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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

DOCKETED
USNRC

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In the Matter of) Limited Appearance
PRIVATE FUEL STORAGE, L.L.C.) Hearing
(Independent Spent Fuel)
Storage Installation) Volume II

Docket No. 72-22
ASLBP No. 97-732-02-IFSI

COPY

U.S. Nuclear Regulatory Commission
Shearaton Hotel
150 West 500 South, Wasatch Room
Salt Lake City, Utah 84101

Friday, June 23, 2000

The above-entitled matter came on for hearing
pursuant to notice at 7:00 p.m. before:

THE HONORABLE G. PAUL BOLLWERK, III
Administrative Judge
Atomic Safety & Licensing Board Panel

DR. JERRY R. KLINE
Administrative Judge
Atomic Safety & Licensing Board Panel

DR. PETER S. LAM
Administrative Judge
Atomic Safety & Licensing Board Panel

1 APPEARANCES:

2 FOR THE STATE OF UTAH, ATTORNEY GENERAL'S OFFICE:

3 Connie Nakahara, Esq.
4 Assistant Attorney General
5 Office of the Attorney General
6 160 East 300 South 5th Floor
7 P.O. Box 140873
8 Salt lake City, Utah 84114

9 FOR THE PRIVATE FUEL STORAGE, L.L.C.:

10 Jay Silberg, Esq.
11 John Donnell, Esq.
12 Shaw, Pittman, Potts, & Trowbridge
13 Attorney at Law
14 2300 N Street, N.W.
15 Washington, D.C. 20037

16 FOR THE U.S. NUCLEAR REGULATORY COMMISSION:

17 Catherine Marco, Esq.
18 Office of the General Counsel
19 Mail Stop - 015 B18
20 U.S. Nuclear Regulatory Commission
21 Washington, D.C. 20555

22 FOR THE SKULL VALLEY BANK OF GOSHUTE INDIANS:

23 Leon Bair
24 Chairman for the skull valley Band of the
25 Goshute Indians

 Mary Allen
 Vice Chairman of the skull Valley Band of
 Goshute Indians

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16 To my right is Dr. Jerry R. Kline. Dr. Kline
17 is an environmental scientist, a part-time member of
18 the Atomic Safety and Licensing Board panel. To my
19 left is Dr. Peter Lam. Dr. Lam is also a nuclear
20 engineer and a full-time member of the panel. My name
21 is Paul Bollwerk. I am an attorney, a full-time panel
22 member, and the Chairman of this Licensing Board.

23

24

25

1 statements. So there will be some common
2 understanding what is currently involved in the
3 Private Fuel Storage proceeding.

4 And with respect to the limited appearance
5 process, I'd like to take a few moments to provide
6 some background about both.

7 Since Monday of this week, the Board has been
8 hearing testimony and receiving evidentiary materials
9 regarding two of the technical contentions admitted in
10 this proceeding. First is Contention Utah R, which
11 concerns a challenge by Intervenor State of Utah to
12 the adequacy of the PFS facility emergency plan, in
13 particular its fire protection provisions.

14 The other is Contention Utah E/Confederated
15 Tribe F, which involves financial assurance challenges
16 by Intervenor State of Utah and the Confederated
17 Tribes of the Goshute Reservation to the cost
18 estimates for construction, operation, maintenance and
19 on-site property insurance for the PFS facility.

20 As we indicated in our April 19 and June 7,
21 2000, hearing notices, the sessions on Contention Utah
22 E/Confederated Tribe F have been closed to the public
23 because they involve confidential proprietary
24 commercial information. Although, I would note that
25 the Board has established the procedure for party

1 review of all the evidentiary information submitted in
2 the closed sessions to determine what portions can be
3 made publicly available.

4 The Board will be resuming its evidentiary
5 hearing next Tuesday, June 27, at 9:00 a.m., in this
6 room with the public hearing session regarding
7 Contention Utah S, which concerns decommissioning
8 plans for the PFS facility, in particular, the
9 decommissioning cost estimates.

10 Once the parties have completed their
11 presentations on this contention, which we anticipate
12 will be finished sometime that morning, the Board will
13 return to closed session to conclude party
14 presentations on Contention Utah E/Confederated Tribes
15 F. And this will then complete the evidentiary
16 hearing sessions regarding all three of the
17 contentions.

18 As always noted at the outset, the issues
19 that are subject to board hearings this week and next
20 week concern technical matters. Under our current
21 schedule for this proceeding, we will be holding
22 additional evidentiary sessions in mid to late summer
23 of next year regarding admitted technical contentions
24 on the seismic suitability of the PFS site and the
25 adequacy of PFS' consideration of credible accidents

1 caused by events and facilities external to the
2 PFS facility including commercial and military
3 aircraft overflights as well as on a number of
4 admitted contentions relating to the adequacy of the
5 identification and consideration of environmental
6 impacts under the National Environmental Policy Act or
7 NEPA. In connection with NEPA, I would note that
8 recently the NRC staff has issued a draft
9 environmental impact statement regarding the proposed
10 PFS facility which has been designates the NUREG-1714.
11 This is a copy of the document. You can see it is a
12 rather large one. This NUREG can actually be found on
13 the NRC website. I have actually an updated website
14 URL from what I gave this afternoon. I went into it
15 between the sessions and actually found the document.
16 So this is a good of a reference as you are going to
17 get:

18 www.nrc.gov/NRC/NUREGS/SR1714/index.html.

19 Let me do that again:

20 www.nrc.gov/NRC/NUREGS/SR1714/index.html,
21 if you would like to see a copy of this document.

22 The staff will be conducting public hearings
23 regarding its DEIS, the Draft Environmental Impact
24 Statement, on Thursday, July 27, 2000, in
25 Salt Lake City and on Friday, July 28, 2000, in

1 Grantsville, Utah.

2 This, in a nutshell, describes the NRC
3 adjudicatory process relating to this proceeding. And
4 this natural prompts the question: What then are the
5 limited appearances in which the Board has invited
6 public participation tonight and tomorrow.

7 Under Section 2.715(a) of the Commission's
8 Rules of Practice, the Board has a discretion to
9 entertain from any person who is not a party to the
10 proceeding a written or oral statement of his or her
11 position on the issue in the proceeding.

12 This provision, which was first adopted as
13 part of the hearing agency's hearing rules back in
14 1962, recognizes there is a need to provide an
15 opportunity for input from the members of the public
16 who, despite not having sought party status, have an
17 interest in the subject matter of the proceeding.

18 As we indicated in the April 19 and June 7
19 notices that were placed in the Federal Register,
20 scheduling this and other sessions -- although the
21 limited appearance statements tonight will be
22 transcribed and placed in the docket of this
23 proceeding -- those statements do not form a part of
24 the evidentiary record of the proceeding upon which
25 the Board must rely in making any decision on the

1 merits of the issues proffered by the intervening
2 parties.

3 Nonetheless, as we also recognize in that
4 notice, the public limited appearance statements may
5 help the Board and/or the parties in their
6 deliberations in connection with the issues to be
7 considered in this proceeding. Indeed, as you can
8 see, like the Board, a number of the parties to this
9 proceeding are here to listen to what is said this
10 evening.

11 In this regard, I would like to take a second
12 now to have the representatives of the parties
13 identify themselves for the record. Why don't we
14 begin with counsel or the representatives for the
15 various intervenors and then Private Fuel Storage and
16 finally the NRC staff. Ms. Nakahara.

17 MS. NAKAHARA: I am Connie Nakahara
18 representing the State of Utah.

19 JUDGE BOLLWERK: From the Skull Valley Band.

20 MR. BEAR: I am Leon Bear, Chairman of the
21 Salt Lake Band of Goshute Indians and with me I have
22 Mary Allen, the vice chair.

23 JUDGE BOLLWERK: All right, sir.
24 Mr. Silberg.

25 MR. SILBERG: Yes, I am Jay Silberg. And I

1 am counsel for the Private Fuel Storage. And with me
2 here this evening is John Donnell, who is the project
3 manager for Private Fuel Storage.

4 JUDGE BOLLWERK: Ms. Marco.

5 MS. MARCO: Catherine Marco, and I represent
6 the NRC staff.

7 JUDGE BOLLWERK: Thank you very much. In
8 this regard, let me emphasize again this is an
9 opportunity to hear from those interested individuals
10 who are not formally involved in this proceeding as
11 parties. Consequently, the admitted parties will not
12 be making statements here this evening. Rather, like
13 the Board, they are hear to listen.

14 Now, let me say a word about the procedure
15 for making a statement. We had some individuals who
16 preregistered and will be afforded an opportunity to
17 speak first at this session. Once we have heard from
18 those individuals, we will move on to anyone who
19 registers here this evening.

20 For anyone who wishes to make a statement, as
21 I mentioned before, on the table in the back is a
22 clipboard with a sheet to write your name and
23 affiliation, if any. We will collect those sheets
24 from time to time and call the speakers in the order
25 that they sign in.

1 If you have not preregistered, you must sign
2 in if you wish to speak. We will keep a watch on the
3 time each speaker is taking and advise you when you
4 need to conclude your remarks. Given the number of
5 preregistrations and the size of the audience
6 presently, we will begin by permitting statements of
7 up to five minutes. However, if we see the list of
8 speakers is growing, we reserve the right to shorten
9 the time allowed for each presentation to assure
10 everyone who wishes to speak has an opportunity to do
11 so.

