address what kind of policies there should be in relation to that.

For the record, I'd like to say that as a citizen I don't want the dump in Nevada. That's not to say I want any of my neighbors to have it either. I understand it's up in the Appalatian Mountains and Kansas. I'm not sure I want any other countries to have it. I wouldn't want it sent to El Salvador, I wouldn't want it sent to Great Britain and basically I don't want it anywhere, past, present or future.

Of course, as far as the past and the present goes, it's pretty unrealistic, it exists. Something must be done for I think the future. My point is well-taken that

I don't want it and I think a lot of people around the world and Americans feel it's not wanted and why are we producing it?

In relation to nuclear power production, of course within the realm of production there are inherent wastes that come about and they need to be disposed of.

Over the last number of years—You probably know the figures better than I do. For that reason I'm pretty critical of nuclear power industry in general and the government's pushed it through the Department of Energy and before that the Department of Energy Nuclear Regulatory Commission pushed the power onto the people of the United States without letting the people know that there now, it's finally coming to the surface and what do we do about it.

It's too late to say I don't want it, because it's here. There's some things that maybe a lot of people don't know about when it comes to making nuclear power.

A lot of us are finding out there are ways to— There's a lot of—I don't have facts or figures but I have read that there are quite a few Navajo Indians who have died mining uranium to make into the stuff that makes nuclear power plants go. And a lot of other people have died from cancerous disease, and in processing plants around the country that make the stuff from the raw uranium to go into the nuclear power plants, people are dying of cancerous

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diseases. The industry is not fail-safe. There are dangers, there is a public threat to safety and health as we saw from Three Mile Island.

If Three Mile Island would have went off as it came close to doing, that area would be uninhabitable right now. That's a pretty heavy thought.

One fact that a lot of people don't consider is the commission cost to do every power plant. For the sake of example, say a nuclear power plant costs \$4 billion to build. That's a cost that's going to come to the people who pay and the power costs goes up as the power plant costs a lot of money to make.

In 20 or 30 years down the line when the nuclear power plant is not able to function any longer, what happens? We decommission the plant, another roughly \$4 billion usually. I think the cost judgment now is that it's about a hundred percent so it's the same cost on decommission as it is to build the plants, and then we have all the waste and that's the reason I'm here today, is we have the waste. What do we do with it?

For those reasons I think that nuclear power is not needed and in fact it's environmentally, economically and in terms of health a burden to society as a whole.

Any further production is unnecessary and in disregard to the well-being in this country and in the

world and the Department of Energy, I'm a little dismayed and frustrated. I know you all are working under the dictates of Ronald Reagan and his administration but it seems alternatives in energy aren't being talked about very much. There's a lot of funding cut: in those areas.

Conservation which is optimal is overlooked.

They're all environmentally safe and they create more jobs

per the private dollar than does nuclear power or coal or

oil generated power supplies. Why aren't we using them?

There's no waste involved, there's no problems, better jobs,

more economy.

Okay, my next thing I was going to address was the Department of Energy dealing with weapons. I've already talked about weapons waste. I think it should be a separate issue and of course it might need to be said that we have enough bombs already. I think it's been stated that we have enough bombs to kill the world over more than once. I don't know how many times I've heard the reports so we don't need more bombs.

I don't know if the Department of Energy is involved in bomb making or not. I don't know if waste from nuclear power plants-- Maybe you can answer this. Is there potential waste from nuclear power plants to be used in bomb making?

MR. McBRIDE: No.

MR. BROOKS: There's no potential?

MR. McBRIDE: At the present time that would take a reprocessing process which has not been approved as a method.

MR. BROOKS: So it's politically impossible?

MR. McBRIDE: No. There was at one time

in South Carolina a plant that was built to reprocess fuel

but that was going to be reused and that has since been

put on hold for the last--correct me if I'm wrong--several

years.

MR. VIETH: Since 1977.

MR. BROOKS: Okay, thank you.

Anyway, we're continuing the production of nuclear warheads at a number of three per day. It seems like a lot of bombs to be making these days, and a lot of tax dollars going to it and a lot of waste we'll have to deal with down the line later. And I guess I'm coming here today just to say that for the future it should stop. It's got to stop and as members of the Department of Energy, you have some say in the future of nuclear power and I just wanted you all to know as a citizen I feel that nuclear power is heading us in dangerous directions and there's not going to be a turnaround.

As we can see, there is no turnaround to deal with the waste.

Finally for the record, I'd just like to say no to the nuclear waste plant repository here in Nevada and I say no to nuclear power also because it creates the waste and creates the problems and it's going to create a lot more problems down the line. And also nuclear.

Thank you.

