I hereby certify that these documents reflect a true read of the proceedings held before me in Las Veges, Nevada, on March 21, 1989.

Lamord Mills Esq.

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Reported by: Barbara Shavalier, CSR #84 and
Anna Maria Ciarrocchi, CSR #188

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1	APPEARANCES:	
2	SCP Hearing Panel:	CARL P. GERTZ, Project Manager/Presiding Officer
3		U.S. Department of Energy, Yucca Mountain Project
4		Yucca Mountain Project P.O. Box 98518
5		Las Vegas, Nevada 89193-8518
6		LAMOND R. MILLS, ESQ. Moderator
7		Mills, Gibson & Waite 825 Clark Avenue
8		Las Vegas, Nevada 89101
9		JEAN YOUNKER, Senior Staff Geologist
10		Science Applications International Corporation
11		101 Convention Center Drive Suite 407
12		Las Vegas, Nevada 89109
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MR. GERTZ: Good afternoon. On behalf of the Department of Energy and the Yucca Mountain project I'd like to welcome you all here this afternoon. I appreciate your attendance. My name is Carl Gertz. I'm the manager of the Yucca Mountain Project office. I will be the Department of Energy's presiding official for today's hearings on the Yucca Mountain Site Characterization Plan.

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This plan describes the U.S. Department of Energy's plans for characterization of Yucca Mountain, Nevada to determine its suitability for a nuclear waste repository. For the record, this hearing is convened at approximately two p.m. on March 21st, 1989 at the Aladdin Hotel in the City of Las Vegas. The hearing was noticed in the federal register on Friday, December 30th as well as being advertised widely in local newspapers. Notices were also sent to public mailing lists and the news media were notified.

We are here today to receive your comments on the Site Characterization Plan. The Department of Energy has prepared this document as a plan to guide the detailed scientific studies which will be conducted at Yucca Mountain during the next five to seven years.

The SCP, Site Characterization Plan is a living document. It will be updated and modified as more is learned about the geologic, hydrologic and climatological conditions at the site. These changes will be compiled into SCP progress reports which will be issued semiannually to the NRC, Nuclear Regulatory Commission, the State of Nevada and the public.

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The first SCP progress report is due to be published this summer.

In addition to comments that you make this afternoon, written comments on DOE site characterization plans may be made at any time during the next five to seven years. These comments may be sent to the Yucca Mountain Project Office, U.S. Department of Energy, Post Office Box 98518, Las Vegas, Nevada, 89193-8518.

Both oral and written comments will receive the same consideration.

At about the same time the SCP progress reports are issued, DOE will issue comment response packages. These will contain responses to the comments on the SCP that you make this afternoon and any written SCP comments that are submitted.

This includes comments made by the public, by the State of Nevada, by the Nuclear

Regulatory Commission and other interested parties.

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originally April 15th was a deadline set for the close of the initial SCP comment period. At the request of Governor Miller, this deadline has now been extended to June 1st. Let me emphasize, however, that comments on DOE site characterization studies or activities received after June 1st will be considered by DOE and will receive responses at a later date.

Last month DOE held a series of project update meetings. These meetings were designed to provide the public information about the project that the public told us they wanted to hear. Those meetings were intended to furnish you with information. This afternoon we are looking for information from you. Notice of both the project update meetings and the SCP hearings was widely advertised in local newspapers was printed in the federal register.

In addition, public mailing lists and the media were notified.

In a few moments I will introduce the moderator of today's hearing. The moderator is an individual with experience in chairing public proceedings and he is not a DOE employee. He will

conduct the hearing, calling on speakers and closely following the presentations. He will also certify the record of the hearing.

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Also here this afternoon is a technical expert who will listen to the presentations and who along with myself may ask clarifying questions in order to make sure that the record fully reflects your comments.

All comments made here today are being recorded by a professional court reporter and will be transcribed. The transcript on the hearings will be made available as soon as possible after it is prepared in local libraries. A list of these libraries is available at the door. And anyone wishing to purchase a copy of the transcript can make arrangements with the hearing reporter during breaks or after the hearing.

Now, I would like to introduce the technical representative of the panel this afternoon.

Jean Younker on my right, a Yucca Mountain project geologist had a major role in development of the SCP. She worked with about 300 scientists and engineers to develop plans to obtain data to assess the suitability of Yucca Mountain for a high level waste repository. She is a former university professor and

has a doctorate degree in geology.

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At this point I would like to introduce today's moderator, Lamond Mills on my left, a former U.S. attorney in Southern Nevada who is now in private practice in Las Vegas. He has experience in conducting public proceedings.

As I said earlier, he is here to conduct the meeting, call on speakers and follow the presentations. I will now turn the hearing over to him. Lamond.

MR. MILLS: Thank you, Carl.

Let me just take a brief moment to review how the proceedings are going to go today so that we all know the rules.

As you are aware, each speaker is given ten minutes to talk. After eight minutes, I'll hold up two fingers indicating the amount of time that you have left and then when your ten minutes are concluded, I'll simply hold up my hand as this.

Everyone here has an opportunity to sign up and speak. Many of you have signed up in advance and we will call you first. It's been our experience, however, that most of you will not take a full ten minutes and so at some point we will get ahead of our schedule. At that point we will infuse

into our schedule those speakers who have signed up but have not yet been given a specific time in which to speak. It's our goal to, as I indicated to have everyone to speak.

Some of you will be speaking from notes.

The panel wants those to be part of the record so when you are concluded, if you will give them to the court reporter, we would appreciate it.

If you want to keep those notes, we have provided for a copy machine outside and they will make a copy so that you can keep your notes and provide the original to us.

State your name clearly. It's important that for our record--and I, from time to time, may mispronounce your name, and I apologize for that, but if you will state your name clearly when you come forward, we'd appreciate it.

Please speak one at a time. This court reporter has indicated that taking it down it is important that we get for the record your comments.

Now, you are going to be called in order. As I indicated, the only exception will be we have several public officials here who represent all of us and in accommodation to them we will be calling on them either at first or out of order for that

exception.

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with you. They are here to listen. And the only questions that may be asked will occasionally a panel member might ask a question of one of you for clarification purposes only such as the source of your information or something of that nature to help them in their study and as they put the reports and answer the questions that are raised.

Thank you for coming. Again, feel free to take the opportunity to speak by signing up.

Our first speaker will be the governor of the State of Nevada, our Governor Bob Miller.

MR. MILLER: Thank you. For the record my name is Bob Miller and I am the acting governor of the State of Nevada, and I appreciate the opportunity to be here before you this afternoon.

This month's issue of Discover Magazine includes an article on the proposed level, excuse me, high level radioactive nuclear waste repository at Yucca Mountain. The article is entitled A Nuclear Dump, The Experiment Begins.

One of the nation's leading scientific magazines even at this late date still refers to the Yucca Mountain plan as an experiment.

You would think that by now after congress has unjustly isolated Nevada and is attempting to force this state into accepting something that it doesn't want that the project would be more than an experiment. Discover points out that that 17 scientists and engineers involved in the effort refer to the Yucca Mountain project as a, quote, mess, end quote.

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In a letter, the scientists state that "In subjugating the technical program to satisfy

Department of Energy political objectives, we may succeed in making the program comply with regulations while being scientifically indefensible."

There is simply too many uncertainties with the site at Yucca Mountain, too many potential hazards.

Yucca Mountain does not stand up to scientific tests. There have been eight major earthquakes within 250 miles of the site since that region was settled in the mid 1800's.

That fact alone is enough to shake the convictions of credible scientists.

According to this Discover article, a University of New Mexico geologist said that his research for the DOE reveals that the Lathrop Wells

Volcano, only 12 miles from Yucca Mountain, is fewer than 20,000 years old, not 300,000 as previously believed, increasing the likelihood of another eruption.

Even Mr. Gertz, it quotes yourself as director of the Yucca Mountain study as conceding in the magazine that an earthquake could be "devastating" to the above ground facilities where the waste would be delivered and prepared for burial.

Any leakage at the Yucca Mountain site which volcanic activity could cause threatens to contaminate the ground water. Water is, of course, a precious commodity in the desert. Sadly 124 of 127 DOE facilities that handle waste have leaked radioactive material into the ground water.

The Discover article highlights the danger associated with ground water contamination.

Jerry Szymanski, a DOE physical scientist has concluded that the region around Yucca Mountain is experiencing geological activity that cause the volcanic rock to contract and expand. Szymanski says this may cause a large shift in the depth of the regions aquifer and push the water table up 1,000 feet. If true, the article says a Yucca Mountain repository could be flooded.

Only three DOE waste facilities out of 127 have averted that potential so far. The remainder have leaked. Are all of those sites experiments as well? That kind of track record, well over 90 percent of the facilities have not met the standards, won't cut it here in Nevada.

The transporting of nuclear waste presents another major concern.

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According to plans, ten truckloads a day every day for 30 years will traverse our state from more than 100 power plants across the country. These trucks will pass through our major metropolitan areas on highways not built to handle that size of cargo. Remember that 90 percent of the waste targeted for Yucca Mountain comes from east of the Mississippi River.

without question the potential for a major accident is very real, and as far as I am concerned, the health and safety of Nevadans is too important to be treated as an experiment.

warned not to move too quickly with dumping high level radioactive waste in the great basin. The Chairman of the National Academy of Sciences Board on Radioactive Waste Management wrote to the DOE nearly

ten years ago to the day with the conclusion that, quote, that the explorations and investigations be conducted in a logical sequence so as to assure that certain fundamental questions are addressed first before major resources are committed.

The fact is that there has been no logical sequence to the DOE's exploration. Billions of taxpayers' dollars have been spent so far, and before it's over the cost could exceed 30 billion.

A week before the National Academy letter, still in 1979, General Mahlon E. Gates, manager of the Nevada Test Site, wrote another letter to the DOE. The general said that Nevada officials should be included in any plan to build a facility outside of the Nevada Test Site boundaries.

The general wrote, quote, no decision to proceed can be made before there is a complete understanding and a basic agreement on the work to be done.

Ten years later as the DOE explores the possibility of placing a repository off Test Site grounds. There is still no understanding and no basic agreement between state officials and the DOE.

In fact, the Nevada Assembly recently passed two resolutions that sent a strong unified and

unequivocal messages to Washington, D.C. that Nevadans don't want this dump.

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Nevada citizens have also been outspoken. 74 percent of the people living in this state believe that Nevada should be kept free at all costs of a nuclear repository.

The DOE's inability to follow federal government dictates from a decade ago are further evidence, at least to Nevadans, that an effort to find a burial ground for this country's nuclear waste is being rushed. Nevada has been chosen and the project is moving too quickly because of political, not scientific considerations. The fear in Nevada is that health and safety are being overlooked.

Nevada's faith in the DOE is eroding. The truth is, we in this state are very skeptical when the DOE says it will objectively conduct scientific tests to evaluate whether Yucca Mountain has the potential to store safely more than 70,000 metric tons of radioactive waste for 10,000 years.

It is up to us here in Nevada to vigorously exercise our duty in overseeing the DOE's programs and plan.

Congress has knowingly circumvented the progress of public involvement in major federal decision making. No opportunity was provided for formal public comment in the decision that resulted in the DOE study of Yucca Mountain as the nation's only candidate for a dump.

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The DOE must commit now to providing the public the greatest possible opportunity to comment on the record regarding all investigations of the suitability of the site. Nevadans will accept nothing less than the federal government's best and most objective efforts in its evaluations. We will accept nothing less than full and open access to the planning and activities of the DOE throughout its nuclear waste program in this state.

Nevadans will not consent to accepting an unwanted risk.

I believe that an honest and objective evaluation will only confirm our position that several strong scientific reasons exist to halt consideration of Yucca Mountain as a nuclear waste dumping ground.

Many people in this state are also concerned that a dump could harm Nevada's image and scare away tourists. Visitors have said in polls

with a nuclear repository, and it has been estimated that our tourism could suffer a \$200 to \$400 million loss if that holds true.

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But the overriding factor for opposition is the potential hazard to our health and safety. I for one do not want to jeopardize the well-being of future generations of Nevadans on a federal experiment.

If the National Academy of Science's wisdom had been heeded in 1979, none of us would be here today reminding DOE that persistence in forcing a repository in Nevada is unwise and not in the best interest of the citizens of this state.

Any pretense of a fair site selection process has been aborted. The issue has become too politicized. It is my opinion that the DOE should start over and include other more scientifically suitable sites for consideration. The Nuclear Waste Act has been disregarded because Congress, prodded by the DOE, was in a hurry to get rid of a controversial issue.

It is clear that the site selection process is a mess. It is unworkable.

I strongly suggest that the DOE stand

1 back and carefully evaluate this country's policy 2 regarding nuclear waste. Until that happens, states 3 like ours will be subjected to political maneuvering 4 that's not good for the State of Nevada and in the 5 long run it's not good for the entire country. 6 Thank you for the opportunity to be 7 here. 8 MR. MILLS: Thank you, Governor. 9 We are happy to also have with us today 10 our Attorney General Mr. Brian McKay. 11 MR. McKAY: Thank you. I have to adjust 12 this microphone. Obviously it was set up for the 13 Governor and not for me. 14 For the record, my name is Brian McKay 15 and I am the Attorney General of this state. I need 16 not tell anybody in this room that the process of 17 siting and now characterizing a high level nuclear 18 waste repository has been highly visible, highly 19 emotional, greatly politicized with the result being 20 that we in Nevada having been victimized. We have 21 not been treated fairly or equally, and the DOE has 22 shown very little concern about what this repository will do to us in the future. What has been done to 23

However, if Congress, the Courts and

Nevada by the federal government stinks, period.

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the Department of Energy ultimately tell us that the repository is going to be sited at Yucca Mountain, then let me be the first to say that I'm sure that Nevada and all its elected and appointed officials will carry out their role in this process with responsibility, with dignity and fairness while making sure that our citizens and our future citizens are protected from the inherent dangers posed by the repository.

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But let me just ask you, please don't you, the Department of Energy, say to us the people of Nevada trust us because we don't trust you. We will not trust you, and based upon your past track record that is indisputable, we have every reason to be fearful of what you say.

You asked the people of Washington to trust you, now look at Hanford. You asked the people of Idaho to trust you, look at the Idaho National Engineering Laboratory.

You asked the people of Ohio to trust

you and look what's happening at Fernald, and the

list goes on and it goes on and it goes on, and each

case you said to the people of the state affected,

trust us. And in each case, through short
sightedness or lack of technology or through

ignorance or through deception or in some instances according to Congress through outright lies you violated that trust.

And once these environmental disasters you have created have been discovered, what have you done? You tried to hide them from Congress and the public, and when the states have sought to enforce the environmental laws of this country against you, when we asked you to stop destroying our environment and clean up the awful messes that have been made, do you know what you have said, what the record reflects? You said these laws do not apply to you, that you have a special status to pollute, that the states have no legal authority to require you to obey the law and that cleaning up the messes that have been made are simply too expensive.

That's your record, so please don't insult me or my governor or my legislature or anybody else in this state by saying trust me.

The Department of Energy has been in the site characterization phase of the high level nuclear waste repository program since May of '86.

The plan speaks to activities at Yucca Mountain that are contemplated for years into the future. The sinking of the exploratory shafts, for instance, are

not to commence until November, '89 at the earliest and probably not until sometime in 1990. The sluggish pace of the site characterization process is not due to the difficulty in mining two twelve-foot wide exploratory shafts to a depth of a thousand feet, similar-size shafts are routinely constructed for the weapons program at the Test Site.

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The problem is that each step of the process is largely a new experience for the people who are managing this program. And as I have said, DOE has had an atrocious track record in managing the waste stream from its own programs, and unless it changes its methods, management of the wastes which have accumulated over 30 years of commercial nuclear power generation are not going to fair any better.

We are now facing the heavy financial and institutional costs of addressing DOE's past complacency and neglect in dealing with the waste products of its activities and those of its predecessor agencies. Recent disclosures have challenged the public's assumption that DOE and other federal agencies have been managing the wastes in an environmentally sound and safe manner. Serious contamination to air, groundwater, surface water, and other paths to the human environment have been

uncovered all over the country.

The notion that DOE can adequately
handle the most toxic and hazardous of wastes known
to man has been placed in great doubt. DOE and its
predecessors have been afforded the greatest
deference by both the public and by Congress.
Everyone assumed these agencies possessed the
expertise to deal with the wastes being generated by
their programs. In actual fact, however, it appears
that the strong mission orientation directed to
generating scientific and technological advancements
and breakthroughs in the interest of national
security discouraged the focusing of attention upon
adequate waste management.

In short, the development of new ideas and technologies were the interesting and fun part of the process and where the rewards were won. DOE promoted more and more activities that produced more and more waste with less and less agency concern for the serious consequences of a failure to adequately manage the waste. The resulting self-regulation of both the nuclear programs and the wastes generated by the programs in the interest of national security is a decision which will now exact enormous costs, and we have only discovered the tip of the iceberg.

testify before a House subcommittee on the environmental tragedies that have occurred and are awaiting to occur at federal facilities across the country. The hearing was on a bill which would clearly bring the federal government under the umbrella of numerous of the federal environmental

Although the act already includes federal agencies, the federal government, in particular the Department of Energy, has persistently challenged its applicability on the federal level, citing sovereign immunity. Nevada shares with other states a history of frustration in attempting to rectify environmental problems at federal facilities, where some of the worst violations of hazardous waste laws occur.

In Nevada, almost four million acres

are withdrawn from public use for Department of

Defense and Department of Energy purposes. And the

DOE up to this point has shown no inclination to

comply with the critical hazardous waste and

environmental protection laws.

I am attempting to use the powers of my office to assure that additional costs are not

we have done more than our fair share in tolerating the abuse of our environment and the endangerment of our citizens in the national interest. We cannot afford a rerun of the drastic consequences of the past when DOE was given the benefit of the doubt.

As to the repository program, we must and we will demand strict compliance with the State's permitting and regulatory requirements and to the extent we can, the federal requirements.

The Department of Energy's goal to move dirt in 1989 must be re-evaluated in light of the global aspects that individual permits and authorizations take on in relation to site characterization. Individual permits for surface disturbance, water use, access and control, flood plain designations, underground injection well permits, endangered species and critical habitat dispensations, and archaeological site disturbance permits, just to name a few, are interdependent and interrelated. Given that, it cannot reasonably be assumed that DOE can move dirt without having demonstrated qualification for each and every permit in advance of sinking the first exploratory shaft.

Visitors often come to Nevada armed

l with their own schemes and systems to beat the dealer,

- 2 but in terms of the characterization of Yucca
- 3 | Mountain, we are not dealing with games of chance.
- 4 DOE can't rely on probabilities in achieving
- 5 regulatory goals and DOE can't beat the system.
- 6 There is only one way to get the permits DOE needs --
- 7 and that is a methodical approach to seeking
- 8 compliance with the requirements.

of the characterization phase.

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Anything short of complete compliance risks the expenditure of hundreds of millions, perhaps billions, of the taxpayer's dollars without any assurance that the project can proceed to the end

As an example, my office has been involved in a protracted effort to convince the DOE that certain basic institutional requirements involving aspects of Nevada's sovereignty and jurisdiction require DOE to seek a congressional withdrawal of the land associated with the repository, and a contemporaneous cession of jurisdiction from the Nevada legislature. Had the DOE recognized the legitimacy of our position five years ago, everyone's lives today would have been simpler.

Even assuming the constitutional problems may be resolved, Nuclear Regulatory

Commission regulations require that DOE aquire jurisdiction and control of the site. My office has steadfastly maintained in court actions that it is irresponsible to assume that this requirement will be met sometime in the future after truckloads of money have already been dumped into this shaft.

Unfortunately and typically, DOE reacted to our arguments by creating a hybrid authorization from the Bureau of Land Management unknown to law to this point in time, a right-of-way reservation. On December 28, 1988, the DOE decided that we were right in our contention that the ROWR would not provide adequate control and jurisdiction required by site characterization activities and has sought to superimpose the right-of-way reservation with an administrative withdrawal. Processing of the withdrawal application will take BLM a minimum of two years, and it is doubtful that it can ever be approved.

The administrative withdrawal has a variety of problems which we will present to the BLM during the 90-day comment period, not the least of which is a problem which has plagued many ambitious federal projects -- the impact on endangered species. The U.S. Supreme Court has held that the Endangered

1 Species Act gives endangered species the highest 2 priority over all federal projects.

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Water, like endangered species, will play a prominent role in a variety of regulatory contexts. An adequate source of water for the purpose of dust control and reclamation is contemplated by an air permit for surface disturbances. The air permit may have to be conditioned upon a showing of adequate water sources.

The considerations I have alluded to are merely a tip of the regulatory iceberg.

Obviously, many more will surface as the DOE starts to chip away. So my purpose today is not to lay out a smorgasbord of problems. The examples were chosen to show that certain subjects are critical to a variety of regulatory concerns in a global fashion.

My advice to the DOE is to approach the resolution of each and every one of these concerns in a comprehensive and integrated fashion rather than the current piecemeal approach.

As in the land access context, if the DOE had taken the State's advice four years ago to develop an integrated environmental baseline, an adequate mitigation and resolution strategy could have been developed for dealing with potential

impacts on health and safety, the environment and the economy, and it's still not too late to do it right.

as the DOE is about to embark on the next phase of the program, it cannot reasonably expect that we will compromise established regulatory standards in the interest of expediency. The kinder and gentler wave of today must necessarily recognize a kinder and gentler wave for the future.

We have a window of opportunity opened by a new administration in Washington, D.C., and I'm excited by the prospects and am hopeful that Admiral Watkins and his new team will completely reevaluate the past actions of DOE. There is much that needs to be rectified, and I think high-level nuclear waste respository siting and characterization process would be the perfect place to begin correcting past wrongs.

Thank you, Mr. Gertz, Miss Younker, Mr.

Mills.

MR. MILLS: Thank you, General McKay.

Senator Bryan just walked into the room

and we'd be pleased to hear from him next.

SENATOR BRYAN: Thank you very much.

It's a pleasure for me to be here today. One gets a sense of deja vu. It was a little over six years ago and literally I think the first 60 days serving as

one of these panels to express my opposition to the high level nuclear waste dump and to express the concerns of Nevadans.

When President Reagan signed the Nuclear Waste Policy Act of 1982, I think that there was a sense of high hopes and expectation that the process would be fair, that it would be balanced and that it would be equitable. Unfortunately, that situation has not occurred, and the spector of a high level nuclear waste dump in Nevada casts an ominous cloud over our State's future and the citizens of all Nevadans can be affected.

Initially our opposition was based on the fact that Nevada had done its share in terms of its responsibility to the nation in terms of our nuclear efforts. Since we have produced no high level nuclear waste, it seemed inequitable to ship the waste products of other states commercial nuclear reactors to our own state across many borders and over thousands of miles.

Now that Yucca Mountain is the only site being considered, the unfairness is even more apparent. The story has changed rather dramatically over the six years of efforts by the state. As our

scientific knowledge has increased, our initial concerns voiced early in 1983 in terms of the hydrology, in terms of the seismic activity, in terms of the volcanic activity, all of which were initially pointed to in that testimony of 1983 have become an even greater concern and other voices have been raised in the scientific community.

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This is no longer Nevada's fight, but it's a national fight. As recently as January of this year the New York Times raised in a front-page story the same kind of concerns about the site characterization process, the element of fairness, the ability of the Department of Energy to be objective in terms of its process and the inherent conflict of interest between its responsibility on one hand of being an advocate for the nuclear power industry and on the other hand being entrusted by the public with the responsibility of being fair, evenhanded and objective in reviewing and evaluating the testimony.

Articles continue to be circulated in national scientific journals as well as the major publications of our country. The Los Angeles Times featured a story just this past weekend, and I read in the last two weeks at least two other articles

that raised various concern.

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I think more than ever it is important for Nevadans to continue this battle. As the Department of Energy's performance in handling the nuclear waste production of the nuclear weapons program in our country unfolds at the congressional level and the tremendous environmental dangers that are raised there, the credibility of the agency now has become not just a Nevada focus but a national focus to the extent that we as Nevadans stand together and make it clear that we are not interested in, nor are we going to accept the high level nuclear waste dump because of scientific concerns that have been raised not only by the Nevada scientific community but others, and to disabuse the public of the notion that somehow this process has ended, that the battle is over, that we ought to surrender, we will never surrender, and in my view the scientific judgment that is being collected by other independent agencies both within and without the federal government support the Nevada position.

Now, I understand that today's opportunity is for the public generally to testify and I apologize if I have been a bit more lengthy than I ought to, but I thought it was important to

the journey that we have been on in the last six 2 years and to let each of you know as panelists at 3 this very important site characterization process and 4 5 review, know that the concerns that we have today six years later with a great deal more efforts are even 6 more intensified and in our judgment confirmed than 7 when we expressed them initially in February of 1983, 8 and I appreciate very much your courtesy in 9 accommodating me and letting me speak to all of you 10 Thank you so very much. 11 today. 12 MR. MILLS: Thank you, Senator. 13 Our next speaker will be Mr. Bob Loux. Thank you, Mr. Chairman. 14 MR. LOUX: I'm Robert Loux, executive director of the Nevada 15 Agency for Nuclear Projects. I appreciate the time 16 17 here today. The Nevada Agency for Nuclear Projects, 18 19 Nuclear Waste Project Office is a state agency 20 assigned by Nevada statute to oversee the U.S. 21 Department of Energy's high level nuclear waste management disposal program. The professional staff 22 of the agency and its technical contractors including 23

set the record straight, to retrace a little bit of

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elements of the University of Nevada system, private

sector firms are now in the process of carrying out a

comprehensive technical review of the DOE Site
Characterization Plan for Yucca Mountain.

Nevada Governor Bob Miller to take the time necessary in its review to assure its thoroughness and technical rigor, notwithstanding the schedule constraints imposed on the SCP review by the DOE. This is similar to the direction of the Chairman of the U.S. Nuclear Regulatory Commission to the NRC staff regarding its review of the same document.

The agency expects to submit its technical review to DOE on behalf of the State of Nevada by September 1, at which time it will also be released for public distribution. We have, however, made a preliminary analysis of the available elements of DOE's overall program of studies and evaluations proposed to be carried out during the site characterization period.

Our conclusion is that the comprehensive program remains conceptually incomplete in that the supporting and associated documents necessary to even begin site characterization are either incomplete, nonexistent or lacking in sufficient detail to determine what work is actually proposed and how the various work elements interface

with each other.

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Without a clearly articulated comprehensive plan of activities and proposed specific studies and all the necessary environmental plans and activities, it's not possible to evaluate the true merit of the plans that have been presented for review.

of particular note in light of DOE's stated intention to begin the Exploratory Shaft Facility construction in November of 1989, is a lack of sufficient and acceptable Exploratory Shaft Facility location rationale and study plans to support initiating this potentially irreversible action.

The DOE has scheduled initiation of the Exploratory Shaft site preparation for May, 1989.

The State of Nevada objects to this activity being undertaken as scheduled and strongly recommends that the ESF, Exploratory Shaft Facility site preparation be deferred until the following concerns are resolved.

The DOE expects this shaft site preparation to result in the application of 6.7 million gallons of water to the site for the surface pad construction and also some fraction to the 43 million gallons of water allocated to dust control at

the ESF will be applied to the pad. This is roughly equivalent to dumping an additional full year's annual rainfall directly on the ESF site in a short period of a very few months. It's important to recognize this because studies planned at the ESF include hydrologic analysis of the unsaturated zone while the underground ESF is being constructed.

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The data collected are intended to be used ultimately in determining the site's suitability, and the artificial addition of significant amounts of water to the unsaturated hydrologic system will bring the validity of these data into serious question.

Knowing of this concern, it's reasonable to conclude that the ESF site preparation is in the terminology of the NRC important to safety in repository licensing considerations. This being the case, the ESF site preparation should not proceed until the following two matters are adequately addressed: First, the potential effect of this addition of water to the hydrologic system must be studied sufficiently well enough to understand and resolve the data validity question. Second, the resolution of the data validity question and the actual application of the water to the site must be subject to the controls of an approved quality

assurance program and procedures which at this time are not fully in place in the Department of Energy's program, nor is it expected that they will be in place by May, 1989.

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Now, Mr. Chairman, for a moment I'd like to repeat the essence of some of our findings regarding the draft Site Characterization Plan released last year for our informal review and comment. These comments bear repeating since we have not discovered that they were heeded in DOE's preparation of this statutorily required Site Characterization Plan, which of course is the subject of this hearing.

We believe that the DOE's conceptual approach to site characterization at Yucca Mountain should be reexamined and the SCP significantly revised before it can be viewed as a credible basis for evaluating the suitability of the site for safe nuclear waste isolation for the thousands of years required. It should come as no surprise that

Nevada's expectations are that any repository site determined to be suitable must first be the best understood piece of geology on earth. To meet this requirement, nothing less than the most rigorous, objective scientific investigation will be acceptable.

And this must precede with the emphasis on—and this must precede the emphasis on engineering a repository at Yucca Mountain, which is the obvious focus of DOE's current plan. This misdirected emphasis on the DOE's part results from its apparent, but unproven assumption that the site is suitable for a repository.

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This assumption seems to prevail in spite of the fact that the key standard for determining site suitability for long term nuclear waste isolation has yet to be established by the U.S. Environmental Protection Agency.

And it's not expected to be finally adopted into regulations for another two to three years.

The initial EPA standard, as you recall, was overturned in federal court, and returned to the agency for additional review.

The Site Characterization Plan also does not but should reflect a high priority on first carrying out the prerequisite geologic and geohydrologic studies that address the conditions most likely to lead to an early disqualification of the site. These issues include faulting and earthquake potential, volcanism, significance of fracture flow both in the unsaturated and saturated

zones, and mineral resource potential at the site.

The conceptual approach of the Site Characterization

Plan puts unjustified early emphasis on construction

of the Exploratory Shaft Facility, when critical

surface- base geologic and hydrologic studies should

have the highest priority in the initiation of site

characterization activities.

Finally, in closing I'm introducing to the record for this hearing, three videotapes which contain the entire February 23, 1989, technical presentation by my agency to the Nuclear Regulatory Commission's advisory committee on nuclear waste. This presentation outlines in considerable detail many of Nevada's technical concerns which relate to the geology and geohydrology of the Yucca Mountain candidate site.

The content of these tapes was intended to constitute additional comments of the State of Nevada on DOE's site characterization plan. Thank you.

MR. MILLS: Thank you, Bob.

Our next speaker is Mike Baughman.

Our next speaker will be John Stingle.

Dennis Bechtel.

MR. BECHTEL: Thank you. For the

record my name is Dennis Bechtel. I'm a planning coordinator for the Department of Comprehensive Planning here in Las Vegas. I'd like to read a statement for the record.

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I appreciate the opportunity to express the thoughts of the Clark County Department of Comprehensive Planning to the Department of Energy Site Characterization Plan evaluating the proposed nuclear waste repository at Yucca Mountain. What I intend to convey today is an overview of what we perceive to be significant issues. Clark County will provide more comprehensive testimony prior to the end of the comment period.

It is important also to note that the Clark County Board of County Commissioners approved a resolution in January of 1986 opposing location of a nuclear waste repository in Southern Nevada.

been named by DOE as an effective unit of local government. As such, Clark County has recently received approval by DOE of a grant application to receive funds to conduct studies to determine the impact of the proposed repository at Yucca Mountain on the citizens of Clark County. The determination of impacts by Clark County will include those impacts

that would occur during the site characterization phase of the program.

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With that as background, I would like to offer the following comments to the Site Characterization Plan:

of Energy Watkins for agreeing to extend the deadline for the comment period on the Site Characterization Plan from April 15th to June 1st, 1989. Given the size and significance of the document, we feel it is important that interested citizens and affected governmental entities are afforded sufficient time to evaluate the plan. It is important for the citizens of Clark County, Nevada that the technical and other issues are able to be reviewed in a thorough manner.

From a local perspective, the greatest deficiency in the Site Characterization Plan is its lack of recognition and treatment of the so-called "off-site" issues. "Off site" issues can in part be defined as those socioeconomic and transportation impacts that can affect communities such as Clark County, the City of Las Vegas and others.

Impacts, of course, can be experienced from the entire proposed repository program including site characterization.

DOE, as noted in section 8.3.1.10, has limited its consideration of off-site impacts during the site characterization phase. These are noted as not being relevant to site characterization activities.

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It further limits the discussion of socioeconomic questions to an "overview of population density and distribution" and that's in quotes. It does not consider the potential implications related to the distribution of population and subsequent service requirements of locating the X number of people in a community. Provision of services to that population located in a specific area, as example schools, police, fire can conceivably be significant.

It is important to note that section

116(c) of the Nuclear Waste Policy Amendments Act of

1987 recognized the potential impacts that to

"affected local governments" could occur. It

provides financial assistance to "affected local

governments" to engage in any monitoring, testing or

evaluation activities with respect to site

characterization with regard to such site. It also

notes that the secretary shall provide financial and

technical assistance...to mitigate the impact on

such... affected unit of local government and the

development of such repository and the characterization of such site. Given the fact that the amendments recognized the potential for impact to the state and affected units of local government (which would include Lincoln, Nye and Clark counties) it is important that the evaluation of socioeconomic impacts be given a comprehensive analysis in the Site Characterization Plan. This is currently lacking.