12 Additionally, if there comes a point in the
13 session in which all of those present desiring to make
14 a statement have been heard from, the Board reserves
15 the right to adjourn the session before the noticed
16 ending time. Further, to assure everyone is afforded
17 an opportunity to address the Board in the time
18 allotted, those individuals who have previously made
19 presentations to the Board in an earlier session, such
20 as the one this morning, will be given an opportunity
21 to make an additional statement after the Board has
22 heard from all new speakers.

23 Also, I think it is important to allow the
24 Board and the parties to hear fully the remarks of
25 each speaker without intrusions. Accordingly, I ask

1 that you respect each individual's right to address
2 the Board by not interrupting with verbal comments or
3 other sounds either supporting or opposing the
4 viewpoint being espoused.

5 Two final points: So that everyone is aware
6 of the schedule, this session will be concluded at
7 approximately 9:30 p.m. Another session will be
8 conducted tomorrow, Saturday, June 24, from 1:00 to
9 4:00 p.m. Also as we indicated in the June 7 notice,
10 limited appearance sessions initially scheduled for
11 Friday, June 30, and Saturday, July 1, in Tooele,
12 Utah, have been postponed and will be rescheduled at a
13 later date.

14 Anyone, however, is free at any time to
15 submit a limited written appearance statement setting
16 forth his or her views regarding this proceeding by
17 mail sending the statement to the NRC Office of the
18 Secretary, the Rule Makings and Adjudication Staff,
19 US Nuclear Regulatory Commission, Washington, D.C.
20 20555-001. You can send the statement by e-mail to
21 hearingdocket@nrc.gov or by fax to 301.415.1101 with a
22 copy to the chair of this Licensing Board at
23 Mail Stop T-3F23, US Nuclear Regulatory Commission,
24 Washington, D.C. 20555-001. The e-mail address
25 gpb@nrc.gov or by fax at 301.415.5599.

1 I would mention that there is a press release
2 I think that is on one of the back tables as you come
3 in. And that has that address and information on it.

4 With this explanation, I will turn to the
5 Board members and see if either of them have anything
6 to say in the opening.

7 JUDGE LAM: I would like to add to Chairman
8 Bollwerk's remarks that we're here to listen to what
9 the public has to say. I consider these sessions of
10 limited appearances an important part in our overall
11 proceedings.

12 JUDGE BOLLWERK: All right. Thank you.
13 Anything from you, Judge Kline?

14 JUDGE KLINE: No.

15 JUDGE BOLLWERK: All right. Then let us
16 beginning with the first appearance tonight. The
17 first name I have is Richard Wilson, W-I-L-S-O-N,
18 appearing on behalf of the Scientists for Secure Waste
19 Storage.

20 MR. WILSON: Good evening. I am
21 Richard Wilson. I represent a spokesman for 20
22 scientists which include six Nobel Laureates, three
23 former chairmen of either NRC or AEC, two former
24 ambassadors, an astronaut, and a president of a
25 university who is also half American Indian. They all

1 want to support the Goshute Indians in their desire to
2 have nuclear waste in their background.

3 We believe they have a right to run their own
4 affairs especially since 150 years ago they were
5 pushed into some other part of the territory which was
6 least productive for ordinary agricultural uses. We
7 believe that right is self-evident.

8 And what we want to say now -- what I really
9 want to go on is the second proposition that we
10 believe that that particular facility is safe, can
11 simply be proven to be safe and, therefore, the
12 Goshutes have chosen wisely in selecting this activity
13 as one in which they can engage.

14 A long-time delay of nearly three years
15 between the initial proposal and the start of this
16 hearing and the anticipated further delay before
17 construction starts should not blind either the
18 hearing board or the public to the fact that the
19 facility basically is a simple one and basically can
20 be simply shown to be safe and reliable.

21 It follows three important facts about
22 storing nuclear waste: Firstly, almost all of the
23 material would be solid. What the gases are, the
24 noble gas krypton 85, which is not terribly important
25 because it doesn't -- isn't terribly bad when it gets

1 -- inhale it.

2 Secondly, the heat generated by the waste
3 will be small and not nearly enough to evaporate or
4 disperse any material. It would be less than
5 0.01 percent (1/10,000) of the power during the
6 reactor in operation. It would be one millionth of
7 the power of what was going on when the Chernobyl
8 reactor blew apart.

9 The consequence of that makes it not only
10 impossible for the heat in a fuel storage facility to
11 evaporate the fuel, but also any accident can only
12 proceed slowly. This contrasts with the accident at
13 the Three Mile Island, which took place in two hours,
14 and that of Chernobyl, which took place within a few
15 seconds.

16 Any released material, if any, would be very
17 small, will happen slowly, can be noticed by
18 monitoring as it occurs and can be corrected in plenty
19 of time of doing so. An obvious exception, of course,
20 would be a direct hit from an atomic bomb and a direct
21 hit of 100 feet. There would be a lot of worse things
22 happening in this country if that happens.

23 The safety hazard of exposure to radiation
24 can be and presumably will be controlled by three
25 factors: Distance, shielding, and time. People who

1 are not on the reservation will be tens of miles away.
2 And those on the reservation will be two miles away.
3 And the casks are well shielded. And the Goshutes who
4 will be monitoring the facility will only spend a
5 short time close to the casks.

6 The particular things in this hearing: The
7 fire protection, I remind you that the casks
8 themselves and fuel themselves aren't burned up.
9 Although the zirconium cladding can in fact oxidize.
10 It's only to high temperatures. Self-sustaining fires
11 are almost impossible. What you are worried about is
12 the burning of fuel that men bring to assist in their
13 ancillary tasks: Gasoline for their cars, diesel fuel
14 for the railroad bringing in materials.

15 It is important to realize that the risk of
16 these activities is certainly less than a risk of a
17 fire at a downtown road junction in Salt Lake City.
18 It can be more easily controlled.

19 In the very remote chance of a fire engulfing
20 a storage cask, the cask is very unlikely to break.
21 And if it does, only the krypton 85 might be released
22 to the atmosphere. And that is not terribly
23 important, as I mentioned.

24 As noted, the heat is small on the second
25 feature of the thermal design of the cask. The

1 thermal design has, of course, to be done to allow the
2 heat to be taken away since it is 1/10,000 or less of
3 what is found in a reactor. It is much easier to take
4 it away than it is to take away the heat of a nuclear
5 reactor. And that can be done quite simply. Detailed
6 calculations actually prove this.

7 We have little comment on the financial
8 responsibility to Private Fuel Storage because it need
9 not be great because you really need to make sure that
10 there is enough finances to decommission the facility.

11 The decommissioning of the facility should be
12 extremely simple. The casks are brought in by train.
13 They can go out by the same way. And as they go out,
14 the radioactivity would go out with them. And only
15 any small amount, which might have leaked out which
16 you should be cleaning up on the run, would have to be
17 cleaned up. And then what you are having to clean up
18 is concrete pads, rubber lined. So that financial
19 decommissioning should be fairly simple. And all your
20 detailed calculations should be put in that regard.

21 Now, I have got a written version of this. I
22 am sending it around to every member of the group,
23 Scientists for Secure Waste Storage. I would request
24 your permission to allow them to amend it if they so
25 see fit and then you would have in front of you a

1 written version which represents not just my personal
2 opinion but the opinion of every member of the
3 Scientists for Secure Waste Storage.

4 I also ask permission to appear at a later
5 time before you if time comes up after we have been
6 able to have a look at evidence which is presented to
7 you and make any comment that may seem to be pertinent
8 at that time.

9 I have attached this, of course, the details
10 of the people. I note in the time, the three years
11 this proceeding started, as time goes on the
12 Grim Reaper takes its toll and a friend, Glenn Seabor,
13 unfortunately died. And we have one less member than
14 when we passed over our initial petition.

15 I just want to say one more thing. I have
16 come back from a visit to Bangladesh in meeting on
17 arsenic in San Diego. And I will say that the
18 catastrophe in arsenic in Bangladesh makes even the
19 Chernobyl disaster look like a Sunday school picnic.
20 The arsenic could be -- the arsenic in the environment
21 is far worse than the radioactive waste. People worry
22 about the long half-lives. I just remind you that
23 arsenic has an infinite half-life. And it's very
24 common, particularly in the state of Utah. Thank you.

25 JUDGE BOLLWERK: Thank you, Mr. Wilson, for

1 speaking to us tonight.

2 The next speaker I have is
3 Michael T. Packard, P-A-C-K-A-R-D. Is Mr. Packard
4 here? No? All right.

5 The next two names may not be here, but I
6 will check them anyway. Alberta Mason or
7 Ann Schwart-Hanson? I think they will probably be
8 appearing tomorrow then.

9 All right. Let me check a couple other names
10 here: Robert J. Hoffman? No? How about
11 Calvin N. Andrus -- oh, Mr. Hoffman, I'm sorry,
12 former chairman of the Utah Division of Radiation
13 Control Board?

14 MR. ANDRUS: No.

15 JUDGE BOLLWERK: No? You are mister --.

16 MR. ANDRUS: I am Cal Andrus.

17 JUDGE BOLLWERK: Mr. Andrus, A-N-D-R-U-S.

18 MR. ANDRUS: I'm sorry, did I respond wrong?

19 JUDGE BOLLWERK: You responded to the right
20 name. I thought you were Mr. Hoffman the way you
21 jumped up.

22 MR. ANDRUS: There are two of us in the
23 state. I am Cal Andrus. I am senior consultant for
24 Analogics Marketing and Consulting. We are a general
25 process consulting firm and are involved currently in

1 a number of different technologies, one of which is
2 the handling of municipal solid waste. We're also
3 very concerned, of course, about environmental issues
4 and also about the temporary storage of nuclear waste.

