1	UNITED STATES OF AMERICA ENVIRONMENTAL PROTECTION AGENCY
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10	PUBLIC COMMENTS REGARDING EPA'S PROPOSED RULE ON
11	WASTE ISOLATION PILOT PROJECT
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14	JANUARY 8, 1998
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16	MORNING SESSION ALBUQUERQUE, NEW MEXICO
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18	AFTERNOON SESSION SANTA FE, NEW MEXICO
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23	EPA PANEL: RICHARD D. WILSON
	LARRY WEINSTOCK
24	FRANK MARCINOWSKI
	MARY KRUGER
25	KEITH MATTHEWS

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1	<b>MORNING</b>	SESSION
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- 2 ALBUQUERQUE, NEW MEXICO
- PRESIDING OFFICER: Good morning and welcome to our 4 continuation of our hearing on the EPA proposal regarding the 5 WIPP site in Carlsbad.
- 6 The first witness this morning is Lorraine Allen
- TORRAINE ALLEN: As executive director of the 8 Carlsbad Department of Development, I'm providing testimony 9 today on behalf the Board of Directors of the Department of 10 Development in regard to the Waste Isolation Pilot Plant 11 Compliance Certification Application.
- The Carlsbad Department Of Development represents

  13 the chief executive officers of over 115 businesses and all

  14 community leaders in the city of Carlsbad and south Eddy

  15 County. The voice of industries professional commercial

  16 establishments, government and university are fully heard

  17 through the Department Of Development Board and membership.
- Since the proposed creation of the Waste Isolation
  19 Pilot Plant over 20 years, the community has strongly
  20 supported itself through attendance of public meetings,

- 21 legislative lobbying and media campaign. The citizens of
- 22 Carlsbad and Eddy County have expressed their belief in the
- 23 safety and economic benefits of the proposed disposal
- 24 methods.
- 25 I'm here today to again express my sincere belief

- 1 that WIPP must be opened. Today transuranic waste is in
- 2 temporary storage at 23 sites throughout the country,
- 3 potentially exposing millions of people within a 50-mile
- 4 radius of these sites to adverse radiation impact. This
- 5 alternative source to the opening of WIPP is not acceptable.
- 6 Recent reports of groundwater contamination at
- 7 temporary storage facilities in Los Alamos further
- 8 strengthens the need to provide a safe, permanent repository.
- 9 The WIPP will serve this purpose.
- The Carlsbad Area Office has submitted the 84,000
- 11 page application to the EPA showing that the WIPP complies
- 12 with strict environmental regulations designed to safeguard
- 13 humans and the environment for at least 10,000 years. The
- 14 citizens of south Eddy county who are most likely to be
- 15 negatively as well as positively affected by WIPP request
- 16 your timely response and strong consideration in approval of
- 17 the safety and opening of the Waste Isolation Pilot Plant by
- 18 May 1998. Thank you.
- 19 PRESIDING OFFICER: Thank you.
- Next is Larry Coalson.

- 21 LARRY COALSON: Good morning. My name is Larry
- 22 Coalson, and I'm a citizen of Carlsbad and I've lived there
- 23 approximately seven years.
- When I first came to Carlsbad and found out about
- 25 the WIPP project, I was concerned. I wanted to know what it

- 1 was, what was going on, is it going to be safe. Over the
  2 course of the next several years I had the opportunity to
  3 talk with a lot of the engineers and scientists and people
  4 that work at the WIPP project, but also I had an opportunity
  5 to talk to a lot of the people who were opposed to the
  6 project and make my own mind accordingly, because I don't
  7 have to live there, I can live anywhere I want.
- So it was to my advantage to try to obtain as much 9 information as possible to see if there was any real serious 10 safety problems with the project and with the site. I came 11 to the conclusion several years ago that I had heard nothing 12 negative about the site from the people that work there, and 13 all that the negative information I heard could be explained 14 in the proper procedures that were taking place, and I felt 15 that the site was absolutely safe as for the storage for low 16 level and transuranic waste.
- 17 Twenty-five years ago, I did work in the potash
  18 mines there in Carlsbad. From that experience of working in
  19 the potash mines, I was very impressed with the stability of
  20 the formation and the fact that that seems to be, in that