As an example of potential impact to Clark County during the site characterization phase of the program, a large percentage of the work force will be located and work in the Las Vegas metropolitan area. It is estimated that during the site characterization phase that at peak employment 750 out of a total of 1450 workers will work in Las Vegas. This is greater than 50 percent of the total work force.

As an example, to provide an example, the number of 750 workers in Clark County is approximately equivalent to one Citicorp facility locating in Las Vegas, and that happened several years ago.

This will result in the need to consider the provision for services for the increased population generated by site characterization.

Although in a growing area such as Clark County, it will be more difficult to evaluate related impacts, we are, nonetheless, permitted by law to consider such impacts and related assistance. A similar recognition of such impacts should be recognized in the site characterization plan.

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not given adequate emphasis in the plan. It is obviously true that there will be little or no shipments of high-level radioactive material or spent fuel during site characterization. It is also true there are a number of questions related to the transportation of the nuclear waste that are still unresolved, mode of shipment, routing, et cetera.

It is important, nonetheless, to consider a number of issues.

The issues associated with transportation of nuclear material will require many years to resolve. One item, for example, that DOE is considering is the construction of a rail line to the site. It is not too early at this date, for instance, to consider the multitude of tasks needed to be completed to resolve all the transportation issues.

Transportation also is an extremely important issue to Clark County governments. The

need to resolve transportation questions, plus its significance to affected local governments requires a more comprehensive treatment in the Site Characterization Plan.

The final item that I would like to discuss is the subject of quality control during site characterization. Clark County as you are aware has been extremely concerned that quality control be given an important emphasis during site characterization work to ensure that potential problems with the site that may create health and safety problems to the State and its citizens are determined as early as possible.

We are gratified the DOE and Nuclear Regulatory Commission are working closely to adequately define and resolve quality assurance issues. Clark County will continue to monitor this issue closely. We are hopeful that the coordination that is taking place between DOE and NRC will continue and will result in site characterization work that will enable Yucca Mountain to be evaluated in a manner that will assess its capability as a repository site. The coordination is important and Clark County wholeheartedly supports its use in the successful resolution of important site

characterization issues.

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2 In summary, we again appreciate the 3 opportunity to provide input to the site 4 characterization plan. The plan is obviously an important undertaking and we are concerned that the 5 6 analyses are performed in a manner that will 7 determine the adequacy of the Yucca Mountain site to 8 house high-level nuclear waste and spent fuel in a 9 manner that will not impact Nevada citizens or It should also be considered, however, that 10 economy. 11 the site characterization will take place in the 12 context of a large and vibrant metropolitan community. 13 The potential socioeconomic impacts to Clark County, City of Las Vegas, North Las Vegas, Henderson, the 14 15 Paiute community and others, subsequently need to be addressed more accurately in the Site 16 17 Characterization Plan. Likewise, the multitude of transportation issues need to be factored more 18 19 adequately into the equation of site characterization. 20 Thank you again. As I noted before, we

Thank you again. As I noted before, we will be providing more comprehensive comments before the deadline.

MR. MILLS: Thank you.

Our next speaker will be Mr. Ron Pate.

25 Mr. Pate.

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Mr. Greg Gable.

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Our next speaker will be Peter Arapls.

MR. ARAPLS: Thank you. I have a statement I'd like to read here on behalf of Senator Harry Reid. Senator Reid states, I am eager to take this opportunity to restate my unequivocal opposition to the nuclear waste dump.

Our fight to keep the nuclear waste dump out of Nevada is far from over. As Nevadans we must speak with one voice, that means working together at the local level and in Washington. From our homes to our places of work nobody outside Nevada must ever get the idea that we want the nuclear waste dump at Yucca Mountain or anywhere in Nevada.

The out-of-state people who want to put a nuclear waste dump in our state are going to spend a lot of time and effort trying to make the idea look attractive. Nevada's unique history has taught us that the scientific double talk will never replace common sense. Common sense says a nuclear waste dump in Nevada is a bad idea.

The people in Nevada aren't interested in making a quick buck from a long-term disaster.

There are other solutions to this problem. The Department of Energy must explore other options and

alternatives. 1 2 We live in the most scientifically 3 advanced nation in the history of the world. Fifty 4 years ago, the doubters and skeptics said the atom 5 could never be split. Now, people who do not live or work in Nevada are saying that there is no other way 6 7 to dispose of nuclear waste other than to dump it 8 here. 9 They were wrong 50 years ago and they 10 are wrong now. Thank you. 11 MR. MILLS: Thank you. 12 Our next speaker will be Rachel Johnson. 13 Our next speaker will be Robert Deiro. Is Mr. John Ahern here? 14 15 Is Cynthia Wilson here? 16 Is Richard Wyman here? Is Mr. R. Guild Gray here? 17 Is JoAnn Graitge here? 18 19 Is Bernard Manke here? 20 We are approaching three o'clock. Wе 21 will now take a five-minute recess, let everyone relax for a moment and let's see what the sign-ups 22 23 that we have that are here. (Brief recess taken.) 24 25 MR. MILLS: A point of explanation, I'm

their ten minutes. As a consequence what we have been doing is calling off the list of those people who pre-registered as walk-ins. I will be calling those names at various times during the day. Because of their work schedule they may not be here and they may be here later.

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Additionally, as we proceed, I will also be calling off of the afternoon walk-up list for those who came here today. It appears we are going to be getting to all of you and we encourage anyone who has not signed up who wants to express a view pursuant to the rules as we have explained them, please go up to the south side and sign up and this panel is glad to hear from you.

With that we would ask if Mr. R. Guild Gray would take the stand or take the microphone and begin this afternoon.

MR. GRAY: Good afternoon. For the record, my name is R. Guild Gray. Nobody pronounces Guild but me, and I live at 1120 Cashman Drive in Las Vegas. I represent no one but myself unless you can say I'm one of the almost million Nevadans who haven't been polled by a professionoal polster on this subject.

I am not here because of any ego or satisfaction of being here except for the purpose of stressing a point. I wish to preface my remarks with a few words about myself.

For 76 of my 78 years I have called

Nevada my home. About half of those years I lived in

Northern Nevada and the last half Southern Nevada,

Clark County has been my home.

I was privileged to witness both the above ground and underground testing at the Nevada

Test Site from the very beginning. I have been in the underground cavern where high level nuclear waste has been stored at the Test Site. I have seen canisters of high level waste and watched the precautions taken in loading and unloading them. I have seen films of the impact and heat tests on those canisters as well as their carriers.

Among my friends are many of the scientists, engineers and administrators who have worked at and been involved with the activities at the Test Site.

When one hunts and fishes and socializes and works on community civic committees with people, you get to know them. I have learned to respect everyone that I have become associated with

at the Test Site. I want you to know that not many of those who have served or are serving at the Test Site has expressed fears relative to the integrity of the present study, and I believe these people to be informed and people of integrity.

I resent those who do not trust them.

Many of those who oppose the study accuse those with contrary beliefs as being influenced by greed. To these I say I am financially independent, I owe no one money, I may owe a lot of favors -- when I get my next page, I usually don't read what I have to say, but this is an important day.

I work for no one and at my age it is unrealistic to think about returning to politics. I say these things to tell you that it is not in greed that influences my position on the proposed nuclear waste facility.

As much as I love Nevada, as much as I have spent a life of dedication to the State's welfare, my definition of patriotism transcends state considerations. America needs a place to store high level nuclear waste. America needs to find out to the best of its ability where that is. If additional, and I stress this, if additional scientific studies and exploratory work at Yucca Mountain indicate a

reasonable suitability at that site for the storing of nuclear waste, I will not stand in the way. To me it would not be a patriotic thing to do.

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It is my firm belief that much of the ranting and raving that is going on relative to Yucca Mountain is the result of political demagoguery.

Now, I know that's a strong negative word, but so is greed and so is the expression screw Nevada.

One of the oldest political tricks is to arouse negative emotions about a situation or condition. History is full of examples; Hitler and the Jews, McCarthy and the Communists, the Republicans and Al Smith accusing him of being a papist, the Democrats and Barry Goldwater accusing him of being a war monger. By arousing negative emotions, a demagogue seeks election or power by revealing himself as the people's savior from catastrophe.

I ask how many of our demagogues on the Yucca site issue are so fearful of the so-called nuclear waste that they would leave the state should it come to pass. And if it does come to pass, how are they going to counteract their present efforts to show that Nevada will not be a desirable place for

1 new industry, for tourists and for home making. 2 As you can see, I'm a little nervous. 3 Demagogue, as I said, is a strong word, 4 but I do not apologize for using it. Now, let me 5 tell you why. Many times a year for many years the 6 Test Site has been contaminated and is continuing to 7 be contaminated. The testing still goes on. 8 same politicians who make no efforts to discontinue 9 atomic testing cry loudly against controlled nuclear 10 waste storage. Can it be that the many thousands of 11 votes of those dependent upon atomic testing for all 12 or part of their livelihood make atomic testing safe, 13 but the lack of such political block makes it unsafe? 14 I just saw Richard Bryan out in the 15 hallway and he's not going to like it. I'm glad he 16

left. He's not going to like some of the things that I say here.

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I'd like to add that certainly our gaming and resort entrepreneurs don't seem to be overly concerned about Yucca Mountain. Else why the current and complicated hotel construction? this in spite of the fact that one of our local papers at least is attempting to goad them into action against the site.

The problem of nuclear waste isn't

going to go away, maybe never. It appears now that Nevada will be chosen as a location of a repository, and I repeat and emphasize, if additional scientific studies and exploratory work at Yucca site indicate that it is reasonably safe for such a facility.

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Let's not stand in the way of efforts to determine suitability. Instead of feeling sorry for ourselves and castigating the Congress, it seems to me the sensible thing to do is to prepare ourselves to live with what may be the inevitable. Let us prepare ourselves to live with the storage facility in a mentally healthy way just as we have learned to live with atomic testing.

If some of our politicians haven't already destroyed the possibility with their vitriolic vehemence, let us prepare ourselves to use the site to our advantage. Let's work at it and think of some of the positive results that may accrue.

Let us think of such things as the possibilities for our university. With our new engineering school, our pool of scientists already in Nevada, the nuclear waste problem has the potential of making Las Vegas a major world scientific center.

Let us think of the waste facility not as a dump -- I hate to read things when I'm nervous,

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but I've got to do it -- but as a facility which will store nuclear waste for the future and a time when our scientists will find ways to use it. Let us escape from what Peter Jennings the other night called the American Not In My Backyard syndrome and think of ourselves as perhaps being on the threshold of a door to opportunities for ourselves and all Americans.
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In the interest of time I will leave out these other pages, but I want to conclude with something, a little advice that my mother gave me when I was a little boy a long time ago.

Don't cry before you are hurt for the hurt may never come.

MR. MILLS: Thank you.

Dr. Gray, we would appreciate it if you would give those notes to the court reporter. We are trying to keep the notes and documents as part of the record. Thank you.

Our next speaker will be Greg Gable. Good afternoon.

MR. GABLE: My name is Greg Gable. I'm from the Nevada Test Site peace camp, and I would just like to relay some findings from Jerry

Szymanski's report on the Conceptual Considerations

- of Death Valley Groundwater System with Special
- 2 | Emphasis on the Adequacy of This System to
- 3 | Accommodate the High-Level Nuclear Waste Repository.
- 4 | That's Jerry S. Szymanski.

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In the case of the deforming fractured

6 | medium, the temporal stability of the water table is

7 | not related to global or regional climatic

8 | fluctuations, but it is also related to tectonic

9 | factors, in particular, the in-situ stress conditions.

10 | Both short-term and long-term instabilities of the

11 | water table can be expected at Yucca Mountain.

The short-term instabilities involve several meters, perhaps ten meters, of displacement of the water table. They are short lived, say days or weeks at the most, and occur with the frequency related to the degree of heterogeneity of the local strain energy field. These short-lived instabilities are caused by the minor restructuring of the stress energy field which may or may not require an external triggering mechanism.

These instabilities, however, are very important because they can directly confirm that the deforming fractured medium is, indeed, involved in the flow process. Furthermore, these instabilities, if occurring with a meaningful frequency and

magnitude, would constitute a "pumping" mechanism for gaseous transport through the vadose zone.

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The long term displacements of the water table involves tens and perhaps hundreds of meters. They are caused by the large scale restructuring of the strain energy field occurring at the end of a deformation cycle and with a frequency measured in the terms of tens of thousands of years. These displacements would directly impact the radionuclide migration path and the radionuclide migration time. In extreme cases, however, these displacements can result in the flooding of the repository and in expulsion of groundwater at ground surface.

In the context of performance requirements set forth in 10 CFR 60 and 40 CFR 9--excuse me 190, the rise of the water table constitutes an anticipated process and event. As such, the rise of the water table must be accounted for in demonstrating compliance at the Yucca Mountain disposal system with three long term performance objectives set forth in 10 CFR 60. These performance objectives are: the life of the waste package; the release rate of radionuclides from the engineering barrier system; and, the release of radionuclides

into the accessible environment.

The rise of the water table would significantly alter the radionuclide migratory path and the radionuclide migration time. Furthermore, the water table rise, by providing substantial volumes of water, would also alter the radionuclide migration rate.

early stages of the life of the repository, when the temperature of the waste package and of the fractured medium surrounding them is above the boiling point would result in a particularly strong impact on the overall repository performance. Vaporization of water entering the repository would cause substantial increase in the vapor pore pressure and, therefore, would accelerate the gaseous transport from the repository to the ground surface. Subsequent cooling of the repository, to below -- excuse me, to below the boiling point of water, may be accompanied by a long term convective flow of fluids from the repository to the ground surface.

The impact of the tectonic rise of the water table on the life of waste package, therefore, is twofold. Corrosion of waste packages will be accelerated not only because of the increased amounts

of water contacting these packages, but also because of the more adverse chemistry of this water.

The--in the case of flow fracture, if infiltration occurs at all, the travel time of rain water is, most certainly, substantially less than 1,000 years.

The gaseous transport from the repository to the ground surface is another licensing concern resulting from the proposed conceptual model of the flow system. This transport is caused by the short lived instabilities of the water table and by the heterogeneous heat flow through the vadose zone. The gaseous transport may have some impact on the compliance with the Yucca Mountain site with two performance objectives set forth in 10 CFR 60. These performance objectives are: the release rate of radionuclides from the engineered barrier system; and, the overall release of radionuclides into the accessible environment.

It should be realized that all the above licensing concerns regarding the Yucca Mountain site are not new concerns. They were previously raised in one form or another by various parties, most notably by the United States Nuclear Regulatory Commission in the State of Nevada. The proposed

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    conceptual model of the flow system reinforces these
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    concerns and also provides a uniform theoretical
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    background for the concerns. And I thank you.
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                  MR. MILLS:
                              Mr. Gable, along with
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    everyone else, some of you have come in after our
    introductions, if you read from a script or have any
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    other written materials, we would like to have you
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    submit them to the court reporter. If you want to
    keep a copy of those, take it to the desk outside and
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    there is a copy machine and we'll make a copy so you
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    can keep a copy of your paper project. But other
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    than that, we would like it as part of the record.
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                  Is Rachel Johnson here? Is Cynthia
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    Wilson here?
                  Is Hugh Andersen here?
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                  Is Mary Smith here?
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                  Is Lois Vitale here or Louis, rather?
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                  Is Rosemary Lynch here?
                  Is Diana Orrock here? It's O-r-r-o-c-k.
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                  Is Jean Sylvia here?
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                  Is Miles--
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                  MR. GERTZ:
                              Jean Sylvia is here.
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                  MR. MILLS:
                              Okay. Thank you.
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                              My name is Jean Sylvia and
                  MS. SYLVIA:
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    I represent myself, my children and my grandchildren,
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    part of an endangered species, living, breathing
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healthy people in the State of Nevada.

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A lot of talk has been done on the research and the amount of time going into research, and how it's become a political issue. I think it was a political issue from the very beginning. Nevada is a very sparsely populated state compared to the large states on the east coast. We have little representation in Washington. Although our representatives try their best to fight in Washington for us, it doesn't do that much good. The State of Nevada residents are use to the federal government being in Nevada working in Nevada and using Nevada So when you calculate all that and you compare land. it to the other states that were also considered for this site, Nevada seems easiest. We have an image problem that we are always working on, so I think most people thought Nevadans would not put up that much of a stink, but I think you are going to find that they really are going to.

And all this testimony and all this research is just scientific hearsay at the moment because nobody really knows what that repository is going to do to us or anyone else, and if it comes, we will be a very big scientific study if we stay alive. That's going to hurt tourism, it's going to hurt

businesses coming into the state.

DOE using myself and my children as guinea pigs for this project. You are also turning the entire country -- we do not need a nuclear highway, and that's what we are going to have with one repository. If state by state is too expensive, it should be done regionally at least, and when projects are started that create nuclear wastes, if the repositories were done regionally, people would have to be more responsible and plan ahead for the waste.

These hearings seem--I feel sitting at these hearings like a child that's going to be promised dessert at the end of a lousy meal. I expect the federal government is going to say okay, you are going to get it anyway but we are going to give you lots of money to take it.

well, if you are going to kill business and you are going to kill tourism, why don't you give us some balance? If we have to take the site, give us an edge, make Nevada the only state in the union that pays no income tax and does not lose any federal aid or federal anything else to try to bring new business into the state when it hurts tourism.

That's all I have to say.

MR. MILLS: Is Joe Brown here?

Is Miles Silverling here?

MR. SILVERLING: Thank you. I can't pronounce it very well myself, but my name first and last have beginning syllables that have long i's. My name is Miles Silverling.

What I'm about to try to say in the next few minutes is going to be basically my memory of notes which I have sketched. It is not available in written form, but I'll be happy to prepare a written statement later.

few minutes is to make a scientific announcement. I do not expect that very many people will place a great deal of credibility in my statement as a scientific statement, but I would like to emphasize to those who are open-minded and willing to investigate the topic that I sincerely do believe that my statement in this area is one of the most important statements in the modern history of science.

I would also like to add just briefly that if anyone cares to have an informal display of my credentials as a scientific thinker, you might like to turn to the May issue of Readers Digest for the year 1984 and at pages 34 and 35 in that issue of

Readers Digest you will see ideas of a lifesaving character described as having first been known to have saved lives according to that report in 1982.

And those ideas are essentially methods which I presented to Readers Digest for the first time in the history of the world in 1973, nine years before anybody in the world had ever come to believe that such ideas might be of the lifesaving character

such ideas might be of the lifesaving character described in that article.

I am trying to say here today has to do with what is known as the science of thermodynamics.

Thermodynamics is regarded in the modern world, including the scientific world as being the correct or the central and fundamental collection of doctrines and explanations for the understanding of the operation of all heat-driven engines.

I won't pursue that subject now.

The point that I would like to call to the attention of the United States Government is that the science which is called the science of thermal dynamics is essentially flawed with regard to those ideas and those formulas which are central or centered around what is called the formulas for thermal efficiency of heat engines. It can be demonstrated, and I am prepared to demonstrate in the

future or at a more appropriate forum with more time that the formulas for calculating thermal efficiency of heat driven systems or of heat engines are incorrect. They are not necessarily mathematically incorrect as they are used to create numbers but they are logically and scientifically incorrect as they are applied to the operation of heat engines.

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The consequences of that scientific departure from what is considered to be a scientific doctrine as it applies to the hearing in which we are having here today is simply this: As a result of the flaws which I find and feel that I can prove in the formulas for thermal efficiency of heat driven systems, it develops that those materials which are recognized as nuclear fuels in our current modern day nuclear power plants are overused. That is to say, the tonnage or the amount of physical material used, the amounts are enormously overused or wasted. is a far greater amount in physical material used to produce a given level of electrical power output than is necessary if the designs of the systems were in accordance with the actual truth of thermal dynamic requirement.

The other aspect is that the materials which are recognized as being useful nuclear fuels

are in present usage considered to expire or considered to be used up or depleted or as the phrase appears in the newspaper, they become spent fuel materials, and the simple truth is in the view that I express, these materials which are being considered waste materials are in reality not actually useless, they are in fact still radioactive, for example, and they do retain usefulness not only as radioactive materials, but with a proper understanding of this departure from present doctrines in thermodynamics it can be demonstrated that virtually any radioactive material can be actually used as a useful fuel.

It therefore seems to me that the amounts of radioactive materials which are ultimately coming to be considered waste nuclear materials would be reduced in two ways. First of all, the amounts used in the processes of generating electricity would not be as large. Secondly, the materials which are today considered waste nuclear materials would be recognized as useful.

I think that I can leave to the interpretation of each person that hears this and that is interested in it the implications of this new understanding to the topics related to the hearing today, and I thank you very much.

I have no idea how close I am to the time alloted to me, I really didn't expect that I was going to even make it to the microphone today. thought I might be able to put my notes into better 4 order before this evening's session. I'm glad it's over. I hope that we will get together again 7 sometime, and thank you very much. MR. MILLS: Thank you. 8 For those of you who came in late, as 9 you know we are using a ten-minute time schedule. Αt 10 the end of eight minutes, I will give this sign 11 indicating that you have two minutes left. 12

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Is Mr. Joe Brown here?

Is Cynthia Wilson here?

Is Rachel Johnson here?

Is Martha Law here?

Again, I apologize over your names and ask as you come forward to pronounce them for the court reporter.

Is Hein Van Neuren here?

MR. VAN NEUREN: You are doing a -- I didn't expect, I didn't expect I would come up to talk. As a matter of fact, the gentleman in the blue coat with the gray hair who thought he was nervous, he touched a nerve in me, and I was a hundred percent with him so he took all my words out of my mouth.

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But I'd like to bring up something that you might not have thought about it. Somebody says 50 years ago we didn't even talk about atom splitting. 50 years ago I was in the Phillips Laboratory with my father when they were splitting atoms, didn't you know that, that that was happening at that time? Our governors don't know that.

what do they know? I tell you what I know. They don't represent me, neither do they represent thousands and hundred thousands of other Nevadans that do believe that DOE is doing a fair job for us, giving us all the chances to know what's going on.

I have been to your meetings since 1973.

I have been in the "climax" mine and I have been over at the Test Site and I think you have really informed me to the extent that when I retired I went back to school and I went to geology class. I'm now in a class for nuclear waste disposal.

I wish the old people like me start to studying the facts and get away from the paranoia that our politicians throw upon us. I'm getting sick and tired of it. I want them to know the facts and for the facts they can go to the Test Site with their

neighbors, 8,000 of them in this town that work there every day. They are not so crazy to do something that kills their kids. I want my grandchildren to come to this state away from Los Angeles and the smog. This is a good state.

2.3

Now, we have Swiss cheese lying north of the test side where we explode bomb after bomb after bomb in the ground. I don't like that that much. I don't like nuclear bombs, and I would march, if that guy ever had an old suit, I would do it "boo, boo" like this, but that doesn't make any sense what we are talking about.

We are talking about nuclear waste storage. The gentleman that talked a minute ago says the right thing. We don't throw those bars of radium away or whatever it is. I don't know that much about it. I was on the Test Site handling them, I seen it because I want to know with my own hands, and they let me see those things, they don't hide anything.

I recommend the DOE people for what they are doing. I don't like to talk down on you and I like to talk down on the politicians that fool us with counties like Bull Frog County and all this type of stuff. Let's forget the bull and go back to work and defend our country. Thank you.

1 MR. MILLS: Thank you. 2 Mr. Allen Tooley? 3 Allen Tooley? 4 Joy Fiore, F-i-o-r-e? 5 MS. FIORE: My name is Joy Fiore, I'm 6 the chairman of the Nevada Section of the American 7 Nuclear Society. We have a brief statement. The Nevada Section of the American 8 9 Nuclear Society supports the plan for site 10 characterization. This plan is based on what the DOE 11 currently identifies as testing and laboratory 12 studies necessary to yield data that will provide an 13 understanding of the site and will address issues 14 that have been raised by the Nuclear Regulatory Commission in the State of Nevada. In that context, 15 this version of the Site Characterization Plan is 16 17 adequate. Because the Site Characterization Plan is 18 a living document that will be updated regularly based on findings from field and laboratory studies, 19 2.0 this current version should not be held up, thereby 21 postponing the start of testing. 22 Further delays to testing will 23 negatively impact the schedule for site characterization. The future of the nuclear power 24 25 industry is being held hostage by a resolution of the

spent fuel disposal problem. In order to facilitate 1 2 the ability of a nuclear industry to consider new 3 starts, the actions required to evaluate the 4 feasibility of a disposal site must commence as 5 scheduled. 6 We urge the citizens of Nevada to be 7 supportive of this test program. The determination of whether this site is technically feasible for isolation of radionuclides from population centers 9 10 for 10,000 years is the expected outcome from the 11 plans in the SCP. We should withhold judgment about 12 the suitability of the site until results from these 13 tests are in and then make rational decisions about 14 the acceptability of high level waste disposal in 15 Nevada based on technical rather than political 16 issues. 17 We urge the DOE to get on with the 18 field investigations. 19 MR. MILLS: Thank you. 20 Is John Stingle here? 21 Is Robert Deiro here? 2.2 John Ahern? 2.3 MR. AHERN: Right here. 24 MR. MILLS: Please come forward, Mr.

25

Ahern.

MR. AHERN: I'm John Ahern. I was born in Nevada quite a long time ago, lived here all my life and I expect to live here the rest of my life.

I love Nevada and I don't think that I would be in favor of doing anything that would in any way harm the state.

I am also a good citizen of the United States and I would like to help the United States in any way that I can.

short on energy. In comparison with some of our adversaries, Russia and some of the other oil producing nations, we are very low on energy, and energy, of course, is power. A nation that hasn't got energy is not going to become very powerful.

I think it's quite important that we utilize the natural resources that we have such as oil in the best way possible and conserve it where we can. One of the ways that we conserve it is through the use of atomic energy.

Now, we are talking about a waste disposal plant. It's, to me it's really not a waste disposal plant, it's a place where we can put the stuff temporarily until it can be used. When the nuclear energy is used to fire the electrical

generators, there is a lot of it left that's still good, it can be stored in a safe place and later be reconstituted and possibly used to generate more power, therefore, it becomes a natural valuable resource, and I see this repository as a very important place for the storage of energy for the future.

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waste dump. We know that it isn't going to be a dump at all, it's just going to be a place where that stuff is going to be held very safely and going to be able to take it back out when they need to. They'll monitor it thoroughly and it will be kept in a safe condition.

that the nuclear energy is a very dangerous thing and no doubt handled wrong it probably would be very dangerous, but I think there is probably more people killed in swimming pools right here in Las Vegas every year than there has been in the whole nuclear program since it started. So we might have to look at the truth of the matter when we start talking about what's dangerous.

I think the Nevada people are politicians and those in charge should cooperate with

Mountain if that's what they are interested in. If it is proved to be safe, then I think we should have the dump as you want to call it or the repository where we can store that stuff and it will do a lot toward the economics of the state and will help us to build up the reservoir of energy for our future.

We have already got quite a bit in the State of Nevada in the way of dumps. We've got an area here where nuclear devices were set off and they are left right under the ground. There is a big area up there that has lots of waste in it that we will never recover. We will never be able to do anything about it.

There is also one down there close to Beatty which is storing some of the stuff that's not supposed to be very highly active. It's fairly close to a water supply. Some of our water coming into this area comes down through the little river that's underground there. It might be that in the study that ought to be thought about a little bit. If possible, it should be moved up there with some of those places where the devices have been set off.

But as far as the nuclear repository, I am in favor of going ahead with it, cooperating a

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    hundred percent with the federal people, and if the
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    place is found to be safe and they have a proper
 3
    program, I'm in favor of it being put there.
 4
    you.
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                  MR. MILLS:
                               Thank you.
                  Is Patricia Van Betten present?
 6
 7
                  MS. VAN BETTEN: I'm here.
 8
                  MR. MILLS: Please come forward.
 9
                  MS. VAN BETTEN: My name is Patricia
    Van Betten.
10
11
                  MR. MILLS:
                               Betten, thank you.
12
                  MS. VAN BETTEN: I have been a
13
    registered nurse for over 30 years. I worked as a
14
    public health nurse prior to moving to Nevada.
    have been employed as a school nurse for the past 14
15
    years. Our family has lived in Nevada for 22 years
16
    and we call Nevada our home.
17
18
                  To me, the desert is, at the same time,
19
    a place of rugged and fragile beauty.
                                            Desert
20
    formations teach the history of the earth as well as
21
    the power of nature. It is not a barren place to be
22
    seen only as a dumping ground for dangerous disgards,
    much of it from an inefficient segment of society.
2.3
                  We Nevadans, who do not have a nuclear
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power plant at all, are expected to stand by and

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watch 63,500 tons of high level nuclear waste roll across our interstate highways and railways from across the nation. If it came by truck alone, it is estimated that it would take 28 years to have trucks arrive at 90 minute intervals and that deals only with the waste that has already been accumulated.

I have concerns about the safety of such transportation, whether by truck or by rail. What about accidents, spills and contamination?

Where is the specific information about these critical public health concerns?

I am very uneasy trusting information from the Department of Energy as being scientifically thorough. In view of your simplistic reassurance that long distance shipping is perfectly safe, in view of your disregard of Nevada's concerns in your Site Characterization Plan and your track record at the Waste Isolation Pilot Project in New Mexico, I sincerely hope that we are not in a situation of having our concerns tolerated while you sit with a mindset that Yucca Mountain and Nevada have already been sentenced to a 10,000 year confinement.

A 10,000 year period is inconceivable to me. This is time longer than civilization as we know it. We are placing a potentially dangerous

burden on countless generations. Much of the toxic waste that we are concerned about results from giving a mere 15 percent of the population of this country power for three to four years. If this would be created as fiction, no one would buy the script.

I have read that the cost of construction of a dump site alone will be as high as 35 billion dollars. In addition, what will transportation cost? What will long term site surveillance cost? What will accidents cost? We are looking at billions of dollars to provide 15 percent of the population energy for three to four years.

I have read that by the year 2010 we will have tens of thousands more tons of waste to deal with. What is the projected long-term cost?

How can we burden future generations with these costs and responsibilities?

In my profession I care for children and their daily health needs, yet I feel helpless about this potential long-term nightmare that looms over them and all of us.

The nuclear industry built nuclear reactors without any idea how to resolve the problems of nuclear waste. It seems basic to me that in addition to having to confront the problem of nuclear

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waste that we acknowledge a basic ethical
 1
    responsibility of determining waste to be energy
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 3
    efficient without endangering the earth and human
    life.
 4
 5
                  Thank you for the opportunity to
    present my opposition to the selection of Yucca
 6
 7
    Mountain as a dumping ground. Nevada is not a
    wasteland. We and our desert lands are not
    dispensible.
                  Thank you.
10
                  MR. MILLS: Thank you.
                  Is Martha Law here? Is Cleve Anderson
11
   here? Please come forward, sir.
12
                  MR. ANDERSON: I am Cleve Anderson.
13
                  Let's talk about plutonium.
14
    6,000 pages of site characterization studies, you
15
    have ignored the one issue that dwarfs all others,
16
17
    that is plutonium. DOE, operating without
    surveillance, has already created plutonium
18
    environmental disasters at Hanford, Rocky Flats, and
19
    Savannah River.
20
                  At Yucca Mountain, we are told, things
21
    will be different. EPA will set the standards for
22
23
    protecting the public against plutonium. DOE will
    design to those standards. NRC will audit DOE's
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performance.

Yet, today, on the podium we have DOE's project manager, DOE's legal counsel and a DOE geologist. Why are the public protectors, EPA and NRC, missing? Could it be because EPA has set no standards on plutonium?

DOE is striving to coverup the plutonium issue. And NRC is simply ignoring the plutonium problem.

A strong argument can be made that DOE is intentionally misleading the public concerning the primary purpose they plan for Yucca Mountain, that is plutonium disposal. At time of burial of spent fuel, there is three times more plutonium than the total of all the radioactive product wastes. Plutonium is one of the hazardous poisons known; after 10,000 years, 70 percent of the original plutonium still remains; after 250,000 years, the plutonium DOE plans to dump into Yucca Mountain will still be a threat to the food and water supplies of Nevada.

To placate us, DOE officials have developed a series of highly questionable statements concerning the plutonium contained within the spent fuels.

For example, DOE states spent fuel is like a dead battery, there is no energy left.

The truth is that great care must be exercised at all times, well past 10,000 years to prevent this plutonium containing spent fuel from going critical; that is, initiating an uncontrollable nuclear reaction.

1.3

Also, I believe Yucca Mountain is in an earthquake-prone area. DOE states that after 10,000 years the spent fuel will have a lower radioactivity than does natural uranium. The truth is that after 10,000 years over one million pounds of plutonium will remain, undecayed.

DOE states, plutonium will not move in the soil; it will stay where it was buried. The truth is that certain chemical forms of plutonium migrate freely through the soil. Common household detergents have readily flushed plutonium out of extended soil columns.