5 My summary comment here is echoed in part by
6 Steve Burrow's comments made in his articles in the
7 Salt Lake Tribune, "We must act now to revitalize our
8 nuclear industry and to reduce the threat to our
9 climate." We're specifically referring here to global
10 warming. There are some other concerns, not the least
11 of which is the continual ejection of a certain amount
12 of nuclear material into the atmosphere at coal-fired
13 electrical power generation plants. It is one of the
14 points missed frequently in the discussions up to this
15 point. I found that ironic in the state that produces
16 a certain amount of bituminous coal for the electrical
17 power generation industry. And the fact that we're an
18 exporter of this product is also ironic.

19 But we must now choose, I think, a reasonable
20 policy and move forward to provide temporary storage
21 of spent nuclear fuel at a centralized location both
22 here and abroad which can be a site or facility for
23 eventual reprocessing of nuclear fuels. It seems like
24 the only sensible thing to do.

25 And I echo statements and concerns of some of

1 our government leaders who have pointed to the fact
2 that we must come up with a solution for all waste
3 programs. In the United States, we generate on the
4 order of 4.2 to 4.5 pounds of waste materials every
5 day. And the savior, if you will, the solution to
6 this problem has been deemed not burying our wastes
7 but recycling them. So it only stands to reason that
8 we would recycle our fuels as well. And a centralized
9 facility -- storage facility, a temporary one, would
10 certainly facilitate the development of the recycling
11 processes.

12 Let me just point to two specific arguments
13 against the facility. First is the seismic issue.
14 And I would like to ask the question: Which is more
15 sensible, to store casks in a temporary remote desert
16 environment on concrete pads or to leave them in
17 relatively vulnerable temporary storage facilities and
18 pools, if you will, in the back yard of our major
19 metroplexes? This seems to be a no brainer.

20 If we are concerned about safety, we have got
21 to resolve this issue as quickly as possible. This is
22 an existing problem, not only a future problem.

23 Second point under the seismic issue is there
24 is concern about the danger of rupture of casks under
25 a seismic event. Now, I ask you, what is the

1 possibility, what is the potential of a seismic event
2 accelerating these robust casks to velocity or
3 stresses, if you will, imposed by such an acceleration
4 to 65 or 70 miles per hour. If we have a seismic
5 event of that magnitude here along the Wasatch Front
6 or in the Tooele/Skull Valley area, I can assure you
7 there would be no concerns whatsoever about the
8 survival of the western part of the United States.
9 Such an event would be of such a magnitude as to be
10 life threatening of the vast majority of the
11 inhabitants of this region in the world.

12 The second point has to do with the spillage
13 of nuclear materials. The casks are robust. And as I
14 indicated, they are designed to withstand impact of
15 freeway speeds. It seems like it is safer to leave
16 these casks, leave the fuel products in the casks
17 rather than to rely, if you will, on the alternative
18 fuel source in this state, one of the primary ones
19 being coal-fired power generation facilities such as
20 we have at the IPP project near Delta, Utah, which
21 ironically, I believe are within the historical
22 confines of the Goshute people.

23 This facility alone is generating somewhere,
24 based on my preliminary calculations, of somewhere
25 between five and ten pounds of nuclear material which

1 is ejected up the smoke stack. Some of it may be
2 precipitated in the form of pozzolans which are then
3 distributed into cements and other materials and
4 distributed throughout our environment. So here we
5 have direct ejection into the atmosphere as opposed to
6 containing nuclear fuels in casks. I ask you which is
7 the preferable solution. To me there is just -- this
8 is just -- there is no issue whatsoever. The only
9 reasonable solution is to come up with a temporary
10 storage facility and to develop the nuclear industry
11 and stop relying on fossil fuel powered plants.

12 I thank you for this opportunity to express
13 these comments. Good evening.

14 JUDGE BOLLWERK: Thank you for coming and
15 speaking with us tonight. The next speaker,
16 Connie Jorgensen. How about D. Kip Soloman,
17 S-O-L-O-M-A-N.

18 MR. SOLOMAN: Thank you, I appreciate this
19 opportunity to provide some input. I am a
20 professional earth scientist. And by background, I
21 have had approximately ten years in working in the
22 nuclear waste industry at Oakridge National
23 Laboratory. I would first like to go on record in
24 saying that I am fundamentally in favor of nuclear
25 power. I believe it to be an environmentally sound

1 source of energy. And I believe that nuclear waste
2 can be handled and dealt with in a safe manner.

3 However, in my consideration of the proposed
4 project in Skull Valley, I find this to be one of the
5 most frightening proposals that I have encountered in
6 my years of service in professional earth sciences.
7 And I would like to raise three issues that I hope
8 will be dealt with by the committee throughout the
9 course of their deliberations.

10 First of all, it appears to me that this
11 facility is being permitted or attempted to be
12 permitted under regulations that strongly associates
13 itself with a facility being a temporary one. All of
14 my experience in nuclear waste tells me that we have
15 no history of temporary storage. That storage
16 de facto becomes permanent at least on a practical
17 scale. And it seems to me that it's simply wrong to
18 design a facility and to regulate a facility from the
19 onset with the idea that it is going to be temporary
20 when we have no such history that makes us to believe
21 that a facility will be temporary.

22 Secondly, in my evaluation of the
23 environmental report, I believe this report
24 significantly underestimates many of the longer term
25 issues associated with the performance of the site.

1 There is -- as anyone knows that has worked in the
2 nuclear industry, there is a mountain of regulations
3 and requirements that a long-term facility has to
4 comply with. And it seems to me that many of those
5 are simply being skirted under the guise of a
6 temporary facility.

7 Things like climate change -- Skull Valley
8 was under water not that many years ago and from an
9 earth science perspective could be under water again
10 with a relatively minor climate change. Things that
11 deal with long-term stability involve hydrology and
12 strong ground motion are simply not being considered
13 adequately because of the notion that this is a
14 temporary facility.

15 And finally, I am extremely concerned about
16 the concept of an above-ground storage facility.
17 Virtually all countries that are dealing with the
18 issue of nuclear waste storage and disposal are
19 considering deep geologic repositories in spite of
20 many, many technical complications associated with
21 that, associated with heat in the subsurface,
22 associated with caustic groundwater, associated with
23 difficulties in monitoring facilities.

24 Nevertheless, deep geologic repositories
25 provide a measure of safety against environmental

1 terrorism. It is very unclear to me that this
2 facility would be capable of withstanding
3 environmental terrorism especially in a setting such
4 as the basin in range where the facility would
5 actually be in line of sight from numerous surrounding
6 peaks. It is, you know, unclear to me that it is not
7 quite within the realm of possibility of developing
8 and building armor piercing projectiles that could be
9 launched toward the facility penetrating the casks.
10 We have projectiles that can easily penetrate meters
11 and meters, tens of meters, even hundreds of meters of
12 concrete and then exploding after penetration.

13 The issue of deep geologic storage averts
14 these problems and is a sensible one in my mind. I
15 sympathize with the nuclear power industries plight in
16 a need to effectively and safely dispose of their
17 waste. But to dispose of that above ground in
18 proximity as close as it would be to a major
19 population center simply in my estimation flies in the
20 face of years and years of thinking about the disposal
21 of high level nuclear waste in the subsurface. And I
22 hope that those issues will be considered by the
23 panel. Thank you.

24 JUDGE BOLLWERK: Thank you, sir, for coming
25 to speak to us tonight.

1 The next speaker is Jeri Peratis,
2 P-E-R-A-T-I-S. Did I pronounce that correctly?

3 MS. J. PERATIS: Yes. I appreciate the
4 opportunity to come and speak. I have no degree in
5 geology or anything like that. I am just a citizen,
6 private citizen. And I, first of all, will say I am
7 not a fan of nuclear power. I have never believed
8 that a type of energy producing power -- that the
9 waste that comes from it is so dangerous and so
10 terribly frightening could be good for our people or
11 our country.

12 I do respectfully acknowledge the Goshutes'
13 right to choose something for their land that would
14 bring income to their people. But we have had so many
15 instances here in our state where things have just
16 gone wrong. And it isn't because it was meant to, but
17 it was because people didn't realize what was going to
18 happen.

19 In the 1940s and '50s in St. George, as
20 people will remember, there were nuclear tests done in
21 Nevada. My family lived in St. George at the time
22 when that was just beginning. And we moved. And I am
23 so glad we did because so many people were stricken
24 with cancer in that area, the Downwinders. And they
25 had nothing to do with this. And it wasn't their

1 fault.

2 I don't agree with temporary storage of this.
3 I believe that where this is produced it should stay
4 where it is. I don't -- we don't have any nuclear
5 power plants here. And I believe the states that
6 choose to have that sort of thing should store their
7 own waste.

8 I don't believe in an above-ground waste
9 facility at all. I think if people could work
10 together to find alternate energy sources, things
11 would be so much better for us and our environment.

12 I feel so sad that our desert would be a
13 dumping ground for this type of material. To the
14 looks of people from other places, it may look like a
15 desolate area that isn't good for anything. But it
16 has its place on our state, and I would just hate to
17 see something like this brought there. Thank you.