MR. McBRIDE: Thank you, Mr. Brooks. I would like to repeat since some of you are coming and going so bear with me who have been here all day that the panel sitting here are not members of D.O.E., we are public members that were asked to hold this to be sure that it was an open public hearing and to be sure to record all of your remarks in an objective manner and to prepare a report which will be submitted to the D.O.E., so I just wanted to preface my remarks with that.

MR. BROOKS: Thank you, sir.

MR. McBRIDE: Diane Farkas?

MRS. FARKAS: Good afternoon. My name is Diane Farkas and I am representing myself and my family. I've been a resident of Las Vegas for 17 years and I just have a couple of guick comments.

And one is that it's been my feeling over the years that whenever our government agencies go about allocating funds for improvement of our country, that they've always tried to be equitable and to disburse funds in an

equitable fashion throughout the country. Now, it seems to me that this same equality should be placed when it comes to distributing hazards, and last weekend on a local news program they made a statement that Nevada has ten times the incidents of cancer as the national average.

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Now, that comes to mean that we have already had our share. It may be some other situations should be warned for this kind of a potential health hazard. And along with that I would also hope that Las Vegas in particular is not looked at as some kind of a second-class city because of the poor image that we have in the media.

We are not passing through, we're not on our way to California to find a job, we're here because we want to live here, because we raise our children here and because this is our first choice and hope that it does not become a necessity to look to a second choice in order to preserve our health.

Thank you.

MR. McBRIDE: Thank you, Mrs. Farkas.

I would like to say for the record one more time that the job of this panel is to assemble all of your remarks both as given orally today here and in Reno and written comments, and the record will be open until the 25th of April for you to submit any further material you wish in writing to D.O.E. I believe you can get the address

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at the desk if you don't have it. Our task is to address the issues you raised here particularly as they relate to the site itself. Your comments are very frankly given.

Secondly, in the development of the environmental assessment document, which is the next step down the road, is to be sure that we have your comments on things that may or may not have been indicated in the material you have. You have things that concern you that should be addressed in that document as well as the site characterization plan which essentially is the plan in the development of the site in terms of exploratory and background information regarding the features that are proved acceptable or unacceptable. Those are the key issues that I wanted to remind you. If you don't give those orally, we encourage you to give them in writing so we have something substantial to work with.

Is there anyone else that we don't have a card or a request from that would like to speak at this Come on up and give your name and who you time? Yes? represent.

My name is Susanne Nounna MS. NOUNNA: and I'm the president of the Alpha Kappa Psi.

MR. McBRIDE: What was your last name?

MS. NOUNNA: Nounna, N-o-u-n-a. I'm the

president of the Alpha Kappa Psi. It's a coed business

group and I'm the president of the alumni chapter. We have about 220 members. We work closely with the college chapter here on campus. I've been hearing things all morning and the one thing I would like to say, there have been a lot of facts represented here today that seem to contradict each other.

Speaking for myself and all the members, I hope that before anybody makes a final recommendation, that they are satisfied with the contradictory facts, to not only their satisfaction but the satisfaction of the people that have raised them today.

DR. KRENKEL: Could you give us an example of something?

MS. NOUNNA: Yes. The gentleman from the D.O.E. said there was no minerals in the area of the mountain that anybody would want and somebody this afternoon, the gentleman from Nye County, said there was. I have about four in my notes, and I think that's significant.

If somebody in 25 years wanted to go up and find something, I think that could make a very substantial difference or say 150 years and there's a mineral they forgot, that could make a major difference.

MR. McBRIDE: Barbara Greenspun?

MRS. GREENSPUN: Good afternoon. I would just like to reiterate the words my husband spoke this

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morning and to submit to you the articles in the newspaper of yesterday's Las Vegas Sun and this morning's Las Vegas Sun and I would like to just hold my comments to what is contained in these articles.

Thank you.

Can I leave them with you?

MR. McBRIDE: You can just give them to the court reporter.

Is there anyone else in the room that would like to address the issue in question?

Give your name again.

MR. WILSON: Again, my name is Ted Wilson. I have nothing against politicians, I work with lots of them from Roosevelt down to now. But this atomic energy thing, the B-1, I designed that aircraft and that's why it's on the ground today. I told John F. Kennedy, you cannot fly a plane across the street, you couldn't put a safety device on it. That's why it's on the ground today because I designed the B-1, F-1 and the B-4 and I designed the aircraft for this government, but it was not designed for military purposes, it was designed for space purposes. I know this stuff and the energy crisis also, but I just wanted to say that I have nothing against policitians. But President Kennedy, what come out of his mouth, come out of my head. What come out of Bobby Kennedy's mouth, come

1 out of my head.

Seventy-five percent that come out of Nixon's mouth, came out of my head. I slipped out of the country and he called me eight months later to come back to this country. So when I said that, I don't mean I have anything against them.

Thank you.