DOE states plutonium is very easy to detect. The truth is that plutonium is very difficult to detect. It emits an alpha particle which is 7500 times heavier than a beta particle; being so heavy all its radiation energy is absorbed by the immediately surrounding flesh quickly exposing that flesh to radiation levels in excess of that known to introduce cancer. In order to detect the

1 presence of plutonium, a sample must be placed 2 directly onto the scintillator detection crystal, a 3 difficult operation, indeed, for field use. 4 It would be serious if such DOE 5 falsehoods were a deliberate attempt to mislead the 6 public; it would be far more serious if they are a 7 measure of a lack of DOE management competency. 8 How dangerous is plutonium? 9 Plutonium is a bone seeker going 10 directly to bone and marrow. The lifetime body limit 11 for plutonium is 0.6 of a microgram. The weight of a 12 single fingerprint is tenfold more. 13 The Washington Post reports that three 14 ounces of plutonium in particle form could poison 15 every person on earth. One microscopic particle can induce cancer. 16 17 Section 222 of Public Law, 97-425, which created the DOE project office mandates that 18 19 DOE investigate and evaluate alternatives to its 20 burial of "spent" fuels. 21 There are only two ways to destroy plutonium. One is to let it decay over 250,000 years. 22 23 What a legacy to leave our grandchildren. 24 The other way is to convert the

plutonium to shorter half life radionuclides by

25

recycling it as fuel back into the power reactors.

A nasty word is immediately thrown out at such a proposal, the nasty word is reprocessing, and it deserves its reputation based on its performance at Hanford, Savannah River and in England and France.

word. It is only one form of plutonium removal and elimination. To classify all forms of plutonium removal as reprocessing is akin to classifying all forms of travel as B-52 bombers; both reprocessing and B-52 bombers were born in weapon's technology and both are limited to weapons applications.

I have submitted to DOE detailed documentation on PURE the Plutonium Removal and Elimination Technology. PURE is a new, safe plutonium technology that removes all the plutonium, that is, 100 percent of the plutonium, from the spent fuel for use as recycled fuel. Every ten years, one half of the existing plutonium will be destroyed by the PURE process.

In 20 years only one quarter would remain, in 30 years only one-eighth would remain and so on. Best of all for Nevadans, PURE would operate at or near existing reactor sites in the Eastern part

of the country and the residual wastes, with one hundred percent of the plutonium having been removed, would be encased in high-integrity titanium containers and left on the PURE site.

2.1

The DOE Yucca Mountain project officer reports directly to the Director of the Office of Civilian Radioactive Waste Management who is responsible for the final decision on evaluating waste disposal alternatives. They have detailed documentation of the PURE process and have conducted an initial review. Their report back to me was highly favorable. That, however, was over one year ago. Since then DOE has directed its entire energy to proving out the Yucca Mountain site.

In summary, let us not overlook the DOE appears to be covering up on plutonium. In fact, DOE seems bent on misleading the public regarding extreme hazards posed to them and their grandchildren by DOE's plan to bury plutonium in Yucca Mountain. If plutonium should contaminate our drinking water and be ingested in liquid form, it can go directly to bone marrow. When inhaled as a microscopic particle, it can lodge in the lungs.

Forcing DOE to tell the truth, today, on what they plan to bury into Yucca Mountain will

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firmly establish that Yucca Mountain fails the basic DOE -- that is DOE "scientific" test for containing plutonium, the primary constituent "spent" fuels.

Using DOE's own stated guidelines, all work on Yucca Mountain should be stopped and not
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resumed again, if ever, until this plutonium issue is resolved.

MR. MILLS: We have a question, Mr. 9 Anderson.

MR. GERTZ: I have just one very quick question. DOE's report back to you, could you make that available to my project office? You said it had, it was looked at favorably.

MR. ANDERSON: It's interesting that the man that reported back to me, about three months after he reported back to me and we had several phone conversations and he said he would push it internally within DOE, the Washington Post carried a short notice, this gentleman had opted for early retirement.

Now, I do have a letter from the director, and I think it would be better if you would contact the director of radiation programs for EPA, and they are the ones that said they had not evaluated plutonium. And I hand delivered to the director of OCRWM at that time Ben "Rooshi" that PURE

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    document, so they have it, they should have it in
 2
    their files.
 3
                  And, by the way, I have never been able
 4
    to extract anything from DOE files so I want to
 5
    challenge you, can you find anything?
 6
                  MR. MILLS: Thank you, Mr. Anderson.
 7
    It's now approximately 4:00 o'clock and we'll take a
 8
    brief ten-minute recess. We'll readjourn at ten
 9
    after four. It will be an eight-minute recess.
10
                       (Brief recess taken.)
11
                  MR. MILLS: In order to keep on
12
    schedule, we'd ask you to keep your seat so we can
13
    continue with the meeting.
                  Is Joe Brown here?
14
                  Is Martha Law here? Is Norb Drouhard
15
    here? Last name is spelled D-r-o-u-h-a-r-d.
16
17
                  Is Bob Dickinson here?
                  MR. DICKINSON: Yeah.
18
19
                MR. MILLS: Come forward, please.
20
                  MR. DICKINSON: Thank you. My name is
    Robert C. Dickinson. I live at 4413 St. Andrews
21
22
    Circle in Las Vegas, and I'm here representing myself
23
    and also the Nevada Nuclear Waste Study Committee
24
    which has been in existance about five years and
25
    numbers over 8,000 members.
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The committee, members of the committee take the position that we believe the Yucca Mountain repository is a highly likely possibility. We believe that our politicians are using it more for political rhetoric than anything else, and we believe that we should get on with negotiating and planning the negotiations for what would be the quid pro quo for Nevada if we take on this major responsibility for the United States and probably for the world since this would be the first demonstrated deep rock geologic storage repository.

2.0

I want to comment on a few things that were said here and some prepared comments, but they are in very, very rough form. I'll submit written backup to them from this document later along with other things.

Somebody mentioned the L.A. Times article, and I was quoted in that article and I want to publicly say right here one of the comments was that the editor said Mr. Dickinson suggested something and then she used a word in regard to one of your scientists on the DOE that I did not use. I did say, however, that I did not have respect for somebody who goes around the peer review process of their organization of their colleagues and releases

information in advance. Her use of a more inflammatory word was hers, not mine.

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Speaking of newspaper articles, one of the political leaders here commented on a New York Times article and it quickly made me recall one that I found--I have been reading--I probably read this high of material on this whole nuclear waste issue. The one I found was a cutout of a New York Times editorial in 1878, and this editorial went on at length about why we should not allow electric light power in our homes and how it was so much better to have combustion power, I guess that was the old gas lamps. And there was another later editorial on the dangers of the electric light power lines around and how they were going to kill all the horses and cause mass confusion in the cities of America. So, you know, as far as I'm concerned, newspaper articles bother me a lot. I hate to see people quoting them because you have to read behind almost every line you see in a newspaper.

I notice that one of our local papers depicts this whole nuclear issue with a woman in tight pants and a black snake whip and long hair and a grovelling public in front of her and then our state governor uses it for his information

dissemination newsletter in the Nuclear Wastes

Projects Office. I don't find that very informative
to Nevadans.

2.2

We talked about polls and somebody quoted 70 some percent of Nevadans being against this project, and I also am in possession of a very respected pollster, Cambridge Report saying that 76 percent of Nevadans think we should establish a commission to negotiate for Nevada, and that poll has been shot at recently, but we brought the pollster to the Nevada State Legislature. Cambridge Reports is part of one of the most highly respected worldwide information gathering organizations that you could find, and I think he shot out of the saddle any ideas that they were tweeking their poll to get certain results.

By the same token I heard another pollster report to the governor's commission on nuclear waste and he compared Phoenix with, as typical of any city in America, and then went on to say they were aware of nuclear activity in Nevada.

I would challenge that Phoenix is like very many cities in Nevada. It's a retirement community which is a huge percentage of it leaves and comes back all the time, and since they are situated

between the states of New Mexico with the "whip" site and Nevada with a 30-year history or whatever it is of the Test Site certainly they would know more about whether there was anything nuclear going on in Nevada.

What we are doing here in Nevada, I
think, has a world focus to it. It is a major
project to solve a major energy problem. My
committee, most of us on my committee believe this
project is feasible and reasonable. But in view of
all the doubt, we are reassured that they have
established now and they are appointing the members
of a technical review board of scientists recommended
by the National Academy of Sciences reporting only to
the president, not responsible to DOE, with all due
respect, not responsible to NRC, and that they will
sign off on whether the science that says whether
this is safe or not is in their eyes correct. That
seems to me a reasonable insurance for a Nevadan.

We also believe that in view of the controversy and the size of this project and the tenure of the project that Nevada should receive quid pro quo, things in relation to taking on this responsibility. Among these I think Nevada should have, the government should establish in Nevada a major energy research center for the United States of

America. We have energy out in the future—as a matter of fact, I understand that a couple of years ago the only fusion reaction, and fusion is supposed to be the energy of 40 or 50 years out, occurred at the Nevada Test Site. That occurred at one of the experiments at the Nevada Test Site and there are many experiments that go on out there.

2.2

We think it's reasonable also that we consider building a high speed rail line between Reno and Las Vegas. This would help bind this state together that's politically separated in many ways, and you could use the line also for getting that material up to the site.

We expect, of course, school and road improvements and other infrastructure improvements and perhaps even a tonnage charge for every ton of this waste that's brought in or taken out of the State of Nevada.

Nevada has made contributions to nuclear technology in war and in peace for a long, long time and we think these are reasonable paybacks to Nevada.

Last thing, since government bodies seem to be involved, they are constantly at odds and every state body says we are not going to take it,

over our dead bodies, and we think that's a form of politics.

The communication is not very good as far as we citizens are concerned. We come and we tell you something and it's a one-way dialogue or you present a slide show and it's sort of a one-way dialogue, and there is a little bit of question and answer but it's not very broad.

I don't know whether the answer is some kind of a public committee of non- governmental citizens that are constantly in dialogue with DOE or whether since this project is involving billions anyway and we only have a few newspapers to cover this whole state very easily, that you have a question-and-answer section paid for and regularly in these newspapers.

I don't know what the answer is, but I don't think the public is getting informed either by the people that get up here and say it's going to be so evil or the people that get up here and say, we think it's a reasonable project. It's just not--I think one of the answers is this whole issue of plutonium.

Now, I'm told that plutonium will not penetrate paper, the radiation of plutonium, but I

heard another gentleman speak earlier who says it is the most dangerous thing the world has ever acheived. However, I'm also told that arsonic is 50 times more toxic than plutonium. We put it in fertilizer, we throw it on the ground, it has no half life and there are other things like botulism that are more toxic.

So maybe it can help us really understand these radiation things so we can absorb, most of us are pretty intelligent, we can absorb this kind of thing.

I don't have all the details worked out on how you'd do that, but these charges being tossed around I think are such that we ought to try to develop this dialogue.

And, lastly, after all this reading and all the consuming of--perfect--of public information in the past five years, I have been looking at this for ten years, I think nuclear power has enormous potential and I'm sure for the world and for this nation in particular. I see it from the world because I understand that nuclear power plants could not give off the emissions that fosile fuel plants do in terms of contributing to that greenhouse effect in the upper atmosphere that's supposed to be one of the greatest catastrophies we will ever see if we don't

do something about it.

2.4

sir.

I understand that also contributes to acid rain, and somebody else earlier mentioned a problem with us being dependent on foreign oil, and the only recession Nevada ever really experienced since 1950 was in '81, '83 when gas went over \$2.00 a gallon and the planes were having difficulty bringing our tourists in here.

reverse the greenhouse effect, it can help mitigate the acid rain problem, it can help with our electrical energy shortage which we are facing in the mid-1990's and maybe even help Nevada by keeping the gas bill under \$2.00 a gallon. Thank you very much.

MR. MILLS: Thank you.

Mike DeFloria. Please come forward,

MR. DeFLORIA: I wish I could have a podium here so I could bang on it once in awhile.

There is absolutely no way that

Nevada--I'm Mike DeFloria and I live at 3213

Palmdale. I've been here 25 years and I'm tired of bureaucracy. Believe it.

There is absolutely no way that Nevada or any other state should accept this nuclear dump.

Central Nevada is already a wasteland for thousands of years due to atomic bomb testing above and below ground the past 40 years and still going strong.

Imagine making this plutonium waste for the next 10,000 years and still not having a safe way of storing it. With the population increasing at an enormous rate, with people demanding electricity, future generations would have mountains of this plutonium to ship and store and worry about.

There is no way possible to store high level nuclear waste safely, in spite of the propaganda our government is feeding us. So the solution to the problem is to stop the manufacture of this deadly chemical until we can find a safe and economic way to store this waste.

when our country should have stopped making this plutonium waste. Many countries of the world outlawed the manufacture of plain old chemical gas used in World War I except the United States. Proof of this was several years ago when a herd of sheep died mysteriously in Utah and it wasn't until a few years later that our government admitted that World War II type chemical gas caused the herd of sheep to be killed.

So why are we making weapons 1,000 times more deadly than World War I chemical weapons? This high level dump project reminds me of when the Pentagon wanted to put 4,000 MX missiles in Southern Nevada just a few years back. The professional lobbyists came from Washington holding many meetings around this state spreading the propaganda that we couldn't live without the MX's. These 4,000 MX missiles with ten war heads each would have added 40,000 more unneeded atomic bombs to our already bloated defense arsonel. How many times do you have to kill somebody before he's dead? I thought only once was enough.

2.2

Our country helped France and other countries build their atomic power plants to produce electricity with the condition that our country would accept all their high level spent fuel waste so enemy countries couldn't get waste for making the weapons. Our government has been brainwashing the American people for 30 years that making this electricity with atomic power would be inexpensive. How cheap is atomic power? It cost 12 billion or more to build a plant, millions more to operate and maintain it and billions more to ship and store this high level waste for centuries. It will cost billions more to clean

up the waste in and around the plants. The government has already given the State of Nevada \$44 million for various reasons, mainly for propaganda purposes. It will cost 200 billion just to clean up the Savannah River plant, recently closed due to contamination in and around the plant since it started making tritium.

Ask the Russian leaders and the people of Chernoble who had to leave their homes, the surrounding countries and the farmland affected by the nuclear meltdown. So is atomic power a good, cheap way to make electricity especially when half of this electricity is wasted? Is all this dangerous, very expensive electricity really needed?

It's a known fact that we waste half of all the energy produced. Japanese homes are 36 percent better insulated than our homes in America. That fact alone means every drop of oil that flows through the Alaska pipeline is wasted because our homes are poorly insulated. Can you imagine China and the rest of the third world countries with over three billion people wasting energy at the same rate that the United States has been wasting energy the past 50 years?

Our government cannot solve even the

low level waste, waste that is not plutonium contaminated. I'm speaking of plain old household garbage, used engine oil drained from private cars by the tons, hospital waste, such as hypodermic needles that washed up on the shores of New York. The list goes on and on.

1.3

A few years ago New Jersey wanted to ship trainloads of contaminated low level dirt to the State of Nevada for burial. The dirt was rejected by a large majority of the people here so why must we accept this high level plutonium waste from around the 48 states and probably from around the world forever, as long as plutonium waste is being manufactured?

There are only two countries on this planet, Russia and the United States who are hell bent on the destruction of this planet. Knowing how deadly and destructive nuclear power is, both countries are spending billions every year making and testing these unneeded catastrophic weapons and nuclear waste in the name of peace.

Both countries are calling each other the evil empire. Both countries manufacture deadly weapons and distribute them around the world. If Russia is the enemy, why does the United States sell

millions of dollars worth of farm products to Russia,
and why does the United States loan billions of
dollars in financial aid to Russia?

This high level nuclear waste problem is only one of the hundreds of major problems that has plagued our country since World War II. Crime, dope peddling, illegal aliens, flood control, pollution around the world, and there is no solution in sight to solve these hundreds of major problems that need to be solved. We must elect qualified people to run this country, it's the only way we'll ever solve these major problems.

One big reason no problems get solved at the local, state and federal level is called lobbyist. There are 2,300 paid professional lobbyists registered in Washington, D.C. These lobbyists are hired by the largest corporations in the world such as Ford, General Motors, et cetera. Japan alone spends a hundred million a year wining and dining our top congressional law makers.

Every year the American people vote for numerous items including electing or reelecting politicians who promise us that they will solve our problem, and every year the people realize that the people they put in office to solve our problems

create more problems than they solve. Try making a list of the problems thats been solved since World War II. I can guarantee from past records that our congressman will not solve this high level waste problem, only make it worse. Here is an example.

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In the not too distant future, within four years NASA wants to put people on the moon. In spite of the unlimited solar energy that will be available, small nuclear power plants positioned well away from lunar habitats, will support human explorers, science and industries, mining and astronomical observations. We did a good job of poluting the earth and the atmosphere, so why not pollute the universe.

Unfortunately, there is no law in this country against people being stupid.

Hiring the politicians to solve our problem is like hiring a supermarket butcher to perform brain surgery.

Don't waste your time writing letters to your congressmen hoping they will solve your problems. As long as the voters keep reelecting 97 percent of the incumbents, no problems will be solved. Read our lips please, the American people are fed up with bureaucratic bungling.

MR. MILLS: Thank you, sir.

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Could you give us a copy of those comments, if you would, please, to the court reporter. Would you take them outside and we'll make a free copy and give you back your very valuable document.

Our next speaker is Diana Aird, A-i-r-d. Is she present?

Thank you.

MS. AIRD: My name is Diana Aird. And I'm here not as a scientific expert or government bureaucrat or, um, a multimillion dollar corporate leader, I'm here as a human being, as an American citizen, as a resident of the State of Nevada and more than anything else as a concerned citizen.

I have to admit that I only recently, meaning in the last year and accelerating a bit in the last six months, have been paying attention to this issue of the nuclear repository in the State of Nevada, the fact that the State of Nevada has been singled out for the Site Characterization Plan.

I have read everything that's been made available to me. I try to take note of the various forms that it held, participate as I can. I have only in the last two, meaning the one prior to this, and today taken the initiative to speak my piece. I

feel like I'm a bit more qualified now to at least express my thoughts and my feelings.

What I observed more than anything in the middle of this issue, and the issue is more than one issue, really, is the human problem, the human problem based on the fact that we as people are never able to look at a situation simply from an objective point of view. We always react or make decisions based on how things affect us or how they benefit us. So I don't think any of us will ever be able to be totally impartial in our decision making. The only thing I as an individual can and I hope the rest of Nevadans and Americans will join me ultimately is in trying to make the best decision possible and I feel I have a right to participate in the decision-making process.

I am a naturalized citizen of the
United States, and in order to avail myself of that
privilege, and it is a privilege, I had to study the
democratic system and its application, and my
understanding is that this is a country that is based
on the principle of it being governed for the people,
by the people and that the government is made up of
the people. Nevertheless, I see this situation about
the nuclear repository growing and developing, and

one of the things that I have noted is that it's not something that's come about just recently, it's been in place, I mean the considerations have been in place for some time.

What I do know is that as an individual, the thing just suddenly seemed to, you know, thrust forward almost coinciding with the recent elections, and I have seen my elected officials make decisions, I'm sure many of them believe in what they decided, the fact that they do not want to participate in this process in a cooperative manner, anyway, because they are afraid of having it thought of in Washington or on the federal level that by their participating it would lead Washington as well as the public at large to believe that they are sanctioning the repository being built here.

Nevertheless, I never heard much about it until the recent elections, you know, and it seemed around the elections the fact that in 1945 the first atomic bomb was exploded and during World War II was applied in its most negative manner which is being dropped on Hiroshima and Nagasaki. I mean, when we finally came to know of this power, even though in my research it was intended for total good,

the first use of it was, you know, in such a devastating manner that it's imprinted in our minds, you know, our grandparents, parents and now my generation just—it just creates such fear.

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So we get to the point of a nuclear repository and it's only thought of in the negative. In other words, this is the result of the bombs we built, et cetera, et cetera and now they are going to dump it in our state so it just has such negative connotations which I don't choose to see it only in that connotation. I do not approve of nuclear armaments and using it in those negative connotations, but the fact is that over the course of history we have progressed in the manner in which we produce energy. I'm sure that when we moved from burning wood to gas, you know, there were many accidents and many repercussions that at the time the scientists who developed that could not anticipate, though I'm sure they did their best based on the information available, but there were repercussions then.

We move from there to electric energy.

I don't want to be redundant. That's been discussed before, but that also brought with it its problems.

Sources for this energy, coal being one, has had very, very negative history in the U.S. and the world at

large. I don't think I need to go fully in depth in that either, but the fact is that we have got countless debts in the hundreds of thousands all pertaining to coal as a source, but in the progress of mankind, you know, we call it progress, we move to things that are better, that can be produced more efficiently, and in this day and age what we have suffered in terms of the oil, the petroleum industry, and I don't know if many of us remember the events of the seventies when wars were being waged and still are over oil. We were out of oil. All the problems that were created I can logically understand why we are trying to develop our nuclear industry.

words that I think of are responsability and accountability because at this point in many respects though the information is available as it pertains to the repository, it still is an unknown, and thus the understanding at this point is that the seven years, I think it began last year, that are to be applied in the study of the feasibility of the nuclear repository, the purpose for that is to give us the answers that we need.

As an individual citizen, now that I'm aware of what's happening and the fact that it will

affect me and my future offspring very personally, then I make a commitment to stay abreast and to learn as much as I can so that I can participate in a constructive manner as it pertains to the decision-making process.

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But my feelings are that as human beings, as usual everything becomes so factionalized that we lose sight on what the objective really is.

I have government leaders and I intend to make them accountable to me. I intend as a citizen, as a voting citizen to insist on their assuming their responsibility as my leaders, my representatives to properly investigate and stay on top of this situation and to make the proper governmental decisions, you know, from a political standpoint. I do not feel that they have done so thus far; mainly in that this is supposed to be a period in which the feasibility, the appropriateness of this nuclear repository being located in Yucca Mountain is taking place, there are, there were periods when the government could have participated more fully in seeing to it that during the interim we as Nevadans benefited; A, from the facts from which we could make a decision, but in the meantime benefited economically, and those opportunities have

been almost ignored simply because they have taken a political stand I think in the name of gaining votes, the fact that we just won't cooperate.

The Department of Energy, I don't need to stand here and repeat what's already been said, your track record is a bit shakey. We are moving into an area that is in certain respects still very brand new to you. The only thing that's logical to me is that Nevada being a desert as a site shows more potential than other areas. I think the pyramids in Egypt is a classic example. Things tend to preserve better in the desert so I'm saying I am speaking from common sense. I feel I'd like you to have the seven years in which to make the studies. I dare you to implement it without my decision.

I also feel that during the interim everything that is ours as Nevadans, you know, things that are negotiable, then I insist that our leaders or Nevada leaders to place themselves in a position to see that we benefit in any way that we can.

At this point, thank you.

MR. MILLS: Thank you.

Eric Okelberry, O-k-e-1-b-e-r-r-y?

John Stingle?

Robert Deiro?

Is Ron Pate here? 1 2 MR. PATE: Yes, sir. 3 MR. GERTZ: Please come forward. MR. PATE: My name is Ron Pate. I'm a 4 5 resident of North Las Vegas, the Beverly Hills of the Las Vegas area here, and I'm here to speak of a 6 7 little common sense also. We had a gentleman from the nuclear society, I'm sure there are numerous such 8 9 organizations. He are relives antidote from 1878. 10 Why don't we go back to the Constitution and 11 Declaration of Independence if we are going to have 12 some antidotes. He mentioned in particular a sheep. I was not going to address you in this manner, but he 13 14 brought this to mind. 15 First of all, the sheep will, tolerances or threshold is quite lower than that of a 16 17 human being. They can withstand up to three or four 18 times the doseage of arsonic without any effects 19 whatsoever. So why don't we lift a fringerprint of 20 plutonium and feed some to a sheep and see how they 21 stand up to that gentleman's argument for openers. The State of Nevada's critique of the 22 23 consultation draft of the site characterization

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after August 1st, '88, they were not considered in

Because the state submitted these papers

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process.

the Site Characterization Plan. Therefore the points raised are still valid.

This is part one of an overview. The basic approach of the SCP, I assume what you know that means by now, has not complied with the Nuclear Waste Policy Act. That is, the basic approach does not comply with the directive and the intent. And in its fundamental approach the SCP can more accurately be described as a licensing document, rather than a plan for characterizing the site for determining its suitability in the first instance as the location for a repository.

The SCP, and indeed the entire site characterization program consists of a strategy to uncover the information necessary to license, design and operate a repository at Yucca Mountain rather than to determine the natural geology and hydrology of the site and its immediate environs will provide the necessary waste isolation.

The Preface itself is enlightening in this respect. In discussing the process of consultation the draft says:

"The DOE believes that the benefits of the consultation process would be maximized if the interactions focused on several key questions. For

the NRC staff the key question is as follows: Does the SCP provide confidence that the DOE has adequately identified the issues and the kinds of information the NRC will need in its licensing decisions? The key question for the states and the affected Indian tribes is how well the specific concerns have been identified and addressed."

Nowhere does it say that a key issue for anybody is whether or not the Yucca Mountain site is suitable, or whether or not it is capable of isolating the nuclear waste. The Preface goes on to state, at page clvii:

"The purpose of preparing such a comprehensive and detailed plan is to facilitate the review of the planned site characterization program by the states and affected Indian tribes, also to obtain from the NRC staff input as to whether the program covered by the plan can be expected to be sufficient for eventual licensing."

Many of the detailed sections of the SCP set out a program designed to gather the data necessary to design a repository. It will attempt to comply with the applicable standards and regulations, not to determine whether one should be located at this site in the first place. This is evident from

the outset.

"Tectonic data collected to date are insufficient for a full assessment of earthquake and volcanic hazards at Yucca Mountain. A key uncertainty is the location, length, and slip rates of Quaternary faults at and near Yucca Mountain. This uncertainty impedes reliable estimates of the magnitude, recurrence intervals, and ground motion from future earthquakes that are to be considered in the design and performance of the repository."

This is but one example of what seems to be a pervasive defect in the SCP and its entire site characterization program.

Furthermore, the consultation draft, the SCP again ignores what should be a fundamental aspect of any objective, well conceived and well managed site characterization program: To structure the program to determine as early as possible, whether any conditions which would disqualify the site from further considerations exist.

Has that been touched on this afternoon?

Furthermore, okay, the need to

determine such conditions and evaluations of such

findings will apparently be made only at the

conclusion of the entire program. No mechanism

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exists, no key decision points are set out to uncover the data necessary to make such decisions early in the program, before substantial, and perhaps unnecessary, resources are committed.

This is not a new concern. The state
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and the NRC have been consistent in making such recommendations for some time. Those recommendations have, just as consistently, been ignored.

In 1979 the committee on Radioactive

Waste Management of the National Academy of Sciences
also urged the DOE to structure its program in this
way. The Committee suggested "...that the
explorations and investigations be conducted in a
logical sequence so as to assure that certain
fundamental questions be addressed first before major
resources are committed."

MR. MILLS: Sir, I hate to interrupt.

MR. PATE: Yes.

MR. MILLS: Slow down just a little.

I'm concerned that the court reporter this late in
the day won't be able to accurately depict -- for her
sake, if you would slow down, I'd appreciate it.

MR. PATE: I'd appreciate if you'd deduct those seconds from the admonition. I've got a lot to cover. I will try to slow down.

Okay. Those fundamental questions, I urge those fundamental questions remain unanswered. The DOE--I urge the DOE, we urge the DOE to structure its entire site characterization program to diligently search for disqulifying information first through an adequate surface-based testing program, before any further resources are committed to the exploratory shaft and, perhaps unneeded, underground testing program.

The DOE's fundamental approach is misquided for another reason as well. The SCP should not be finalized, and site characterization should not begin, until final comprehensive Environmental Protection Agency standards are in place, and they are not. Perhaps the best support for this position is the language of the SCP itself.

In section 8.1.1.1 the draft sets out and discusses the issures of hierarchy saying:

"On the first, and highest tier there are four key issues, which embody the principal requirements established by the regulations governing geologic disposal. The issues hierarchy, then, defines issues that must be resolved to demonstrate compliance with key regulatory requirements."

As is now known much, if not as all,

the existing data which forms Chapters 1 through 7 of the draft is unusuable because it cannot be qualified under the NRC quality assurance requirements. This is true of all the DOE generated data reported in the characterization program outlined in Chapter 8. At a minimum a thorough, comprehensive and objective review of all that information should be conducted.

Any existing data which cannot clearly meet qualification assurance requirements should be discarded, Chapters 1 through 7 revised, and Chapter 8 rewritten to encompass studies designed to provide a comprehensive data base which meets all quality assurance requirements.

The entire underlying framework for the SCP which is hinged upon the presumption that indeed the Yucca Mountain site is suitable for development as a repository is not only wrong but demonstrates the lack of scientific process and methods which has permeated this program since 1979.

Additionally, the SCP does not comply with the intent of Section 112 and 113 of the Nuclear Waste Policy Act. As has been well documented, the Department of Energy has in nearly every instance since the program began made concrete programmatic decisions without any scientific or technical data.

Only after these decisions have been made, does the Department collect data, and then only data that support DOE's predetermined view of the site.

The SCP is a continuation of this process, where the assumption that Yucca Mountain is suitable has already been made in the absence of any credible scientific data.

The site characterization program as laid out in the SCP is an exercise to only collect data that supports DOE's predetermined view of Yucca Mountain while a subsurface and surface facility is being designed.

This type of pre-judged decision making without supporting data has been the subject of criticism and the program since the beginning by all parties and suggest that very little if any portion of the program is based in credible science or technical merit.

The fact the DOE has in essence, determined that Yucca Mountain is suitable in the absence of the EPA standards, which the site must meet, is a further example of the lack of any meaningful scientific process or method.

In order to resolve this major deficiency in the SCP, extensive and integrated

1 revision is necessary to incorporate an appropriate 2 range and sequence of testing necessary for determining site suitability for waste isolation and 3 4 support and, finally, if you are lucky a license 5 application. 6 Do I have any more minutes remaining, 7 sir? 8 MR. MILLS: You have approximately 45 9 seconds, sir. 10 MR. PATE: Thank you. In 1987 the 11 University of Las Vegas conducted a national survey 12 to determine the impacts of a waste repository on 13 tourism. 14 Gross revenues in Nevada from gaming 15 and tourism 1987 were slightly higher than \$6 billion 16 with 70 percent of that revenue coming from right 17 here in Clark County. The survey response indicated 18 over a 30 percent market chill against tourists 19 coming to Las Vegas. It was induced by the 20 possibility of a nuclear waste dump in our area at 21 Yucca Mountain. 22 Assume 30 percent is too high and apply 23 only a 5 percent drop in tourists coming to Las Vegas. 24 Nevada will lose 210 million in gaming taxes from

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Southern Nevada alone.

I conclude. Thank you very much.

MR. MILLS: Mr. Pate, if we could have

you give a copy of what you are reading from to the

court reporter, we would appreciate it.

Is Betty Follis here? Would you come forward to the mike, please.

MS. FOLLIS: Lady and gentlemen, my name is Betty Follis. I live at 4476 Avendale in Las Vegas. I represent the Redrock Audubon Society on the Nevada Nuclear Waste Task Force. I am pleased to tell you that as of last week membership in the Redrock Audubon Society topped out at over 700 members.

Many of us have read the book by Cleve
Anderson. I have seen him on TV and I heard his
testimony today. He proposes a technology called
PURE to remove plutonium from spent fuel. Our
questions are three: Has DOE tested the PURE
technology? Will it work? Have you any plans to use
it?

Would you speak to those three quickies?

MR. MILLS: Ma'am, if I might, as we explained at the first, this is an opportunity to hear from the public and this is not a forum in which the panel is to answer questions. If you might

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    afterwards, you might want to meet with them, and I'm
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    sure they are happy to talk to you, but during your
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    presentation if you would express your feelings, then,
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    and--
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                  MS. FOLLIS: Well, we are concerned.
    We would like to know if it works and if they plan to
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    use it, and I will report back to my group. Perhaps
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    I can meet later with you.
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                  MR. MILLS:
                              Thank you.
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                  Is a Marla Hollander-Pollot?
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    come forward.
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                  MS. HOLLANDER-POLLOT: My name is Marla
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    Hollander-Pollot, and I'm here to publicly testify my
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    concerns over the proposed high level nuclear waste
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    dump at Yucca Mountain. I have numerous reservations
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    about worker safety accidents and radiation leaks,
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    the effects on our environment, the integrity of the
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    Department of Energy, the integrity of the
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    subcontractors and the list seems endless.
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                  Specifically I have many great concerns
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    and questions about the transportation of 70,000 tons
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    of high level nuclear waste to Nevada. That equals
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    1,400,000 times the amount of long-lived radioactive
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    materials as the Hiroshima bomb.
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I don't understand why Nevada was

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chosen, was--I don't understand why only Nevada was chosen for any study when 90 percent of the waste will be shipped from the east coast. It doesn't make much sense.

700,000 people live in Nevada, many of whom have moved from other parts of the country by choice seeking a better life and more opportunity.