- 21 kind of a formation, sat formation, absolutely the safest
- 22 place to deposit this waste.
- So I'm firmly convinced that the project is safe
- 24 and all the procedures are adequate to protect the safety of
- 25 the people and the citizens of Carlsbad. And as a citizen of

- 1 Carlsbad, you can believe that if I thought there was any
- 2 problem with that thing, I'd be out of there, I wouldn't be
- 3 standing here today talking to you. Thank you.
- 4 PRESIDING OFFICER: Thank you for your testimony.
- 5 Next is Lokesh Chaturvedi.
- 6 LOKESH CHATURVEDI: Good morning Mr. Wilson, Mr.
- 7 Weinstock, Mr. Marcinowski, Ms. Kruger and Mr. Matthews. My
- 8 name Lokesh Chaturvedi and I'm the Deputy Director of the New
- 9 Mexico Environmental Evaluation Group.
- As you know, the EEG is the only full-time
- 11 independent multidisciplinary scientific oversight group for
- 12 the WIPP Project.
- Your staff has obviously made an herculon effort in
- 14 reading and absorbing the DOE submissions, conducting
- 15 selected independent analysis, and preparing documentation of
- 16 the proposed rule in a very short period of time. We were
- 17 aware of the dedicated, hard work that such an effort
- 18 requires. Indeed, the DOE application demonstrated such
- 19 dedication as well.
- We believe, however, that much work still remains

- 21 to be done and many issues must be resolved before a
- 22 favorable decision on the DOE application may be considered.
- 23 The issues that we have identified are not minor, technical
- 24 quibbles. Rather, they are serious issues dealing with
- 25 misinterpretation of data, use of incompletely validated

9

- 1 codes, omission of potentially serious scenarios and2 decisions based on incomplete consideration of all the3 relevant facts, data and arguments.
- The proposed rule represents an unprecedented public decision-making process. Never before has mankind tried to make a decision on the safety and integrity of an engineering project for a period of ten thousand years, and the real time of concern is actually much longer than that.

  9 To bury 810,000 drum equivalents of the contact-handled and 10 8,000 canisters of the remote-handled transuranic waste with 124,000 year half-life of its most predominant constituent, 12 Pu-239, with no planned option for retrieval, is indeed a 13 major decision.
- The DOE public relations documents describe this

  15 waste to consist of, and I quote, clothing, tools, rags and

  16 other such items contaminated with trace amounts of man-made

  17 radioactive elements, mostly plutonium. In fact, the WIPP

  18 inventory includes 12.9 metric tons, that is 28,400 pounds of

  19 Plutoniun-239, more than a trace amount, certainly.
- 20 One still encounters references in the press to the

- 21 WIPP being a low-level waste repository. In fact, my
- 22 predecessor, the person who spoke before whether me,
- 23 mentioned WIPP as a low level and transuranic waste
- 24 repository. This is totally incorrect. In fact, if we can
- 25 agree on only one thing today which is that we should be the

- 1 definition of what's going on, what's going to go underground 2 at WIPP.
- There's a clear distinction between transuranic and 4 low-level waste. Low level waste contains less 100 5 nanocuries per gram of radioactivity and transuranic above 6 that level. That's the DOE definition. There's no low-level 7 waste planned to be put underground at WIPP.
- Also, 95 percent of the remote handled canisters at

  9 WIPP may have a surface dose rate of up to 100 rem per hour,
  10 and five percent may have up to 1,000 grams per hour. That
  11 is a higher dose rate than many high-level waste containers.
  12 Transuranic waste is comparable to high-level waste in its
  13 long-term hazards, and indeed this is the reason that EPA
  14 requires similar deep geological isolation for both waste
  15 forms.
- 16 It is inevitable that there would be large
  17 uncertainties in projecting the integrity of the repository
  18 for the ten thousand year period. EPA recognizes this fact
  19 and included the assurance requirements in addition to the
  20 numerical containment requirements in the standards against

- 21 which the EPA has judged the WIPP performance in the proposed 22 rule.
- The EEG is particularly concerned about losing
- 24 sight of this fact because contrary to the guidance contained
- 25 in the EPA standards, 40 CFR 191.14(e), to avoid such