MR. McBRIDE: Any other comments? Yes, ma'am, do you wish to come up and speak? One thing I would like to point out, I just want to indicate that since this has been posted that we will be available here 'til six o'clock since many people in this town work different hours, 24-hour town, we'll be here 'til six o'clock. So if anyone comes in, we'll hear them, and when we run out of speakers from time to time we will recess for a short period of time until someone indicates they want to speak. But we will be here 'til six o'clock, so if your friends come in at 4:30 or 5:00, we're going to be here.

Go ahead and indicate your name and who you represent.

GURU NAM KAUR KHALSA: Guru Nam Kaur Khalsa.

MR. McBRIDE: Could you repeat that?

GURU NAM KAUR KHALSA: I'll spell it.

G-u-r-u N-a-m K-a-u-r, last name is K-h-a-l-s-a, and I'm just not representing any organization at this time but

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simply as a citizen of Nevada. I was refraining from speaking for fear I might get too emotional about the subject. It's something that concerns me deeply as a citizen, as a future mother and homemaker in this town.

It's something that worries me greatly because I know there have been many sacrifices made in the sense of people who have been exposed to radiation, exposed to the dangerous particles of radiation, whatever; in experimental situations or in situations where they say it's safe, then later found that it wasn't found to be safe. And also I hear that so many of us people ended up not getting compensated after it was found that they were exposed, and I feel like there's a lack of responsibility of those involved in the whole nuclear process, the whole thing that goes on, and as far as the radioactive waste dump, it's just another one of those things I'm really worried about.

It's a very dangerous substance as we all know and, you know, I don't know that I could ever be guaranteed by anyone that it could be contained properly and that it would not get into the environment in some way, and I'm just very concerned about that and I hope there's going to be a lot of very good information given out and even still I'm going to be very apprehensive.

I hope one day that we can look to another

form of energy and I believe there are other forms of energy. 1 I think this is an energy that is something that should 2 have never been discovered in the first place. 3 frightening beyond my comprehension and I think that anybody 4 that has any consciousness feels that it is. And I hope 5 one day that we can come to our senses and recognize that 6 and really take steps to find another form of energy. 7 Meanwhile, I really don't want to see it 8 dumped here. I don't know, like the gentleman said, I 9 don't really want to see it dumped anywhere. 10 don't know what to do as far as what to do with this and 11 I just--I'm just saying that because I feel that way about 12 it. 13 14 Now, I feel like we shouldn't even continue going on processing it until we really have found a way of 15 either containing it or using it in some other way. 16 17 just seems irresponsible. Thank you very much for hearing me. 18 19 MR. McBRIDE: Thank you. We'll be in recess until 4:00 o'clock unless 20 21 someone wishes to speak before that time. 22 (Thereupon a recess was taken, after 23 which the following proceedings were 24 had:)

There has been some interest in

MR. WILSON:

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2 3 4 weren't here can see it. 5 6 7 MR. McBRIDE: 8 9 10 11 12 13 14 Sun's editorial." 15 16 17 to speak. 18 DR. BUTLER: 19 20 Las Vegas, Nevada. 21 22 typed out. 23 24

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seeing the film and the slides that we showed this morning for some people who weren't here this morning, so during the break now, Don Vieth is going to go through the slides again and we're going to show the film so that people who

> (Thereupon the aforementioned film and slides were again shown.)

I have a statement that I would like to read into the record that was submitted to me. individual indicated that they did not want to speak but they'd like to have this entered.

"I would like to make the comment that I agree with Governor Bryan and Hank Greenspun, Las Vegas

Signed Sandra Tiberti.

We have a request from Dr. Thorne Butler

Thank you, Mr. Chairman. My name is Thorne Butler and I live at 301 Park Way,

I do have a written statement that is being I'll submit that to you in the mail and I will try to express my thoughts extemporaneously and informally at this time.

The reason I decided to speak is for two

reasons. One is a 14-year experience as a member of the State Board of Health and Environmental Commission and dealing extensively with the problems in this state.

The second reason being is that I believe that the ability to generate electric power is probably based upon two fuel sources; one, nuclear, the other coal. Both have problems, no doubt about that, and that both have been environmental impacts that are serious consequences if not properly controlled.

Additionally, if you look at the characteristics of the storage of nuclear waste materials either from industrial sources or power generation from scientific studies other than what are classified as low-level versus high-level, and my criteria for that is low-level can be handled while high-level do require protection while we do generate heat.

During the process of my being a member of the State Board of Health and Environmental Commission, we were involved in the extensive discussion of the low-level Beatty site. I believe there were a period of two or three years I developed a minor expertise in low-level expertise and I have some understanding of high-level.

There are some characteristics of the NTS areas around it that would suggest and obviously have been considered by others that would be a reasonable source

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for storage of nuclear waste materials. I have visited other areas like Hanford and Barnwell in particular and know about the history of Sheffield, Illinois, which had serious environmental problems, the questioning of storing nuclear waste materials.