Nevada is not a wasteland and we don't deserve to be treated as such.

Forty-four other states should be concerned as well. This high level waste will be transported through everyone's backyard.

Between 1971 and 1982, only 5100 spent fuel containers were shipped in the United States.

Up to 5,000 shipments per year to Yucca Mountain may occur if the site is developed. 3,000 plus shipments per year would travel through the Las Vegas area.

Our highways can bearely accommodate the current traffic load. With the growth rate in Southern Nevada what plans does the Department of Energy have for safe, unencumbered routes through our area? I surely wouldn't feel comfortable in bumper-to-bumper traffic between I-95 and the expressway next to any vehicle containing high level nuclear materials.

The General Accounting Office reported in September, 1988 that the Department of Energy sent at least 13 shipments of highly radioactive material across the country in faulty containers.

The DOE had been warmed that they could release high levels of radiation into the environment in the event of an accident.

Of ll casks used by the Department of Energy to transport high level waste, all ll have had to be recalled by the Nuclear Regulatory Commission because of technical defects.

Federal officials estimated that the 1982 Caldecott Tunnel fire, involving a gasoline truck, a bus and another vehicle, reached a maximum temperature of 1900 degrees Fahrenheit for 40 minutes. According to present design criteria, spent fuel casks need to withstand only 30 minutes at 1475 degrees Fahrenheit.

How can we be assured of the safety of any containers? Specifications may be met for high temperatures and high impacts, but can anyone guarantee that there would not be faulty workmanship on every single container or that the specifications were stringent enough?

The majority of radioactive shipments

have come from hospitals, universities and industry involving low level waste. During a 14-year period there were approximately 6,000 transportation accidents, over 60 of which released radioactivity.

173 accidents over a 12-year period between 1975 and 1987 were reported by the Department of Energy's nuclear weapons transportation fleet between various production facilities.

The above statistics correspond with the standard accident rate for interstate heavy trucks or 4.57 accidents per million miles traveled.

Applying this rate and assuming 70,000 metric tons of high level radioactive waste is trucked to Yucca Mountain, there would be 1500 accidents over 30 years or 50 accidents per year. About three per year will be severe accidents, involving injury, and possibly death and the release of radioactivity. Most of these accidents would happen in Nevada because most of the highway miles traveled are in Nevada.

A severe accident would involve an invisible cloud of radionuclides being lofted in the air and carried downward which would only be detected by radiation monitors. Fallout would contaminate milk, water and produce and people as occurred

throughout Europe from the Chernobyl accident. 1 2 Accidents are inevitable. 3 emergency plan does the Department of Energy and our government have when they occur? How fast could help 4 5 arrive at the accident site? What help really is 6 there? You can't sweep up radionuclides and throw 7 them in a trash bin. 8 What does anyone do for innocent 9 citizens who have been exposed to radiation? 10 Apologize? 11 Why doesn't the Department of Energy 12 consider the safe transportation of high level 1.3 nuclear waste important enough to address in 14 investigations and be included in the Site 15 Characterization Plan? 16 One of the Nuclear Regulatory 17 Commission requirements for the Department of Energy 18 is to protect the health of the next 500 generations. 19 How can we trust the Department of Energy to do so 20 with their past and current track records? 21 With no outside oversight, the 22 Department of Energy continues to run machinery for 23 making nuclear weapons which are not up to the 24 original standards and have fallen into disrepair.

In March of 1988, the Nuclear

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Regulatory Commission said they did not have confidence in the Department of Energy's quality assurance program, the Department's management abilities and their over-reliance of inadequate contractors. Currently the Yucca Mountain project employs 1400 people, only 60 of whom are Department of Energy employees.

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Accounting Office counted six stop work orders for the Department of Energy to its contractors for poor quality assurance. How many stop orders have there been since then, and how many stop orders should there have been that weren't caught or those that were not thought of to be crucial enough?

Mr. Hugh L. Thompson, the chief official at the Nuclear Regulatory Commission in charge of the nuclear waste in March of 1988 complained that the Department of Energy was planning to collect only at that time data that would support the acceptability of the site at Yucca Mountain and not collect data that might show flaws, or reasons the site would be unacceptable. This information does not put much faith in the Department of Energy or their studies.

I have a hard time understanding why we

need nuclear power and nuclear weapons resulting in nuclear waste. The decisions and actions of so few people affect so many and for generations. Are the decision makers willing to take the responsibility for the lives and deaths of my children and their children?

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The Nuclear Regulatory Commission has not come up with--the Nuclear Regulatory Commission has not come up with any impediments to on-site dry cask storage. The nuclear waste could be stored for 30 years past the power plants retirement.

Is the Department of Energy investigating any other storage options besides the dump at Yucca Mountain? If not, why not?

We as a nation and as a world need to discover safer alternatives or stop producing radioactive materials.

Isn't there an incredible lesson to be learned from the Chernobyl disaster? Accidents do happen. The best of technology today will be outdated and proven unsafe tomorrow. We may not know the consequences from Chernobyl for generations to come. What makes the Department of Energy so convinced that this tradegy couldn't happen at Yucca Mountain or enroute to Yucca Mountain? And what are

the Department of Energy's plans if it did?

MR. MILLS: Thank you.

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Is Karen Croxall here? Please come forward.

on the agenda. We will take a short break and then we will continue for those who have signed up in addition to the scheduled slot times until six o'clock or until we have exhausted our list for people who are here and want to be heard, and then at 7:00 o'clock we will resume and go to whenever time but we are scheduled until ten.

MS. CROXALL: I'd like to talk about the seismic activity and the geological activity out at Yucca Mountain. There are 32 faults in the area of Yucca Moutain. Some of these have got to be considered active. The Lathrop Wells Volcano near Yucca Mountain is estimated to be between 5,000 and 20,000 years old. If you cannot accurately predict the age of a volcano, how can you predict when it will next erupt?

The chance of a volcanic eruption is

100 times greater than the DOE has previously stated,
according to an article in the Albuquerque Tribune on
April 27, 1988.

1 Over a year ago the DOE issued a stop work order to the U.S. Geological Survey Scientists. 2 3 How can you make any conclusions if you 4 do not have complete data about soils, hydrology and 5 other geological structures? The Nuclear Regulatory Commission has 6 7 said that the DOE is only looking for evidence which supports the site, according to an article in the New 8 9 York Times, January 17th, 1989. 10 The Nevada Test Site has regular 11 nuclear explosions within approximately 30 miles of 12 Yucca Mountain of a magnitude of 5.0 and above on the 13 Richter scale. The following is a list of tests over 5.0 on the Richter scale and their years. 14 15 within 30 miles of Yucca Mountain. In 1962, there were four tests 5.0, 16 17 three of those were 5.5 or above. In 1963, there was 18 one at 5.0. In 1964, there were four tests at 5.0. 19 In 1965, there were seven tests of 5.0, four of those 20 which were 5.5. 21 1966, there were eleven tests at 5.0, 22 eight were 5.5. 23 In 1968, there were thirteen 5.0 and eight of those were 5.5. 24 25 1969, there were ten tests 5.0, and

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five of those were 5.5.
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                   1970, thirteen tests 5.0, six at 5.5.
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                   1971, three tests at 5.0 and one of
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    those were at 5.5.
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                   '72, there were four at 5.0 and one at
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    5.5.
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                   '73, there were six at 5.0, two at 5.5.
                   '74, there were four tests 5.0 and four
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    tests at 5.5.
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                   '75, there were twelve tests 5.0, ten
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    tests at 5.5.
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                   1976, 12 tests, again, 5.0 and nine at
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    5.5.
                   1977, there were seven tests at 5.0,
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    four of those 5.5.
                   1978, another ten tests at 5.0, another
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    seven 5.5.
                   1979, there were five tests, 5.0; four
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    tests at a 5.5.
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                   1980, five tests at 5.0, three tests at
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    5.5.
                   '81, four at 5.0, two at 5.5.
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                   '82, eight at 5.0, six at 5.5.
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                   '83, four at 5.0, one at 5.5.
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                   '84, eight at 5.0, three at 5.5.
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1 '85, seven tests 5.0 and four of those 2 at 5.5. '86, ten tests 5.0, six at 5.5 3 '87, five, 5.0; four at 5.5. 4 5 1988, seven tests at 5.0, three at 5.5. '89, two tests at 5.0. 6 These are considered moderate seismic 7 8 activity. This was all documented by the Cal Tech 9 Seismology lab, and in moderate earthquake activity 10 in the third world would collapse adobe, would with 11 continued exposure to this kind of activity fracture 12 the tuff that the Yucca Mountain repository will be 13 built in. Except in 1971 and 1980 Nevada Test 14 15 Site has had more seismic energy release than the quakes in Southern California. 16 According to Southern California, 17 Nevada tests from seismic activities from the Nevada 18 Test Site was 62 to 68. There were 195 tests at 5.0 19 plus 116 at 5.5. Seismic activity, quake activity 20 21 for Southern California area for that same period of 22 time were 87 quakes at 5.0 and 36 quakes at 5.5. 23 That's clearly much less than the activity that goes on from testing out at the Test Site. 2.4

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These type of things make it really

- 1 unclear as to what will happen to the tuff.
- 2 According to Reilly and Geary scientists at Cal Tech,
- 3 | this might be a definite problem.
- 4 | We need detailed geographical and
- 5 | geological studies out at the Nevada Test Site,
- 6 | mathematical models will not be enough.
- 7 There were tests from '68 on through
- 8 | that measured 6.5 or over. There has been
- 9 documentation from the Bulletin of Seismology that
- 10 | the Seismology Society of America; Hamilton, Smith
- 11 and Fischer, U.S. Geological Survey, they say that
- 12 these tests, 1968 Box Car and Benham were 6.5; 1970
- 13 | Handley, 6.5; 1969 Jorum, 6.25; Kasseri was 6.3.
- 14 These geological surveys have said that these tests,
- 15 the seismic activity coming from these tests have
- 16 caused earthquakes swarms in the Nevada area.
- 17 All of these tests have been conducted
- 18 | within 30 miles of where the Yucca Mountain dump site
- 19 has been propose.
- 20 BLM rangers who are allowed on the site
- 21 | have claimed there is great exfoliation of faults
- 22 that run under Yucca Mountain. The DOE has not and
- 23 | needs to release publicly, the data from the effects
- 24 of nuclear tests on Yucca Mountain.
- 25 If the U.S. has to bury its waste like

an ostrich rather than picking volcanic tuff, it
should pick clay, the least active seismic material.

Clay eventually turns into shale, impermeable to
water.

I have with me a couple of maps here that detail historical seismicity in the western United States showing the Nevada seismic zone, the intermountain seismic zone and the Southern Nevada east-west seismic belt. It should be noted that some of the seismicity in the western end of the Nevada seismic belt represents underground explosions at the Nevada Test Site. This shows—I will turn this in to you, I'm sure you can't see it from there, but this shows a very large area of seismic activity right by Yucca flats. And these are all—these all come from underground testing.

I have a map here drawn up from a 1977 Environmental Impact study with possible ground motion induced damage to historical sites. This covers a radius around the Nevada Test Site that encompasses Death Valley, Las Vegas, Tonopah and a very large radius—it moves on into California. It just doesn't cover Nevada.

There are so many foggy areas and there are so many foggy areas here.

I also have an article from the Las 1 Vegas Review Journal saying that in a policy 2 3 turnaround at a meeting at Oakridge, Tennessee on 4 February 15th the Department of Energy--the Department of Energy has asked 70 of the nations 5 leading trash haulers to consider setting up and 6 running a nuclear garbage dump. In the beginning the 7 DOE wanted the -- the government wanted to handle this, 8 the DOE wanted to handle it because of security concerns, why has that all changed and does it matter 10 to you any more? 11 12 Thank you. 1.3 MR. MILLS: Thank you. And could you

MR. MILLS: Thank you. And could you bring forward those documents. We would like to have a copy of those, please.

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We'll now take a short break to give our faithful dedicated court reporter a stretch and the rest of us a chance to stretch, and then we believe we can accommodate everyone else who signed up this afternoon in the afternoon session. So we'll now take a brief recess.

(Brief recess taken.)

MR. MILLS: If everyone will take a seat, we'll go on with the meeting.

I apologize for being later than I

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anticipated, I had to put out a fire in my office,
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    figuratively speaking.
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                  I'm going to go back over the list now
    of people who signed in to speak on a walk-in basis
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    and see if any of these are present.
                  Is John Stingle present? Is Robert
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 7
    Diero present?
8
                  Is Richard Wyman present? Is Bernard
9
    Manke present?
                  Is Hugh Andersen present?
10
11
                  Is Mary Smith present?
12
                  Would you come forward and address the
13
    mike, please.
14
                              Hello, my name is Mary
                  MS. SMITH:
    Smith. I live at 7182 Shadow Crest Drive, here in
15
16
    Las Vegas.
17
                  I don't have a long dissertation, I
18
    don't have prepared information. I am merely a
19
    citizen of Las Vegas. I quess I shouldn't say merely
    because I'm proud to be a citizen of Las Vegas for
20
21
    the last 22 years. I feel that makes me almost a
22
    native.
23
                  I'm a graduate of the University of
24
             I'm a registered nurse and a cardiology
25
    nurse practitioner and at present a health care
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executive here in Las Vegas.

I'm here just to say that as a citizen I, too, am concerned about what's happening, but being a health care professional I greatly respect the value of knowledge, and I am a member of the Nevada Nuclear Waste Study Committee and I concentrate on the word study because that's what I joined the committee for because I am a proponent of studying the proposed facility, and I feel the knowledge of whether or not it is safe to have a nuclear repository in Nevada is the most important issue to me.

Someone spoke of transportation safety. I have studied enough to know that the information I have had shows me that the transportation of high level nuclear waste has been very safe, and if she has other information as far as that particular, you know, transportation issue, then it has not been the same information that I have been available to see.

The important thing I want to say is that if it is proven to be an unsafe project, that I certainly as a grandmother of a teenage boy and a four-year old granddaughter would be the first to say no, I don't want it for Nevada, but I don't think we found that out yet, and I feel that we need to look

at the issue and we need to have the technical review board as has been appointed by the National Academy of Sciences to look at the issues and to prove whether it is safe or unsafe.

very lengthy fashion when I came in, I didn't get everything he said, in fact I didn't get a whole lot of everything he said, but I do remember he said something about until we find a safe way, and how are we going to find a safe way if we don't look and do the studies and do the technical reviews and get the scientists out there to see what really is safe?

We know that nuclear energy is going to be a necessary thing with the way our population is growing. We in the health care profession are able to make people live a lot longer these days and with that in addition to the normal population growth, we are going to have to have new ways for energy.

We already are using nuclear energy and we already have spent fuel somewhere. We have to have a safe way to store it. If we keep saying no to going on with the projects that we know have to be done, where are all these spent fuel containers are going to be and how safe is that going to be?

You know, we have to find a safe way

just as we have to find safe ways to solve the medical problems that we have. This is a problem that we have. Somewhere there is going to be a nuclear waste facility, there is going to have to be. It looks as if there is a strong possibility that Nevada may be the site where it's going to be. If this is the case, and if it's proven to be safe, then I as a citizen feel I have a right to have a committee out there of qualified scientists that are looking at what is being done and seeing that it's being done right and in the safest manner possible.

I am not a scientist. Even though I

have a medical background, I'm not going to say anything about plutonium or any of the scientific stuff. I don't have time to read all the information that's presented so I can't say to you whether it's safe or unsafe.

I am a member of the Nuclear Waste

Study Committee because I want to know and I feel

there are people very, very qualified that can be in
an overseeing process and let us know whether or not

this is safe. I can't believe that our government is
just going to intentionally shaft us as some of the

people here have said. If we really feel that, then
why have we the people elected our government that

appoints the DOE and everything to do this if we feel that our government is just going to give us the shaft? Where are we when we are voting and appointing committees?

I feel we need to take part in the project in that we need to get involved in the committees. We do need to talk to our legislators and senators and we do need to make them see both sides of the issue.

They need to represent the people that want to know what's going on as well as the people that just say no, because we have a right to know whether it's safe. If it's going to happen, then we want to have people on those committees to see that our rights are being looked out for, to see that Nevada gets the benefits even now in the ongoing site characterization process.

I just read in the paper today where the University of Nevada is getting the benefit of a \$30 million computer system because of it being close to the nuclear waste site characterization process. This is just one example of the types of benefits that Las Vegas children, students and people that go to the university as well as business people who will be able to take advantage of.

They talk about the down trend in gaming and what it's going to do for Las Vegas. I feel that the people that are building all these new hotels, the Mirage and added to all the other hotels have looked very much into what's happening in Las Vegas and they are very well aware of what's going on with the nuclear waste site characterization process. I'm sure they have taken all of this into account and they probably feel that if bombs blowing up underneath the ground here for many, many years has not kept people from coming to Las Vegas that this probably won't, either.

We need to look at the positive things we can do to make it work for us while we are undergoing the site characterization and most importantly be a part of the process to get our government in there working for us, to get the committees that are involved, the technical review board and so forth into getting information back to us about the safety and about what's going on, have a place where we can go and get answers, have people that we can talk to and tell us what's going on, what can we do, what is Nevada getting for this and what is happening.

I feel answers are what we need and

what we want, but I feel that the government is there for us, is working for us and I don't really think that DOE is just trying to shaft Nevada. I think we need to get our legislators to looking out for both sides of the issue just like I'm trying to do, and I want to be sure that it's proven to be safe before I will say that I am for it. I'm not saying that. Please understand me, I'm not saying I'm for the nuclear waste repository, but I'm for going on, I'm for getting the education and getting the answers. We are all afraid of the unknown. see that more in the medical profession than in any other area because people are afraid of anything that they don't know about. But arm us with knowledge, let us know if it's safe. If it's not, I'm going to be the first one that's up there saying I don't want it, but I don't know that yet. I don't think it's been proven to be unsafe anymore than I think it's been proven to be safe, and I feel we need to get on with the process, know if it is and make sure that while it's an ongoing thing that Nevada is able to benefit from all that's going on. Thank you. MR. MILLS: Thank you. Is Vern Willis here? Please come

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forward.

MR. WILLIS: Mr. Mills, I must apologize. I do not have a prepared text. I'll have to send you some notes afterwards.

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MR. MILLS: That's fine.

MR. WILLIS: My name is Vern B. Willis and I arrived in Las Vegas in 1940, and will address my remarks to the effect that I feel that we must try to keep this magnificent testing laboratory that we have had here since 1950.

I was rather intimately involved in the coming of the Atomic Energy Commission in 1950 because by luck I was elected president of the Chamber of Commerce. At that point in time we met the entire commission who came out here with some of the ranking scientists including the three members of EG&G, Doc "Edrison", Ken "Germashousan" and Herb Grear who as some some of you know then became almost a permanent resident of Las Vegas and after many, many meetings we passed judgment on the, on the safety and the feasibility of having the Test Site here.

Now, the reason why they created the Test Site here for the testing of atomic weapons was the fact that after the "Atowaytok"--pardon me, after the "Almagorta" test it was felt that having tests on

continental, in the continental United States would create too much concern for all of the residents and so they moved it to Atowaytok and "Makayni", and the logistics involved in moving it literally hundreds of thousands of people and tons and tons of material out there and continue that testing, and that was the wish of the Congress was such that after a few years of doing that they had to find another place.

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The only logical place as far as space, space, space, space was right here in Las Vegas-pardon me, in Nevada for the simple reason that the Las Vegas Air Force as we called it in those days, the Las Vegas Air Force Flexible Gunnery School had the test range which was as big as the state of Rhode Island and offered the opportunity of having a place that would be a perfect place for testing. That was the reason why this happened, and it brought to us some of the finest scientists and engineers that we have ever known. They have been here now since 1950, and I want to say that I'm concerned with the name I think the name dump is the same as using the word Vegas. I don't like either one of those names. I think it's a repository, it's a laboratory, it is not a dump.

The fact that we need nuclear power is

a foregone conclusion because I happen to know quite a bit about financing utilities. My business has been, as some of you know, financing public companies because I have been an investment banker all my life, and we are going to eventually have to go to nuclear power in this country in order to fill the needs of our expanding population.

In any event, the fact of the matter is that when we have nuclear power, there is waste, and there is research taking place, research that's been taking place right from the very beginning of the use of nuclear power on what to do with the waste.

That problem will be solved, but in the meantime, the Test Site is the only logical place to store that until such time as a recycling process that will work is going to be feasible.

I call your attention to the fact that my other residence now, now that I'm retired, happens to be up in Idaho, and I happen to spend a great deal of time up there. In Idaho we have what is known as the INEL had Idaho National Engineering Labs, and that is another site almost as big as the Test Site. Right there that test site or that testing ground was the place that the nuclear submarine atomic engines were originally developed.

Today in checking with some of my friends up there that work at that organization, they are running about 19 or 20 nuclear power plants up there providing power not only for the site but also for some of the cities in that section of Idaho.

I think what we face here is what the lady in red said, we fear the unknown, and the unknown is something we are going to have to learn about.

We have had here in Las Vegas now for 40 years a group of people that have successfully conducted what initially was considered to be the most awesome thing that ever happened. We have learned to live with it. We, in fact, back in the 50's had to cope with open shots. I personally sat on news knob and had my chest pushed in a little bit when the shock wave came from the open shots, and I have been out there for open and closed shots over the years.

I feel that in view of the fact that
the United States is behind the power curve in
creating nuclear power plants and our--and countries
such as France, Switzerland, Germany, England,
Scotland and many European countries are using
nuclear power because they have to or they will run

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    out of fosile fuels and oil, we are going to have to
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    meet the problem of coping with this.
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                  I urge you to give consideration to the
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    fact that we have a heritage here in Southern Nevada
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    of this Test Site. That heritage could be lost if in
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    this uproar, which is not based on scientific fact,
 7
    but this uproar means a closing of the Test Site.
    assure you we will lose it to Idaho or we'll lose it
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 9
    to some other area. Thank you very much.
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                  MR. MILLS:
                               Thank you.
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                  Our next speaker will be Preston Reid.
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    Mr. Reid present?
                  Is Bea Butler here?
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14
                  Is William DeLangis, D-e-L-a-n-g-i-s
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    present? That's Wilma, I'm sorry.
                  Is Gary Friedrich here?
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17
                  Is Al Seva here, S-e-v-a?
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                  Is Bart Rivers, R-i-v-e-k-s or r-s,
    please come forward, sir.
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                  MR. RIVERS: Can I use this?
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21
                  MR. GERTZ: Yes.
22
                  MR. RIVERS: The name is Bart Rivers,
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    R-i-v-e-r-s.
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                  And first I must say that progress is a
    wonderful thing, but nobody wants to do anything
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about the waste. Nobody wants to be responsible for 2 it. But it's one of our problems.

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I have worked or I did work, I'm retired now, since 1944 until about 1971 or '2 which I spent 24, 22 years at the Hanford project. I started there in '44, and I came back down here to the Test Site in '64.

In between I went to other various sites, and at Hanford my job entailed such that I worked in all the reactors, in all the chemical process plants and the tank form as you now call, which you now call a repository, and in fact it was a big laboratory.

I also was responsible for surveying contamination and radiation 50 miles around the perimeter of the Hanford project, and all those times, all those years which was about six years on that assignment at no time did we ever have any contamination or radiation of any extent, only the normal radiation that comes from above in the atmosphere.

Here at the Test Site I spent about seven years and I worked for the Environmental Science Division.

I was over the project quite often and,

again, maybe what made me ask to speak and voice my experience was a gentleman that spoke about having worked at the Test Site, also, and his enthusiasm and his desire to have the repository here at Yucca Flats or this is my--I see no danger there myself. In fact, I was raised out in the western part of the country and back in 1938 I think I spent about two months in that particular area picking pine nuts, so I was young then, and I'm quite familiar with that particular area.

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Again, on transportation I believe that that will be--there must be an answer to it. I believe that the answer is already partially figured out, somebody has got a good idea as to how it's going to be carried out.

On the fact that it's a dangerous thing to have out there, well, let's put it this way, I think there is 200,000 years for plutonium which I have worked with and through carelessness, my alone carelessness got cracked up as we used to say it and got a little radiation, still I am 70 plus years old so I think that I'm good for, until I hit 80 anyway, even with what problems I encountered through my own fault.

We lived up in the Hanford project, our

home wasn't too far, only about three miles from the closest reactor, and nobody was really concerned about it. In fact, I had three boys that were born in the town of Riscum which is right near the Hanford project.

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But I only want to say that for myself that I favor the so-called dump or depository or repository or whatever you want to call it or laboratory or whichever, so I hadn't, like I said, I hadn't thought about talking. My wife pointed out that this meeting was being held so I said I'd like to go and hear what goes on, but when this gentleman spoke up here and another gentleman, I decided, well, maybe I might put my two cents worth in and express my feelings as to how I feel about the Hanford project for all the years I worked for which I was very proud and also to say that, yes, I helped build that and in 1954, yes, I helped drop that bomb and in 1954 I also was required to drop another bomb when I was recalled back to the Air Force.

So for myself, I am in favor of it, and I read articles about the American Indians being much against it, but there again, like I say, you know, I spent some time up in that area, I am an American Indian, I see no reason to keep that place closed or

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    not to put the so-called dump there. If the American
    Indian is so desirous to maintain it, they should
 3
    have done this many, many years ago to fight for the
 4
    rights to keep that as an isolated area for
    themselves which is I think the Shoshonis and the
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    Piutes. Thank you.
 6
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                  MR. MILLS:
                              Thank you.
                  That concludes the list of those who
 8
    have come this afternoon. I have several other names
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    of people who may have come in later. I'll read
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    through those. If any of you are here, please come
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    forward at that time.
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                  Is JoAnn Graitge here?
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                  MS. GRAITGE: Graitge.
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                  MR. MILLS: Thank you. Please come
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    forward.
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                  MS. GRAITGE:
                                My name is JoAnn Graitge.
    I reside at 6213 Fairwood Avenue in Las Vegas.
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                  I believe everyone agrees that
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    radioactive waste is hazardous. The proposed
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    solution is to bury it in sparsely populated areas.
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    Burying hazardous waste is not going to solve this
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   problem or make it go away. As a resident of Nevada
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    and a citizen of the United States, I am very
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concerned. I'm not only opposed to Yucca Mountain as

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a high level nuclear waste dump, I'm opposed to anywhere being considered as a dump site. Why isn't our government insistent on requiring nuclear power plants to find a way to recycle waste at the site of production? Highly radioactive rubbish is piling up at weapons plants, research centers and nuclear power plants all over the United States. This doesn't make sense. If we don't know how to handle the waste, why keep on producing it?

Some believe permanent storage facilities will solve this dilemma. Will it?

According to the latest information I have, we have no safe containers to transport the waste. I understand one of the reasons the Waste Isolation Pilot Project site in Southeastern New Mexico has not opened is because the NRC has not certified the container to haul the waste. This container costs more than \$25 million and took more than six years to develop.

million to construct the Waste Isolation Pilot

Project and there are questions regarding its safety

or whether it will open. I have other questions.

Were there adequate studies done on finding ways to

recycle nuclear waste rather than transporting it and

burying it in specific sites?

What measures have been taken to study the possibility of sabotage in transporting high level nuclear waste? What types of security will be used during transportation, if any?

And, lastly, what are we leaving the future generations to deal with? Why are we doing this?

MR. MILLS: Thank you, ma'am. If you would, please, anything that you have read from or your script, if you wouldn't mind giving it to the court reporter.

Louis Vitale?

MR. VITALE: My name is Louis Vitale.

I'm a Franciscan Priest. I reside at 1420 West

Bartlett in Las Vegas and have been residing off and on in Nevada for over 20 years. In fact, it was the Franciscans who, after the native Americans, were the explorers of Nevada and Utah, and we have long had a strong concern for this land as a place for the people.

The question that I would like to raise and really the challenge I would like to raise is a moral one. I really believe that the action that is being undertaken here is immoral. I do not believe

that we can take the kind of risk that is being-excuse me, I want to say not the action being
undertaken is immoral but the action being
contemplated would be immoral.

I do not believe that we can take the kind of moral risk that's implied for people of our community, of our state and even of the world that would be ventured in this. And why would we be doing this? We would only be doing this because we want to overuse the energy resources of our world.

So we are taking risks which your own department people and I know you have heard this over and over again Jerry Symanski and all of that have determined that it very risky. We just cannot take that kind of risk, a risk which implies implications for 10,000 years.

I do not believe a department of the government or even elected officials of the government have the right to make a decision that jeopardizes future generations, even to the thousands of years.

We can't actually count on what has happened in the past, even in the years that we know it.

This gentleman mentioned the pioneers

who developed the Test Site from EG&G.

Well another one, Mr. Frank Stabella is still in this town, has been in this town all of this time, was one of the pioneers at the beginning of the Test Site, has, was one of those who supervised the monitoring of radiation in the pacific tests, is one who was, as the manager of Reynolds Electric Company, responsible for all of the tests, for the radiation testing, et cetera, and who is so convinced that the kinds of risks we are taking in nuclear radiation is dangerous that he even in fact on Ash Wednesday committed an act of protest at the Nevada Test Site.

As he said to me, yes, we did do the testing because we felt that the future of the world was at stake with the cold war vision we had at this time. Now we would take a risk that's as great or perhaps greater so that we can abuse the use of energy.

Why not turn this Rhode Island sized area into a solar farm? Why is the Department of Energy who has the responsibility for experimenting in energy resources not experiment in non-radioactive sources of energy? This is what we would ask of the community.

Furthermore, besides being a priest and

a Franciscan, I'm also a sociologist. I have not seen sociological studies that show how do the people feel. The people should have been the ones who make the decision.

What indications we have are that 80 percent of the people of Nevada fear this and are opposed to this. Again, it would be immoral to impose upon people who fear this, fear this for themselves, their children, for future generations to impose upon them something that they fear and do not want just because they may not have the political pull to keep it away as did the people on the eastern seaboard, and so I feel one of the things that must be added to our study here is a study of the people, a really thorough and qualified study of the attitudes of the people, the fears, what will be the fears of children and of future generations.

We already know, we know that people in this community live in fear, people who have worked at the Test Site know that their fathers, their brothers have had cancers and have died of cancers. If you live in this community, you know that it's common language that someone coming down with the cancer will be told by his doctor, well, of course, you know you worked at the Test Site and that's what

happens. Can we leave that to the legacy of our children?

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We must do some kind of a study of that. And, finally, I'd just like to say that we who feel that we are in the moral roles in this community must do everything that we can to object to this, and we feel that we will have to do that as we feel about testing of nuclear weapons, that we cannot go on to continue to make nuclear weapons in a world in which even our greatest adversary has, was willing to quit testing and did for a year and a half. have to stop testing and we cannot take this kind of risk, and if the Department of Energy is determined to do it, then we must do everything to mobilize the community not only of Las Vegas but of surrounding areas to mount our protest against turning this kind of land into a repository for waste for some 10,000 years.

So the only thing that we feel we can do is as responsible citizens to look to ways that, how do we control our own abuse of energy use? We could create enough energy for all the needs that we have. We don't need to have nuclear reactors. It's becoming more and more obvious that people in the United States do not want to make that risk. We may

1 have to make some sacrifices, we need to do it. Let us find a way to live within our energy abilities, 2 3 dry store the rods that we have now and find safe 4 ways to provide for our energy needs, ways that we 5 can accept and find as moral. Thank you. 6 MR. MILLS: Thank you. 7 Is Rosemary Lynch here? 8 Please come forward. 9 MS. LYNCH: You are going to get a 10 second little application of the morals. 11 My name is Rosemary Lynch and I'm a 12 Franciscan sister. I live at 1960 Carrara Drive in 13 Las Vegas. 14 I have lived in Las Vegas for 12 years. 15 Prior to that time I had an occupation which took me 16 around many countries of the world and I worked that 17 way for 16 years. My headquarters were in Rome, 18 Italy. 19 When I came back to this country I had 20 to say I looked at many things with a rather 21 different perspective. I really believe that I was 22 quite disturbed at one former meeting at which a 23 representative of the Department of Energy said that 24 with the roster of fine scientists we have working on

this dump project -- only I believe he did use the word

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repository. I keep thinking if it were a repository, why don't a lot of states want it? But he said with all these scientists and we do have access to a great amount of money, we hope to prove that Yucca Mountain is the suitable place. That disturbed me so deeply because I thought the objective was to determine whether or not Yucca Mountain is a suitable place, but this I did hear from a representative of the DOE.

So it seems to me that the whole process can come under moral scrutiny from that point

of view.

It's the first duty of government to look out for the health, the safety, the welfare of the people, to see that every single person has enough to eat and has a shelter, has access to at least the minimum that human life and dignity require.

which at the present time our country is failing rather badly, and we know that we have problems of violence and crime, of drug addiction and other things which are almost insurmountable. So nuclear waste is just one of our many, many problems which is making a claim on rather limited resources.

That's just to put the study of Yucca Mountain into perspective.