18 JUDGE BOLLWERK: Thank you for coming and
19 speaking with us tonight.

20 The next speaker is -- I am going to
21 mispronounce this -- is it Theryl Peratis?

22 MS. M. PERATIS: Merle.

23 JUDGE BOLLWERK: Merle Peratis, I'm sorry.
24 As I said before, I never criticize anyone's
25 handwriting because I have got the worst in the world.

1 Merle Peratis, I'm sorry.

2 MS. M. PERATIS: I appreciate the opportunity
3 to speak to you, too. Jeri Peratis is my daughter.
4 And we are both very concerned about this proposal. I
5 agree that the federal government and the state
6 governments owe a lot to the Goshute Indians. And I
7 think they should do everything they can to help them
8 become self-sufficient and get out of poverty as much
9 as possible in other ways.

10 This project -- I am so concerned that Utah
11 is becoming the dumping ground for all of this waste.
12 We already have toxic dumps, hazardous waste dumps.
13 We have Tooele Army Depot with their nerve gas. We
14 had Dugway. This is not fair. Utah doesn't deserve
15 this. We are doing more than our share in this area.
16 And these -- this latest thing with the radioactive
17 waste is not right.

18 If the waste is as safe as they claim it is,
19 it should be stabilized and left in place where it is.
20 They say it is going to be temporary. But we know
21 what temporary means. It means permanent. It won't
22 ever be the -- it won't ever be moved to another site
23 as far as I can tell.

24 We also know the dangers of moving this
25 material by rail, probably. We've seen what happens

1 when rail accidents occur with other chemicals and
2 cause a lot of harm and a lot of people to be
3 dislocated. But this is even so much worse. I just
4 cannot believe that Utah should be the dumping ground
5 for this type of material. Please let's let the
6 federal government and the state government get
7 together and do something to help the Goshute Indians
8 in a way that is not damaging to the environment and
9 to the people of Utah. Thank you.

10 JUDGE BOLLWERK: Thank you for coming
11 tonight.

12 The next speaker is Ed Hickey.

13 MR. HICKEY: Hi. My name is Ed Hickey, and
14 thank you for allowing me to speak. I am a private
15 citizen. I am also a geologist. And I have a
16 background in hydrogeology, somewhat in seismology.
17 And I have been a resident of Utah for five years. I
18 am opposed to this project.

19 I do not think that temporary, above-ground
20 storage is a good idea. I think the NRC should work
21 on a permanent solution for nuclear waste products.
22 And I just agree with a lot of the other points that
23 other people have mentioned about this project who are
24 opposed to it.

25 Probably with my geologic background, I see

1 transportation as the biggest problem. I just do not
2 believe in temporary storage. Thank you.

3 JUDGE BOLLWERK: Thank you very much.

4 Next name I have is Anita Davis.

5 MS. DAVIS: I am a citizen of the state. And
6 I would sort of like to echo what has already been
7 said by Ed Hickey and the gentleman that spoke with a
8 background in -- Kip Soloman. I would like to say
9 also with respect to the Goshutes that I feel that
10 they should be given some other means of generating
11 income with great respect to them. And I feel that
12 this is very dangerous.

13 If it is so safe, as was stated, that it
14 would not be much of a problem to move it, then I ask
15 the question as to why are they even bringing it here?

16 I feel also that where it is generated it
17 should be disposed of; that this is -- Utah is -- we
18 have, as you probably know, 14 medical waste
19 incinerators. We have trash incinerators, maybe
20 three, maybe more that I am not aware of. We also
21 have Tooele, Dugway. We have Mag Corp, which is a
22 producer of core (inaudible) in the environment. We
23 have a number of elements in our environment that are
24 causing a loss to our environmental quality. And to
25 have anything else brought in I think is not only, as

1 other people have said before, unfair, but almost -- I
2 don't want to be dramatic -- I just think it is
3 inappropriate, that other sources can be found for
4 this, and we need to be more creative than just
5 passing it on to someone else. That's all I have to
6 say.

7 JUDGE BOLLWERK: Thank you very much for
8 coming this evening.

9 The next speaker is Majorie Detraz,
10 D-E-T-R-A-Z?

11 MS. DETRAZ: Okay, my name is Marjorie
12 Detraz. I live in Alamo, Nevada. I am a charter
13 member of the Lincoln County Nuclear Information
14 Committee. I recently, about -- well, it's the 7th of
15 May, I attended the Alliance for Nuclear
16 Accountability Meeting in Washington, D.C. And this
17 was a seminar of five days. And at that seminar, they
18 had people from all over the country. And we had
19 scientists.

20 And at that time, I met a scientist from
21 Greece. He was born in Greece. He came to the
22 United States. He got his degree in nuclear chemistry
23 from Michigan University. After his degree -- he
24 holds a Ph.D. -- he went back to Greece. He took his
25 two children and wife and went back to Greece. But it

1 didn't take him long to see that Greece wasn't nearly
2 as good of a place to raise two children and send them
3 to college as the United States. So he came back to
4 the United States. And he has become a United States
5 citizen and loves this country.

6 He sought employment, and he got a job at
7 Los Alamos in New Mexico. And they paid him a
8 handsome salary. I think it was \$92,000 a year. But
9 when he got down there, he saw what they were doing.
10 And he said -- he said, "I didn't get my --" to
11 himself he said, "I didn't get my degree to help make
12 nuclear weapons for war." He said, "We need to start
13 thinking about peace."

14 And so he kept complaining there at
15 Los Alamos. And finally they said, "Well, we'll
16 transfer you to Lawrence Livermore Lab in Livermore,
17 California." And there they paid him \$96,000 a year.
18 Well, he worked for them for quite a while and -- ten
19 months, I believe it was.

20 And he said when he would come home at
21 work -- at night from work, he would never let his two
22 little girls touch him until -- he said, "You go sit
23 down in the other room and wait until Daddy takes a
24 shower." And he said he would take a shower, and he
25 would put his boots outside and put on clean clothes.

1 And then he would come out, and he would let his
2 little girls sit on his lap and hug him.

3 And he said the more he thought about this,
4 he said he would go to his office and sit behind the
5 closed doors there and he would just weep. And he
6 would say, "If I quit this job at \$96,000 a month
7 (sic), how am I going to educate my two little girls?
8 And how am I going to keep my nice home?" And yet
9 every day, he would sit behind the door and cry
10 because he couldn't even hug his little girls when he
11 went home.

12 And finally in January of 2000, he resigned
13 his job at Lawrence Livermore Laboratories. And when
14 I met him back in Washington, D.C., at this ANA
15 meeting, they were giving him a certificate to honor
16 him for his integrity in quitting his job and for the
17 stand he was taking against nuclear materials.

18 I happened to be at that meeting when they
19 gave him the certificate of honor. And I said to
20 him -- it was quite busy and loud in there. His name
21 is Dr. Andreas Toupadakis. And he has a Ph.D. in
22 nuclear chemistry. And he lives at Livermore,
23 California.

24 And so we went out in the hall, and I told
25 him I live in Alamo, Nevada. And I am just 55 miles

1 from Yucca Mountain. And we don't want it out there.
2 And I have been fighting it in Nevada since 1955.

3 I am not a public speaker. I am a housewife,
4 and I am a mother and -- but I love my family. And
5 that's why I fight against nuclear waste the way I do.

6 Going back to Dr. Toupadakis, we talked out
7 in the hall. I said, "You know, the solution to all
8 of this is to leave it right where it is and then let
9 science figure out what to do with it."

10 And out in the hall there, I have a table
11 with a lot of handouts. And this is one of them. It
12 comes from the Las Vegas Sun. And the heading is
13 "Environmentalists Reject Yucca Dump." And now I made
14 this for Lincoln County, but you just put Utah in
15 there. "Attention all Utah County and Nevada
16 citizens." Let me get my glasses. "Attention all
17 Lincoln County and Utah citizens. This news article
18 is the answer to our prayers and will solve the
19 nuclear waste storage problem. Please read on and be
20 vocal in supporting it. We are not expendable.
21 Protect our families. And I signed it from our
22 nuclear information committee.

23 As you go down and read this, it says, "An
24 alliance of environmentalist offered a plan
25 Tuesday --" and this was in the Las Vegas Sun on

1 April 14, 1999. An alliance of environmentalists
2 offered a plan Tuesday that would eliminate Nevada as
3 a nuclear waste storage site and take management of
4 highly radioactive spent fuel away from the Energy
5 Department. And we all know -- I believe they should
6 abolish the Energy Department. Everything they touch
7 they ruin. They've even given our nuclear secrets to
8 China.

9 I don't think -- and this goes on. It is
10 written by Dr. Argan Makhijani. He says, "'I don't
11 think DOE is up to the job of doing this work,' said
12 Argan Makhijani, president of the Institute for Energy
13 and Environmental Research."

14 And by the way, I met Dr. Makhijani back in
15 Washington, D.C. And I asked him for his autograph
16 because I said, "You don't know how many times I have
17 used your article for people in Nevada." And so he
18 gave me his autograph.

19 Then Dr. Makhijani goes on, and it says
20 (reading): Instead of federally chartered, a
21 nonprofit corporation should be appointed to develop a
22 long-term strategy for nuclear waste storage.
23 Makhijani and other environmentalists said the
24 government would pay nuclear utilities to continue
25 managing waste until their licenses expire. Then the

1 corporations would assume ownership of a spent fuel.
2 Money for the corporation would come from the federal
3 nuclear waste fund, which is financed by payments from
4 nuclear powered rate payers.