If you look at the information that's been accumulated on the geology and hydrology of the area of the NTS is that certainly there are many circumstances that make it an ideal site for long-term storage of waste materials. If you wish, there is an excellent article in the April issue of Science in 1980 which discussed the Sudan crater and its availability as a possible storage facility, but that article is an extensive review of that area.

Other studies have been conducted by a variety of people both private and public, predominantly public; U. S. Geological Surveys and others with similar background, and it would again suggest that it is a very stable area free of much hydrological contamination.

The site is highly isolated in the sense that it's far away from and has its own built-in security system which probably could be made in a variety of different forms to assure that long-term protection for human intrusion could be assured.

The available labor we happen to have locally

in this community understand the way of handling and controlling nuclear waste materials, so in some ways looking at it from that point of view, I feel strongly that probably the Nevada Test Site or its environs will be selected as one of the areas for storage of nuclear waste materials in a long period of time, particularly those from high-level materials from reactors using nuclear power generation. I don't think it's going to go away because there are many problems with coal burning and trying to set standards for various coal-burning plants in Nevada.

It's a difficult problem to scrub, and if you believe the problems of acid rain are really true, then why increase burning of coal no matter how hard you can scrub, and that's a very difficult problem. In the long run they'll prove possibly that costs come within the same range or we'll see an increase in the amount of nuclear power generation over the period of several decades.

I realize that there are two schools of thought in this area; those people who say all nuclear things are bad. Where on the other hand people who say nuclear materials and its uses are equivalent to motherhood and the Fourth of July, I believe it's somewhere in between. This is kind of a modified approach to handling these kind of materials, but obviously if we're going to have nuclear

materials, any kind, whether it is for scientific or industrial uses in which there are literally thousands of uses for these various materials, is we're going to have to have somewhere to dispose of them. We can't hide our head in the sand and say we can't do it. We're going to have to do it somewhere, so the real question comes down, can you do it in a way that will assure a proper protection of public health and individuals who are involved in the proper handling, storage and disposal of these materials.

I would hope that if Nevada is selected that somehow the NRC or others who are responsible will see to it that the State will take a more cooperative position and be involved in the decision-making processes of establishing the regulations that will control the handling of these materials from the generation to site to the transportation for ultimate disposal.

I think to hide away from that is an inappropriate action and I'm hoping that if the decision is made through whomever for whatever site, wherever they are, that they will somehow be able to assure and encourage local participation in the decision-making process to establish the regulations that will be utilized to control the proper disposal of these materials; otherwise, you end up with I think a dichotomy where you have one group doing

it over here from the government, the local community saying this is all bad and there are all kinds of problems. It becomes even a more difficult problem to handle. I think what we need is a more realistic approach so we'll understand what the real issues and problems are. I think as you look at the current times, the Beatty experience which I was involved with, I think what you see is a lot of rhetoric which is emotional which is not understanding, unwilling to listen and unwilling to be involved in the process.

I must admit that when the State of Nevada decided to become involved in nuclear waste disposal over 20 years ago, very few people had any idea of the various technical administrative and political problems that would exist in the future. But I think that experience has developed a lot of in-house expertise at all kinds of levels to understand how to do that, to assure that they are properly disposed of and so they can be protected away from human intrusion over a long period of time and the only way I think that will be accomplished is with participation of local and in our case the state community to see that that's going to happen. And the reason I feel that way about it in general is that because the site of the NTS seems to have all the criteria for an ideal site.

As I stated before, one, it's hydrologically and geologically stable and we have the ability in the labor

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pool who knows how to handle the work of these kind of materials.

I know there's also a tendency to confuse the storage of material from weapon testing and really they are two different subjects. I think everyone has a concern about nuclear weapons and their increased proliferation. But I think on the other side of the coin we have to have uses that are practical for nuclear materials and I think it is the problems of nuclear versus coal fuels where we become more intense as times go on. And certainly parts of our country will become more intense and the problems of trying to appropriately scrub our coal burning, it's so difficult, and also so expensive that the costs between development of coal burners versus nuclear fuel supply, nuclear power plants to each point where the decision will be basically environmental which is the more appropriate because of the economic costs in that.

In essence I would like to encourage that when the selection is made, I reemphasize what I said before, is that an attempt to get participation from state and local officials and community is necessary because I think only in that way will everyone understand what's being done and how the system will work.

Thank you very much.

MR. McBRIDE: Thank you, Dr. Butler.