You heard so much today about the seismic activity, the volcanic hot spots, the hydrology and so on, and I know you have heard these from scientists, but they certainly do raise, again, rather profound moral questions about how we are treating the natural environment which has been given to us by our creator over which we are to be stewards and not exploiters. And we know that these resources are certainly not limitless, so I think it's a very deep moral question as to how we can continue our treatment of the earth in this manner.

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Another thing, the title of the land is still disputed it, as one speaker mentioned. The western Shoshoni nation truly believes, and there are many, many people who believe with them that they have a valid claim to that land. And it seems to me almost outrageous that before that land claim is even settled that we are proceeding with this project of the Yucca Mountain dump.

We speak a great deal in our country about human rights, and we are very critical about other countries. We talk about their behavior. I'm wondering how much value we really place on the individual. We think we stress individual rights, but Louis Vitale referred to the fact that no actual

great study has been done here in Nevada or in the surrounding states or among the people who will be exposed to danger with the transportation of the nuclear waste.

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The project is in the hands of the Department of Energy, and we have seen things in the recent months that have not raised our level of trust in the competency of the DOE. I'm thinking, of course, of "Fernaldo Hya" of the Savannah River project, when now years later we discovered that these enormous risks were taken and undertaken knowingly and at a very great human cost.

This afternoon we also heard a speaker refer to the fact that we had this great testing laboratory and it's been so safe. Whole populations have been displaced in the Pacific Islands. Their way of life ruined forever, whole islands have disappeared.

Anyone who has talked to the people in St. George and Cedar City, Utah; Ferdonia, Arizona and other places in Northern Nevada, anyone who has talked to the atomic veterans or even to the Nevada Test Site Workers Association, those victims realize that there has been a very high human cost to this project of nuclear testing. So I don't think that we

can possibly minimize that degree of human suffering.

Another thing I really don't understand, if our country has any kind of energy conservation policy, I have never been able to discover it. We are very wasteful. We keep saying our energy resources are limited and we act as though they were not, as though they were absolutely limitless.

Perhaps you can correct my statistic here, but I have heard that we obtain only about 12 percent of our energy from nuclear sources. It seems to me that if we had a thorough conservation policy, we could possibly reduce all our energy consumption by a certain percentage, and as other speakers have suggested that we would look for safer alternatives.

Another thing, this particular facility or dump is only going to be good for a relatively few years. Then if we keep producing and even increasing the amount, as has been suggested here by a few people, where do we go after that?

extremely short-sided, and I would really plead with all of those who are involved in this to take into deep consideration where our nation is going as a whole and to kind of put that in perspective with what we are doing with the nuclear weapons program,

1 the testing and the nuclear weapons dump, I mean the 2 nuclear waste dump. We know that these matters are all 4 related. 5 I wonder who we are waiting for to show 6 us the way. Gorbochov tried to show us with the 7 testing. I think it would be great if we would be the ones that would show a constructive way to the 9 world with regard to energy. 10 We are going into a new millennium, and 11 I don't think we can just keep on with these same old 12 profligate habits with regard to energy that we have 13 had up until now. 14 Now, these are just a few of the moral 15 considerations that I really consider are very 16 profoundly important in this discussion. 17 MR. GERTZ: Excuse me. I think--I 18 guess it's on. It's on now. Okay. Yeah, okay. 19 I only have one clarification question. 20 If the DOE official you referred to about hoped to 21 prove its safety was me, I'd like to correct that for 22 the record. There is no doubt that our policy is to

Mr. Gertz, it was you, but

determine suitability at Yucca Mountain. If it's not

safe, we don't want to build a repository there.

MS. LYNCH:

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1 I wasn't going to say your name because it's 2 certainly not my intention to attack anyone 3 personally, but it seemed to be one of those remarks 4 which was so spontaneous that I felt it had to have 5 validity and so I brought it up. 6 MR. GERTZ: No doubt I may have said 7 that, and if I did, I certainly misspoke because as I 8 have been quoted and said many other times, our job 9 is to determine the suitability of Yucca Mountain, 10 and if it's not safe, we don't want to build it. We 11 have a lot of studying to do out there, and I thank 12 you for your remarks. 13 MR. MILLS: Is Diana Orrock here? 14 Spelled O-r-r-o-c-k? 15 Is there anyone else in the audience 16 who has signed up to speak whose name I have not 17 called while you were present? 18 MR. GERTZ: Therefore, this session is 19 adjourned until seven p.m. tonight. 20 Thank you very much. 21 (Thereupon the hearing was 22 adjourned until seven p.m.) 23 24

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TUESDAY, MARCH 21, 1989 AT 7:00 O'CLOCK P.M.

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MR. GERTZ: Good evening. On behalf of the Yucca Mountain project and the Department of Energy, I'd like to welcome you here tonight. My name is Carl Gertz. I am manager of the Yucca Mountain project office. I will be the Department of Energy's presiding official for tonight's hearing on the Yucca Mountain Site Characterization Plan, which describes the U.S. Department of Energy's plans for characterizing Yucca Mountain, Nevada to determine its suitability for a nuclear waste repository.

For the record, this hearing is convened at approximately 7:00 p.m. on March 21st, 1989, at the Aladdin Hotel in the City of Las Vegas, Nevada. This hearing was noticed in the Federal Register on Friday, December 30th, as well as being advertised widely in local newspapers. In addition, notices were sent to our public mailing lists, and the news media were notified.

We are here tonight to receive your comments on the Site Characterization Plan. The Department of Energy has prepared this document as a plan to guide the detailed scientific studies which will be conducted at Yucca Mountain during the next

five to seven years.

The SCP, Site Characterization Plan, is a living document; it will be updated and modified as more is learned about the geologic, hydrologic and climatological conditions at the site. These changes will be compiled into SCP Progress Reports which will be issued semiannually to the NRC, Nuclear Regulatory Commission; to the State of Nevada, and to the public. The first SCP Progress Report is due to be published this summer.

In addition to the comments that you make this evening, written comments on DOE's site characterization plans may be made at any time during the site characterization process in the next five to seven years. These comments may be sent to the Yucca Mountain Project Office, U.S. Department of Energy, Post Office Box 98518, Las Vegas, Nevada; 89193-8518.

Both oral and written comments will receive the same consideration. At about the same time the SCP Progress Reports are issued, DOE will issue comment response packages. These will contain responses to the comments on the SCP that you make this evening, as well as any written SCP comments that are submitted. This includes comments made by the public, by the State of Nevada, by the Nuclear

Regulatory Commission and other interested parties.

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originally April 15th was the deadline set for the close of the initial SCP comment period. At the request of Governor Miller, that deadline now has been extended to June 1st. Let me emphasize, however, that comments on DOE's site characterization studies or activities received after June 1st will be considered by DOE and receive responses at a later date.

Last month, DOE held a series of project update meetings. These meetings were designed to provide to the public information about the project that the public told us they want to hear. Those meetings were intended to furnish you with information. This evening we are looking for information from you. Notice of both the Project Update Meetings, which were held last month and the SCP hearings which are being held now, were widely advertised in local newspapers, printed in the Federal Register, in addition to being provided to our public mailing lists, as well as being announced and advertised in the local media.

In a few moments I will introduce the moderator of tonight's hearing. The moderator is an individual with experience in sharing public

proceedings. He is not a DOE employee. He will conduct the hearing, calling on speakers and closely follow the presentations. He also will certify the record in this hearing.

who will listen to the presentations, and who, along with myself, may ask clarifying questions in order to make sure that the record fully reflects your comments. All comments made here tonight are being recorded by a professional court reporter, and will be transcribed. The transcript from the hearings will be made available as soon as possible in local libraries. A list of these libraries is available at the door. Anyone wishing to purchase a copy of the transcript can make arrangements with the hearing reporter during breaks, or after the hearing.

Now I would like to introduce the technical representative on the panel tonight. On my right is Jean Younker, a Yucca Mountain project geologist, who had a major role in development of the Site Characterization Plan. She worked with about 300 scientists and engineers to develop the plans we will use to obtain data to assess the suitability of Yucca Mountain for a high-level waste repository. She is a former university professor, and has a doctorate

degree in geology.

At this point I would like to introduce tonight's moderator. Lamond Mills is a former U.S. attorney in Southern Nevada, who now is in private practice in Las Vegas. He has experience in conducting public proceedings, and as I said earlier, he is here to conduct the meeting, call on speakers, follow the presentations. I will now turn the hearing over to him.

MR. MILLS: Thank you, Carl. Let me take just a moment to go over what's going to be happening tonight and the procedures that we will be following. As Carl mentioned, I am the moderator. I am here not as an employee of the government. I am here strictly to see that the procedures and the hearing is handled as fairly, as impartially as possible, and that will be my goal tonight.

Each speaker who signed up is going to receive ten minutes. At the end of eight minutes I will hold up my hand, indicating that you have two minutes left. At the end of your time I'll hold up my hand in a closed manner, indicating your time is up. At that point we'd appreciate it if you would conclude the thought that you're on, and then sit down because we have a number of people who wish to

express themselves this evening.

Now, many of you have signed up for a specific time, and we have you scheduled for that time. Others have put in what we call the walk-in status. It's been my experience that during the course of these proceedings most people do not take the full ten minutes. As we get ahead of schedule we will be inserting some of you in the walk-in status into our schedule, so that all can be heard.

We ask you to speak one at a time. As indicated, we have a court reporter. We ask you to state your name clearly when you come forward, and I apologize in advance for I'm going to abuse some of your names, I know. So state your name clearly. Speak slowly. Several have been very fast, and if I indicate to you, you may need to slow down. But our court reporter is quite good; she normally can handle it.

Finally, the purpose of this panel is not to argue. This panel will not be answering your questions. As Carl indicated, they may occasionally ask a question; it is not to intimidate. It's merely to clarify a piece of information, such as a source of a study you may have referred to so they can have access to it and have as much information as possible

for their purposes. Thank you for coming.

Again, we would appreciate it if you'd follow these procedures as you step forward, and our first speaker will be Mr. Don Wilson. He's a representative for United States Senator Harry Reid.

MR. WILSON: Thank you, Mr. Mills.

Senator is in Washington, and he asked me to read

this statement into the record. We may have had a

staff member here to read the record this afternoon,

but I want to make sure that it gets there, so I'll

do it again. This is a statement from Senator Harry

Reid:

"I am eager to take this opportunity to restate my unequivocal opposition to the nuclear waste dump. Our fight to keep the nuclear waste dump out of Nevada is far from over. As Nevadans, we must speak with one voice. That means working together -- at the local level, and in Washington -- from our homes to our places of work. Nobody outside Nevada must ever get the idea that we want the nuclear waste dump at Yucca Mountain, or anywhere in Nevada.

The out-of-state people who want to put a nuclear waste dump in our state are going to spend a lot of time and effort trying to make the idea look attractive. Nevada's unique history has taught us

that scientific doubletalk will never replace common 1 2 Common sense says a nuclear waster dump in sense. 3 Nevada is a bad idea. 4 The people of Nevada aren't interested 5 in making a quick buck from a long-term diaster. 6 There are other solutions to this problem. 7 Department of Energy must explore other options and alternatives. 8 9 We live in the most scientifically 10 advanced nation in the history of the world. 11 years ago the doubters and skeptics said that the 12 atom could never be split. Now, people who do not 1 3 live or work in Nevada are saying that there's no other way to dispose of nuclear waste other than to 14 15 dump it here. 16 They were wrong 50 years ago, and 17 they're wrong now. 18 Thank you." 19 MR. MILLS: Thank you, Mr. Wilson, and 20 I forgot to mention it. Could you bring that forward 21 and give it to our court reporter? 22 MR. WILSON: Be happy to. 23 MR. MILLS: The rest of you, if you 24 have a transcript or something you wish to read, we'd

appreciate a copy of it and it will be attached to

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these proceedings to the record. If it's something you want to take with you, we have a copy machine out 3 there and if you will step outside we'll have it copied so that we can get a copy for our records.

The next speaker is Kathy

6 Thorpe-Granowski.

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MS. THORPE-GRANOWSKI: First of all. I'd like to thank you for this opportunity. I am here this evening on behalf of the Western Shoshone Nation in the position of their public relations liaison.

I would like to state that the Western Shoshone Nation, as well as the State of Nevada, have not only democratically and vehemently chosen not to accept the impossible mission of the proposed Yucca Mountain site, which has been manipulated thus far at the threshold of our back door.

The United States Government should disavow any knowledge of the 1982 Nuclear Waste Policy Act, and as amended in the 1987 act. It is nothing more than a political masterpiece of special interest group legislation, which creates only the illusion of a federal policy. And yet the government chooses to disavow any health and environmental destruction of Nevada's nuclear past and present.

Much less a probable and unprecedented future disaster.

Moreover, the United States Government chooses to disavow the existence of the Ruby Valley Treaty of 1863, which was ratified by our United States Congress in 1869. And I realize, Carl, that there are the differences of interpretation of that which we have experienced through the court systems, and still has obscured the fact that the treaty is in still full force and existence, which has not been modified nor abrogated by our United States Congress.

The Shoshone nation will continue with logic, strength and intelligence to continue their seemingly impossible mission of unequivocal, unextinguished title of one-third of Nevada which encompasses the Nevada Test Site, as well as the Yucca Mountain site.

Given all the unanswered technical questions, the 40-year record of waste management by the United States Government and industry gives the Western Shoshone National Council little cause for optimism, nor does it inspire confidence in government claims that the high-level waste will remain securely in place once it is buried. For once a proposed project of this magnitude is in place

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anywhere, the options not to self-destruct in 10,000
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    years are less or irrelevant.
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                  The Shoshone people mourn the
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    destruction of Mother Earth. They feel they are
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    victims, once again.
                          The Shoshone would like to
    point out also to all that would listen that one
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 7
    would have to detonate 2.3 million bombs the size of
 8
    those dropped on the Japanese people in World War II
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    to equal the amount of radioactivity that you propose
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    to bury in our ancestral treaty lands. The Shoshone
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    would never willingly permit any right-of-way grants
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    for such destructive purposes to mankind if they knew
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    the consequences which are facing us today.
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                  And on that issue, I will close and I
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    thank you very much.
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                  MR. MILLS:
                              Thank you.
17
                  Our next speaker will be Troy Nance.
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    Is Mr. Nance present?
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                  Connie Danley. Is Connie Danley
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    present?
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                  MS. DANLEY: Yes, I am.
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                  MR. MILLS: Thank you. Please approach
23
    the mike.
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                  MS. DANLEY:
                               My name is -- is that on?
                My name is Connie Danley. I am not a
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with authority to Nevadan concerns about the scientific suitability of Yucca Mountain as a nuclear waste repository. Although even as a layman, from what I have read, its suitability is pretty iffy.

My concern, as a mother and a person deeply attached to the western states, are concerns about fairness and common sense. I feel it is perfectly obvious that the DOE has allowed itself to be manipulated by powerful politicians in the Congress and Senate, who care only about protecting their own states from selection. The Nuclear Waste Policy Act of 1982 was supposed to prevent this from happening. What has happened is not fair or unbiased.

Anyone with common sense can see that the first repository should be built in the east, where most commercial reactors are located, or another solution found. We don't even use or produce the dangerous radioactive waste you plan to stick us with. Nevada is famous for legalized gambling, but I feel that what you are asking is for us to gamble with our lives and, more importantly, the lives of our children.

If you take a look at where you have to ship this stuff from, it makes no sense at all. You

Can't guarantee that, in coming across the entire

United States, there will not be problems or

accidents. We live in a day of terrorism. I can't

think of a more likely or easier target than that of

a truck carrying this very dangerous spent fuel.

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The repository would be hurt -- the repository would hurt Nevada in many ways. Many eastern states are in financial crisis. States that do not depend on tourism, as we do. Why aren't these places being considered, and why have they been eliminated from consideration indefinitely? I think the answer is obvious.

The DOE claims that the dump would provide jobs and would be an economic boon for our state. I live in a new neighborhood, and I have personally met two families that have been moved here to work on the Yucca Mountain project. It seems pretty obvious that the top jobs for the repository will not go to Nevadans at all, but to your own people. Not only that, the employability of the repository would maybe be one person's working lifetime. There is no security for a community with that kind of time frame. People do not grow attached to or care about a place enough to put their energies into it when they know it won't be there after a few

decades.

The very fact that we host the government's nuclear test site should exempt us as a candidate for the repository. We have been poorly used in this state. Our environment is already at risk.

I had a fellow who has come here as a part of the Yucca Mountain project say to me that the government -- as the major landowner in Nevada -- should have the right to do as they please. When I hear that kind of talk, I am outraged. Our country was founded on the principle of equality. Our government has the responsibility and must make an effort to be fair to all its people. The DOE should have the guts not to bow to political pressure.

I know that to a lot of people, this
part of our country looks like a wasteland. But to
those of us who have grown up in the west and
appreciate the beauty and the fragility of the desert,
it is not. I hope that Nevadans will realize that we
are being thrown away like a piece of garbage because
our political power is insignificant, and that when
we all wake up and do our part to stop this thing -I'm sure that many eastern politicians and DOE
officials feel that Nevadans are just stupid and

apathetic enough to roll over and not fight this thing, and I hope that Nevadans will rally and show them that they're wrong. Thank you.

MR. MILLS: Thank you.

Is Mary Ann Dennis present? Would you come forward, please? Either one. The mike closest.

MS. DENNIS: While we all agree that safe storage of high-level nuclear waste is of primary issue, the Department of Energy has neglected to adequately address the problems of transporting this waste which will ultimately affect the health and safety of millions of Americans across the country.

According to the Environmental Policy
Institute study on safety problems with nuclear
transportation, none of the casks tested in
controlled settings have actually been field-tested.

The general accounting office reported in September of 1988 that they were aware of at least 13 shipments of highly radioactive waste which had been shipped in faulty containers. They claim the DOE had been fully apprised of the danger if these shipments were not halted. The Nuclear Regulatory Commission had to recall eleven casks originally used by the DOE to transport nuclear waste due to

technical defects.

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These frightening facts cast serious doubts on the ability of the DOE to provide safe, secure passage of this waste to its destination. Thus, the potential dangers of transporting this waste may not become evident until it hits the highways of America. Do you think the people of Illinois want this waste traveling on the freeways of Chicago? Do the people of Iowa want this waste crossing the farmlands that feed this nation? Do the people of Texas want this waste passing the grazing grounds of their livestock? Do the people of California want this waste passing alongside its agricultural belt? Do we as a nation want to endanger our land, our wildlife, our children and our future by transporting this deadly waste through 44 states across this country?

In addition to the issue of safety and transporting high-level nuclear waste, is the question of what security provisions have been made for the protection of these shipments. If the nuclear repository is located in Nevada, it will be the first time such massive quantities of high-level nuclear waste will be transported across the country. This will provide many with hostile intentions the

opportunity to sabotage these shipments in an effort 1 2 to undermine the national security of the United 3 What governing body or regulatory agency 4 would be responsible for maintaining the security of 5 this cargo during transport? Are these parties 6 prepared for possible burglaries, thefts or 7 terrorists actions involving the transportation of 8 this high-level nuclear waste? 9 Unfortunately, it appears the DOE is 10 putting the cart before the horse. Until they can 11 assure all the people of this nation safe, secure 12 transference of this lethal material, a solution to 13 the problem of long-term storage of high-level 14 nuclear waste can never be achieved. 15 MR. MILLS: Thank you. 16 Is William Rosse, Sr. present? 17 MR. ROSSE: I would like to thank you 18 for the opportunity to speak. My name is William 19 Rosse, Sr. My address is Route 1, Box 18, Austin, 20 Nevada. I'm a representative from the Western

Shoshone Nation, I am also a chairman of the Environmental Protection Committee.

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And I will ask this question again: Have you gotten permission from the Western Shoshone Nation to put the repository on Yucca Mountain?

part of our land base that we feel we need someone to try to get permission from our nation or it should not be put there.

Main thing I was supposed to speak on is the Price-Anderson Act that they had for transportation and different things of nuclear waste. We feel that Price-Anderson Act is not a very, very good deal for the people. It limits the liability to 500 million for an accident, and you know one of these nuclear waste accidents could run into a lot more than that if the people got radiated stuff and other.

Then there's no insurance to keep the contractor from doing faulty work because they don't have anything to set their goals and watch them real closely. If you got an insurance company behind you, well, then you have to keep up your work in real good order, or else the insurance rates go up, and then you start not making money. So one of the most important things.

The other thing about it will be the fact that a lot of these here wastes will be transported in the Indian country, across Indian lands and stuff and other like that, and I'm sure you're going to have to get permission from all the

native people across the United States to transport,
to get their waste here.

very bad place ourselves for it, mainly because it's in our home land, and no one has come to address the fact to our nation or anything that they needed this for any purposes. Normally, most nations would be able to lease land and stuff and other like that for a pretty good amount of money. But there hasn't been anything said about that to the native people here in Nevada, the Shoshone Nation.

To go on further about it there, I think the other nation's cost the land here that you're going to be passing over, stuff and other to transport your waste here will have the same problem. There'll be finances required to get across their land if they even allow it.

The reason we are against it, there's so much done here in Nevada right now that there's just the biggest part of the state that's under military rule now -- probably about 87 percent of it -- and they're not stopping at that point.

They're still looking for more. Not only just the land use, but the air space use is the other thing that we're fighting.

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So we're in a constant battle here in
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    the State of Nevada, and we don't feel this is the
 3
    proper thing for the State of Nevada. And the native
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    people here.
                  And I do thank you very much.
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                  MR. MILLS:
                              Thank you.
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                  Is Troy Nance present? Please come to
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    the nearest mike.
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                  MR. NANCE:
                              My name is Troy Nance.
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    I've been in Las Vegas about 50 years. Opponent of
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    the Test Site, the whole damn outfit. You people
   here -- in Washington we have 535 people in the U.S.
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    Congress. I doubt if we could find 35 people there
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    in Congress that are for us. But you people that
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    opposed to this dump, would you please stand up?
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                  MR. MILLS:
                              Sir, excuse me. That's not
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    the purpose. We are here to hear it, and as people
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    come forward they can say --
                              Okay, Mr. Mills.
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                  MR. NANCE:
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    wanted to prove we have more intelligence than you
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   have in the hall of Congress.
                  MR. MILLS: Well, we all have our
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    doubts about Congress, but the issue is before us
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    today, so go ahead.
                              Well, the committee is not
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                  MR. NANCE:
    entirely worthless. This whole planet is about 450
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Professor Leakey, man evolved in about two million years. We're now, in the last 50 years, on the brink of destruction. If we haven't reached that, we're nearing the point of no return. And I want to speak about the transportation.

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As you people all know, there was a serious train wreck in Helena, Montana a couple of weeks or so ago, 30 below zero. They say that an iron valve froze on the train. Now, that train wasn't carrying nuclear waste, but it could have been. They claim the iron valve froze. Well, it wouldn't make any difference.

when you detach the railroad cars from the locomotive, the iron holds for a while, and it leaks off. The crew happened to be taking a break somewhere and the train got away, ran down the hill nine miles, tipped over and exploded. Now, where is your container, your capsule going to withstand something like that?

Now, we have accidents, we had a train wreck in England. Of course, my point is human error. You call it accidents, I call it inept human error. The engine on the railroad in England claimed he ran a red light, knew it. Willfully, knowingly ran a red

light. Well, I worked on the railroad, I saw crazy things happen too. I don't claim to be perfect. I ran a locomotive through the round house wall, took out all the brick with it, so nobody's perfect. But accidents happen. Americans are more accident prone than any country in the world, to my knowledge. I believe you'll agree with me.

Now, handling nuclear waste is a serious problem, and where are you going to find all of your drivers for trucks, all of your railroad workers to be honest? I've seen truck drivers come in Las Vegas and sell a load of meat for half price because they lost all their money gambling. Meat that didn't belong to them. You can buy anything out of a truck out here.

Supposing somebody wants some nuclear material? You'll find truck drivers that probably sell it to them. Remember, if your memory is good, you'll recall a short time ago that a shipment of plutonium was left on the docks in New Jersey, but was stolen. Well, we know where it went. A little country over there our first line of defense, I say. And their first line of offense has it, and they're making H bombs out in the desert.

Well, it's just one thing after another

when you talk about safety, proper handling of material. There's no way that it can be handled properly. It's all over the world, it's in every river that runs in from the oceans and the gulf of Mexico. It is the Saint Lawrence Seaway. You can't pick it up. If you think it can be handled, why hasn't it been handled? We got millions, billions of dollars they want to appropriate that we don't even have; got to ask to pay them for it. It can't be handled. Once radium gets away from them you cannot pick it up. You can pick up a lot of dirt, you can haul a lot of spent rods away. That isn't going to cure the problem.

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Now, November the 11th in Russia, a nuclear-powered ice breaker came into port. And a nuclear physicist that supposed to be an expert, pointed to a reactor and told one of the technicians to drain the reactor, we want to put in new filters. Well, the men all went to work. Little while the physicist came back and he thought he'd check it out, and he found out he was draining the live reactor. They were within 30 to 40 minutes of a meltdown in a port city of 440,000 people. Now, that's human error; inept people. Inept congress.

The congress -- now, the reason I

brought the congress into this because they'll appoint everybody, it's up to them to appoint people on certain committees, on transportation committee, navigation committee. Recently within a month we had two ship captains. One capsized the ship and our food chain down in Antarctica. Another captain ten, 12 days ago ran aground in Hawaiian Islands; big oil spills. Here, five days ago, two ships collided at the west entrance to the Panama Canal, one was an oil tanker; he had more pollution. I'm speaking now, I want you to know I'll get to the point.

Human, inept, human error. This is the only country in the world that pays people for being stupid and inept; it's fact. Look around. Look at what the committee's doing and the mistakes being made. Billions and billions to clean up something that can't be cleaned up. You know it, I know it and everybody knows it. Yet you want to pollute it more. I live in this one little corner of the earth here, this one little place and it's come to here. And it shouldn't.

I have three options for the radioactive waste. One is to stop producing it.

Second, do what France does: Recycle it entirely.

Third, check out the old abandoned oil wells and see

each abandoned oil well is a huge cavern; much bigger caverns than they plan on digging up here. If they're dropped down in wells that don't seep out it was there for millions of years, it would be a good place to put that stuff.

But if we're going to go along and have people appointed by the slumbering herd in Washington, we're not going to get anywhere. We're going to find some inept person appointed to a commission, he's going to appoint another inept person, and he'll have another inept helper, and he'll have accident, accident. It has always happened.

Like I said, this is the most accident-prone country in the world because people live good, they become complacent. And being safe, right now, with this, it's the greatest organization I've seen among the people around Las Vegas here.

Now they know that it's dangerous, yet the government wants to ram it down their throats with one big lie after another. The AEC and NRC and the XYZ, you name it, we all get big lies; always have, always will. And what's safe about something you can't handle, can't control, you can't see? And you ask the people over at St. George, Utah. You ask

the soldiers that was forced to stand under atomic

blast at the Flats; they're dying of cancer.

And Russia. Chernobyl. Russia. they

And Russia. Chernobyl, Russia, they claim that three people were killed. Well, in 20 years from now it's going to be two and three million. You know it. That stuff drifts around, it floats -- like I said, it goes everywhere. It's in the food chain now, in the oceans. When they went out and set off the H bombs in the islands and the Pacific they obliterated the islands. Well, the ocean currents carried that fallout around the world. You know, wherever the ocean currents go, that's where you'll find it. Why should we be exposed to it here in Nevada when these all kinds of places -- like I say, try the abandoned oil wells and not haul it so far. It don't make sense.

Well, it's like everything else. It's true government fashion. The congress, the United States does the same thing. You show 'em some way to operate a project that will cost a lot of money, waste a lot of money, then boy, they'll go for it.

Thank you.

MR. MILLS: Is Dempsey McDaniel present?

Is E. Ross Davis present? Is Gary Vesperman present?

Is Elaine "Aimus" present? Thank you.

SPEAKER FOR MR. VESPERMAN: Good evening. Mr. Vesperman has lost his voice, and so I'm going to be speaking for him.

A few years ago he had an article published in the South County Journal of Cable, Wisconsin. This was published June 28th, 1984. It references an engineer named Steve Hodapp, who at that time worked at Control Data's Sunnyvale plant with Mr. Vesperman. A few years later he worked with Stearn & Rogers in a suburb of Denver, Colorado. This division performs the actual engineering work for the DOE on nuclear waste dumps.

According to Hodapp, as of about ten years ago, a basic defect had been found in every method of radioactive waste disposal that has been, to that date, conceived. In short, there is no known method of safely disposing of nuclear waste. That's according to Steve Hodapp, who did the engineering.

make of the Yucca Mountain Project Office relating to the article, which will be -- a copy of which will be submitted along with a letter which I'm referencing my remarks to this evening.

Please supply an update to the findings of these engineers that have been hired to design

nuclear waste dumps by the DOE. For instance, is it still true that no known method has yet been found to safely store nuclear waste? If this is false, what is that method that has finally been found? Are the engineers being pressured to keep quiet about their concerns? Who are these engineers? Where are they working, and how can they be contacted?

In this article he has four basic claims. Basically he's concerned about the true costs and the net efficiency of nuclear power plants. What is the current average availability of nuclear power plants in the United States? Is it true that a 1,000-megawatt reactor operating at full power for one year accumulates the radioactive equivalent of 2,300 Hiroshima atomic bombs? At what time after detonation is the reactor load equivalent to 2,300 Hiroshima A-bombs?

Assuming that no more nuclear power plants are ever sold in the U.S., and considering the realistic operating life and records of reactors currently operating have been shut down or are still being constructed, what is the projected total megawatt-years of all U.S. military, power and research reactors? To this figure, add the total megawatt-years of all foreign reactors for which the

1 U.S. has agreed to accept for storage. 2 Using either the 2,300 Hiroshima atomic 3 bombs for 1,000 megawatt-years or your adjusted 4 figure, derive the equivalent number of Hiroshima atomic bombs of radioactive waste that would then be 5 stored at Yucca Mountain. 6 7 My rough calculation, according to Mr. 8 Vesperman, mentioned in this article, is 50 million 9 bombs. What percentage of this waste would have to 10 escape to make Nevada uninhabitable? 11 Thank you very much. 12 MR. MILLS: Thank you. 13 Is George R. Clay present? Is Barbara 14 A. Gerhardt present? 15 MS. GERHARDT: Barbara Gerhardt. 16 want to thank you for the opportunity to present my 17 views and concerns pertaining to the proposed Yucca 18 Mountain repository. I've outlined some of these 19 thoughts. 20 My first thought is on the site 21 selection process. It seems questionable to me if 22 the DOE followed the spirit and the letter of the 23 Nuclear Waste Policy Act's provision for site 24 selection -- my understanding is that originally the

Nuclear Waste Policy Act in 1982 to be two site

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we've already heard this evening, the one in the east has long been forgotten. It seems that the powerful congressional delegations that were trying to protect their own states from being considered for the dump, manipulated a congressional amendment that excluded all sites except Yucca Mountain.

"selection" of Yucca Mountain seems to be based more on an issue of political power than of technical suitability. In the event that Yucca Mountain site was found not suitable, due to having no other sites to fall back on, and having spent so much money on investigating Yucca Mountain, would the DOE be inclined to recommend Yucca Mountain even if technical faults existed?

My next concern is on the seismic activity of the area. In the Site Characterization Plan on page 17, they talk of "intensive" monitoring stations since 1978. They talk of 50 stations, but six of those stations weren't installed until 1981. They haven't even had these stations in effect for a full eleven years of monitoring, yet they're expecting to provide reliable seismologic information and evidence for a quake-free or quake-safe area for

10,000 years; I question that sincerely.

On page 22, it mentions "relatively quiet" seismologically for the past 150 years for the Yucca Mountain area, but we're talking 10,000 years. On page 23 figure two six shows seismic activity for the Great Plateau Basin area in California, Nevada, Arizona, Utah, and Utah and Arizona are relatively quake-free, but Nevada is loaded with quakes.

On page 23, quote: "Yucca Mountain is tectonically quiet in comparison with adjacent parts of the Great Basin. However, its faults could experience above average slip rates within the next 10,000 years."

It just leads me to question the scientific basis with not much time being spent, and we're talking such a huge time in the future, and when the scientists had been monitoring Mt. St.

Helens the past years and they were unable to predict the eruption and certainly grossly underestimated the magnitude of the eruption that did happen.

Another concern is transportation.

Though this wasn't addressed in the Site

Characterization Plan, it seems to me it's a major

concern. A large portion of the spent fuel will be

coming from the east coast. Traveling the highways

and rails poses the most imminent hazards to the citizens and to the earth. We will just be Russian Roulette victims of the laws of probability, based upon the potential for human error as up to 3,000 truckloads of waste per year will be driving to the repository site for over 25 years.

My last point is on the credibility and reliability of the United States Government, particularly the Department of Energy, when it comes to safeguarding citizens and the environment. I'm referring specifically to an article in the March 15th Review-Journal, which discussed Nevada State Attorney General Brian McKay's testimony to congressional panel in favor of a bill to give states authority to enforce pollution laws on federal property. The attorney generals of both Washington and Idaho testified with McKay in favor of the new legislation, their being victims of government nuclear power plants also.