- 1 locations, the repository is located in a mineral resource
  2 rich area. The 4 mile by 4 mile WIPP site is completely
  3 surrounded by producing oil and gas wells or potash leases
  4 which prevent current project of oil and gas from deeper
  5 horizons.
- Almost certainly the only reason there is no

  7 resource exploitation within the site is that it has been

  8 withdrawn for exclusive use of WIPP. Because of the location

  9 of WIPP in a resource-rich area, the EEG has been pressing

  10 for two actions that I would like to recommend again to you

  11 today as the most important ones from the EEG.
- Number one, all the implications of the resource
  13 exploitation activities be taken into account in projecting
  14 the potential scenarios for future inadvertent breach of site
  15 and in computing the effects those scenarios. In particular,
  16 the consequences of air drilling and fluid injection and
  17 mining, including solution mining, activities require
  18 additional attention from the EPA.
- Number two, the waste should be treated to make it 20 more difficult to be disbursed in the environment in case of

- 21 the breach of the repository. In fact, that is the DOE's
- 22 preferred alternative in the 1997 Programmatic Environmental
- 23 Impact Statement, although the WIPP Compliance Certification
- 24 Application and EPA has not required that in it's proposed

25 rule.

- 1 The bulk of the EPA's proposed rule and the
- 2 supporting documents concern compliance with the containment
- 3 requirements for the 40 CFR 191.13 of the EPA standards.
- 4 During the past two years ago, EEG has been providing
- 5 detailed comments to both the DOE and the EPA. The latest
- 6 set of the EEG comments were sent to the EPA on December 31,
- 7 1997, just a few days ago, in the form of a letter Mr. Neill
- 8 to Mr. Marcinowski, with four enclosures totaling 50 pages.
- 9 I have copies of that letter for anybody who wishes to have a
- 10 copy. I do not have the time to describe these issues today
- 11 but will provide, with the help of examples, some of our
- 12 major concerns.
- In reviewing compliance with the containment
- 14 requirements, it has become clear that the compliance is very
- 15 sensitive to the models and the parameters selected. For
- 16 example, the solubility of plutonium in the brine, postulated
- 17 to be present in the WIPP repository determines how much
- 18 plutonium will be released to the environment if a given
- 19 volume of brine is released. If it is highly soluble, a
- 20 large amount will be released; if it is assumed to be

- 21 practically insoluble, a large amount of brine may be
- 22 projected to be the released without any effect on the
- 23 compliance.
- The DOE and the EPA have selected the values for
- 25 this important parameter on the basis of assumption on the

- 1 effect of a magnesium mineral, hydromagnesite, that is
- 2 assumed to be present as a result of chemical alteration of
- 3 the magnesium oxide backfill. The reported results of the
- 4 mineral, nesquehonite, may be present instead. The
- 5 solubility of plutonium in the presence of nesquehonite, high
- 6 enough in fact to cause a significance larger computed
- 7 release, without changing any factor. And this other factors
- 8 will be discussed by my colleague, Dale Rucker at 10:45
- 9 today.
- Because of the time I will skip the next example.
- 11 You're welcome to read it in my prepared testimony, but I
- 12 would like to say that because of the synergistic effects of
- 13 the many models and parameter values used in the CCA, the EEG
- 14 has consistently advised the EPA to reject the idea or accept
- 15 certain values on the basis of partial sensitivity analysis.
- 16 In other words, we are steadfast in our belief that all the
- 17 models and the parameters should be completely and
- 18 satisfactorily justified, individually, and the final set of
- 19 commutations should be run with the fully justified values.
- 20 Only then can the compliance with the containment

- 21 requirements be determined.
- This is the approach the EPA used in requiring the
- 23 DOE to perform the Performance Assessment Validation Test
- 24 calculations. However, our review finds that much work is
- 25 yet to be done before the WIPP's compliance with the EPA

1 standards are deemed to have been demonstrated.

- In conclusion, I want to -- well, I guess I still

  3 have time so I would like to also mention that during the

  4 remaining public comment period, the EEG is also planning to

  5 critically evaluate how the DOE and the EPA have resolved the

  6 many concerns that were raised by the other review groups,

  7 such as the National Academy of Sciences WIPP Committee who

  8 published reports in December 1996, and the International

  9 Peer Review Group of the OECD and IAEA, both of which were

  10 commissioned by the DOE but are not currently active.
- The EEG has completed calculations of individual 12 doses from potential releases from the WIPP repository, one 13 of the concerns expressed by both the outside review groups 14 and a report of that work will be published in the next few 15 weeks.
- In conclusion, I want to thank you for your
  representation to our recommendations. We look
  forward to a continuing constructive dialogue with you.
  Thank you.