1 Did we gain any other individuals since I 2 left the room that wish to speak? We still have about 3 another hour and eight minutes left. 4 MS. HUTH: Is this open for questions? 5 MR. McBRIDE: Would you come up, please? 6 Would you state your name and who you represent? 7 MS. HUTH: My name is Cynthia Huth and I 8 want to ask if it's open for questions. 9 MR. McBRIDE: Yes. Do you have a question? 10 MS. HUTH: Yes, I do since I missed the whole 11 I don't know what's going on since I was at work but 12 I did have a few questions that I would like to ask. 13 is if we have a high-level nuclear waste dump here in Nevada, 14 would we be reimbursed in any way because of it? 15 MR. McBRIDE: Well, that's a question that 16 has to be considered I think in terms of socioeconomic impact 17 which is one of the criteria that is going to be addressed. 18 MS. HUTH: Also, it was my understanding 19 from what I heard around town that they were going to put 20 it up on the Atomic Commission's land; is that correct? 21 MR. McBRIDE: Don, would you like to address 22 that? 23 MR. VIETH: This decision about the repository 24 location has not been made until 1987. The site we're 25 investigating here in Nevada is on the boundary between the

Nevada Test Site and the Nellis bombing and gunnery range, a section of land still maintained by the Bureau of Land Management, so it's in the southwest corner of the Nevada Test Site.

MS. HUTH: Also, I'd like to know, if that area is being considered, is there some type of—I'm sure there is safety factors involved since they also have bombs that they put out up there and I'd like to know what type of safety factors that are involved so that when they do testing of atomic bombs it doesn't open up nuclear waste.

MR. McBRIDE: Well, I assume you've got a copy of this document.

MS. HUTH: No, I don't.

MR. McBRIDE: What you need to do is stop out there at the desk and collect some of these materials because I think a lot of that is answered in there.

A VOICE FROM THE AUDIENCE: They're gone.

MR. McBRIDE: If you will leave your name and address, we'll get you one.

MR. VIETH: If you leave your name and address, we'll make sure you get one.

MR. McBRIDE: The document describes the location of the site, the purpose of the hearing here that we're involved in, and we are public members, we're not

members of the D.O.E. Our purpose is to get from the public their comments regarding, one, the site itself; secondly, information in terms of the environmental assessments that will have to be done related to that particular site; and, thirdly, what they call a site characterization plan which essentially involves the investigations that are going to take place to explore the geological and hydrological character of this particular area.

So what we're here for today is to get input from the public indicating what they feel should be considered in this process. There will be further hearings either—I guess it's before or after the environmental assessment plans develop.

Jim?

MR. FIORE: I think there are plans and discussions right now to have a hearing on a draft environmental assessment prior to the final one being made public.

MR. McBRIDE: So the process is a long way down the road. What we're trying to get now is initial input into these three areas, so I think you really need to get this document and go over it and I want to indicate we'll get that to you as soon as we can. You have until April 25th. It will tell you where to address your remarks to file a written statement so you are not cut out of the

1 Okay? process. 2 Okay. Thank you very much. MS. HUTH: 3 Thank you. MR. McBRIDE: 4 MS. KEESE: Reimbursed for what? 5 MR. McBRIDE: It's not a question of 6 reimbursing, the question is if there is an impact in 7 terms of roads, rail lines, schools, sewers, what's the 8 responsibility between the federal government and its 9 impact like it does around military installations. 10 I don't know how it will be worked out but those will 11 be considered in the process if the site is selected. 12 I'm sure they'll be--13 MS. KEESE: I don't understand that at all. 14 Could you clarify that a little bit? You spoke of reimburse-15 If you want to build a school, you pay somebody to ment. 16 build a school? 17 MR. McBRIDE: No. 18 What are you speaking about when MS. KEESE: 19 You asked what would be reimbursed. you say reimbursement? 20 Reimbursed for what? 21 MS. HUTH: Would you like me to answer that? 22 MR. McBRIDE: I don't want to get into 23 dialogue between you two. We're here to try to keep a 24 straight record. 25

I'd like to know what she was

MS. KEESE:

1 speaking about.

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MR. McBRIDE: We'll let a representative from the D.O.E. address that.

MR. VIETH: The term reimbursement is maybe The federal government has a term that's not a correct term. used in terms of payment in lieu of taxes. State people can raise questions as to whether or not they would be appropriately compensated by the federal government for having a federal facility in a given area that requires support from the local communities in terms of the education for the people working there and so on. Servicing or working in a facility that pays no taxes, federal facilities do not generally pay taxes within the local community like if a facility was run by Westinghouse, Westinghouse can be taxed on the products they produce and so on to provide a financial basis for the community.

People have raised questions about the federal government operating facilities because as a government they cannot be taxed by local, state or communities for the product or the service that they place, yet the county or the state is still responsible for providing services to the people that work at the facilities. Now, the federal government and the Congress of the United States has recognized that that's a problem and they've tried to establish a process of reimbursement to the local

community called payments in lieu of taxes that tried to reconcile some of these factors that they know have to be taken care of.