To make a long story short, the article, quoting the article: "Pollution on federal land has become a major issue in congress since the Energy Department acknowledged pollution problems at some of its nuclear weapons facilities."

Also in the article there was a report

by the GOE -- GAO, excuse me -- that found federal agencies are twice as likely to be violating federal laws than private industries.

That really concerns me. If you're twice as likely to be violating the laws, where are we going to be sitting here in Nevada?

MR. MILLS: Thank you.

Several of you have referred to notes that you had, or written it out. We would appreciate that if you could give those documents to our court reporter. As I indicated before, if you wish to keep a copy of that, we have a copy machine outside.

Is Ruth E. Lindahl present?

MS. LINDAHL: I'd like to direct my comments to the socioeconomic costs of the dump. The key word in this whole area is perception. Do people perceive Las Vegas as being a safe place to visit?

Do they perceive it as being a desirable place to live? The example of Pittsburgh is -- you can take the example of Pittsburgh to see how important perception is.

Nowadays, with the decline of steel mills, Pittsburgh is quiet and clean. And yet, who wants to visit or live in Pittsburgh with the image it has of a gritty, polluted, industrial center? I

have to ask, who would want to visit or live in

Las Vegas with one and a half million tons of the

deadliest poison in the world buried just a stone's

throw away?

2.2

A consumer's guide to the best retirement communities in the U.S. has a footnote on Carlsbad, New Mexico, which is located near the proposed low level waste facility there, the waste isolation pilot project. This consumers' guide cautions that Carlsbad, if this waste facility is located there, that it becomes a very undesirable place to retire. Do we want Las Vegas to have the same warning next to it in some kind of consumers' guide on retirement?

Retirement is a big industry here in the Vegas Valley. Seniors bring in money, and they demand services in return. If this influx is shut off, the job market will suffer. Current projections of the economic outlook of Las Vegas are very optimistic. One has only to look at all the construction and plans for new and expanded casinos and hotels to see that the economy here is growing rapidly. The growth expected will far overshadow the relatively small number of jobs Yucca Mountain would provide.

1 The Department of Energy and a few 2 local businessmen keep claiming that Yucca Mountain 3 will be good for the Las Vegas economy. 4 should face the fact that our economy is based on 5 tourism. Yucca Mountain will provide only 1200 jobs 6 in the construction phase, 300 jobs for the 20-year 7 maintenance period, operating period of the dump, and even fewer jobs after that. How can we compare this 8 9 to the number of potential jobs that a high-level 10 waste could lose us? 11 Carl Gertz keeps trying to sell the 12 dump on the basis of jobs, but he's selling us a pig 13 in a poke. If we get Yucca Mountain, people will 14 take their gambling money to Atlantic City and to 15 other places because the competition for gamblers' 16 dollars will only be increasing. 17 MR. MILLS: Thank you. 18 Is William Middleton present? 19 MR. MIDDLETON: Yes, sir. 20 MR. MILLS: Would you please approach 21 the mike? Mr. Middleton, right there if you would, 22 sir. 23 MR. MIDDLETON: Here's the secretary. 24 These go to you? 25

MR. MILLS:

Right to the court reporter.

MR. MIDDLETON: Can I get someone to 1 2 lower the mike? With your permission I'll sit. 3 MR. MILLS: Yes, please just take the 4 mike; it just slips right off. The actual microphone 5 part. 6 MR. MIDDLETON: Thank you. 7 Moderator and Mr. Facilitator, I want to thank you 8 for this opportunity to speak to this subject. 9 The first time I spoke was about 16 or 10 17 years ago, during Governor O'Callaghan's administration. He arranged for DOE to have an 11 12 informational meeting, and I went to it. I listened. 13 Most of them were all AEC people I think, at that 14 time. 15 Along toward the end of it, I stood up 16 and announced to the group that after all I've heard 17 this evening, I think we should sprinkle a little bit 18 of this stuff on our breakfast cereal every morning 19 for the breakfast of champions. Well, after that 20 comment, it reminded me of Mark Twain's saying about 21 the man who's being rode out of town on a rail, 22 suitably tarred and feathered. Someone asked him 23 about it, and he said well, if it had not been for 24 the honor of it, I would just as soon have walked.

So I didn't have to stand quite a while,

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I would now like to reach out to the gentleman from the Indian tribe, the people in Nevada are all now members of the Indian tribe.

1 5

The "C" change I referred to is the recent confirmation of Admiral Watkins, a very impressive gentleman. I had watched him all during the AIDS commission which he chaired, and he did an excellent job. He also did an excellent job during his confirmation hearings. And made reference to the fact that the days of the pea in the pod with the Department of Energy are now over, and I was delighted to hear that. However, he also said that the country would go forward with nuclear cleanup at the same time we accommodated the DOD's new construction program because of what's happened in Hanford, the age of the facility at Hanford and the one at Savannah.

Then later, a few days later, the admiral appeared before Senator Sasser's committee on budget, and it was enlightening. I think the DOE budget was around 90 billion -- B, billion -- and the cleanup, at least for the first year, is something like 80 million, which rather puts it into perspective.

And during that hearing, he asked his number one person, a lady by the name of Fitzgerald -Judy, I believe -- and I was delighted to see that he is an equal opportunity employer, obviously. But then when she came on, she's to be in charge of the nuclear waste cleanup, and her comment was, We're going to clean it up so well, you could build a school on top of it. Which is an interesting comment. Of course, I realize a lot of schools are built on geological faults and other things of that sort because it's a lot cheaper ground -- at least in California.

I'm beginning to think that Dr.

Einstein was right when he said the only thing which has not changed is the way men talk. I would make one minor modification: The way human beings talk.

I firmly believe at this point that scientifically, the world has gone up a nuclear blind alley. There's only one way to get out of it, and that's to do a 180-degree turn. For that I have no solution, I make no academic credentials, I have no expertise. I claim only to be a human being.

So I think the admiral will soon find that there are two kinds of courage, which I have found, having made it through two wars in the flying

business: Civil courage, and military courage. I can only wish him the best. But there is a fresh breeze blowing, and I will hope along with the rest of you.

And I had used the expression -- have used it on a number of occasions; once in a previous hearing of this group, the DOE -- that the world is now facing a major problem of nuclear constipation.

No one knows how to get rid of it, no one knows how to solve the problem. I was delighted to hear Admiral Watkins use that expression during his confirmation hearing. I have no pride of authorship, and I'm very pleased, but I'm very pleased that he picked it up somewhere along the line. Of course, I had made a couple of call-ins to C-Span, which had 40 million viewers, so maybe the idea ricocheted around a little bit.

Now, since I've been dealing more with the "macronage" and switched to the parochial sort of, the problem concerns the people here in Nevada, and it's obvious. It is painfully obvious, and it has been that way a very long time. As Admiral Watkins said, the DOE, and AEC before it, has total lack of credibility. And I say that not intending to be critical or point fingers. But we're all in this

together. We really are.

2.4

For example, in recent congressional testimony, the spokesman for the National Association of Pediatricians commented -- and I'm not sure I'm quoting him exactly, but I'm sure I'm very close, very close to what he said: Anyone who thinks all is well in our world today only has to walk through the children's cancer wards in the children's hospitals.

Well, to get down back to Nevada, it
was appropriate -- I write in large letters these
days, so I'll toss these sheets aside as I finish.

It seems appropriate to the hearings that the
hearings are being held in Las Vegas, a city which is
big on gambling, and often bets on the come. I say
that because there's still no solution to what's to
be done with the disposition of nuclear waste. Again,
I'm a part of that.

I'm not pointing fingers. I was in SAC.

When I went into the Air Corps in 1940, a second

lieutenant in the first squadron I was in was

Lieutenant Tibbets, who later flew the Enola Gay. So

I have a small amount of background in this thing.

The preparations you're making in your plan might be the greatest waste of civilians that we've ever had in the west, in studying Nevada. I

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use the word risk internationally because, in the
 1
    parlance of the gamblers again, you seem to be
 2
    betting on the come. The project you've prepared to
 3
 4
    apparently take care of it until the year 2003 seems
 5
    to be -- to bet many unknowns and --
 6
                  MR. MILLS:
                              Sir?
 7
                  MR. MIDDLETON: Yes?
 8
                  MR. MILLS: I wonder if you could
 9
    conclude. You're over time now, and if you could
10
    wrap that thought up we'd appreciate it, that you're
11
    on.
12
                  MR. MIDDLETON:
                                  Right. It's only a
13
    two-page thing, but it comes out in large print.
14
    appreciate you telling me because I couldn't have
15
    seen your hand go up. If you were patient and kind I
16
    would be delighted to let the lady back there read
17
    the rest of it for me, for be the person who read
18
    because someone lost his voice. But in view of your
19
    suggestion I'll cut it off.
20
                  MR. MILLS:
                              Thank you very much.
21
                  Is Eugenie Throckmorton here?
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                  MS. THROCKMORTON: My name is Eugenie
23
    Throckmorton. I had quite a stack of technical
24
    literature which the Department of Energy sent me,
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and which the Nevada Citizens Nuclear Task Force

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provided me, and encouraged me to study up on the technical aspects, and to try to concentrate on.

Then I saw Mr. Gertz on television a few evenings ago, and he seemed to want to discourage the emotional aspect of this subject, and to dwell on the technical. At that point I put that stack of technical literature aside, and decided I would come in with my emotions. As I saw him on television talking that way, I thought perhaps the United States Government had had a secret project and come up with an emotionless atoma-ton, and they named him Carl Gertz.

You know, I'm a first generation

American, and one thing that I have observed in my

life -- I was born in Nebraska -- is that when you

tell an American not to do something or that he or

she should not do something, that's a challenge. You

want to do just the opposite.

I happen to be the child of immigrants, both of whom came from two separate countries that are behind the Iron Curtain, and their people have their behavior prescribed for them, and their emotions are -- they're trained to contain their emotions. They also have a bureaucracy that rides roughshod over some very elemental concerns, and

that's what brings me to these meetings.

There's something very basic in my composition that makes me very concerned about Mother Earth and what we're doing to her health. And so, I'm going to just stop there. I want to make it brief because I just want to emphasize the importance of this to me.

Replicability is supposed to be the true test of something approaching the truth in science or work ability in technology, and I believe that you do not find consistent opinions about the replicability of tests giving the same data in this particular field we are discussing tonight.

I believe that the timetable set for the development of the Yucca -- of the high-level nuclear waste storage; it's not disposal. You're never going to dispose of it; it's just storage. -- it's going to require more time than your timetable has projected. And as a comparison I want to point out that the atmosphere that has blanketed our Mother Earth and nurtured life of all kinds is being destroyed by a technology that was not thought out sufficiently and en masse; that has been advertised widely -- worldwide, to the advantage of the stockholders and companies -- but that we are now

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realizing, regretfully, that we did wrong, and we're
 1
 2
    wondering if we have time to slow things down to stop
 3
    it in time.
 4
                  And in using that as a comparison, I
 5
    think that we need to consider what we're doing here.
 6
    Use that as an example to consider long and hard, and
 7
    with a great many different people, not just those in
 8
    the bureaucracy and the technology and the sciences,
 9
    but those in the humanities who represent emotions.
10
                  And those may be the best guideposts to
11
    the right things to do, because I do really feel that
12
    each person has something very elemental in them that
13
    really loves our Mother Earth. Not just our country,
14
    but the whole planet. And I think that is the top
15
    priority in our lives today, is considering those
16
    things.
             Thank you.
17
                  MR. MILLS:
                               Thank you.
18
                  Is Walter Barbuck present?
                                               Walter
19
    Barbuck.
20
                  MR. BARBUCK:
                                 Right here.
21
                  MR. MILLS:
                               Thank you.
22
                  MR. BARBUCK: I am opposed to the
23
    proposed high-level waste dump. This state deserves
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better than that. I will try to supply a few reasons

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for opposition.

Mountain is the only one that would hold the waste above the water table. The other eight sites are below the water table. This could enhance the effect of oxidizing ground water, especially with the rising water table.

By the DOE's own admission, this oxidizing ground water could adversely affect the ability of the site's natural barriers to isolate the wastes. It is present, this oxidizing ground water, in the saturated zone, and it is expected to arrive in the unsaturated zone; that is, where the proposed dump is to be built. The water table being below the proposed dump could be affected by volcanic activity over the years; that is, through a rising water table.

The Lathrop Wells Cone, which is visible from Yucca Mountain Peak, was once believed to be hundreds of thousands of years old. But now thought to be as young as five to ten thousand years old. When we are talking about storing enough radioactivity as would be generated by the detonation of many atomic bombs of the size dropped on Japan to be stored at Yucca Mountain, we should err on the Lathrop cone to be of a younger age, and therefore scratch the Yucca Mountain project.

I now ask, for the record, what age is the DOE going to declare for the Lathrop Wells cone? What is the DOE going to do about the expectant arrival of oxidizing ground water in the unsaturated zone?

End of statement.

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MR. MILLS: Thank you.

Is Paul Brush present? Is Jessie Cocks present? Is James McGuiness present? Mr. McGuiness? MR. McGUINESS: I'm quite surprised you're actually having this hearing at all. the DOE just likes to run rampant and not talk to us very much and ask us for our opinion. I also know that you're asking us to put faith in your organization, and I guess they did at Hanford. think they realized their faith was misspent. the waters contaminated there. Savannah River, we put faith in you for Savannah River; don't you do a great job in cleaning that up; seems that's not working out correctly. Rocky Flats. I think the people up there think they had a nice beautiful location before the DOE showed up and played their little game and now they can't drink the water. And Fernal, well, even Senator John Glenn doesn't think that's a good place to be.

And now you want to come to Nevada. I don't think it's a very good idea. You come out and you've asked us to put faith in you, and yet on January 28th, when we were in another little meeting you had, you made the statement that: Spent fuel is like a dead flashlight battery. I think spent reactor fuel is slightly more dangerous than that, and I think it will be around a little longer than that.

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You also come out and ask us different things that say maybe we should simply go and bury the nuclear waste because the water table won't rise. It seems that some of your own scientists have differing opinions on what's going to happen if another little earthquake or seismic fault happens that, within the next 5,000 years, your water table might rise significantly.

You've also detonated quite a number in the past 20 or so 30 years, of detonation to the seismic activity of over 5.0 on the Richter scale. It's about double what's happened in California from some of the vast earthquakes that everybody is so terrified about. So I can't understand how you feel that it's not so bad because it will sit there and quiver like a grape in a bowl of Jell-O. Didn't make

much sense to me either.

Also, it seems that the New York Times, said the department said it would not begin accepting waste for the repository in 1998, as the Nuclear Waste Policy Act intended, but in 2003. Well, knowing the way that you moved out quickly and progressively, I feel that probably about 2013, unless we don't allow it to happen.

The plan is to mount the material in extremely strong glass and wrap the huge bottles in canisters before buried. Well, it seems that we put things in glass and as steam starts to rise in there when you touch with water, it emits quite a lot of gaseous material which is quite radioactive. I think it's a quite a dangerous thing to be doing to the people in Nevada, and not telling them that makes a lot of sense.

The government planners state that in about 10,000 years the amount of radiation remaining in the waste will make it about as benign as the natural uranium that began the process. I don't believe that's true either. You also say that you're going to make it last at least 10,000 years. Yet in some of the material you hand out, the plutonium is going to last 25,000 years. That doesn't make much

sense to me. Shouldn't you go for at least 30,000?

Be a little more on the safe side.

Also, scientists at the United States
Geological Survey recently charged that stop-work
orders were attempted by the Energy Department to
prevent the discovery of problems that would doom the
repository. Is this true? If not, how do you answer
these questions, and who are these scientists? I'd
like to get their opinion, and what have you got them
doing now? Are they playing around in some little
town in Ohio? Or what's going on here?

August that they had been blocked from sampling gas coming from test holes because of paperwork problems, but that by the time those problems were solved, the holes might have been filled and important data lost. Gas circulation is critical, the scientists noted, because the waste produced a radioactive gas, carbon-14. Sure, we just figured we could make flashlight batteries with the carbon we would have a good time.

The Nuclear Regulatory Commission has also complained that much of the work seems designed mostly to get Yucca Mountain built rather than to determine if it is suitable. Are you really pushing

that fast, or are you working through it or are you really trying to pursue the building project? I'd like a more in-depth answer than some of the ones I've gotten before in your little hearings.

In March Mr. Thompson he complained that the Department of Energy was planning to collect only data that would prove its case and not data that might show flaws that would preclude the site's use. Is this in fact true?

A National Academy of Science's study in 1983 noted that the chemical characteristics of the water at Yucca Mountain are such that the wastes dissolve more easily than at most other places. Is that true? And how many other studies have been run and which ones are you actually going to go with?

And also, talking about 1983, I was up at UP at Michigan when the DOE decided it would be nice to bury radioactive waste up there because it's a nice, quiet little section. They have nice, tiny little towns of people that won't come out and make a big fuss like they do in major cities. Well, they stormed up to that place and decided you couldn't come up. They don't use nuclear power, they don't want the waste. Neither do all the people all over the east coast, which is why you're out here,

because you think it's desolate area. We don't think
it's going to work.

Some experts have questioned the decision to take military liquid wastes and mix them with a strong form of glass, which they say could dissolve in steam created when groundwater hits the hot waste. How do you feel towards that? Is it true? How easily could this happen, and what is the probability of this happening and could you get a few scientists -- not just the ones that agree with you -- to look into the feasibility studies?

Yucca Mountain: May Be Unsuitable For Isolation of High-Level Nuclear Wastes, The Geotechnical Rationale. The 1987 DOE scientist's report concludes that, because of the unpredicatable timing and magnitude of likely and significant geologic events -- such as earthquakes and faulting at and around Yucca Mountain -- serious consideration should be given to abandoning the Yucca Mountain site and declaring it unsuitable for the purposes of permanent disposal of the high-level nuclear wastes.

Is anybody listening to these individuals? If not, why not? If they're not qualified, could you tell us that and tell us why

your individuals who say differently are qualified?

2.2

The Coupled Heat-Fluid-Stress System

That Controls Groundwater Levels At Yucca Mountain-A

Theory of Cyclic Change. The DOE scientist's Coupled

Heat-Fluid-Stress System theory and available data

lead to the expectation that a major, rapid water

level rise beneath Yucca Mountain could take place

early enough in the future to make it impossible to

conclude that the Yucca Mountain candidate High-Level

Nuclear Waste Repository site will meet the

requirements of the Nuclear Regulatory Commission for

repository licensing, and any reasonably conservative

Environmental Protection Agency standard for the

repository. Is this in fact so? And if not, how

come the people are not listening to us? What's

going on?

According to the continuum described in the report, the Yucca Mountain area is approching conditions that will result in major fault movement and a rapid rise in groundwater, perhaps to a level at or above that of DOE's proposed repository horizon? Can we have this question answered? Do you believe it, and what are your answers to saying why you think it's not going to happen? And if you continue to test nuclear weapons of the magnitude we're testing,

I think this is undoubtedly going to happen.

2.2

The known high frequency of faulting in the area suggests that the repository horizon could be further fractured and flooded at some time during the next 10,000 years, resulting in a loss of waste isolation during the period of required repository performance. It is quite clear that the available information does not, in any sense, support DOE's simplified model of the geologic/hydrologic system at and in the region of Yucca Mountain, and in fact, the DOE's model leads to a fundamentally distorted view of the geologic characteristics of the proposed repository setting.

Is that true? And how much attention are you paying to that? Have you dismissed it out of hand? Has anybody read this report, or have you just decided these people are flunkies and you don't want to listen to them? Of course the 1984 Yucca Mountain Environmental Assessment stated the Lathrop Wells Volcano near Yucca Mountain had been silent 300,000 years. But as someone stated before, it seems to have erupted between five and 200,000 years ago. Of course you'll go for the other one.

The General Accounting Office reported in September 1988 that the Department of Energy sent

at least 13 shipments of highly radioactive material across the country in faulty containers. I believe that's definitely true because if you can bury radioactive waste in cardboard at Hanford, which I think maybe to try to save money it's a nice thing for the government to do once in a while, it makes sense that this will happen.

Also, I want to know how you feel that you can do this on what is Shoshone territory? When I was in school I learned that it takes Congress to ratify a treaty. I understand the Ruby Valley Treaty of 1863 was ratified by Congress. I do not understand when Congress nullified when I went to school -- which was quite a few years ago, admittedly -- they changed this. Has congress ratified this treaty? If not, what are you doing on the land?

Thank you.

MR. MILLS: Thank you. Mr. McGuiness, we would appreciate it if you would bring the documents you read from, have a copy made if you want to keep them.

Ladies and gentlemen, at this point, we are approximately halfway through our evening. It is our intention to stay until all of you have had an

opportunity to be heard, and therefore, we wish to advise you if there are others who have not signed up during the break, please sign up outside and we will give you that opportunity. We'll take a break now for approximately ten minutes, and then we'll reconvene.

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

MR. MILLS: Ladies and gentlemen, if
you could take your seats, please, we'd like to begin.
Ladies and gentlemen, we'd like to begin again.
Because of our close proximity, we'd appreciate it if
there was no smoking inside of the meeting hall. The
hallway, of course, is fine.

I thought I'd take again a moment, because there is a number of you who have come in after we started, and go through these procedures so that everyone understands them. I'm Lamond Mills. I am your moderator. To my right, Jean and Carl, they are the experts. They're the panel. I'm simply here to make sure that's things move smoothly and fairly as possible.

Each one of you who have signed up has been given ten minutes. If you talk to the point

where eight minutes have passed, I'll hold up at the two minutes indicating that you have that much time left. At the end of the time I'll hold up the closed fist. Anyone who wants to sign up can. We're still available for signup out in the hallway.

Some of you have brought written copies of what your presentation is. We would appreciate it if that would be brought up to our court reporter following your remarks. If you'd like to keep a copy of them, we do have a copy machine out in the hallway, and they'll make a copy for you.

I just want to emphasize again that this is not a place of argument; it's a place of gathering information, and the only questions which may be asked -- and those of you here who were with us for the early session, you realize that's quite rare, is a question from the panel for point of clarification, and that's the only reason. Again, thank you for coming. We urge you to participate.

And our next speaker will be Jerry Nuss, N-u-s-s.

MR. NUSS: I am not going to give any statistics, period. That's the key, the part that I am going to dismiss myself. All I'm concerned here with, my wife has asked me to call, come here, and

that is a decision must be made by people.

Basically, this is a Las Vegas hazard. Seventy-five, 65, 85, 100 miles out of town. You drive down Rainbow Boulevard two o'clock in the morning and you meet the 65-, 75-mile-an-hour winds, you get the message of what the dump is, less than one hour out of town, and that is what we're talking about. If you talk about atomic energy and the history of atomic energy, as of now it is still pretty much in a disaster category. The projects all over the United States and all over the world pose a hazard to life itself.

Now, if you're going to bring this stuff in, they talk about driving down the roads, let's fly it in. Stay off the roads. The roads are tough enough to get up and down without having trucks or trailer tracks or anything.

Basically there are two problems, legal problems, as you would know. The Federal Government owns 86 percent of the land in Nevada. But as you enter and leave the state, it is the State of Nevada.

The sovereign question would be, how would the government bring this material in if the State of Nevada said, We don't want you here? Are you going to cross these imaginary lines? These are

not imaginary lines; these are real lines. And I am reminded very much of my scholarship work when Chief Justice Marshal of the Supreme Court made a decision contrary to the present presences. Mr. Marshal has made a decision, let Mr. Marshal carry it out.

Final analysis, a legislative thing, and that's what it is. We're dealing with a political problem. A court problem, you have no hope. The supreme court is so packed that if you ever got in, if you ever got there, you have no chance because federal issues now are a priority.

But there is hope. This year only, we have seen, on the national level, taxing the people's savings. They didn't buy it. I didn't buy a condo for my ex-girlfriends, did you? Why should we be taxed 100 billion dollars for somebody's folly or somebody's fraud?

Number two, the congressional pay raise, the way they went about it. Number three, the Tower situation. All of these things the public opinion polls are very specific, and said no. Now we have hope if the people will come out. Tomorrow they brought this paper. Get one and five other people to make this call. Now when you go to Washington, get 50 people. You don't need to lay out there like a

bunch of people protesting. Get enough people and
you'll find that you're going to be heard.

That's all I said, let's get legislative active. Very few times in our life we are asked to make very critical decisions, this is one we should make. Okay?

MR. MILLS: Thank you.

The next speaker is Norma Cox.

MS. COX: Good evening. My name is

Norma Cox, and I represent the League of Women Voters

of Las Vegas Valley.

national position for deciding on nuclear waste disposal and storage. Our national league recognizes the importance of identifying a suitable site for a nuclear waste repository, and has taken no position regarding specific siting of the repository in a particular state.

The league supports final disposal of nuclear waste in an environmentally sound manner.

The league believes that storage of high-level nuclear wastes from commercial reactors should be maximized at reactor sites. Away-from-reactor short-term storage facilities should only be built if one is needed to prevent commercial reactors from being

forced to cease operations because of waste buildup.

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The league supports requirements for full public participation at all levels of government in decision making on nuclear waste management. The league supports giving the states a right to consultation in decision making on nuclear waste management.

Within the framework of these national policy positions, we of the Las Vegas Valley League of Women Voters would like to offer the following comments relative to the Site Characterization Plan. Our comments assume that a full and complete transportation study will be carried out, and that careful examination of the economic and socioeconomic impacts will be completed before a decision is made to locate the repository in Nevada.

repository is one of the most difficult decisions which need to be made by our society. Not only those of us on earth today will suffer the consequences of a technically flawed decision, but so will the many generations to come.

For this reason, the best scientific input is demanded, and the Department of Energy should go beyond its network of in-house contractors

to obtain the most advanced and technically sound ideas. We urge that greater reliance be placed on input from scientists from outside organizations, such as the National Academy of Science, the Office of Technical Assessment, the National Science

Foundation, and the National Institute of Health, as well as from the State of Nevada scientists hired to oversee the program. Peer review of scientific work will lessen the potential for error.

Second, the SCP indicates that individual participants will be developing their own quality assurance plans. There is no evidence that the DOE has provided criteria for these plans, or that independent review by scientific groups will be made to assure that operations are not flawed, and that adequate records are maintained. There must be a uniformity of systems to assure that appropriate analysis can be made, and that an accountability trail can be established.

The SCP indicates that final approval of upper level quality assurance program plans will be given by the National Radiation Council. Should revision be required, will all participants' plans also be reviewed and revised to assure consistency? What will be the schedule for review and approval?

Will final approval be given by NRC, or will other experts be used to review, comment and/or approve?

Will this information be incorporated into the SCP, and will the approvals of the QA plans be required before SCP activities begin?

Third. The SCP speaks only briefly of the compatibility of a high-level nuclear waste repository with testing operations at the Nevada Test Site. We believe the siting of the repository at Yucca can jeopardize the higher priority set for testing operations at the Nevada Test Site. Testing would have to be done on a non-interference basis to assure that hazard is not caused to the people operating the repository, or to the repository itself. Will this in the future limit the experimental nature of testing programs whether devices are designed for military or peaceful uses?

Historically, a certain amount of -- a certain margin of error was permissible because people could be evacuated or buildings reconstructed in case of accident. Permanent storage of the canisters changes the parameters, and the margin of error will need to be reduced because the canisters cannot be moved out. Will this fact limit development work because of the need to restrict

testing to devices for which predictive capability approaches a near perfect confidence level? What if it becomes necessary to relocate testing shafts because an area is used up, or an unforeseen accident occurs? Will relocation be restricted because the stored underground canisters must always be considered?

We believe that these questions need to be carefully examined to assure that the value of the Nevada Test Site as an experimental testing ground is not compromised by an expedient decision to locate the repository in Yucca Mountain.

The SCP is a complex and difficult document to digest. At this point, we can only assume that it addresses all of the issues necessary to assure that the best decision will be made, particularly with respect to geotechnical and hydrological questions. To do less than that throws all of the country's nuclear programs in doubt.

As I mentioned before, the League recognizes the need for a permanent high-level nuclear waste repository and we, within the Las Vegas Valley League, will be working to gain a fuller understanding of the complex issues involved with the siting of the repository in the State of Nevada. We

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    ask that, to help us, as well as to help the general
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    public understand those issues, frequent and less
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    formal meetings be held as the Site Characterization
    Plan is carried out, and as the Transportation and
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    Socioeconomic studies are completed. Through such
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    meetings, public concerns can be expressed and
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    addressed, wider technical input can be obtained, and
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    greater understanding will be promulgated.
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                  Nevadans are being asked to assume a
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    tremendous responsibility, and it is only fair that
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    they be given assurance, should the decision be made
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Thank you.

their livelihood or their progeny.

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MR. MILLS: Thank you.

to locate the repository at Yucca Mountain, that they

will be safe, that it will not impact their health,

Richard Wyman. Dr. Thorne Butler. Dempsey McDaniel. E. Rose Davis. George R. Clay. Paul Brush. Jessie Cocks. Louie Benezet, B-e-n-e-z-e-t.

MR. BENEZET: Hello, I'm Louis Benezet from Pioche, Nevada. I thank you for giving me the opportunity to express my views.

I'm sure that some of the other people who have talked and who might have been here, could

I've made an attempt to follow the procedure, and review the tremendous document you folks have prepared -- that is to say, I tried to get a copy. I put my name on the list, and I received a packet in the mail which I hung onto for quite a while before I opened it up, and then turned out it was an overview.

So I went through the county library to see if they had a copy, and went to Winthrop County library doesn't have a copy of your plan. So I finally was able to borrow a couple of volumes from Caliente Nuclear Impact Committee, and I hope that they are not distressed at not having them.

But anyway, what with the time schedule, I really haven't had a chance to read, research and do all that. So I'm going to try to do as much study as I can on it, and submit my comments in writing to you people. But I do have a few general concerns, which I would like to be able to express.

Like a lot of people that live in

Nevada and out where I do, I am pretty concerned -
and in fact, rather angry -- about the fairness issue

of this whole thing. I mean, I'm a downwinder.

There are a lot of people out in our area who have

gotten cancer from what was done at the Test Site

over the years, and now we're being asked to be, you know, nuked again and like it, and it's kind of sad to see this thing generate from what appeared to be a fair, impartial scientific approach into a political gambit based on stuffing it down the throats of the people who have the least power to do anything about it. Having gotten that off my chest, I'll go on to something more specific.

I feel that the plan that you've written, as far as I can tell, looks like it's going to be a blueprint for going ahead and doing what's been decided to be done all along. That is to say, build a repository, start sticking nuclear waste in the ground and use this as an excuse -- Well, we've solved the problem now. We can go start generating more of the stuff. It overlooks, to me, an essential issue.

The plan uses the phrase "Major disqualifying factor". This is something we might be looking for in the plan to see if there is some issue that's big enough to disqualify Yucca Mountain, or disqualify the geologic repository concept. The trouble with the approach we're using, which is kind of a tunnel vision approach, is that we don't see what's right under our nose, and that is if you want

a major disqualifying factor, all you have to do is look at Three Mile Island or Chernobyl, or the fact that this stuff we're trying to bury is one of the most toxic substances known to man, if not the most; and there is nothing we can do about it. We can't render it harmless. We can't get rid of it. And it's just -- there is just no future in the nuclear age, I guess that's what I'm trying to say.

I mean, is this perhaps a symbol of the kind of pride that we have? We think we can start a program that's good for 10,000 years? We call ourselves, at the beginning of the Nuclear Age, we think we can predict the future to that extent, and yet I think that if we were to go back 40 years and doing what we know now, there wouldn't be a Nuclear Age.

I'm concerned. Both for defense, both for power, and until we are able to come up with solutions to some of the basic problems, such as what to do with waste, we got to put it on the shelf. But we do have this problem that won't go away.

Somebody earlier today made the comment that you know, we've got the waste, the waste problem won't go away. We've got to live with it. And that

is true. Though I wouldn't come to the same conclusion that he did, which is we should go ahead with Yucca Mountain.

I feel that what we have to do is stop producing anymore of this kind of material until we know of some other alternative, some way of making it harmless, and in the meantime, we have to deal with what we've got. We do have to protect the future from it, but we have to do it in a way that the minute we come up with an alternate solution, we can do something about it. We can get rid of the stuff we've already produced. To me that doesn't mean sticking it in a hole in the ground X thousand feet deep, burying it, filling it in and letting nature take its course.

We simply have to admit that the human mind, the human effort, however great our accomplishments have been, are limited. We can't say with certainty that the environment will not be contaminated by this stuff, that future generations of people won't stumble upon this stuff we've left behind. We can't, in other words, seal it into the ground like an ostrich sticking his head in the ground saying what we don't know about doesn't exist.

And I guess another thought that I had

on this subject is that when I manage or try to conceive of the time involved this 10,000 years, that we have to take into account, bear on our shoulders, really, on behalf of all these future generations of man, take responsibility for protecting them from something that we've created; that, despite -- this time frame dwarfs by comparison any other monument to mankind. The pyramids, all other human history is small by comparison. And yet, it is typical of man to strive for a certain immortality, and, ironically enough, we have in fact accomplished it to a remarkable degree. That is to say that we have produced something that will last that long and will have that long effect.