5 Other features of the plan would include
6 research into the seabed and other geological
7 repositories and disposal beneath the earth's crust.
8 The proposal is another alternative offered to compete
9 with legislature in Congress, pending bills in the
10 House and Senate that would send nuclear waste to the
11 Nevada test site for interim storage until a permanent
12 repository is completed at Yucca Mountain, 100 miles
13 northwest of Las Vegas.

14 The House Commerce Subcommittee and Energy
15 Empower is expected to pass a bill today by
16 representative Fred Upton, Republican, Michigan, that
17 targets the test site for interim storage by June 30,
18 2003.

19 We are not a lobbying organization. But in
20 the past -- this is Dr. Makhijani talking again. He
21 said: We're not a lobbying organization. But in the
22 past, Congress has played plenty of attention to our
23 work, Makhijani said.

24 Joining Makhijani at Tuesday's news
25 conference is Janet Zeller, executive director of Blue

1 Ridge Environmental Defense League of
2 Glendale Springs, North Carolina. Other participants
3 by phone included Lee Dazey, northern Nevada director
4 of Citizen Alert in Reno. And I also belong to
5 Citizens Alert and know many of the people there. And
6 they absolutely oppose nuclear waste in Nevada or
7 anywhere -- Utah or Nevada, anywhere.

8 Don Hancock, a director of the southwest
9 research and information center in Albuquerquean,
10 New Mexico -- these are other people that joined with
11 him -- and Beatrice Brailsford of the Snake River
12 Alliance in Idaho -- and I want you to remember this,
13 this name of Beatrice Brailsford of the Snake River
14 Alliance in Idaho because I am going to talk about
15 Idaho in a few minutes.

16 Is there a limit of how long I can talk?

17 JUDGE BOLLWERK: Well, in theory, five
18 minutes. But let's see -- I guess what I would like
19 to do, maybe, is see if we have any other speakers.
20 And then if we have some more time, we can come back
21 to you.

22 MS. DETRAZ: Okay. Thank you.

23 JUDGE BOLLWERK: We have a couple more. I'd
24 like to give everybody a chance to talk once at least
25 five minutes. And then if we have speakers that want

1 to come back and visit us again at the end we can do
2 that.

3 MS. DETRAZ: Well, do you want me to close
4 now and then let these other two speakers --.

5 JUDGE BOLLWERK: How much longer do you have
6 to go?

7 MS. DETRAZ: Well, I've got --.

8 JUDGE BOLLWERK: Are you just getting warmed
9 up? Let's do this: Why don't we go for another two
10 minutes, and you can summarize that. And then we'll
11 see what time we have after we've heard from everybody
12 else that's here because I do want to give everybody a
13 chance to speak at least once.

14 MS. DETRAZ: Okay. All right. I will just
15 finish this article. Their plan is similar to
16 proposals by Energy Secretary Bill Richardson, Senator
17 Richard Bryan and Harry Reid, both Democrats of
18 Nevada. And they have fought so hard to keep it out
19 of Nevada. And they have succeeded for six years only
20 because they were able to get enough bipartisan
21 support to help them because, you know, Nevada is
22 very -- not a great population there. And this is
23 another thing. They always find someplace where they
24 don't get a lot of opposition. They think there is
25 not too many people, and they won't get a lot of

1 opposition, but we give them lots of it in Nevada.

2 Okay. A key difference is the
3 environmentalists would relieve the Energy Department
4 of any oversight of nuclear waste. They complained
5 that the department is driven by politics instead of
6 science to pursue unsound projects at Yucca Mountain
7 and the waste isolation plant in Carlsbad, New Mexico,
8 which has begun storing low-level nuclear waste.

9 And I think this is kind of funny: The
10 Energy Department declined to comment. I don't blame
11 them. I wonder what they would say. "Congress could
12 not have picked a worst site than Yucca Mountain for a
13 permanent nuclear waste depository," Lee Dazey said.
14 "Earthquakes, the potential contamination of ground
15 water and claims by the land by the western Shoshoni
16 make Yucca Mountain an unsuitable storage site," she
17 said.

18 I will conclude my remarks at that point.
19 And I will sit down and wait. And any others that are
20 going to speak are free to do so. And if there is
21 time left, I will come back up.

22 JUDGE BOLLWERK: I would appreciate that, and
23 thank you very much.

24 Our next speaker -- let me go back to
25 Mr. Michael T. Packard, P-A-C-K-A-R-D.

1 MR. PACKARD: Thank you for hearing me on
2 this. I'd like to begin with something that is --
3 generalities, which I am sure you have heard some of
4 those. And that is the -- what I consider the
5 insanity of the current situation. By the way, I am
6 an electrical engineer and also a safety engineer.

7 I think it is insane that we have a situation
8 where politics, as the lady has alluded to, has taken
9 the place of good science and engineering in decision
10 making. In these processes back in the '80s, the
11 scientists and engineers were taken out of the
12 selection process for the depositories, and it was
13 dumped on Nevada as a purely political measure. And
14 that is insane in view of the import of the ability to
15 select the best sites. It is insane that we be
16 betting all of our future of this project on the
17 suitability of Yucca Mountain. We're putting all of
18 our nuclear eggs in one huge expensive unproven
19 basket.

20 Another part of the insanity is that there is
21 a great deal of hysteria. Those who wish there had
22 never been such a thing as nuclear power. They want a
23 way-back machine to take the world pre-NT, prenuclear
24 times, and not have to deal with this. And so all
25 they want to do is obstruct.

1 There is a great deal of ignorance. There
2 are groups that advertise for supporters to contribute
3 to their cause who say, "You don't need to know
4 anything about it. Just come and talk." This doesn't
5 lead to solutions, long-term solutions.

6 Unfortunately, part of the ignorance and
7 hysteria has been joined in by Utah's Governor
8 Leavitt. This information being put out to the
9 hazards -- alleged hazards of nuclear waste, both the
10 storage and the transportation.

11 The hazards involved in transportation and
12 storage has to do with sort of an equation. And you
13 have the form that the material is in. It's innate
14 hazards -- the physical form is what I meant to say
15 before. And its potential for dispersal and all the
16 operators aren't -- I'm trying to get the right word
17 here -- aren't linear operators. And the powers may
18 be other than one to the various unknowns here. But
19 one can sort of calculate out the hazard.

20 And because nuclear bundles are comprised of
21 the stainless steel tubes encasing nibs, licorice-size
22 pieces of nuclear fuel, spent fuel, and they are
23 stored in casks or, shipping casks or storage casks
24 that are extremely difficult to damage, even if there
25 is a tremendous cataclysm, it is difficult to spread

1 this. In comparison one can be killed by a piece of
2 firewood falling off a trailer on the freeway in front
3 of a camper on the freeway as it bounces through a
4 window and rips into one's face at 60 miles an hour.

5 The another complicating factor of the
6 decision making process is we're faced with the
7 dispersal into the atmosphere of billions of tons
8 every year of greenhouse gases from our fossil-fired
9 power plants, et cetera, that if we don't have a
10 solution that is economical to replace those in the
11 near future even the long-term future unless we go to
12 nuclear power and expand the nuclear power.

13 The EPA had an article in the paper a couple
14 years ago that mentioned perhaps 30,000 people a year
15 are being killed by the waste products of our reliance
16 on fossil fuel. This was predicted in a 1976 book by
17 Dr. Peter Beckman at the University of Denver -- I
18 believe it is Denver -- in his book, The Health
19 Hazards of Not Going Nuclear. He predicted there
20 would be these deaths annually on the order of 30,000
21 a year if we didn't pursue Project Independence and
22 try to get more than 50 percent of our energy from
23 nuclear power.

24 We are in worse straits today. There is a
25 long-term solution to these things. And I think the

1 temporary storage in the -- that is being proposed
2 could be part of that solution and that would be for
3 the government to invest in the new types of reactors
4 that can actually burn a form of refined nuclear fuel,
5 spent fuel, and this type of reactor is called an
6 intermediate fast reactor. This was developed up at
7 INEL through the early '90s. And the Clinton
8 administration as a payback to their environmentalist
9 friends, one of many, shut the program down and
10 dispersed parts of the reactors across the country and
11 surplused it out so it could not resume function. This
12 approved the facilities that burned electrorefined
13 waste products. This would yield -- what
14 electrorefining process would not yield is a product
15 that could be used in production of vicarious nuclear
16 weapons, for instance. There would be a mix of
17 transuranics that would not be suitable there. And
18 the potential is there that this burning of our
19 nuclear waste products to provide fuel for reactors
20 for thousands of years according to an expert of the
21 University of Utah.

22 The side benefit is that you have to remove
23 most of the heat from the waste product and it has a
24 storage -- a necessary storage life where this must be
25 watched of only 600 years instead of 10,000 years. We

1 need to have a rational, long-term, scientific and
2 engineering based solution. And I would say the
3 temporary storage would be safe.

4 It is my own view that the places to store
5 fuel on a temporary basis ought to be well paid such
6 as the state for the loss of image as important as
7 that is to some as well as to the companies that do
8 the service and those which can store -- profits, by
9 the way, also should be immediately pursuing a process
10 of finding three or four long-term storage sites and
11 begin development so we have some options.

12 I think having all of our eggs in that one
13 basket, as I say, is insane. Such a policy together
14 can help to lead us more toward the independence that
15 we need, remove greenhouse gases, getting us back to
16 the only clean source of concentrated energy that we
17 have, nuclear power.