I think if I might take the liberty of interpreting is what she meant but I think that's the thing that she was getting at. The question has been raised numerous times in the same kind of language and that's what people wanted to get out of the federal government, help out the local communities in the areas of the facilities they operate. And so that is something that is determined by the policy of the Executive Branch by the position of the Legislature, that is, the Congress of the United States.

I think the Congress and the Nuclear Waste Policy Act recognizes this and has made sure that in the process of consultation to state that those are viable questions that need to be addressed and some compensation worked out between the state and the federal government so it's an active thing that we're concerned about and that will be dealt with.

MS. KEESE: Is this standard operating procedure for most government projects?

MR. VIETH: That is standard operating procedures and in some cases the jobs are associated with the federal facilities, therefore, the demand they make is

fairly low. In other cases they take a fairly aggressive 2 stand. So it's something we'll have to find out how the State of Nevada, Nye County, will address those kinds of 3 things they would want assistance from the federal 4 5 government on. MS. KEESE: Thank you. 6 7 MR. McBRIDE: Any other comments? We'll be around 'til six o'clock. 8 9 Thank you. 10 (Thereupon a recess was taken, after 11 which the following proceedings were 12 had:) 13 MR. McBRIDE: Are there any additional individuals that wish to speak? If not, I will declare 14 15 our part finished and turn the proceedings back over to 16 Mr. Nelson. 17 MR. NELSON: I'd like to thank everybody 18 that's helped or participated or made comments, those that 19 are still here. And since it's six o'clock, we will 20 declare the meeting closed. 21 (Thereupon at six o'clock p.m. the 22 hearing was concluded.) 23 24 25

CERTIFICATE OF REPORTER

STATE OF NEVADA)
. ss
COUNTY OF CLARK)

I, Kathleen J. Heard, certified shorthand reporter, do hereby certify that I took down in shorthand (Stenotype) all of the proceedings had in the before-entitled matter at the time and place indicated and that thereafter said shorthand notes were transcribed into typewriting at and under my direction and supervision and the foregoing transcript constitutes a full, true and accurate record of the proceedings had.

my hand this _____ day of April, 1983.

KATHLEEN J. HEARD, C.S.R.

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	Hard V Wyrran B. Coughtry BEHAR Howes So. y Treichel Yorland	B. Coughtry Self BEHAR COW Houses In. Nons. y Treichel self. Yorlan self	B. Coughtry 5elf 3165 & Rochelle Jao Vegas NV BEHAR COW 3940 algraguin an., #186 12. No. 89109 Howes de. Nons. 1600 No. Sièrio Revo- y Ireichel self. 4491 Balsam J. V. Yorden self 6233 W. WASHINGTON Z.V.	B. Coughtry Self 3165 & Rochelle 300 Vegas NV 3940 algorigui 2n., #186 L. N. NV. 89109 Haues In. Nons. 4491 Balsam J. V. Yorkel self 6233 W. WASHINGTON Z.V.	B. Coughty Self 3165 & Rochelle Jas Vigas NV BEHAR COW 3940 algenquin an., #186 L. N. NV. 89109 Hows In. Nons. No. Siero Row- y Ireichel self. 4491 Balsam J. V. Yorle self 6233 W. WASHINGTON Z.V.	B. Coughtry Self 3165 & Rochelle Jao Vigas NV BEHAR COW 3940 algraguin 2n., #186 L. Nows. 89109 Hawes In. Nows. 1600 No. Siero Rovo- y Treichel self. 4491 Balsam J. V. V. Yorle self 6233 W. WASHINGTON Z.V.	B. Coughty Self 3165 & Rochelle BEHAR COW 3940 algraguin 2n., #186 L. V. NV. 89109 Haves In. Nows. 1600 No. Sières Revo- y Treichel self 6233 W. WASHINGTON Z.V.

Las Vegas, Nevada March 30, 1983

	PLEAS	SE PRINT	PLEASE P	RINT				
	NAME	ORGANIZATION	ADDRESS	SPEA				RITTEN TEXT
)	Sun 2MM Least	Repul/ken Part	3720 Industrial Road. LY, NV	Yes	No	Yos	No	Received by
)	Sw. 41 hre	DEPT. ELERGY			X		×	
	Mary Brawer		1662 & Lake Mead Blue Lu					
	ablter & Lonbardo		4728 Elm ave Lo Vegas		4		X	
	Levald E. Stark							
)	TRA H. LINDSEY	NEVADA POWER CO.	W. SAHARA, LAS VECAS, NV		X		X	
,	Myma Welliams	Thevale Cetager	3441 Slowy Way LV 89109	•	X		X	
	Oken Dye	Claile County	225 Budger Ave 89/01		X		X	
. (Burbabase	tonopold thes	<i>O</i>		\times			
	Rich Ivas	Oan Self	#235 1555 E Rochelle		X			
9	Roxane Henry	//						