Nuclear waste is our monument, for good or ill. It can only be hoped that if we can't do anything about it, that that monument will serve as a warning not to follow in our steps, and I issue that and comment in the hope that there will be those around in the future to read that warning and profit by it.

If I have a few minutes, I think there are probably a couple other comments. Incidentally, I would like to be able to give you my notes, but I doubt if you'd be able to make much use of them.

1 However, if I can, I will submit stuff in writing.
2 Yes, there is one other point here.

I think that when I discuss the idea of having retrievable storage, so that we can, in the future do something about this. If the technology develops to where we can actually make the nuclear waste nonhazardous, that we can retrieve it, I would like to mention that there are alternatives that have been scrapped or at least put on the back shelf because of the eagerness to go along with this Yucca Mountain geologic repository type program.

I refer to a document which I have here as an appendix from a report on the DOE's nuclear waste program from the United States General Accounting Office, a report to congress dated September 1968, and the subject of this appendix to the document is the Dry Cast Storage Possibilities, which I understand if employed at nuclear power plants around the country, would increase by 80 percent the capacity to store above ground the nuclear waste that they have and are producing. And this report sums up the following remarks written by the person on report.

The NRC section leader told us that the NRC has not identified technical factors that would

prevent any utilities from using some form of dry storage at any nuclear power plant to accommodate all of their waste.

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Further, NRC examined the question of institutional impediments to using onsite dry storage and concluded that there are no impediments to its use. He also stated that NRC has encountered no problem public opposition to licensing dry storage technology.

In fact, this official stated that dry storage appears to be the politically or socially preferred alternative to expanding storage pools, shipping wastes between sites or federal interim storage because it is rather innocuous compared to these other options. It is probably also less expensive, and I'd like to point to the fact that it avoids one of the major factors that to me rules out the possibility we're dealing with, and that's the fact that everybody in this country or a good many of us are going to be exposed to this dangerous substance through the transportation process that's going to cart it all over the country to bring it here. We in Nevada might complain about it going through our towns, but this is going to be happening all over the country, and I hope to see that the rest

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of the nation becomes as informed as we have about
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    this danger.
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                  Thank you for your time.
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                  MR. MILLS:
                              Thank you.
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                              Sir, please make sure you
                  MR. GERTZ:
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    see our personnel at the table and we'll get you a
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    copy of the SCP if you haven't already.
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                  MR. BENEZET: I went by the office
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    today and picked one up.
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                  MR. GERTZ:
                              Great, thanks.
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                  MR. MILLS:
                              I'm going to apologize
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    beforehand for mispronouncing this name. The first
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    name is Solveiga, S-o-l-v-e-i-g-a, Unger.
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                  Is John Alberti here? Oh, she's coming,
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    sorry.
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                  MS. UNGER: Good evening. My name is
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    Solveiga, so that was close. Solveiga Unger, and I
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    live here in Las Vegas, Nevada. Thank you for giving
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    me a few minutes this evening to express some of my
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    concerns regarding the proposed nuclear repository.
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    This is a new experience for me, and I must admit I'm
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   nervous.
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                  Let me begin by saying that I really do
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    not believe that the people at the DOE are all mad
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scientist types who do not care about what happens to

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either the people of Nevada, or to Nevada's fragile environment. However, I have read and heard about what has happened in Hanford, Washington; Ellenton, South Carolina, the Savannah River plant in Ohio, and the Nevada Test Site.

Just to clean up the Test Site it will cost more than 2.2 billion dollars. And isn't there some talk that some of the sites that need cleaning will just have to be written off for the time being while they continue to pollute the environment?

that the DOE has been successful in maintaining its ability to regulate its own activities, shield mishaps-accidents and shoddy practices from both the public and from other government entities. So at this time, I am having a hard time accepting DOE information about the proposed site in Nevada. I really want to know that we the people are being told the whole truth. After all, the people of South Carolina, Washington and Ohio were not.

Since the nuclear waste product problem has reached a point where something must be done very soon and there is growing pressure to find a quick solution -- I do not want to see that quick solution be "let's dump it in Nevada". If some time in the

not too distant future, while a large part of
Southern Nevada is written off because there isn't
enough money or technology to clean up the damage
done to the environment, I do not want to hear such
phrases used as, "The dump site was a mistake that
should not have been allowed to happen; or If more
careful planning had occurred, it would never have
been put in Nevada."

And if what I have read is correct, the justice department has prohibited the EPA from suing federal agencies which violate the environmental statutes. The justice department is also opposing civil penalties on DOE facilities that contaminate surrounding areas.

So if a mishap should occur, what will we in Nevada be able to do? Could matters drag on in the legal system or in congress for years, just as it has for the victims of above ground nuclear testing? We are talking about high-level waste products that will be dangerous for thousands if not millions of years.

And from what I have both heard and read, the government seems to be unwilling to accept that even low levels of radiation can be harmful to a person. If low levels are not harmful, why are

dentists now beginning to advise that annual x-raying of teeth might not be advisable? What happened to the annual chest X-ray, and what happened to all those foot X-ray machines that were in shoe and department stores when I was growing up in the 1950's?

the Nevada dump site will be dangerous for the next 400 or so generations. That's much longer than civilization as we think of it has been around. Is the DOE sure that it has come up with the best means and the best location for storing high-level nuclear waste? Or is Nevada just a quick solution?

I will close by telling you about something that happened to me yesterday. Yesterday, while I was having my nails done, my manicurist asked me, as she always does, what's new and exciting in my life, and what was I up to. I told her I was going to make a statement before the DOE regarding the dump site. I told her that I was a little nervous. I had some feelings of anxiety. And I was not sure what I was going to say.

She told me that her ten-year-old son

David, who is in the fourth grade, has been studying

about the waste dump in school; that he had come home

from school and told her that he wanted to write a

letter to Senator Bryan about his feelings regarding the waste dump. She asked me if I'd like to read his letter, and I said, of course. I picked up the letter this morning, and would like to share it with you:

"Dear Senator Bryan, it has come to my attention that they're trying to put a nuclear waste dump here in Nevada. I am a fourth grade student attending Helen Marie School. I just want you to know I'm totally against it, and anything you can do would be deeply appreciated. Your friend, David."

Thank you again for listening to my comments.

MR. MILLS: Thank you.

Is Richard Wyman present? Is Beth Summers present?

MS. SUMMERS: I have two very brief questions for you concerning the seismic activity in the state, and our groundwater.

experts are in favor of disposing of high-level nuclear waste in stable, geologic formations. And have rejected such places as the Antarctic ice sheets because they cannot guarantee the stability of those sites over the next thousand years. If that's the

Case, why are you considering Nevada, and especially Yucca Mountain, which lies between two fault lines?

And which has the seismic activity created by our nuclear testing, and also some natural seismic activity that's been registered in the Boulder City area in the last year?

Another concern I have is for our groundwater. Living in the desert all my life, I know how crucial the aquifers are to our survival as a people, and they're going to become more crucial as our population grows in this valley. I'd like to know what kind of guarantees we have that this water will not be contaminated by the burial of nuclear waste?

In my reading about this, because I've been trying to understand, I've found that recycling the waste has been too expensive a proposition, and therefore we're trying to bury it and get rid of it.

But how can we put a price on the future ecology of our state, or on the welfare and health of future generations over the next 50, hundred, thousand years?

These are questions that I would like to have answered by the DOE. Thank you.

MR. MILLS: Thank you. Stevi Carroll.

MRS. CARROLL: Good evening, I'm Stevi

I have one main request. If we must have a high-level nuclear waste repository in Nevada and in other places in the world, we must carefully examine the data on the decrease of quality of life as we have seen in the atomic victims of Japan, the United States and the Marshall Islands. We must truthfully look at the radiation-related losses of life, both physical and mental; for instance, retardation caused by radiation. We must know the answer to whether that cost is really worth our investment.

One pro-nuclear argument almost always given is the positive uses of radiation -- X-rays, for example. I have very little problem with that. But what I really want to know, and what I deserve to know, is just what is an acceptable, tolerable, ethical level of radiation exposure fit for the benefit of life on earth, our one and only, nonrefundable planet? Until I have that answer and it's been verified by scientists I respect, I do not want any false hope that we will not have to sacrifice our entire desert to a never ending flow of high-level waste planted in the fragile beauty of the

desert on Yucca Mountain.

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Look at the latest issue of National Geographic. The acne-scarred landscape of the Nevada Test Site testifies to our adolescent approaches to many complicated nuclear challenges. At what point does the introduction of radiation simply become too much? I am particularly interested in your ethical answers about radiation levels.

Aside from my major concern about your explanations of levels of radiation, I have a few more practical concerns. How prepared are we for the economic impact of the construction of the repository? How will this boom/bust phenomenon leave the economic stability of some of our smaller communities, as well as Las Vegas?

waste are sent by rail, I really wonder how we'll pay for getting the lines up to specifications to handle the volume and the lethal capacity of the cargo.

Where will the super strong cranes for hoisting these fallen mammoths be located? How far apart on the train line or on the interstate will they be available? Just how fast can the Charles Atlas of the crane world get to the site of an accident?

Anyone who has driven the L.A. to Las

Vegas route any weekend knows the streams of red and white lights exchanged in the night as we support each other's economy. We as a nation have been collecting spent fuel rods at one-third rotation per plant every year for over 30 years. Every hour at least one truck bearing the ominous yellow and black nuclear emblem will travel the interstate. Now many people are aware of the threat and danger of exposure to radiation. One accident with a traffic jam while waiting for the cleanup crew will give people plenty of time to consider how to spend their leisure time and their discretionary income. This impact of economies would be felt in both Nevada and California.

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Someone I admire who has studied the repository and other nuclear issues told me that a one percent drop in tourism would cost our economy tens of millions of dollars. Right at a time when we are building up to Red Rock, and out to Tule Springs. How quick and efficient are our nuclear emergency cleanup crews? How and where are they being trained? And what are the acceptable, tolerable, ethical results of an accident involving a nuclear waste-carrying canister?

I thank you for listening to all of us. I'm looking forward to written replies to my questions. Your replies which, because of your responsibilities to us and to the future, must be acceptable, tolerable and ethical. I wish you all shalom and wisdom. Thank you very much.

MR. MILLS: Thank you.

Is Chris Brown present?

MR. BROWN: Good evening. Thank you for giving me a chance to say something that will actually go on a public record about what you plan to do here to Nevada and Nevadans.

The DOE and Yucca Mountain, your relationship is not scientific reality; it's a political farce, and Nevada is being sold a pig in a poke. A good example of this is my own attempt to get the Site Characterization Plan which I ordered in January; it's still not been delivered. I haven't had a chance to read any one of those 6300 pages.
6300 pages that you only recently extended the deadline on because of a request by our governor, and said you were going to require us each to read 70 pages a night. But we should get used to the unrealistic schedule that you set because you set that schedule for yourselves, as well.

The Yucca Mountain project is proceeding along unrealistic lines. The schedule for

its development has been pushed back five years already, and it's going to be pushed back many more years before it's finished. If it is ever finished.

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The basic principle for constructing a house or any usable development is not being followed. First, you should have title to the land, then you need access or a right-of-way to get to that land. And then you need to understand the geology of the land in order to know what kind of foundation to build, what kind of structure that land will support. The DOE is taking these steps, but you're taking them in a confused order. I would suggest and ask you to show your rationale for why you are not doing the following things.

First, ascertaining that you have title to the land. The DOE, the BLM and the DOD all currently are struggling over their own relationship as federal agencies to the Yucca Mountain site, but none of you have resolved the question of the Shoshone's title to the land, which is granted to them in the Treaty of Ruby Valley. The highest law of our land is a treaty.

Secondly, the right-of-way. No work has started on the right-of-way. Court procedures, land disputes, condemnation or eminent domain in

construction will take ten to 20 years, according to experts in the state.

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The Site Characterization Plan, as I understand it, has no work scheduled for transportation until 1995, six years from now. That means potentially the dump site might not open until 2016.

The plan assumes too many things will fall in place. The question of right-of-way. Do you bring it to Las Vegas with our hundreds of thousands of people down I-15 and 95? Anybody who lives here knows how many truck accidents there are there. you bring it through North Las Vegas? When are you going to start acquiring the land there to build a bypass? What about bringing it from California, from Barstow up through the land south of Death Valley? If you're going to get access to any of this land, it's going to be fighting with private landowners. The only land you own goes right through the Nevada Test Site, and I think with all the holes that you've planted there, you're not likely to build a safe transport through the northern part of the Nevada Test Site.

Another aspect is the monitored retrievable storage facility must be built according

MRS hearing, the people are saying no, we don't want a plant. No plans are being currently pursued to build that plant. You're going to have to rewrite the Nuclear Waste Policy Act, or face the fact that there's going to be no place to restructure these fuel rods and put them into your transportation casks when you get ready in 2003 to accept them, so where are they going to do it? At the nuclear power plants themselves? You need to answer this question before you move forward.

The Yucca Mountain Site

Characterization Plan is currently designed as a single track system. Work on it until it's built, or until the site characterization phase is over and it's determined to be unsafe. We need a two-track system. In other words, a system in which it is understood that if we find evidence along the way that says this place is unsuitable, we stop work. We don't plan to waste another three billion dollars on digging holes in Yucca Mountain if Jerry Szymanski's report can be determined to make the place unsafe during the next 10,000 years.

If the question is about radiation releases in tuff are still open, why bother to waste

The taxpayers' money on looking at this question?

You should take a scientific approach, and look at the hard questions first. If they can't be answered, don't waste our money. Unfortunately, the DOE has a lousy track record; it's been alluded to by a number of the speakers here already tonight, so I won't repeat what they've said.

I do want to mention, though, that you are proposing to place this nuclear waste dump above an aquifer. When you only have models for tuff, currently, according to my understanding of the plan, you have only done laboratory tests of the chemicals in the tuff; you have not actually done studies of tuff itself. So please show how you plan to keep Yucca Mountain safe without actually understanding the tuff.

The SCP has also been reported recently in the newspaper to not have designs for the site characterization shafts themselves. If you got a design for the repository and your access to it, it's very surprising to find out that you haven't designed a method for studying it in the first place.

It's no wonder last fall that the GAO put out a report that said that the quality assurance standards are not being met by the DOE. How can you

have quality assurance when you have no design? The EPA has no standards for a geologic repository. It's never been tried before, there's no real standards for it. How can you design, construct and operate a safe facility without such standards? Shouldn't you design your standards first, and then proceed with work?

I would also like to ask you to put on the public record what is going on in Canada. There is a current site that the DOE is helping to pay for in a granite medium that's looking at nuclear waste. Are you suddenly going to reveal to the American public, after you've finished digging that shaft that, Oh, look. We did it and it works, so we can do it at Yucca Mountain? I don't want that to happen. I want the same kind of oversight that the NRC has in this country done at that site in Canada.

Mr. Gertz, you've been quoted in the

New York Times as saying: This is one of the most

closely reviewed programs ever undertaken by the

Federal Government. With such oversight, you said,

in my view it is impossible to build it wrong. In my

understanding of things, this is a Hindenburg

attitude, Mr. Gertz. It's the same kind of attitude

that led to the destruction of the Hindenburg. With

hundreds of people holding onto the anchors, with cameras rolling and the radios talking, the thing was destroyed. And that was hydrogen, not plutonium. You have to answer the hard questions first.

1 3

Years of DOE's work cannot be used to qualify the dump, according to the NRC. Why, you drilled boreholes and threw core samples in the back of pickup trucks because you had no quality assurance standards. No quality assurance means you're going to have to redo the work, which means it's going to spend more tax dollars. And if you don't redo the work, it means that the repository is going to fail. And if you quit before construction, we've wasted the money. If you quit after construction, we not only waste the money, but we run the risk of contaminating the environment.

Sixteen geologists from the U.S.G.S.

risked their careers by revealing the fact that the

DOE used stop-work orders to keep from sampling gas

coming from test holes because of paperwork problems.

This is a critical problem because of the active gas

carbon-14 that will be released from the radioactive

wastes. When will you allow the scientists to test

the gas samples? Please answer that. How can you

start drilling shafts this summer when you don't have

any idea about gas dispersion throughout the mountain?

As I have limited time, I'm going to move on. I have another series of questions I'd like to see an answer for.

What about the wildlife out there? How do you plan to keep songbirds and reptiles out of evaporation ponds that are going to contain radioactive water created by rinsing the casks? So I should conclude?

MR. MILLS: Please.

MR. BROWN: I'll have to send in a lot of these questions in the mail, Carl. Sorry. But one thing I did want to put on public record tonight was my feeling that the entire method in which this has been done, this entire hearing has been designed, has been designed in such a way as to keep Nevadans from coming here. Keeping them from realizing their opportunities to testify.

Specifically, James McGuiness, who was on standby tonight, had mailed in his thing on time, his request on time. He had been confirmed over the phone, and received a letter to go to Amargosa Valley. When he called back in and pointed out that the letter didn't match the phone call, they told him he was going to have to be on standby. It's

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fortunate we've heard from him tonight. It's this
 1
 2
    kind of thing, and a number of other people here,
 3
    who, also Ruth Lindahl, Bill Rosse, I'm aware had
 4
    similar things happen to them.
 5
                  It's this kind of thing that
    discourages the public from getting involved, and yet
 6
 7
    it's the public who's going to suffer when you build
    this site and it fails and releases radiation.
 8
 9
                  MR. MILLS: Sir, I hate to interrupt,
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    but you are overtime by almost two minutes.
                  MR. BROWN: Well, Mr. Gertz,
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12
    representatives of the DOE, please get your act
13
    together. For Nevada, and for Nevadans.
14
                  MR. GERTZ: Chris, feel free to pick up
    your copy of the SCP out of our office too if you
15
16
    haven't gotten one by now. 101 Convention Center
17
    Drive.
18
                              You told me you'd mail it.
                  MR. BROWN:
19
                  MR. GERTZ:
                              We'll mail it to you, too.
20
                  MR. MILLS:
                              Is Ludwig DeVito here?
                  MR. DeVITO:
21
                              Yes.
22
                  MR. MILLS: Please come forward.
23
                  MR. DeVITO: I'd like to thank you for
24
    allowing me to come here and express some concerns
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The people preceding me to the

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that I have had.

microphone have spoken very eloquently about things
that concern me as well, particularly the environment.

But I'm the crass individual who has some questions
about money.

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In particular, it seems that based upon the escalating estimates from 1983 of 22 million to the estimate in 1987 of 32 million, it seems that the costs of this program is out of control before it's even begun.

Now, it's funny, talking with friends and neighbors about the price of an automobile and the difference that the same automobile will cost in two different dealers in town, we talk about numbers like \$500, maybe \$1,000. Once in a while we get together and gleefully find out that a supermarket has an item much less than the others, then we all run and we feel pretty good because we save 60 cents.

There's a tendency I think on all of our parts that when you start to say the difference between 22 billion and 32 billion, that's so big, forget it. What's the difference. That's dangerous, I think, and I would like to call to the attention of the DOE that we can't do that. We can't let billion dollar costs get out of control before they've even started.

Another concern that I have is the cost of the study. It seems to me that every time it gets delayed, it's going to cost more money. How many delays can we stand before it's just, once again, out of control?

One item that I raise a question on is that the current plan is not allowing for examinations of alternatives. And in my mind, perhaps there's a cheaper alternative. It was my understand -- such an alternative obviously from the GAO report is the dry cask storage. It was my understanding that the EPA actually requires that you examine alternatives. Now, if the scientific portion of this one alternative is good or better than the other, I leave to those experts. But my question is is there an alternative that perhaps would be less expensive if in fact we're forced to take the dump?

Yucca Mountain is located within a productive mining district. There has to be some plans to keep people from exploring the area for minerals and encountering radioactive wastes. What would the cost of that be? Can the Yucca Mountain project have an impact on endangered species? I imagine that it would, and many have come to the microphone and expressed their concern about that,

and I feel that the DOE is also concerned and say yes, we're taking that under consideration. What would the cost of that be? If nuclear waste must be retrieved from the repository after it is filled, what is the cost of that?

Now, there would be costs in practical terms, exposure of people's health. But there would also be money associated with that. During the operation, will the repository be protected from the Nellis bombing range? Will some foreign pilot come here for Red Flag and go off course and drop a bomb on the dump? I'm not so sure that's so far-fetched. So some steps will have to be taken to prevent that. Will that cost money? I imagine it will. How much money?

I guess my main area of concern on the dollars and cents is what is going to be done if we have the transportation accident that everyone is predicting. What will that cost to clean up? What will that cost to prevent? And in spite of all the preventions, what will happen when in fact we do have the transportation enacted?

I'd like to thank you very much for giving me my say.

MR. MILLS: Thank you.

Is Peg Bean here?

MS. BEAN: My main concern -- or one of my many concerns, but I think probably my main concern about Yucca Mountain is the possibility of accidents. I think Yucca Mountain is an accident just waiting to happen. There are several potential disasters waiting in the wings. Bent or broken fuel rods, no method for retrieving leaky casks, unloading and burying casks,; cask failure, and possibly, even as the gentleman before me said, stray bombs hitting the dump, or the transportation vehicles.

- 1. The current plan for Yucca Mountain calls for consolidating fuel rods in order to fit 70 metric tons of waste into the dump. No technology for consolidation exists. The chances for bending and breaking fuel rods and releasing radioactive materials into the atmosphere increase the more you modify the rods. Yucca Mountain is an accident waiting to happen.
- 2. If a cask leaks or rods go critical after they're placed in the site and the casks will deteriorate long before the radioactivity is dissipated, there is nothing in the Site Characterization Plan to retrieve and correct the problem.

without a means to correct problems? Leaving the nuclear materials at the place of production in above ground dry cask storage is probably the safest way to store it. The more times we handle the waste, the more likely it becomes that we will have an accident.

The 20 or so casks currently being used for a high-level nuclear waste are all hand made, each tooled and constructed individually. In order to ship as much as 3,000 shipments a year, Yucca Mountain will require mass produced casks. This increases the likelihood of human error, such as faulty wells.

And finally, the dump is under the flight line of the Nellis bombing range. As I went through materials I had on the dump, I came across a map, and I'm a little surprised at what I saw. I assume this was put out by the DOE. It shows the location for the repository nestled, safely supposedly, between the Nevada Test Site where we blow up bombs underground, and what is called the Nellis Air Force Range. The only thing they leave out is the word "bombing" range. So we have this nuclear waste dump situated between underground and

above ground bombing. I think that's a considerable problem, and may bode very poorly for us in the future.

I also recently received from a friend in Los Angeles an article that appeared in a paper there, concerning Mighty Oak. Any of you who have been living in Las Vegas for the last few years will remember Mighty Oak. It was a test that was done at the Test Site in April of '86.

A couple of weeks after that test we heard Oh, there might have been some problems.

Maybe. Maybe. You know, sort of unsubstantiated rumors. And some of the media people kept looking into it and looking into it, and finally the DOE confirmed yes, there were problems at that test. But we were reassured that nothing serious or long term occurred at that time.

In the L.A. Times a month or so ago, in an article from the New York Times News Service,

James "McGruder", an assistant manager for operations of the Test Site, said: We were much closer to the edge than we realized. And that came three years after the test.

With the nuclear waste storage, I don't think we have that kind of time, and I think we have

to be very careful about the safety of us and all the rest of the people not only of this state, but of the world.

So how could the DOE expect us to believe that an accident-free project will be built? Plutonium wasn't named after the god of hell for nothing. Let's not risk the stupidity.

MR. MILLS: Thank you.

We'd like to encourage again, speakers that have notes or that have a written statement, if they would give it to our court reporter. If they want to keep it, why if they would have a copy made out on the table.

Is Jim Cocks here? Oh, it's Jessie, I'm sorry.

MS. COCKS: Good evening. I'm sorry I missed the other two times you called me. I'm concerned about a lot of things, and everyone has been speaking to those issues. But what I'd like to talk about is the nuclear waste transportation.

Between 1971 and 1982, only 5100 spent fuel containers were shipped in the United States.

Up to 5,000 shipments per year to Yucca Mountain may occur if the site is developed. 250 shipments per year would travel through the Reno/Sparks area, and

3,000 shipments per year would travel through Las Vegas. This is unacceptable.

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The General Accounting Office reported in September of 1988 that the Department of Energy sent at least 13 shipments of highly radioactive material across the country in faulty containers.

DOE had been warned the casks could release high levels of radiation into the environment in the event of an accident. What is DOE doing about this dangerous transporting of highly radioactive material? What is the accountability? Is there a nongovernmental agency to hold DOE accountable on these safety issues?

The majority of radioactive shipments have come from hospitals, universities and industry involving low-level, quote/unquote, waste. During a 14-year period there were approximately 6,000 transportation accidents, over 60 of which released radioactivity. 173 accidents, over a 12-year period from 1975 to 1987, were reported by the Department of Energy's nuclear weapons transportation fleet between various production facilities.

The above statistics correspond with the standard accident rate for interstate heavy trucks or 4.5 accidents per million miles traveled.

How can this transportation be safe? How can anyone avoid human error in transporting this radioactive waste?

Applying this rate and assuming 70,000 metric tons of high-level radioactive waste is trucked to Yucca Mountain, there would be 1500 accidents over 30 years, or 50 accidents per year. About three per year will be severe accidents involving injury and possibly death and the release of radioactivity. Most of these accidents would happen in Nevada because most of the highway miles traveled are in Nevada. How will the DOE protect the thousands and thousands of innocent Nevadans and downwinders to the possible accidents, and probable accidents?

Of the eleven casks used by the Department of Energy to transport high-level waste, all eleven have had to be recalled by the Nuclear Regulatory Commission because of technical defects.

Federal officials estimated the 1982

Caldecott Tunnel fire involving a gasoline truck, bus and another vehicle reached a maximum temperature of 1,900 degrees Fahrenheit for 40 minutes. According to present design criteria, spent fuel casks need withstand only 30 minutes at 1,475 degrees Fahrenheit.

How can DOE or anyone be sure of well-constructed safe casks, if there is such a thing?

A severe accident would involve an invisible cloud of radionuclides being lofted in the air and carried downwind, which would only be detected by radiation monitors. Fallout would contaminate milk, water and crude produce and people, as occurred throughout Europe from the Chernobyl accident.

We all know, people living in Nevada and outside Nevada, that there is no escaping radiation. There is no safe way to transport or deal with radioactive material. So how can DOE continue to hold Nevadans and downwinders hostage to the threat of radiation?

I implore this committee and all of you, to look at the dangers of the transportation of this waste, and how it's absolutely unavoidable that there will be accidents, and so that has to be taken into consideration along with Peg Bean's statements and everyone else's.

Thank you.

MR. MILLS: Thank you.

Is Myrna Lefferts in the audience?

MS. LEFFERTS: My name is Myrna

Lefferts, and I'm a two-year resident of Las Vegas.

First, I would like to thank the Department of Energy

for the opportunity to speak.

2.3

Second, I would like to register my opposition to the Yucca Mountain project. I have several reasons for opposition to this particular site, and for the idea of a central nuclear waste disposal site in general.

There have been many eloquent speakers before me who voiced the inherent dangers of Yucca Mountain. The area seems to be geologically unstable. Therefore, it would make a poor place to bury something as volatile and dangerous as nuclear waste.

There is also the additional problem of transportation, as Jessie just pointed out. And to be honest, the very idea of all this hazardous waste traveling to Nevada and in Nevada is very scary to me.

I believe, instead of the Department of Energy spending the money required to build this nuclear repository and transporting the waste here, we would all be better served if the money was used to fund and hopefully find a method of recycling it.

I believe burying it is a big mistake. Since this material will be dangerous to generations to come, I believe we are infringing on the rights of unborn

generations, and forcing them to live and possibly die with something that they have received no benefits from.

Although the area is about 100 miles from Las Vegas, I think we should have learned from the Chernobyl disaster that when it comes to nuclear energy, mere miles can be very misleading. I'm speaking now not only for the people of Nevada, but for the people in the surrounding states. The Department of Energy cannot possibly guarantee that if there should be an accident the results would not be far reaching, and that state borders would be meaningless.

There are people who point out that we have had the Nuclear Test Site less than a hundred miles away for all these many years, and that they have basically been accident free. Basically. I say yes, you're right, and we've been very lucky. But that doesn't mean that we should increase our danger by allowing this nuclear waste repository to be built. If you have one potential danger nearby, it does not follow that you should have two.

Before I close, I would like to add a statement on behalf of the eco-systems of the area. So far everything I've said has been about the human

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    population. What about the wildlife in the area that
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    cannot speak for themselves? Obviously building this
    nuclear repository is ecologically unsound.
 3
                                                  Therefore,
 4
    I would like to go on record as speaking for the
 5
    four-footed and the winged ones as well, who,
 6
    although they do not speak our language, nevertheless
 7
    have rights too. I don't believe we have the right
 8
    to endanger all the other species in the area with
 9
    this project.
10
                  Once again, thank you for the
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    opportunity to speak here tonight. I fervently hope
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    that the Department of Energy will make the right
    decision.
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14
                  MR. MILLS:
                              Thank you. And we'd
15
    encourage you to bring up any written statement that
16
    you have, ma'am.
17
                  Is Dr. Thorne Butler present?
18
             Is Lynn Phelps present? Is John Alberti
19
    present? Is Al Lofquist present? Is Gilbert
20
    Yarchever present?
21
                  MR. YARCHEVER:
                                  Yes.
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                  MR. MILLS:
                              Thank you.
23
                  MR. YARCHEVER: Those of you who have
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    preceded me have spoken most eloquently regarding the
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many concerns that I have, insofar as the scientific

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determination, as well as the transportation problems occasioned the selection of Yucca Mountain. I applaud their concerns, and I add my voice to them, as well.

2.2

Deen so intelligently motivated, and to have presented such convincing arguments with respect to the selection of Yucca and its opposition, that I must say that I would have preferred that they had made the scientific study rather than those who have made the one that ultimately made the choice of Yucca as a possible selection. I would, however, like to add a few comments in addition to those.

For whatever reason, Las Vegas is probably the most misunderstood city in the United States. Contrary to those beliefs outside of Las Vegas, there are literally hundreds if not thousands of residents in this city who rarely, if ever, visit the Strip or the gambling locations.

This is a major metropolitan area comprised of many diverse occupations, interests, industries, businesses, corporations, academic, scholastic and sports institutions. It is probably the fastest growing major city in the United States. Its population of retired citizens probably equals,

if not exceeds, the percentage factor of any city in the United States. It is important that Las Vegas not be looked upon in a frivolous manner, disregarded because of a non-deserved taint of sin and gambling. This is just not true.

The disastrous effect of any catastrophe in the waste disposal process would impact on a very major populated area. Would you place a nuclear waste dump 80 miles outside of New York City? Chicago? Los Angeles? San Francisco? Or any similarly rated city? This is what we are looking at, five years down the road in Las Vegas.

And what about the test center? Is this to be dismantled? Or will it remain, to make possible the ruptures that could very easily occur within the containers from the underground blasts? And certainly, we cannot ignore the proximity of the faults, the earthquake-prone faults so close by that add to this possible disaster.

But most important is the stretching of Las Vegas far beyond the initial settling of this city. We are not a remote, insignificant area, and we are not a small town populace to be disposed of in the same manner as your nuclear waste.

If the situation wasn't so tragic, I

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would be facetious and suggest that the current
 1
    largest waste dump in the country -- namely
 2
    Washington, D.C. -- be enlarged to accommodate
 3
    nuclear waste, as well. But this is far too serious,
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 5
    and one should not bend to political pressures that
 6
    put a very sizeable portion of the U.S. citizenry in
 7
    danger.
 8
                  Thank you.
 9
                  MR. MILLS:
                              Thank you.
10
                  Is Ronald Booth here?
11
                  MR. BOOTH:
                              Before my allotted ten
12
    minutes begins, could I ask each of the panelists to
13
    introduce themselves, please?
14
                  MR. MILLS:
                              We're very short of time.
15
    We did that at the first, and we'll be happy to talk
16
    to you right after. We're going to be taking a break
17
    in just a few minutes.
18
                  MR. BOOTH:
                              Fine, thank you.
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                  One of my primary concerns is whether
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    or not the Department of Energy -- or, more
21
    importantly, the United States Government -- has at
22
    all considered whether or not they might in fact be
    violating the Constitution of the United States and
23
24
    treaties which exist as they proceed to withdraw what
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the United States Government considers to be public

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lands for the development of this site as a long-term,
permanent repository for nuclear waste.

What I refer to specifically is that
Article VI of The constitution of the United States
quite clearly says that any treaty that is entered
into by the United States Government becomes a
supreme law of the land, once acted upon by Congress.
Furthermore, the Constitution of the United States
quite clearly states that only Congress has the
authority to enter into treaties, to modify or
abrogate treaties.