18 And getting rid of these wastes in such a way
19 that there isn't the far-off unguessable future of
20 10,000 years and wondering what groundwater,
21 et cetera, can do to that and other geologic
22 processes. It is implicit in the current process.
23 That's basically what I have to say. If you have a
24 couple more minutes, I have a couple specific safety
25 suggestions. Or I can wait.

1 JUDGE BOLLWERK: If you can wrap up in about
2 two minutes.

3 MR. PACKARD: Yes, yes.

4 JUDGE BOLLWERK: Why don't we do that.

5 MR. PACKARD: This is, from my experience
6 mixing large batches from the control room of the
7 Baccus West Rocket facility here dealing with large
8 amounts of explosives and the work at the chemical
9 weapons incinerator for the Army during systemization
10 checkout.

11 The low-pitched notice by those who would --
12 by those who would be operating engines and so forth,
13 the trains, can tend to make people fall asleep. This
14 can be countered. And this is a very real problem. I
15 have seen people fall asleep handling thousands of
16 pounds of nitroglycerin-based propellants and
17 multi-other-thousand-pound rocket segments, what are
18 called micro-sleeps.

19 Headphones are available called noise
20 cancelling headphones that can cancel out the noise
21 and prints over that that can be conversations or
22 music that would not take away from the readiness of
23 the operators. An acoustical treatment can be put in
24 the cabs of the vehicles as well to provide deadening
25 of some of the noises.

1 There should be zero tolerance for alcohol.
2 The drugs are easy to test for. I would think there
3 is even some way to test for alcohol on a daily basis.
4 If people want to use alcohol and work in this
5 process, they better wait three months for a long
6 vacation to do it.

7 Before, I mentioned the micro-sleeps, the
8 attention must be paid to the way scheduling is done
9 to account for the circadian rhythm of the body, the
10 so-called body clock. When you ask people to work at
11 night and so forth, there is a mounting body of
12 evidence that it increases tremendously automobile
13 accidents, industrial accidents that I have to deal
14 with in my business.

15 Also a corollary of the fact that -- one last
16 point -- that the reason that you can't leave these
17 nuclear spent rods in wet places is that water is
18 nature's great solvent. You need to get them out of
19 that into a dry storage, supervise. And therefore
20 they must be stored dry in a dry place, wherever that
21 happens to be it is the best place.

22 But the corollary of that is we have to make
23 sure that -- I have been told perhaps 1 percent of the
24 bundles may have water inside the tubes. It would
25 seem to me an intelligent thing to remove -- test for

1 and remove that 1 percent of water -- that water from
2 that 1 percent to simplify the transportation and
3 storage and reduce the parameters that one has to deal
4 with in the transportation and storage. Thank you
5 very much.

6 JUDGE BOLLWERK: Thank you, sir, for coming
7 this evening.

8 The next speaker is Teresa Foster,
9 F-O-S-T-E-R.

10 MS. FOSTER: Good evening, gentleman, thank
11 you -- and ladies. Thanks for letting me come up here
12 and speak. I don't have any environmental degrees;
13 although, I am an environmentalist. And I just had to
14 come up here and voice my opinion about what could
15 happen to this state.

16 I am a concerned citizen that lives in Draper
17 down in the south end of the valley. I live there
18 with my husband and my two children. I oppose having
19 spent nuclear fuel being stored in the Goshute Indian
20 Reservation. I am very concerned that this temporary
21 storage will become permanent. Having casks stored
22 outside, they are subject to weather, security risks,
23 various things like that.

24 The casks, I have been told, are good for 100
25 years. And basically how long is this waste really

1 going to be stored there? You know, temporary
2 problems turn into permanent problems. And that is
3 not a logical location for a permanent site.

4 My next concern is the transport of the
5 nuclear fuels by rail or truck. I feel that is a very
6 risky endeavor subject to train derailment, acts of
7 nature, you know, God, sabotage by terrorist groups.
8 That is a real danger especially with the extremists
9 that live on this side of the country. It could be a
10 real strong target. I don't know what could be done,
11 but those fuels if they were removed from the casks
12 could poison many, many people if it got into the
13 wrong hands.

14 I want to know why the consortium want to
15 ship their problems to us. If they make these wastes,
16 they need to be responsible and accountable for the
17 storage. If they are going to sweep the waste under
18 the rug, so to speak, by shipping them to us, they are
19 no longer accountable. And it is not in their back
20 yard anymore. It is in our back yard.

21 And lastly, we have enough extremely toxic
22 material stored in the state having nerve gases
23 incinerated 20 miles away from us. I feel that is a
24 huge risk to our population. Why do we need to take
25 on the most toxic materials known to mankind,

1 dangerous for ten thousand years plus in our back
2 yard. It is just too risky, and I don't want our
3 state to inherit these dangerous materials, which are
4 a threat not only to my family, my friends, but the
5 entire population of the state. Thank you for
6 listening.

7 JUDGE BOLLWERK: Thank you for coming and
8 speaking with us tonight.

9 We have -- I have four more names here and
10 then maybe we'll take a break and allow anyone else in
11 the room who hasn't signed up to go ahead and do so.

12 Kevin Crawford, C-R-A-W-F-O-R-D.

13 MR. CRAWFORD: My name is Kevin Crawford. I
14 am familiar with your operations. I have a Ph.D. in
15 nuclear engineering. I have held four reactor
16 licenses from the NRC. And I am opposed to the
17 storage of the materials out here in the West desert.

18 I am well aware of the accuracy of some of
19 the statements and inaccuracy of some of the
20 statements that have been made here, as I am sure that
21 you are. I am confident in the type of engineering
22 that could be done to resolve some of the problems as
23 I am sure you are aware of the engineering that can be
24 used to solve some of the problems.

25 My concern is this: Operations and

1 regulation and the ethics of storing material out
2 here. The operations part of it, I am concerned about
3 the quality of the people running the facility.
4 Having been a supervisor at the nonpowered nuclear
5 reactor at Idaho State University, I had an individual
6 under my charge licensed by you who was incompetent.
7 He was an alcoholic. There was nothing you did to
8 stop that. There was nothing I could do as the
9 supervisor of that facility to stop it.

10 And yet that individual distributed illegally
11 controlled radioactive substances out of Idaho State
12 University for more than 20 years. Nothing was done
13 until I got there in 1991 and discovered it. I spent
14 the year of 1992 trying to resolve it, and finally in
15 1993 had to report it to your office of
16 investigations. And only then, they solved only about
17 a third of the violations at that facility.

18 I don't have confidence in any of my
19 colleagues running a -- I shouldn't say "any" -- I
20 don't have confidence in a minority of my colleagues
21 running a facility like this because they couldn't
22 even run a small nonpowered research reactor safely
23 distributing controlled radioactive substances like
24 that.

25 On top of that, the whole facility up there

1 was designed to conduct illegal human radiation
2 experiments. It still is designed that way and still
3 operated that way. And you people do nothing about
4 it. You will not listen to my complaints. You won't
5 even go up there and check it out. And, yet, there is
6 a partially columnated (phonetic) beam of mixed
7 radiation coming directly out of that core and aimed
8 directly at a student observation area.

9 Now, if you can't get that small facility
10 right, how on earth are you going to get a power
11 reactor fuel -- spent fuel facility in the West desert
12 right? You can't regulate them. I don't think you
13 can properly regulate this.

14 Now, I don't know how many of you have
15 actually lifted a piece of fuel and moved it into a
16 brand new core, done criticality calculations. I
17 have. I don't know how many of you have sat down and
18 had to monitor daily doses to people on your staff,
19 but I have. And I can't trust the people that I work
20 with in my own business. How are you going to trust
21 them sitting in Washington or in Arlington, Texas, in
22 Region 4, whoever is going to take control of
23 regulating this facility -- how are you going to be
24 confident that these people from minute to minute are
25 going to be doing their jobs legally?

1 I couldn't even be confident with a
2 professional who had been as a tenured professor for
3 30 plus years -- I couldn't be confident that he
4 wouldn't drag a student up in front of that beam and
5 irradiate him with personal dosimetry tied to his belt
6 buckle, an obvious fraud because the beam was aimed at
7 the guy's head. That was the purpose for having that
8 beam there and the purpose for having the dosimetry
9 gown. He couldn't do a job. I don't think -- and you
10 couldn't regulate Idaho State University. How can you
11 regulate PFS out here in the Goshute Indian
12 Reservation? I don't think so.

13 The problem is not so much in the
14 engineering. The problem is in operations and
15 regulation. There is my first half. The second half
16 is ethics.

17 Ethics has been defined as the ability of an
18 individual to transcend oneself or one's cloned group.
19 Well, why can't the people in the upper Midwest states
20 take care of their own problem? Is it that they are
21 only thinking about themselves? Is that the reason?
22 They are going to dump this problem onto somebody
23 outside of that region and let somebody else take care
24 of it for hopefully a temporary period? That's not
25 ethical. It's just plain not ethical.

1 I could probably go on and say a few more
2 comments, but I think I probably ought to cut it off
3 here. But in summary, I don't believe that the NRC
4 can regulate it properly. I don't think the State can
5 regulate it either, for that matter. The State
6 doesn't even have a nuclear engineer on staff. They
7 don't know what they are doing. No one in the State
8 has ever done criticality calculations using kinoscale
9 or MCMP (phonetic). They have no idea. And the NRC
10 and PFS are running these people around. They don't
11 know -- I can't even communicate with them. They
12 don't even speak the language of nuclear engineering.
13 They don't stand a chance. And the people of Utah
14 don't stand a chance, not against PFS with all of
15 their money and the NRC running the show.