Las Vegas, Nevada March 30, 1983

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NAME	ORGANIZATION	ADDRESS	SPEA	AKER	SUBMITTING V		RITTEN TEXT		
		7001133	Yes	No	Yes	No	Received by		
Thomas P. O'Farrell	EG+6/Santo Barbaro Ops.	611 AVE. H BOULDER (177, N 8900)		X		X			
WARREN R. REHFELIT	U.S. NUCLEAR REGULATORY COMM	WASHINGTON, D.C.		X		X			
DON CARREL	ROCKWELL HANFORD OPERATIONS			X		X			
Michael Daus	City of (AS VERAS	KOD E STEWART 89101		X		X			
Mary Genus	DOE - NNWSI			X		X			
ANN A. ZORN	LEAGRE OF NUMEN VOICES	1591 GABRIGE DR LU 89189	Х				:		
R.W Taft	USDOE	Nev. Opres Ofa		×		义			
Kanneth RRyck man	Clock Country W	6665 W Gary Ave LV 89118		X		X			
Glenn W. antum	Prince extigen	2971 LAS CASITAS WAY LAS VECAS NEV 89121		X		×			
Michael Esparth	Science Application toc.	27.69 So. Highland		X		X			

Las Vegas, Nevada March 30, 1983

	PLEASE PRINT		PLEASE F	PRINT										
	NAME	ORGANIZATION	ADDRESS	SPEA	AKER	SUBMIT	TING WI	RITTEN TEXT						
	NAME	O NO ANIZATION	Abbress	Yes	No	Yes	No	Received by						
	Daniel D. Bogden	USAF	2800 S. Eastern #109 Las Vegas, W		+		X							
,	L. Skouser	Sdf,	1617 BluesTone Dr.		X		X							
	Kilds	Garanas Office	CarsaCity		X		+							
	& Leenar	. //	4767 E. Weltu LV			×		Dy						
	Sarbara Trees	concerned citizen	3062 Palmdale St. LV 89121	X		χ		Du						
	Martin Misson	DNI	Elsoo Tropicina LU		1		¥							
	Atof Elzoftamy	URS	820 Racho Lacy LV		×		X							
	Tim Dahl berg	AP	IIII W BOACUTOR		×									
J	BENAY STOOT OFFICE	U.S. Den. Chie Healt			X		X							
•	WMNowpron		1937 Caballero LV 89109		Y		4							

Las Vegas, Nevada March 30, 1983

PLEASE PRINT PLEASE PRIN			PRINT			No Received by						
NAME	ORGANIZATION	ADDRESS	SPEAKER		SUBMITTING W		VRITTEN TEXT					
HAME	OROGINEATION	ADDRESS	Yes	No	Yes	No	Received by					
Rich Boron		6208 Dayton Ave		X								
LAN THOMPSON	SELF	P.O. Buy 70883 LAS VEGAS 89170	-									
BHAGWAN SINGH	UNLV.	2085 PALORA AVE, LV 89109		x								
STEVE SHORE	CHANNEL 8			ォ		x						
Steinsteam	Ruth Dais	LV 89129	х	X	Х		Du					
18 Johnson	Las Vegas sum	121 Staghland		X		X						
Doe ne Carlly	1CMJJ	35 W. HACKENDA		X	-	X						
D. Oldan	Resne o.	P.O. Box 14 400		X		X						
Tolet H. Balliser	ARCO	DENVER COLORADO		7.		X						
Shark R. Ewans	PORTLAND CEMENT ASSOC.	LAS YEGAS NV		X		\checkmark	arcon and another the second					

Las Vegas, Nevada March 30, 1983

PLEASE PRINT PLEASE F											
NAME	ORGANIZATION	ADDRESS	SPEA	KER	SUBMIT	TING W	RITTEN TEXT				
			Yes	No	Yes	No	Received by				
M. Rosoff	citizen	4613 L. VBl SO. LV 89/19		×		×					
W. G. Hurley	suf			χ		X					
aleda Nelson	Mat'l Conference	4220 S. Manyland Parkwat 210		X		X					
Frlyn Ellwarge	pel	1515 E Reno 20108 40 89119		/		X	8				
Quanne Rome	Sell	1733 Bonita 89/04		X		X					
Michael Schumaches	Amnesty Thtenshioud	4438 Newson Ci. 89109		X		+					
ete Christiansen	self	4320 Mavecrest 89108		Х		X					
Phil STout	Ser. Sucht frie	601 Barren C+ Hen 89015		X		X					
De roice Schwort	V	525 E St 20412 89104		X	7	X					
Paul L. Aamodt	Los Alamos Natl Lab	Los Alamos NM		X		X					