As we all well know, there's been a number of various court of appeals and Supreme Court decisions in regard to the Treaty of Ruby Valley of 1863. But quite clearly, under the Constitution of the United States, none of these federal courts have any authority, meaningful or otherwise, in regard to these treaties.

why is it that the United States Government, through the Department of Energy, is even considering spending billions of dollars of taxpayers' monies to explore a site for long-term disposal of the most dangerous substance known to all humankind in an area which has been designated as sovereign territory of

indigenous peoples, where the Nevada Test Site already exists, in explicit violation of that treaty; where numerous military installations exist, in violation of those treaties?

2.0

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I think maybe these billions of dollars might be much better spent in providing adequate housing, health care and food for our own peoples, rather than to further extend the military and awesome toxic mining of this country on an indigenous peoples, in violation of that treaty. Ultimately, the peoples of the United States will throw those billions of dollars right down the drain.

Secondly, I have to seriously doubt anything that comes out of the words of the mouths of the Department of Energy, or any of its spokespeople.

tonight, I spoke with him face-to-face on January 28th of this year, explained to him that I had brought these very issues to the attention of the President of the United States, the Vice President of the United States, the Vice President of the United States and the Secretary of State in writing, by way of registered letter. None of whom have replied to those letters of inquiry. Carl promised me, on January 28th, that he would make sure that I got an answer. And I haven't heard anything

from the DOE yet.

me, particularly right here in Nevada, about the present management of the Test Site in regard to their concern for human life and the well-being of the populace -- and particularly, the workers of the Test Site -- is that in 1984, in an incident known as the Milagro Myth incident, the Department of Energy did acknowledge publicly that a couple of workers happened to have gotten killed in an unfortunate accident following a test at the Test Site. And that a number of other workers were also injured.

What the DOE didn't put out to the press as public knowledge at that time, was that: A. that particular test was placed the shallowest of any test of that magnitude that had ever been previously fired at the Site; that for the first time ever, the trailer park -- and for those of you who aren't familiar with what the trailer park is, that's a series of equipment trailers which bear equipment to monitor the effects of the test -- that trailer park, the perimeter of it, for the first time ever, actually overlapped the ground zero of that site;

That after the shot was fired and the reentry team was sent to that ground zero to examine

the equipment trailers, warning alarms went off at the main control point, indicating that cratering was imminent. That the ground was about to collapse at that ground zero.

No attempt was ever made -- and there is documents available through the DOE that are not classified documents to bear this out -- warning was given that cratering was imminent. No warning was ever given to the reentry team to not enter that ground zero.

Consequently, two people forfeited their lives, a dozen others were seriously injured, and we are supposed to trust the DOE to tell us that they're going to place the most hazardous substance known to all humankind out here in the State of Nevada, and we're going to entrust you people to protect us and future generations for 10,000 years from that potential disaster? I think not. Over my dead body will that waste dump be put in Nevada. And if it does go there, the unfortunate consequence, given the DOE's track record, is that not only will it be over my dead body, but unfortunately probably over the dead bodies of thousands and untold thousands of others.

As the tests that have been performed

out there that we've been told by the DOE are obviously safe, there's no radiation escaping the boundaries of the Test Site. While the downwind areas in St. George and Salt Lake City, the numbers of people who suffer from cancers directly related to the types of radiation related to the radiation releases from the Test Site are astronomically high in comparison to the rest of the nation.

The DOE who, after Mighty Oak, vented a 10,000-foot high plume into the atmosphere, a venting of radiation which contaminated film products all the way up in Rochester, New York, in the extreme most northeastern part of this country, tried to blame that on Chernobyl, even though all the weather reports indicated that there was no way possible that radiation released from Chernobyl could have possibly been responsible for that. And we're supposed to entrust the DOE with our safety today, tomorrow and 10,000 years down the road? I think not.

MR. MILLS: The time is now 10:00 o'clock. We're going to take a short break for approximately ten minutes, and then we'll come back and continue with the speakers.

(Thereupon a brief recess was taken, after which the following

proceedings were had:)

MR. MILLS: If we could sit down we'll go ahead and begin again. We'll now come back to order. I'm going to recall several of the names that were on the list, and then we'll move forward. Is Dr. Thorne Butler here? Is Lynn Phelps here? Is John Alberti here? Is Al Lofquist here? Is James Fincher here? Would you address the mike, please?

MR. FINCHER: James H. Fincher, retiree and resident since 1948 in this Southern Nevada.

It seems that there's quite a negative feeling toward the Test Site -- toward the Yucca site. In fact, most of you are actually hostile. Well, I stuck around to tell you that I am not hostile toward it. I think I'm open-minded, and I think that there's another point of view to be taken on this. You notice that I am close to the exit? And I hope you don't accord me the transportation that Mark Twain referred to in his writings.

I just want to say let's let reason,

let's let reason prevail over emotion. Let's let the
scientific community prove whether a site is needed,
and prove where it should be placed, and prove that
it can be operated safely.

Our ex-governor and others have created

a political way against this Test Site, hindering, I believe, a clear-headed study and evaluation. Some are absolutely and unequivocally against it. Well, we all are against pollution of any kind; food, air, water and so forth. But pollution factors are a part of our modern industrial society. We can't turn back. We would all like to get rid of this whole mess, but there's no way we can turn back, so we're going to have to make the best of it.

Our best scientific minds should be called upon to find ways to neutralize all toxic radiation and other pollutants. This includes spent fuel from nuclear power plants. We're concerned about the greenhouse effect from burning fossil fuels; it's threatening our entire planet.

Unless an alternative source of power, economical power is developed soon, nuclear power will be the safest and the best source of power for the people of the world's generations to come; that's a frightening idea. If no site better than Yucca Mountain can be found, so be it. Place it there.

Our land, our children, our wildlife and the people of Chicago, Illinois, Iowa and all others must not be exposed to radiation dangers. The scientific community must develop and test the

want to call them, so that there's no danger whatsoever of any radiation released enroute to the repository.

1.5

We constantly deplore the fact that the Federal Government has let spending get out of line and the deficit is becoming astronomical. We point our fingers at those in Congress to say they're spendthrifts and irresponsible to the needs of the taxpayers. Then we turn around and openly start scheming to see how much, how many millions of dollars -- and maybe billions -- that we can extort from the Federal Government should the repository be sited in Nevada. Does this make sense? Where are we about being concerned about the common good?

Mountain seem to me to be in favor of it as a site, if a site has to be selected. In the Great Basin, many thousands of miles around here, any spill in this area will never get into a stream and leave the area. We have no way of polluting rivers and lakes, such as happened in Chernobyl. No stream of any consequence leaves this area.

Yucca Mountain is adjacent to the Test Site which is almost uninhabitable now. Yucca

Mountain is an area that is very sparsely settled.

Probably we should not be placing a repository in a heavily populated area.

Some this evening have stated or implied that the repository would be like a huge bomb waiting to be set off at any time, any moment. A bomb thousands and thousands of times more powerful than the ones dropped on Hiroshima or Nagasaki. If this be true, I will be unalterably opposed to siting the repository in Nevada. I do not deem this is true, and the scientific community should be called upon to prove that it's not true.

Now, as far as the damage to tourism is concerned, I see no problem here. From what I read, the nuclear testing that has already occurred has been far more dangerous that anything that will occur at the repository. How many people think of nuclear testing when they head for Las Vegas? Not many, I'll betcha.

I only ask that we keep cool heads, and do what is best for Nevada, the nation and not least, for the world. This fragile planet on which we now live, and unfortunately one which we seem bent on destroying.

Thank you.

MR. MILLS: Thank you. Is Kristan Shepherd present?

MR. SHEPHERD: Yes. I'm Kristan

Shepherd. I'm not much of a speaker, but I am going to give it my best shot, as a member and a citizen over here in Las Vegas. Now, mainly my arguments here are on common sense, and of course my handwriting isn't too good so bear with me.

We do have the Test Site here; we don't need a dump site. The reason for this is what I used to call FUD -- fear, uncertainty and doubt -- which is what a lot of people here have. You, Mr. Gertz, I know you face these people all the time, and yet a lot of these sites still get built. That's your job. You're a face man, and I can sympathize with you there.

what this other fellow here was talking about:

Revenue of the state. We make a lot of it on

gambling, very true. And a lot of people come from

the east coast over here to do their gambling, just

because we're talking fresh air, we're talking desert

and hey, this is Las Vegas and we love it. Hell,

that's why I moved here.

A lot of those revenues are going to be

cut down because if we took a hypothetical figure of ten, even 20 percent of the people that do have the fear of radiation -- I personally don't, but I do have the fear of the economy going downhill and me not being able to work and supply my wife and two kids with the food and clothing that they need.

Now, I don't know if any of you are familiar with an interview that was done on Donald Trump the other night, but he's talking about coming out here and building himself a casino and really getting involved.

But in the same breath he talked about Las Vegas overbuilding. That gave me a little bit of skepticism and I hear about this nuclear dump site. Maybe what he's talking about with overbuilding was the fact that people will say hey, let's not fly from Virginia over to Las Vegas. Let's just jog on up to New Jersey, Atlantic City is fine, and there's no radiation.

Hey, sympathetic or not, let's deal with the facts. I work down here at Non Ferrous Bolt and we make 20- and 30-pound bolts to supply for nuclear reactors. I think nuclear reactors that we have that are making energy for the United States, it's a great idea. But you guys at the Department of

Energy are really stupid, and I have to say it that way because there's no other way. The government says you have to build your sites deep underground. Well, I'm sorry to disappoint you, but I don't think the top of a mountain is considered deep underground.

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Secondly, if it does have to be deep underground, why is it with all your leaky sites and, like some woman said earlier, we have bombing above ground, below ground, why are you putting something that's going to be leaky in between a shaky area?

We're talking about fallout.

I'm going to refer to nuclear waste as a dead man. When a man dies, he is buried six feet underground. Good reason for that is because of the smell, and the bacteria. We don't build six-foot mounds of dirt and stick them in the middle of it, do we? Of course not because you'd walk by it and you'd smell it and the bacteria would still get out. You guys are not using common sense.

I heard earlier tonight that the French have learned how to recycle their nuclear waste. You guys are dumping all this money into building waste sites, as you call them. You can make them as beautiful as you want, but you guys are ignorant to the fact that there's a solution to the problem and

you guys just aren't getting into it.

Now, all this hoopla that you guys have been going through, these people have prepared speeches and they're wonderful speeches and a lot of people I've seen in here yawning over them. But the bottom line is common sense.

I moved my family out here from L.A. to get away from the smog and pollution so I could make a better life for myself. I got away from pollution over there not to move to more dangerous pollution.

To get away from it. And there's a really good chance of Nevada being what we would consider a very radiant and growing state. Not a radioactive, glowing state.

You got to give us a break here, okay?

We're a very small group of people as compared to the population of the United States. We have a lot of concern. My concern mainly is to have jobs out here. People have concern of staying alive. You used to do test sites out in New Mexico. You know. Get some level ground to do it on. Get a good, safe place to do it.

I read this little plaque out here, how you have the volcanic ash in the mountain and it's all safe and all that. Why are you worried about the

safety of the mountain holding in the radiation? Is it because you don't want to admit that the sites that you've built aren't safe? Or is it that you don't want to admit to the fact that you've got a solution by recycling the stuff, and you're just not clicking with it because you can make so much more money doing it this way? This is crap.

I mean, you can go home to your husband, you can go home to your wife, you got your kids, fine. I don't see you guys building your houses around these sites. I don't see you saying sure, I'd be glad to live near one of these leaky sites and have my kids walking to school glowing in the dark. I don't see you guys doing that, and I think the reason being is because you know how dangerous it is.

You guys aren't on the ball here, and I'm a nobody with a zip education, but I've got enough common sense to know that you guys got a solution and you ain't using it, and you're trying to force these people to accept something.

You know, you say okay well, it will generate a little income for the state. Well, that's fine and dandy. Is it going to compensate for the revenue that we're going to lose by all the people not coming here? Sure, they may not be scared of an

atomic blasting site. But when you're talking about a dump site and a blasting site, they're saying hey, this place is ready to blow up. Let's go to Jersey. And that's our loss, it's not yours. You get your paychecks every month. But if all these hotels are being built and nobody wants to come here, that is the loss. And believe me, not an acceptable loss.

A lot of companies have acceptable losses; this is not an acceptable loss. This is a loss that he's talking about, why he doesn't want to come out here and build. But on a more general note, this guy here in jeans in front of you, it's a loss of my income. It's a loss of my wife going out and getting a job. It's a loss of my kids growing up and saying Hey, dad, how come I don't have this? I don't want my kids to have to deal with that.

And I don't want to have to deal with some big radioactive shakedown coming through with just the chance that we may not be here tomorrow. If I'm going to lose my hair it's not going to be because of radioactivity. It's because I'm going to go bald naturally.

That's about all I have to say, except for one other thing. I heard a lot about treaties being talked about tonight. Now, the law teacher

that I had is John Hart VIII. And if you look at the 1 2 Declaration of Independence John Hart was a 3 representative from New Jersey; unfortunately not 4 from Atlantic City. But he signed that anyway. 5 was my teacher. My great-grandmother's brother was 6 General Arthur "Scivvy" of the United States Army, 7 and he was a four-star general. My bloodline goes 8 all the way back to the Brewsters on the Mayflower. My dad is related to the Hatfields from the Hatfield 9 10 and McCoys. These are Americans who have made their 11 name in America by producing something for America. 12 Okay, look. Nuclear power is great. You guys are 13 ignoring the fact that you do have the technology to 14 recycle it. I don't want these guys that I'm related 15 to to die in vain, and if there's a treaty that we 16 made with the Indians, look, we put them through a 17 lot of hell in the first place taking their land away 18 from them; let's not push that anymore. We're an 19 honorable race of people. We came over here. That's 20 all we speak about with other countries, what good 21 people we are. Why don't we start proving it to ourselves first. 22 23 There's the two-minute warning, and I don't want to get shot by the gun. Thank you very much.

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MR. MILLS: Thank you.

Our next speaker is Joseph Tanenhaus.

MR. TANENHAUS: My name is Joseph

Tanenhaus. I live in Las Vegas here. This is my permanent home. I like to say that I didn't come with any prepared speech. I know nothing about the

7 extreme technology and the details of that because

8 | that's not my specialty.

2.3

However, I understand that a number of countries have the same problem of nuclear waste.

France, Germany, the Soviet Union, and probably three or four other countries in this world. They are solving it one way or another. I haven't heard yet from any authority, except from some of the speakers here, how they're solving it, but I understand that they do have a method of recycling. If it's a question of cost and recycling, to me that is no answer.

Our government has left to private industry, to individuals to operate many things because it was supposed to be more efficient. Now we're going to pay for all the savings and loans associations because it was so efficient. If we're going to spend billions on that, what about billions on recycling and saving our health? I think that's

one of the most important factors here, money.

Now, I think that if they recycle of course, they're not going to sell more nuclear material. Whoever is producing that is not going to make a profit. The government would probably have to finance some of the recycling. That's all right with me because I see many other things that happen in this government that we're paying for that I don't agree with. And so, we might as well do that.

The second thing I want to make as a point is the population of this city. This valley has approximately 650,000 people. Down the road it will be a population of a million, and not too far down the road either. I would like to say that many of the people that live here permanently— especially senior citizens— have relatives, have children, grandchildren, et cetera all over this country. And if their health is jeopardized or even possibly threatened, I'm sure that people of Las Vegas will communicate with all their family, all their relatives, everyone they know, and there will be quite a political upheaval.

Now, I know Nevada is a small state. I know Nevada has very little representation in Washington. I know that aside from the Yucca

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Mountains, they have in the east the Appalachian
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    Mountains, the Blue Ridge Mountains. Why don't they
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    put stuff there? Why? Because of population,
 4
    because of political pressure, because of power.
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                       Well, I don't think you should
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    underestimate the power of the Nevadans once they get
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    going. Once they feel they're threatened. And I
    think bringing that waste here is threatening this
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    city, and the population here.
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                  I think that if it has to be recycled
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    or some other method, and if we have scientific minds
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    that can guarantee this preserve in Yucca Mountain,
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    we have scientific minds that can come up with a
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    solution that is obviously better than just sticking
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    it in the ground. Thank you.
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                  MR. MILLS:
                              Thank you.
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                  Jack Trimper, T-r-i-m-p-e-r. Is Mark
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    Bird here?
                Oh, he's coming. Thank you.
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                  MR. TRIMPER: I want to thank you for
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    the opportunity to be here. We were discussing the
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    state-of-the-art technology here. We were referring
    to contemporary theories of global geological
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    evolution. We learned in school that the earth
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changed slowly, and that multi-eons produced what we

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see here today.

mention the alternative theory, proposed and supported by a man named Immanuel Velikovsky in a book called Earth and Upheaval, published by Doubleday 1950. In this book the author presents the planet-wide evidence apparent in the bones and stones of our Mother Earth.

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Change is slow, change is sometimes rapid. The earth has changed drastically in its history. What is radical about the author's theory is that within historical times, pinpointed 2700 years ago and 4,000 years ago, the earth has undergone cataclysm. Radical cataclysm. Oceans displaced, mountains built, forests deforested. Poles reversed. Species extinguished. We're not ready for a repeat action; we can't, and won't ever be. Major cataclysm twice in 4,000 years.

How can we be sure that any place is safe for this manipulated -- and I stress the "man" in manipulated -- manipulated lodestone? We must stop removal of more. We must stop making more waste. We cannot afford otherwise.

The nuclear age was a step backward.

Let us go forward with hope, and especially love.

Thank you.

MR. MILLS: Thank you.

Is Mark Bird here?

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MR. BIRD: My name is Mark Bird. represent the Sierra Club. I just have a few comments to make. One is that several people have made the comment that we are talking about 70,000 tons of high-level nuclear waste coming to Nevada. don't know if 70,000 is correct because your exhibit in the hallway says you're talking about 40,000 tons of high-level nuclear waste. Is it 40,000 or 70,000? That's one of the questions. If it is 40,000, 40,000 comes to about 80 pounds of high-level nuclear waste for every person in the State of Nevada, and I think that's a good point that maybe ought to be publicized, and it goes a long way towards showing how much nuclear waste is involved.

Another issue I'd like to mention revolves around the U.S.G.S. scientist who published several specific points a few months ago over the primarily hydrological feasibility and suitability of the proposed site. As far as I know, DOE has not sufficiently replied to those questions. Are they valid questions? Will you consider replying to those questions in a Las Vegas newspaper? Where will the water come from for doing all of the work that we

needed at Yucca Mountain? Is there sufficient water?

resource in the southwest. The Colorado River is currently 100 percent allocated. About 30 percent of the water in Las Vegas comes from groundwater. Is there a connection between Yucca Mountain hydrology and the groundwater that serves about 30 percent of the people in Las Vegas as a potential for nuclear waste residue to get into the groundwater of Las Vegas, and into the mouths and stomachs of tourists visiting Las Vegas? Anyway, these are very critical hydrological questions that I don't think have been sufficiently addressed scientifically.

Another issue I'd like to reply to that several people have also alluded to, has to do about accidents. We live in an era of Chernobyl, of Challenger, of PEPCON. We've had several helicopter accidents in the last week. We live in an era where accidents seem commonplace.

I would like DOE to make a study

determining the maximum possible fatalities that

could result in Las Vegas from the worst case

accident. I have read several of the DOE manuals,

and they don't address this issue. I believe that's

a critical issue that should be addressed, it should

1 be publicized, it should be in documents. Not only 2 for people in Las Vegas, but this information could 3 be supplied for every major city in the country where nuclear waste passes. 4 5 In the case of a worst case accident, 6 are we talking about .001 fatalities in the city? 7 Two percent fatalities in the city? Five percent fatalities in the city? Whatever it is, there should 8 9 be a scientific number you can pinpoint for every 10 major city in the United States through which nuclear waste transfers, or is transported through. 11 12 Anyway, whatever the probability is, it 13 can be scientifically measured or there is a 14 scientific procedure for doing that, it's called risk 15 assessment. It can be done very accurately with 16 reasonable grounds of error. Anyway, whatever that 17 is, I think DOE has an obligation to the people and 18 public of Nevada, and to the U.S., and perhaps to the 19 world, to publicize that information in future 20 meetings and future documents. 21 Thank you. 22 MR. MILLS: Thank you.

Is Victor Warren present? Is Terry Robertson present?

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MR. ROBERTSON: My name is Terry

Robertson. Nevadans have been filling rooms like 1 2 this for years to speak out against the Yucca 3 Mountain waste dump site, and it was nice to have 4 seen another room full again here today. 5 About five years ago Barbara Vucanovich 6 held a town hall meeting in the North Las Vegas City 7 Council Chambers. I spent some time that evening 8 attempting to persuade Mrs. Vucanovich to work 9 against the nuclear waste dump at Yucca Mountain. Ι was not able to convince her to work against the 10 dump, but I was admonished by her for calling it a 11 12 dump and not a repository. 13 I am a second generation native Nevadan. 14 I have grandchildren who are fourth generation 15 Nevadans. I have been against the dump site at Yucca 16 Mountain since it was first introduced, I am against it now, and will continue to be. 17 18 The question is: How much does it 19 really mean to the United States Department of Energy 20 that myself and the majority of Nevadans are against 21 it? 22 Thank you. 23 Thank you. MR. MILLS: 24 Is Robert Hall present? MR. HALL: I'm Robert Hall. I'm from 25

Henderson, Nevada. I've been waiting so long to speak I almost forgot what I was going to say. As they say, the mind can only absorb what the posterior can stand. I think that you people up there have probably -- yes. I'm sure glad you have more patience than I have.

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I am a mining engineer by profession and trade. I've got about 30 some years in the industry in such, and the more that I know and understand about the repository, the more that I am for it. I think this would be good for Nevada. It has to be put somewhere. I think that the Test Site or the site picked geologically, geographically, is probably the best site that can handle it.

I do have a few little comments I might ask about there. If you're looking for groundwater carrying of radionuclides, I would suggest you go up to the Pine Creek Mine over at Bishop; they've got radon over there that you might want to study the effect of radioactivity in the groundwater. You've got a mine over near Death Valley that's already there, the "Billy" Mine, which can be used for, say, some tests and such because -- because of the extensive openings and such.

As for the storage itself of the high-

either line or use strategically placed cadmium rods within it. This would certainly go along to stop any fears of a "nuclear disaster", which wouldn't occur anyway, but certainly I think that portion of it, the feeling of safety either lining the casks or the nuclear -- the cadmium rods.

And now, as far as transportation is concerned, we've got to remember that we have sparsely located, high density populations out here. It's not like taking the area and dividing it by the total number of square miles and coming up with a population density. No. You look at Las Vegas, and you remove the 93 percent of the land area that's not available for habitation because of the various withdrawn in areas, and you come up with an area that yes, Las Vegas is one of the most densest populated areas to be found anywhere. And this is the realistic way of looking at it.

I notice Dr. Wyman was not here. His statement that I have heard before is, where he is backed up by the American Institute of Mining and Metallurgical Petroleum Engineers and more specifically, the Society of Mining Engineers do support wholeheartedly the repository being placed

here for engineering reasons and such. I'm sure that
everything that has been brought to your attention,
you probably either have already taken under
consideration and such.

I do hope that when a decision is made, it will be made rationally, based on sound engineering principles and without emotion of whatever for whatever reason, and certainly without political rhetoric. The last time I used that word the whole podium came forward. And I'm certainly glad everyone checked their firearm.

Incidentally, that podium at that time was composed of several of our so-called elected officials and state.

Again, I feel that yes, let us have it here, and as far as some of the comments I have heard, no, I don't think it will hurt the tourist population; they don't come here for the reason. I think it will be beneficial to Nevada, and all of these little problems that have been stated, I do feel that we have the present technology to solve them. If not, I think we will have it by the time it becomes operational.

MR. MILLS: Thank you.

Is Ed Beaumont here?

MR. BEAUMONT: My name is Ed Beaumont.

I'm a man of many trades. I started out in

construction. I've done my share of dishwashing.

Currently I'm a computer systems engineer.

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I appreciate this opportunity to put on public record that I am for the nuclear repository here in Nevada, provided certain things are adhered to by the Department of Energy and whoever sets forth the specifications for work that's going to take place there. I am totally unprepared for this; I didn't know it was going to be a speaking session, so I just have some sparse notes. Forgive me if I wander a little bit in my thoughts here.

A lot of the problems in construction with the space shuttle and other catastrophes that this country has faced, and the Soviet Union also, are due to lack of craftsmanship and a lack of pride in the work place, and also the use of drugs in the work place. The feeling in this society is that it's a joke. You know, hey, we get high. What can we screw up? We're just laying concrete. They don't have a picture. They don't have an understanding of the big picture that what little thing they screw up could cause catastrophe down the road.

One of the guidelines I feel should be

adhered to strictly is any inept actions on the part of a worker, anything that results in an injury or could result in a catastrophe would result in the immediate termination of that individual without union interference or union negotiation.

Another thing should be drug testing on at least a weekly basis, without regard to their job title. Managers all the way down to the people that lay carpet in the buildings. I feel real strongly about these, I don't know if you can tell.

The transportation issue that people have brought up, I'd just like to state we have a system in place called NASARR; it's a global positioning system. They can accurately track the position of a truck in the United States within a -- I don't know what the exact resolution is now. It changes every time we launch a satellite -- but it's somewhere around 100 meters, and it would be hard to lose a 30- or 40- foot truck in 100 meters.

Also if the truck stands still for more than ten or 15 minutes there could be a network set up where they got helicopters flying in right now to find out what the heck's wrong if they can't communicate with the driver himself through the communication system.

just aren't well read on what this repository is going to mean to not only Nevada, but the whole United States, and possibly our economy. You keep seeing in magazines how you can drive down the street and you get lost and you push a button and all of a sudden a map appears and says you're here and you want to go here and you make a left. That's part of the thing that will develop from this nuclear repository because they will have to track those shipments very closely, and that will become a reality.

In the early twenties we had some people in legislation here in Nevada that made some very wise decisions. Everybody thought it was immoral, they thought they were a bunch of idiots, and it's resulted in an industry that nobody ever, back then, could even imagine. And that's the gaming industry and the prostitution industry in the State of Nevada.

Prostitution aside, gaming has become very popular, and states now are starting to say gee, that's a good idea. Let's start a lottery. You got Tri State lotteries now in the northeast; it's very successful. I don't gamble myself, but fine for

those who do.

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The fact is that other states are starting to consider legalizing gambling; even Utah. That means it works, okay? Are we going to turn around in what? 1920s was 60 years ago. In 60 years are we going to look at Illinois and say God, weren't they smart? They took that nuclear repository and they turned it into something profitable. Maybe we should start looking into it now. I hope not. I hope we're the forerunners of that. Thank you.

MR. MILLS: Thank you.

Is Jean Perry-Jones present?

MS. JONES: I'm Jean Perry-Jones. I've been a resident up at Mt. Charleston for 13 years.

As for Nevada's being dumped on, it's argued why not? We already have wasted Nevada with the Test Site. Why contaminate another American locale? And although this point has an offbeat logic to it, it views nuclear waste as a short-term rather harmless toxin. But we have yet to learn of plutonium's severe effects or its true duration.

Our earth is alive. The geology of our earth shifts and is still in the process of altering through faults, plate shifts and volcanos, all of which are evidenced in some stage at the Test Site.

But then, the whole earth is shifting and any nuclear waste repository site is a gamble, and not a gamble where you only stand to lose a few thousand dollars on a Friday night. The waste we're generating and storing is not a harmless waste that will go away with enough good press and PR.

I'm opposed to a nuclear waste dump in Nevada. I'm opposed to a national nuclear waste dump in any state. Nuclear waste should be stored in locales where it's generated, thus focusing community attention to the basic issue: generating nuclear waste.

It is past time to stop the production of nuclear waste. No location in our earth, our seas or our skies should be subject to such an insidious poisoning. We represent but two or three generations today, but our policies will have life-threatening impacts on future millennium.

I'm opposed to transporting nuclear
waste across our country. By its transportation it's
not a matter of if there's a catastrophic accident,
but when and where the first accident will occur, how
agencies will respond? And finally, when will this
nuclear insanity stop?

Thank you.

1 MR. MILLS: Thank you. 2 Is Thorne J. Butler present? Is David 3 Jensen present? 4 MR. JENSEN: Good evening. I am not 5 going to thank you for the opportunity to speak 6 because I feel that it is our right to speak. And I 7 am not well advised on this matter, and I am not well read on it. But I know this planet that we live in 9 is in jeopardy, and that is hallowed ground out there, 10 and it's time that we begin to have some respect for 11 this planet that we live on. 12 Thank you. 1.3 MR. MILLS: Thank you. 14 Is there anyone whose name, who put 15 their name on a list to speak for the first time who 16 has not yet addressed this group who's got their name 17 on the list? 18 Yes, and what is your name, sir? 19 MR. LUCHINI: On the list? Stephane 20 Luchini. 21 MR. MILLS: Please, can you come 22 forward and address the microphone. 23 MR. LUCHINI: Yeah. I'm just a --24 MR. MILLS: Excuse me. Give your name, 25 sir.

1 MR. LUCHINI: Stephane Luchini. 2 I've been concerned about the 3 commitments in the time and money that you've put in already, and that you intend to put in in the next 4 5 three, five years before you make a decision. 6 It seems when you start putting in billions and billions of dollars in all that effort, 7 8 there's going to be some -- it's just human nature, 9 some commitment right there, and it's hard to back 10 out of a decision when you're committed, when you have even that many more years of high-level nuclear 11 12 waste stockpiled all over the country. 13 I'm wondering, while you're looking at 14 this site here with your Site Characterization Plan 15 for Yucca Mountain, what other sites are you looking

for Yucca Mountain, what other sites are you looking at also? What if you find that this is not -- that it is unacceptable? What else are we looking at right at the moment? I'm concerned about that.

Just another summary that I have, just

as a comment and it seems from a lot of the comments here today, it's very apparent that we do not trust you.

MR. MILLS: Is Troy Nance present? Mr.

Nance?

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MR. NANCE: Thank you for the second

1 time. Anyone else wants to speak besides me? 1
2 guess not.

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A lot of people here have never heard of the Ginna plant in upstate New York near Ontario. Before the Three Mile Island incident, they had a near meltdown at the Ginna plant. The tubes in the reactor were corroded and leaking on the workers. They found it just in time to prevent a meltdown.

Now, it's amazing to me how so many people can be so callous with this nuclear situation and not do anything about it. That's why the country is polluted, contaminated from one end to the other. They're just careless. People don't know, they don't realize.

And now, we have a congressional investigative committee that just found out recently the EPA letting superfund contractors police themselves. That means the contractors, it's like putting the fox in a chicken coop. They can do anything they want and get away with it and nobody says anything until they just recently found out about it. It's carelessness.

I want to speak about the transportation. Now, we know what a difficult job it is, and so much has already been said about it I

wouldn't want to repeat myself. But if more people should talk about it -- it isn't going to do any good. It's already decided. I found out about four months before the meeting here in Las Vegas that this is the only place that's ever been considered. They just talked about a couple other places.

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This place, Nevada was designated a long time ago, and it's still designated to be where this dump will be. But there's a lot of unfounded fears about it that should be straightened out if the DOE would just tell us the truth about it. I know about the greenhouse effect and a lot of other things that are dangerous, but we must -- they told us the truth about that, but we need to know the truth about radioactive waste; that's where we've been let down.

on Japan, careless handling by inept people were contaminated and they're now dead. Before the first bomb was dropped. Ever since that time, people have taken this callous attitude, not realizing and not caring about the safety. It's an old American habit to be complacent.

So I would appreciate it if we could ever find out, get the truth about this, about the waste, about the transportation, and so we'll know

1 how we stand. We don't know right now. Everybody's confused, everybody's afraid of it. The DOE has 2 created fear in people's minds. Now, the DOE should 3 4 make it plain and clear. It hasn't been done. 5 we've been is faked out, so to speak. Let it be said from this day on that 6 7 you will give the truth to the people, and take the fear out of your mind. Some of the fears, like I 8 9 said, are unfounded. Let's get it straightened 10 around where people will know how they stand. 11 would serve a great deal. Benefit the public and the 12 DOE. Thank you. 13 MR. MILLS: Thank you. 14 Is there anyone else who has wished to 15 address this panel that has not had the opportunity? 16 MR. GERTZ: With that, I appreciate you 17 This hearing is officially closed. all coming. 18 (Thereupon the taking of the 19 proceedings was concluded.) 20 21 22 23 24 25

1	CERTIFICATE OF REPORTERS
2	STATE OF NEVADA)
3	ss
4	COUNTY OF CLARK)
5	We, Barbara Shavalier and Anna Maria
6	Ciarrocchi, certified shorthand reporters, do hereby
7	certify that we took down in shorthand (Stenotype)
8	all of the proceedings had in the before-entitled
9	matter at the time and place indicated and that
10	thereafter said shorthand notes were transcribed into
11	typewriting at and under our direction and
12	supervision and the foregoing transcript constitutes
1 3	a full, true and accurate record of the proceedings
14	had.
15	IN WITNESS WHEREOF, I have hereunto affixed
16	my hand this 4th day of april , 1989.
17	
18	BARBARA SHAVALIER, CSR #84
19	BARBARA SHAVADIER, CSR #04
20	Anna Maria Glarrocchi, C.S.R #188
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