16 Anyway, thank you for listening to my
17 comments.

18 JUDGE BOLLWERK: Thank you for coming this
19 evening.

20 Why don't we hear from Mary Huber H-U-B-E-R,
21 and then we will take a break. We will just pull the
22 chair out of the way, and you can move right up there.
23 Judge Lam, if you wouldn't mind to move that
24 microphone up too. Thank you.

25 MS. HUBER: I am not sure I can say too much

1 after that. But there are just three things that I am
2 concerned about -- well, three major things that I am
3 concerned about. The first is I know someone who
4 recently went on the tour of Yucca Mountain. It does
5 sound like a problem they can overcome. And so there
6 is a good chance this temporary storage facility is
7 going to be quite long-term. So I think in looking at
8 it in terms of the temporary thing is not right.

9 Second thing, again, which is what other
10 people have mentioned is the transportation issue.
11 There is only one highway that serves that area. It
12 means that most of this waste would be coming through
13 Salt Lake valley. There are a million people here.
14 And they are saying that these -- that these casks
15 are -- or whatever the things would be transported
16 would be able to withstand highway accidents. There
17 is no way with all the trucks coming out of the
18 refineries and things here that you can say with
19 certainty there would not be an accident. That would
20 be devastating.

21 And the third thing is Envirocare put in a
22 permit for Level B and C nuclear waste. And I think
23 if this waste would be approved that that one would go
24 through easier. So you are not talking about just
25 these, but then you are talking about all the bad

1 wastes in the country coming into Utah.

2 For those reasons, I am strongly opposed.

3 JUDGE BOLLWERK: Thank you for coming and
4 speaking with us this evening.

5 MS. DAVIS: I would just like to mention one
6 thing because I was unaware although I have been aware
7 of the past of the --.

8 JUDGE BOLLWERK: If you would like to say
9 something, come up to the mike so we can hear what you
10 are saying. And can you identify yourself again.

11 MS. DAVIS: Yes, yes. My name is
12 Anita Davis. I just would like to comment on -- we
13 have a fluctuation of dry and wet periods here. I am
14 not a geologist. I am a writer and a teacher. And
15 our lake has been very high at some times. And to
16 find out -- I was not aware of -- I knew of the dry --
17 of the need for dry areas to store this waste. But to
18 think that Skull Valley has been under water at one
19 time and that it might again be under water -- we have
20 cyclic seven-year periods here. And that would be
21 most likely to contaminate any groundwater. Thank you
22 very much. That's all.

23 JUDGE BOLLWERK: At this point, why don't we
24 take a break for, perhaps, ten minutes. And anyone
25 who is not signed up and wishes to speak that might be

1 in the audiences, there are sign-up sheets in the
2 back. And we'll be back in about ten minutes. Thank
3 you very much.

4 (Off the record from 8:18 to 8:30 p.m.)

5 JUDGE BOLLWERK: What I would like to do
6 first is check through the list of -- that I have of
7 some individuals who had made statements this
8 afternoon that might still be in the audience to make
9 another statement this evening. Perhaps -- let me
10 check. Alberta Mason or Ann Schwart-Hanson here?
11 Perhaps we'll hear from them tomorrow then.

12 Mr. Stephen Barrows? Mr. Barrows, would you
13 like to speak again at this point?

14 MR. BARROWS: I'd just repeat the same
15 things.

16 JUDGE BOLLWERK: Sir, it's up to you.

17 MR. BARROWS: I don't know that it is
18 necessary.

19 JUDGE BOLLWERK: All right. And
20 Mr. Gary Sanquist? No. And then one other name I
21 have -- two other names: Robert J. Hoffman? And
22 Connie Jorgensen?

23 And then at this point, I have had two
24 requests by speakers who have already had a chance to
25 address -- we have someone who hasn't spoken yet?

1 Okay. Let's hear from Cheryl Smith first then.

2 MS. SMITH: Do you want me to talk from back
3 here?

4 JUDGE BOLLWERK: It would be better if you
5 came up to the microphone so that the court reporter
6 can make sure that she gets --.

7 MS. SMITH: Who do I face? You?

8 JUDGE BOLLWERK: Well, you are here to
9 address the Board. But some people have taken the
10 opportunity to turn and talk to the audience too. So
11 whatever you are comfortable with.

12 MS. SMITH: I have a question. Who is going
13 to pay for damages when an accident happens? Who?

14 JUDGE BOLLWERK: Are you addressing the
15 question to us?

16 MS. SMITH: Yes.

17 JUDGE BOLLWERK: Or you might want to talk to
18 Mr. Silberg, I don't know.

19 MS. SMITH: Or all those concerns. I mean
20 utilities, the Goshute Nation? I mean citizens of
21 Utah? Who is going to pay for it?

22 MR. SILBERG: I would be happy to talk to you
23 in the back of the room.

24 MS. SMITH: I think this is a question that
25 the audience should hear the answer to.

1 MR. SILBERG: The purpose of these meetings
2 is not for that kind of public debate. The purpose is
3 for the public to be heard. But I will be happy to
4 discuss it with you.

5 MS. SMITH: But that is a grave concern to
6 me. Thank you.

7 JUDGE BOLLWERK: Thank you. Thank you very
8 much.

9 MR. SILBERG: Do you want to -- no?

10 JUDGE BOLLWERK: Two other requests. I guess
11 Richard Wilson wished to make a couple more points.
12 And maybe ask these last two speakers to maybe limit
13 their remarks to no more than seven to ten minutes, if
14 it's that long.

15 MR. WILSON: In order to keep the thing down
16 this morning, I actually left some things out. I
17 wanted to make one thing very clear at the beginning.
18 No one in our group makes claim that this is the best
19 site for the nuclear waste storage, even temporary
20 storage. And, in fact, most of us will not ever ask
21 the question what is the best site. We would ask
22 which of many sites is technically and scientifically
23 acceptable and then leave it up to other
24 considerations and political considerations such as
25 the Goshutes that want to have the waste to decide

1 between a thousand good sites for the waste.

2 We also want to make a point that the
3 difference between a temporary storage and a permanent
4 storage is a very important technical difference.
5 Temporary storage is one which would be monitored all
6 the time. And the reason why we have a lot of
7 complicated things for permanent storage, of course,
8 is you hope to put it somewhere and forget about it
9 and forget about it for a long time.

10 We missed out a mention of the transportation
11 issue, which I don't believe it is directly before
12 you. But it is certainly a matter of public concern.
13 It is very important to realize that transportation
14 casks, if they are designed and tested so that if in
15 an ordinary transportation accident there is no
16 release of radioactivity for ordinary circumstances.

17 But there are, in fact, plans to specially
18 design railroad cars being done by the National
19 Transportation Center in Boulder, Colorado. And those
20 casks are not to make the situation safer but if, for
21 example, a public car containing one of these waste
22 casks were to derail in the middle of Salt Lake City,
23 it would not cause any real safety hazard but it would
24 cause public concern. And, therefore, the railroad
25 would prefer not to have a railroad car containing a

1 shipping cask to actually derail. And for that
2 reason, that reason only, are specially designed cars.

3 I think another important point that one of
4 the important features, which I am sure Mr. Leon Bear
5 and the other Goshutes realize is that one of the
6 things it is going to do for them they can now have
7 employment on their own reservation instead of coming
8 to Salt Lake City. And for them, the health hazards
9 of Salt Lake City are considerable. The air pollution
10 here is quite high. And the particular air pollution
11 is well-known. And my university, we have studied
12 this. And there is a book on particles in our air
13 which explains it. And it is also very important to
14 realize that people say let's keep waste where it is.
15 Well, I suggest to every one of these people why don't
16 you keep your air pollution where it is and don't let
17 it blow eastwards to those of us in the East.
18 Particularly those who, of course, you don't want to
19 send -- you don't want them to send their nuclear
20 waste here. Those particulates are 90 percent of
21 those dangerous particulates in Massachusetts where my
22 state is -- blow in from out of state, of course, from
23 the western states.

24 And I also wanted to point out on the
25 understanding of our -- of our experts who are all the

1 people intervenors, they all have different sorts of
2 expertise. And I would state mine, for example, I
3 have worked with radiation since I was an
4 undergraduate when I first started doing things.

5 I, of course, was present at the first
6 reactor criticality of the first reactor in Great
7 Britain. I have been -- I am running -- I have been
8 in charge of a cyclotron at Harvard University. I am
9 the faculty member who is overseeing it. And that
10 fuses very high doses of radiation. So we know how to
11 handle radiation. We know what it means, and we know
12 this is a safe facility. Thank you.

13 JUDGE BOLLWERK: Thank you, sir. And then I
14 believe Ms. Detraz wanted to say a few -- speak a
15 little longer? Again, if you think you can do it in
16 ten minutes that would probably be a good idea.

17 MS. DETRAZ: Yes, I will try. Of course,
18 again, my name is Marjorie Detraz. I would like to
19 change my thought just a little bit.

20 And we've talked about the political side of
21 this. If we would leave this nuclear waste in the
22 scientific arena instead of the political arena, it
23 would be much better.