ENVIRONMENTAL ASSESSMENT FOR NEVADA SITE CHARACTERIZATION Las Vegas, Nevada

March 30, 1983

REGISTRATION

PLEASE PRINT PLEASE										
NAME	ORGANIZATION	ADDRESS	SPE	AKER			SILLEN LEXT			
			Yes	No	Yes	No	Received by			
Ar + Mrs E. M. Southett		3165 S. Batavia, L. V. 89102		~		-				
Jan Waters	Cert	2898 Pacific Ave 89121		ن		V				
PatJanBetten	mij.	1953 Parocha 89121				~				
Canol Sevens	suff.	1364 Paune 12. 89109		V		ν				
R. B. LAND	REECO	P.O. Box 14400 89114		4		e:				
alien Make	Ine news	3481 Jeunel Come De 89122	V							
Nate Coper	Desert Kesench Institute	601 Over/and Drive, Henderson N 89015		V		/				
Mauran Gruck	self.	1865 & ROXFORD DV LV Norm		/		/				
Winona Mellona	Let	45/8 Dover PL. Lv 89107		V	V					
June & Ree	2 jeg/	829 Franklin Que IV		v		L				

Las Vegas, Nevada March 30, 1983

PLEASE PRINT PLEASE PR			RINT						
NAME	ORGANIZATION	ADDRESS	SPEAKER		SUBMITTING WI		RITIEN TEXT		
	OROGINIZATION	ADDRESS	Yes	No	Yes	No	Received by		
Mary Kr. Cowan	sef	1808 Buch ft. 89102		V		L			
Ina X. McCoven	self	P.O. Box 14224 87114	V	DE .					
Id Willson	sell.	400. 70 NVSH 327		7		1			
Dan Dyers	CCSD	2832 E. Flamingo Rd. V.V.		V		/			
Susan Fine	sey	18 Quail X Sollow, Leaders try			V				
Dennis Brooks	Se/f	4000 Vegas de LV NV	\checkmark						
Zun Nam Kaur Khalsa	Ato foundation	1201 Greenway M. LU. 110 Phil) 	V		V.			
Catherine Bayley	self	7201 John Glenn Gr L.V. W.		V		/			
THOMAS TROTTER	NYE COUNTY	P.O. BOX 688 TONOPAH	/		V				
ALICE GOLDBERG	HADASSAH, PROSIDENT-	3151 SUNDOWN DR. Sylog	#	- 2		L			

Las Vegas, Nevada March 30, 1983

PLEASE PRINT		PLEASE F	PRINT	AKER SUBMITTING WRITTEN TEXT No Yes No Received by							
NAME	ORGANIZATION	ADDRESS	SPEAKER		SUBMITTING W		VRITTEN TEXT				
HOME	ORGÁNIZATION	ADDRESS	Yes	No	Yes	No	Received by				
Ecchoso Jeen fu	Sect.	3111 Bel Q'I Brine									
Herb Lilling	Self	2009 Las Flores Los Vogas NV				V	an waganaan a sama'a kaasa ka saa ayaa ah anaa				
Havard Smith	SELF.	6308 DAYTON AUE, L.V., NV			~		2 er				
Land Jos Feberti	Self.	4588 Coachman Cin J.V.		1							
Joan Lucy Leegel	Leges Vingeities	PU BOD 146 14 LV NU SAILY		/		✓					
Cathy Cax	Self	4383 Garland Court L.V. 89121									
Muriel Heners	relf	110 to Rauchs Pleatico		V		/					
Evelyn Frot	Rief	3111 Bej-au Dr.		V		/					
Alorene Schulsper	seef	3111 Bellin Mi		V		v					
Rita Bliss	silf	324 Parkway West L.V.		V		V					
	/										

Las Vegas, Nevada March 30, 1983

PLEAS	SE PRINT	PLEASE I	RINT								
NAME	ORGANIZATION	ADDRESS	SPEAKER		SUBMITTING WE		RITTEN TEXT				
TYAME	OKO ŽIME ANOM	ADDRESS	Yes	No	Yes	No	Received by				
Storne J. Butler	5011	301 Parkway F 89106	X		X						
Line Kuss	N	4020 Grand Plans LJ 89124		M		X					
Colott Carley	DOE.	2900 & CAMINO NO #27 LOS VOGAS P9102 3968 Calle Minador		X		X					
Cynthia Orting	REECO / DOE	2968 Calle Minador Las Vegas, Nevada 89103		X		X					
Glieben Lilian	Self	Las Vegas, Nevada 89103 1611 So: 6ih Las Vegas, Nev.		X		X					
Canther Stuth	Sith	6224 Katella, LV 89118		~		_					
				·			The second secon				