- 21 MR. MATTHEWS: Good morning, Mr. Chaturvedi. I
- 22 have a few questions for you. As you know, EPA's actions
- 23 here with respect to the WIPP are mandated by the WIPP Land
- 24 Withdrawal Act, and EPA has to act in concert with the
- 25 obligations placed upon it by Congress in that know act and

- 1 I'm wondering that, with respect to your second
- 2 recommendation, could you or could EEG when they provide
- 3 their comments, address the issue of whether EPA has a legal
- 4 authority to mandate any sort of treatment of the waste
- 5 placement.
- 6 MR. CHATURVEDI: Mr. Matthews, we have expressed 7 our opinion on this matter very clearly in the past written 8 material that we have provided to you.
- 9 More recently, on December 10, when we had a 10 meeting with you we explained this matter to you, which is 11 further explained to you in detail in our December 31 letter, 12 and this is the particular item.
- Briefly, I would like to respond to your question

  14 as follows: When EPA promulgated the criteria for the

  15 standards, 40 CFR 194, they combined the performance

  16 assessment for containment requirement with the assurance

  17 requirement by stating that if the containment requirement is

  18 met, the numerical CCDF, within the compliance, then that

  19 will have been deemed to have also met 191(4)(E), which is

  20 the resource's incentive assurance requirement.

- We never agreed with EPA on that but, however, that
- 22 was your prerogative and you have promulgated the criteria as
- 23 you have. But what we have been saying is that contrary to
- 24 the philosophy expressed by EPA, if the standards 40 CFR 191,
- 25 which were developed in the early 80's and promulgated in

- 1 1985 and repromulgated in 1993, in those standards the
- 2 philosophy that EPA expressed is that because of the
- 3 uncertainty in projecting the behavior of the repository for
- 4 10,000 years, we must have an additional set of assurance
- 5 requirements. This is the standard approach.
- 6 One the assurance requirements was that the site
- 7 should not be sited, located in the resource rich area.
- 8 Unfortunately, that is exactly the case at the WIPP project.
- 9 So we are suggesting that in projecting the containment
- 10 requirement, EPA must take all possible actions and what may
- 11 happen to the site because it is sited in a highly resource
- 12 rich area.
- So we charge the DOE to find me another 4 mile by 4
- 14 mile piece of land anywhere in the world which is surrounded
- 15 with less intensity of producing oil and gas wells as the
- 16 WIPP site. So you may not locate a site in a highly resource
- 17 rich area and not then take into account all that may happen
- 18 to the repository.
- 19 Secondly, we have said to be constructive since the
- 20 site has been selected and we're not saying remove, don't

- 21 consider WIPP anymore. We are saying as a mitigating factor
- 22 include engineered barriers in the WIPP design. That is the
- 23 intention of all the international repositories. Look at
- 24 Sweden, France, Spain, Germany, everywhere the regulating
- 25 authorities and the proposing authorities are not relying on

1 natural barriers alone. They are relying on engineering 2 barriers.

- In the case of WIPP unfortunately, the DOE Carlsbad

  4 Area Office has refused to even consider the taking credit

  5 for 85 percent of the waste which is planned to be treated or

  6 repackaged, which is the plan that's in the DOE national TRU

  7 waste management plan.
- All we are saying is that at least take credit,

  9 we're asking DOE to take credit for the waste which is going

  10 to be treated or repackaged anyway. That will give a greater

  11 assurance for the WIPP waste if it is reached and released

  12 into the environment, it will be not be easily disbursed.
- MR. MATTHEWS: I see. Unfortunately I haven't had 14 a chance to look at your December 31 submission but I will.
- 15 And very quickly the only other question I have is
  16 that with respect to the EEG's analysis of the work that has
  17 been done by the other review groups, you say that will be
  18 published in the next few weeks. Do you intend to have that
  19 submitted to the agency before the end of the comment period?
- MR. CHATURVEDI: I did not say we will publish it,