24 I want to address some remarks right now to
25 the political arena. Of course, you know our senators

1 from Nevada are Senator Reid and Senator Bryan. And
2 this is an article that is taken from the
3 Las Vegas Sun, December 5, 1999. And it says,
4 "Senators gear for next round of Yucca Battle. The
5 Senates two leading supporters of storing nuclear
6 waste in Nevada are preparing for a fierce battle with
7 Nevada Senators Richard Bryan and Harry Reid. Senator
8 Larry Craig, Republican, Idaho -- remember, I told you
9 to remember Idaho -- and Frank Murkowski, Republican
10 Alaskan, want to send the nation's nuclear waste,
11 eventually 77,000 tons, to Nevada for permanent
12 storage. Waste now stored at nuclear power plants
13 across the nation would be shipped to Yucca Mountain
14 90 miles west of Las Vegas as early as 2007 according
15 to the latest nuclear waste storage bill." I would
16 just like to mention at this time that Las Vegas is
17 the fastest growing city in the nation. And it is 90
18 miles south of Yucca Mountain.

19 Now we go back to Craig and Murkowski are
20 gearing up for another debate on the bill to come
21 after Congress resumes January 24. The two will
22 continue to clash with Bryan and Reid, Democrats, who
23 are well-known for opposing waste storage in Nevada.
24 Now, get this folks: The biggest problem is what to
25 do with the waste in this country. This is

1 Senator Craig talking. He said, "'it's a political
2 problem,' Craig said. 'It's not a scientific problem.
3 It is not an engineering problem. It's purely
4 political. Not in my back yard. And I tell them not
5 in my front yard either.'"

6 Murkowski and Craig spoke recently with
7 the Las Vegas Sun in separate interviews together.
8 And listen to this folks: Together they received more
9 than \$140,000 from the nuclear industry related
10 political action committees from 1994 and 1988 --
11 1998, excuse me.

12 We go on with the article. This is something
13 that the country has to do, Craig said. We cannot sit
14 idly by and let nuclear waste pile up across the
15 country. The waste debate likely could come down to
16 an important issue: Who should set standards for
17 radiation emitted by stored waste at Yucca Mountain.
18 Reid and Bryan advocate the environmental protection
19 standard of 15 millirem per year with a separate
20 4 millirem standard for ground water. Craig and
21 Murkowski pressed the nuclear regulatory commission
22 standard 25 millirems.

23 "What we want is to make sure that the
24 measuring is under a regulation that allows waste to
25 go to Yucca," Murkowski said. Craig and Murkowski say

1 the EPA standard is so low it could disqualify Yucca
2 as a waste site. Well, I certainly hope so.

3 "The EPA has reduced the radiation standard
4 to a drinking water standard that is unreasonable and
5 unrealistic," Craig said. "If anyone sits in front of
6 the TV, you will receive more radiation than is being
7 proposed for Yucca Mountain." How stupid does he
8 think we are?

9 Bryan and Reid say the Nuclear Regulatory
10 Commission should not set standards. It has a cozy
11 relationship with the power plants. Murkowski and
12 Craig can't say, "We don't like what the EPA says.
13 They can just pick another agency that agrees with
14 their position," Reid said in a recent interview.

15 The Nevada senators -- the Nevada senators
16 said they were confident 32 other senators would
17 oppose the bill enough to sustain a veto, which
18 President Clinton has threatened to use if the bill
19 passes, which this is what happened. I am going to
20 skip a little bit of this.

21 Craig said the Nevada senators have used
22 inflammatory rhetoric in an attempt to kill the bill.
23 Both Craig and Murkowski say Nevada senators are
24 unfairly trying to scare other senators by overstating
25 the dangers of transporting waste. You can't

1 overstate the dangers of transporting this nuclear
2 waste, folks. I am going to skip a little more.

3 Craig and Murkowski are upset that Congress
4 has allowed nuclear waste to accumulate for so long at
5 the nation's power plants and the department of
6 defense sites. It is safer, cheaper, and more
7 efficient to store the waste in one place, Craig said.
8 Yucca seems the safest place to store it. He said
9 that scientists have been studying Yucca for years to
10 determine if it is the best location for waste with no
11 final conclusion. And, folks, they have spent
12 billions and billions and billions and billions of
13 dollars checking out Yucca Mountain. And they still
14 don't know what it is. And they still don't know
15 whether it will be licensed. And there is no other
16 site in the United States except Yucca Mountain. We
17 have been targeted since 1987 with that "screw" Nevada
18 bill.

19 Craig and Murkowski say they support funding
20 for an accelerated transmutation, a process of
21 breaking down waste faster than it would normally
22 decay but not in lieu of proceeding with Yucca. The
23 government needs to pursue both transmutation
24 technology and permanent waste storage at Yucca, they
25 said. Craig said senators are likely to debate the

1 nuke waste issue for more than a week in February or
2 March.

3 Well, we already know that it has been
4 stopped again even in the senate. But
5 Senator Trent Lott, as you know, voted for it just so
6 he could bring it up again before the end of the year.
7 In Congress, it has been stopped permanently until the
8 year 2000. But the Senate can bring it up one more
9 time.

10 And I would just like to say to people here
11 today: You know, the blessing of freedom is easily
12 taken for granted until it is lost. How many of us
13 take our responsibilities as citizens seriously? How
14 many of you go to your meetings? How many of you are
15 registered voters? How many of you vote? And if you
16 do, then how many of you keep track of how your
17 senators and congressmen are voting? How are they
18 doing in Utah?

19 I know how mine are doing in Nevada. How are
20 they doing in all 52 states of this country? Because
21 it is the senators and the congressmen in all 52
22 states of this nation that will decide what happens
23 with this. If you don't like the way your senators
24 and congressmen are voting and it is not the way you
25 feel, then either recall them or don't vote for them

1 or campaign against them because that's what I intend
2 to do in Nevada.

3 Now, I just have one closing remark and then
4 I will finish. I am telling you this: If we're dumb
5 enough to take it, they are going to be smart enough
6 to give it to us. And this is my closing remark. And
7 thank you for this opportunity to speak again.

8 JUDGE BOLLWERK: Thank you very much for
9 coming this evening. At this point, we'll take about
10 a three-minute break that will allow anybody the last
11 opportunity to sign up on a signup sheet that might
12 have come in the last couple minutes. And if there
13 are no further sign ups, then I think we will adjourn
14 at this point. But we will take a three-minute break
15 and look at the sign-up sheet. If there is no one
16 else, we will adjourn. Thank you.

17 (Off the record from 8:49 to 8:55 p.m.)

18 JUDGE BOLLWERK: Let's come back to order
19 very briefly. We haven't had any other requests to
20 speak that I am aware of. I see someone coming --.

21 MS. PERATIS: Can I make a comment?

22 JUDGE BOLLWERK: Sure, would you like to
23 make -- this is Merle Peratis.

24 MS. M. PERATIS: I just want to address a few
25 comments to the statement that was made earlier that

1 air pollution and particulates from the West are
2 impacting Massachusetts and the East Coast,
3 New England.

4 Let me just call your attention to the fact
5 that the Midwest and the East coast are heavily
6 populated. We have population centers in New York,
7 Boston, Philadelphia, Pittsburgh, New England,
8 Chicago, Detroit. The West is very sparsely
9 populated. We have hardly any major population
10 centers out here except for Salt Lake City.

11 The conclusion is that population drops off
12 the farther it travels. And air particles from the
13 West are negligible to Massachusetts and New England.
14 Please, does our expert tell us the truth? Can he be
15 trusted? And can scientists be trusted to tell all
16 the truth? And can our government officials be
17 trusted to tell us the truth? Thank you.

18 JUDGE BOLLWERK: Thank you very much. If
19 there are no further statements, I am not aware of
20 any, we will go ahead and adjourn. On behalf of the
21 Board, I want to thank all of you for coming tonight
22 and addressing us and expressing your concern. It is
23 important for us to hear what the citizens in this
24 area, both for Utah and Nevada, think about the
25 Private Fuel Storage proceeding. And we appreciate

1 you coming and speaking with us. We will have another
2 session tomorrow between 1:00 and 4:00. If you know
3 of someone who is coming tomorrow and hasn't had an
4 opportunity to address us, they will have an
5 opportunity, if they like, to come again.

6 Judge Lam, is there anything that you want to
7 say?

8 JUDGE LAM: Yeah, I would like to echo
9 Judge Bollwerk's comment that I appreciate your
10 participation tonight. And I would say that your
11 input will be considered in our deliberation of the
12 issues.

13 JUDGE BOLLWERK: Judge Kline?

14 JUDGE KLINE: No. I have nothing.

15 JUDGE BOLLWERK: Then it's a little early,
16 but we stand adjourned. Everyone, I hope you have a
17 good evening and a good weekend. Thank you very much.

18 (Off the record at 8:58 p.m.)
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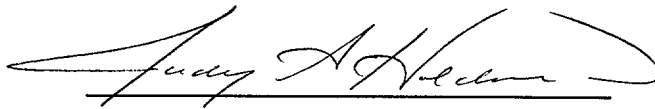
REPORTER'S CERTIFICATE

This is to certify that the attached proceedings
before the United States Nuclear Regulatory Commission in
the matter of:

NAME OF PROCEEDING: PRIVATE FUEL STORAGE

CASE NO: 72-22-ISFSI

PLACE OF PROCEEDING: Salt Lake City, Utah
were held as herein appears, and that this is the original
transcript thereof for the file of the United States Nuclear
Regulatory Commission taken by me and thereafter reduced to
typewriting by me or under the direction of the court
reporting company, and that the transcript is a true and
accurate record of the foregoing proceedings.

A handwritten signature in cursive script, reading "Judy A. Hedman", is written over a horizontal line.

Official Reporter

Ann Riley & Associates, Ltd.

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