- 21 I said well be looking at it and we well provide you --
- MR. MATTHEWS: It says here in your prepared
- 23 testimony it will be published in the next couple of weeks.
- 24 Anyway --
- MR. CHATURVEDI: I'm sorry, you're misreading my

1 testimony. What it says published in the next few weeks is
2 the individual dose assessment, which is something we have
3 done. We are not publishing the assessment of what the other
4 review groups have done. We are going to reexamine that and
5 present to you through a letter or verbally, to please look
6 at the details of the National Academy of Sciences waste
7 committee report, because I'm sure you have seen a lot of
8 public relations comments which come from -- you see, often
9 what happens is the report contains all of the details. When
10 executive summaries are prepared, much of the details go out,
11 and when the public relations people get hold of executive
12 summaries, they put another spin on it.

So in order to get the full flavor of what an

14 agency or group is saying, you have to read the whole report.

15 In our preliminary review of the EPA proposed rule, we have

16 not seen that the EPA has made full potential to the National

17 Academy of Sciences WIPP Committee and the other groups I

18 have said. And we believe, we see, in fact we know there are

19 some very major concerns including solubility chemical

20 retardation and so on, the National Academy of Sciences WIPP

- 21 committee report and the lack of individual assessments.
- So many of the things we are saying are in fact
- 23 corroborated by these other agencies whose work DOE has been
- 24 presenting as favorable to WIPP. It is favorable in the
- 25 sense that they have not asked WIPP to be not considered, but

- 1 it is not favorable if one assumes that no more issues have 2 been required by these review groups to be considered by DOE.
- 3 MR. MATTHEWS: Okay, good. Thank you.
- 4 PRESIDING OFFICER: Thank you very much for your 5 testimony.
- 6 Next is Brian Rees.
- BRIAN REES: My name is Brian Rees. I've taken

  8 time off today to add my comments to the process of deciding

  9 if the WIPP is safe to open and operate, and whether the EPA

  10 can adequately protect the health of the public and the

  11 environment.
- I read the compliance certification application and 13 considered various aspects of WIPP's as well as the 14 radioactive trash to be buried there. First of all, let me 15 say I personally believe that highly radioactive hazardous 16 material should be vitrified and isolated from the biosphere 17 we live in. I have two children and want to insure them a 18 safe place to live in.
- I do not get my information from people who saythey know the answers. I read and study textbooks and

- 21 address radiation issues from the very basics. I have read
- 22 and studied the effects of nuclear weapons on people both
- 23 near an far from the detonation and the long and short term.
- 24 I have read the reports of doctors who performed autopsies on
- 25 victims of Hiroshima. The horror of nuclear weapons is

- 1 clear. Because of this horror, we enjoy a degree of peace
  2 unmatched in history. Nobody in his or her right mind gets
  3 in a fight with a well-armed person. We are well armed and
  4 the world knows it. Because of this, we enjoy a great deal
  5 of piece and freedom.
- As we made nuclear weapons, we also made
  7 radioactive trash. So much radioactive trash could be
  8 harmful to us. This is part of the price we pay for our
  9 present peace and security. This radioactive trash is not
  10 going to just disappear. It's not going to become magically
  11 safe. In its present condition it's not going to stay
  12 isolated forever from the environment we live in. Like it or
  13 not, these are the facts.
- So what are the reasonable options? We can

  15 continue to spend millions of dollars arguing about minutiae

  16 regarding WIPP's construction. We can spend millions of

  17 dollars arguing about the safety of transporting the waste to

  18 WIPP. We can spend millions of dollars arguing about the

  19 potential effects of minute exposures to radiation. We can

  20 spend millions of dollars on any number of aspects of WIPP,

- 21 while the waste continues to sit in drums in the biosphere,
- 22 increasing the chances it can be released, endangering the
- 23 very environment that many activities claim be protected.
- 24 Minimizing potential impact on the environment as
- 25 the drums sit will increase the potential for people to be

- 1 exposed to plutonium, something else that many protestors say 2 they are trying to avoid.
- In short spending time wasting money while arguing 4 increases our potential danger not decreases it is. Like it 5 or not, these are the facts.
- One of the considerations about WIPP is the amount
  of radiation exposure that might result from this operation.
  Many people fear radiation, it can't be sensed by us and can
  be harmful at high levels. The effects of radiation have
  been studied since discovery and the arguments about these
  flaffects began soon after the studies. The number of
  indisputable facts about radiation exposure are known. High
  levels or radiation exposure are harmful. We are
  continuously exposed to low levels of natural background
  fradiation. After that the debate begins.
- A safe level of radiation exposure can be evaluated
  17 by careful consideration of what we already exposed to from
  18 natural background radiation. We're already exposed to about
  19 300 millirem of background radiation every year. Those of us
  20 who live in Albuquerque are exposed to more millirem than

- 21 people who live at sea level. Denver residents are exposed
- 22 to more millirem per year than people who live at sea level
- 23 are. We do not see the affects in Albuquerque or Denver that
- 24 some people claim result from the low levels of radiation
- 25 exposure.

22

- Clearly exposure to 30 to 100 millirem above the 2 sea level background is not hazardous. Scientific studies of 3 worker that are exposed to levels of radiation many times 4 greater than proposed WIPP release limits do not show the 5 dire consequences that some alarmists state. True, there are 6 a few studies that supposedly show elevated adverse effects 7 of radiation exposures, however, they contain serious flaws 8 and make outlandish assumptions or just plain lies.
- 9 There's no difference between natural or man-made 10 radiation. Some people spread false information about 11 plutonium being the most toxic material on earth. That is 12 simply not true, no matter how many times it is said or how 13 loudly it is said. In fact, alpha particles from natural 14 radon gas decay products pack more energy than plutonium.
- 15 It is said that one particle plutonium can cause
  16 cancer. This is potentially true. It is also true that one
  17 particle of billions of natural potassium particles in our
  18 bodies can cause cancer as well. Any of the decay products
  19 of the natural radon gas we breathe can also cause cancer.
  20 Coal-fired power plants pour hundreds of tons of radioactive

- 21 materials into the atmosphere every year along with their
- 22 other pollutants. Any of this radioactive material might
- 23 cause cancer as well. I'm not saying plutonium is safe, it's
- 24 a radioactive material and as such deserves respect and
- 25 appropriate control.

- Look at the millions of risks we're exposed to on a 2 daily basis. There are thousands of people killed every year 3 in household accidents, things such as falling in the tub or 4 being electrocuted. None of these people thought they were 5 taking a risk or even considered a risk, but it is.
- Now I'm not advocating increasing our risks or the risks our children are exposed to. We need to keep risks in perspective and the risks of low levels of radiation exposure are grossly overstated.
- The hypothetical exposures to WIPP are just that,

  11 they are hypothetical. They are if's, not facts. Like it or

  12 not, these are the facts. The expense and consideration of

  13 options has a precluded other sites or options. WIPP is the

  14 only reasonable option and at this time it is the only

  15 foreseeable option. It can reasonably be expected to safely

  16 contain the wastes.
- Now, can EPA protect the health of the public and 18 the environment from the operation of WIPP? Yes, they can 19 because there's no reasonable risk for the public or the 20 environment from WIPP in the first place. The stringency of

- 21 the regulations are actually a waste of money. It could be
- 22 better used to vaccinate children from diseases, provide
- 23 prenatal care to needy women or any number of programs that
- 24 actually protect people from real, existing known and easily
- 25 mediated risks. Thank you.

- 1 PRESIDING OFFICER: Thank you for coming today.
- 2 Next is Geri Rhodes.
- GERRI RHODES: Good morning. This is the third 4 time I've testified. The last time I read some Chosser 5 (sic). I have a Ph.D. in English, and I was trying to make a 6 point that language changes and it would not be possible to 7 warn people away from the site for 10,000 years.
- I see now in your response to some of my comments,

  9 although you never did print the actual Chosser, that you're

  10 not so concerned with passive control, your ambition seems to

  11 be to control actively for the first 100 years, and then

  12 after that allow the natural barriers, an engineered barrier,

  13 to do the work no matter who intrudes.
- I'm glad to hear in a way that you gave up on your
  faith in passive control. If you mark the site as poorly as
  foyou marked this room so that I could find where the hearings
  were, I don't think anyone would be able to find it. I came
  in on Level 1 instead of ground level and there were no
  signs.
- I have a number of concerns. I do not think with

- 21 the safe -- I disagree with the man who just spoke. He seems
- 22 to assume that we know exactly what the radioactive levels
- 23 are or at least that he assumes that they are low level. I'm
- 24 glad to see that the EPA is concerned about characterizing
- 25 the waste even though the DOE doesn't think it is necessary.

- We don't know, in fact, what's in those drums and we can only guess. I'm concerned that these 55 gallons drums, which will be inside the TRU pack, are vented, and I don't know what will happen when the TRU packs are opened. You apparently don't think there will be any harm to the workers involved in that operation but I'm not convinced there won't be any explosions or simply exposure to radiation from that.
- I only know one person whose worked in
  only environmental nuclear cleanup, and that was at the Ohio
  location, Ohio facility. And of the only one person that I
  know, he was exposed to a dangerous level of radioactivity
  when a hose carrying radioactive water broke and he got a
  full force of the water in his eyes. So I don't minimize the
  full force of the water in his eyes. I might even be willing to grant
  full that the site might be safe without any human intrusion, but
  that the site might be safe without any human intrusion, but
  that I think Dr. Richard Phillips has made it very clear that
  human intrusion is a very distinct possibility combined with
  the karst formations above the repository site, very real

- 21 contaminants much farther than the stock well that you point
- 22 out in your comment which you say show no human health
- 23 effects. Well I don't know too many humans who drink out of
- 24 stock wells.
- 25 Richard Phillips has shown, however, a very clear

1 path of the flow of water, and I encourage you to look 2 closely at what he's written with an open mind. He is a 3 Ph.D. in geology. I looked in your Appendix K, and I noticed 4 that you have a number of Ph.D's involved in preparing the 5 data, although it is very hard to figure out exactly who said 6 what in your comments, but of your Ph.D.'s, there are eight. 7 One has a Ph.D. in anthropology, another in economics, soil 8 Sciences, botany, chemical engineering, seismology and two in 9 geology. None in nuclear engineering. None in radiation 10 biology. None in environmental studies and planning. I 11 think that's very strange efficiency. I'm not trying to say 12 that people without Ph.D.'s don't know what they are talking 13 about, but when I hear people say that people like 14 environmental extremists don't know what they are saying, 15 they ignore the fact that there are also Ph.D.'s on that side 16 of the issue -- Roger Anderson, Dr. Phillips, me. There are 17 many others much more than me.

I know I'm running out of time. I have a lot of
19 other concerns, but basically it seems to me you have picked
20 a proposed solution as the cheapest one, and that's your main

- 21 reason for going with it. You seem to think that the people
- 22 in New Mexico are expendable, at least more so than the ones
- 23 at the site of generation for nuclear waste, because
- 24 supposedly there are fewer of us, but, of course, over 100
- 25 years, much less 10,000 years, our population is bound to go

1 up, and I don't see that your calculations take all that into 2 consideration.

- Another thing is that if you don't know what's in
  4 the drums at the generation site, I don't see how any of your
  5 calculations can be relied upon what our exposure will be
  6 through transportation of the waste.
- The other point that I noticed in your comment is 8 that every five years you're supposed to recertify WIPP. I 9 find that interesting. I find in a way that encouraging 10 except I don't know what to do if you don't get 11 recertification and what sort of remediation efforts you'll 12 take if you suddenly discover there's a lot more water under 13 the site since your core samples of the karst area didn't 14 turn up anything because everything crumbled.
- You don't really know what's there, and I certainly
  le encourage you to look more closely at water flows and how
  they can get into WIPP bore holes in the repository.
- I don't think we're alarmists. For 20 years we've

  19 been dedicated to not just delaying this project but getting

  20 the truth out. One of my other earlier comments at the

- 21 previous hearing was I objected to your description of the
- 22 transuranic waste as TRU waste, because it makes the public
- 23 feel like there is something true about it. And I realize
- 24 there are other things besides plutonium in them, but
- 25 plutonium is there, we ought to call it what it is. Thank

1 you.

- 2 PRESIDING OFFICER: Thank you very much for coming 3 today.
- 4 Next is Richard Clark.
- 5 RICHARD CLARK: I appreciate this opportunity to 6 talk. It's very obvious to me and a lot of New Mexicans that 7 WIPP is a big mistake. EPA should not grant the DOE's 8 license to start shipping nuclear waste to WIPP. WIPP should 9 not open.
- We have to remind ourselves that governments
  11 regularly make big mistakes. Our government has made big
  12 mistakes. It's hard a lot of the time to remember that but
  13 we want to trust those who have positions of authority in our
  14 government, but we just can't do that. We have to remember
  15 things like the Tuskagee experiment or the internment of
  16 Japanese Americans during World War II, or Vietnam war.
- I remember how as a teenager I allowed myself to be
  18 lulled asleep by the seeming confidence and control of for
  19 instance, Robert McNamara as he projected from the television
  20 screen.

- Today we have the EPA saying they think the DOE is
- 22 correct when they can contain the waste proposed for burial
- 23 for 10,000 years with fewer than a thousand human lives lost.
- 24 One look at the dissenting science and DOE's track record in
- 25 handling nuclear waste, and I think a lot of people, probably

1 most people would conclude that this project is a very bad 2 gamble at best.

- Maybe there are places in the U.S. or other parts

  4 of the world where burying plutonium waste would make sense.

  5 But this isn't the place and DOE isn't the branch of

  6 government or the agency to entrust this project to.
- DOE has a conflict of interest because they are in

  8 the bomb making business. They need a place to put plutonium

  9 contaminated waste. Is it any wonder they've okayed WIPP?

  10 If we're going to try to bury this waste for 10,000 years,

  11 what we need is an independent body of reputable scientists

  12 to look at the site, scientists whose names will be known and

  13 whose credibility can, therefore, be established. EPA should

  14 defer to this body which has much more expertise relevant to

  15 this site through years and years of research then EPA could

  16 ever muster.
- 17 It is unconscionable that a project of this scope
  18 and with a very real possibility of catastrophic toxic
  19 release consequences doesn't merit the best science we can
  20 come up with.

- 21 There are several breach scenarios, several ways in
- 22 which toxic material from the repository could reach the
- 23 surface, mainly through oil and gas drilling techniques.
- 24 This toxic material either comes directly to the surface, in
- 25 some cases releasing enough radioactivity to the DOE release

- 1 limits in a couple of seconds or a few days. Or it finds it
  2 way more slowly through the geologic formations in which we
  3 have situated, eventually emptying into the Pecos River.
- But, supremely confident and in control, DOE with

  5 an inadequate scientific understanding of the geology of the

  6 site and assuming that New Mexico mining regulations

  7 regarding capping and casing scrupulously followed by wildcat

  8 prospectors for the next 10,000 years, DOE denies the

  9 possibility of some of these scenarios and minimizes the

  10 releases dependant upon others.
- Then on to the transit sabotage issue. I hear
  they've done war games on this one and the bad guys keep
  winning. But again, releases are also minimized. DOE's
  terystal ball is clear on this. DOE's application for
  certification is incomplete and not objective in order it has
  investigated and an audit has excluded from investigation and
  to does not have the data to back the minimizing claims it makes
  regarding release and sabotage scenarios. The application
  should not be approved.
- Along many more and reputable scientists, I would

- 21 refer the EPA to the work of the following three: Roger
- 22 Anderson, Professor Emeritus at UNM, whose work on the
- 23 geology of the WIPP area antedates the birth of the WIPP
- 24 idea; Dr. John Bredehoeft, member of the NAS panel,
- 25 originally a supporter of WIPP, but now critical of it; Dr.

- 1 Richard Phillips, geologist at UNM who has studied the WIPP 2 site for 15 years.
- During the public comment period folks at the EPA

  4 are formally receiving dissenting scientific reviews. I'm

  5 sure that in many cases your heart, opposed to what EPA tells

  6 you, us that this project really isn't right. There is too

  7 much evidence against it. It's not too late to protect our

  8 environment and protect us and future living beings. Do the

  9 right thing, deny the license for WIPP. Don't worry about

  10 not being one of the boys. Don't be afraid of not going

  11 along with DOE and the other powerful boys like Senator Pete

  12 Domenici putting pressure on you out there. We need for you

  13 to exercise the humanity and humility that recognizes limits

  14 to our knowledge, our ability to see into the future and

  15 cherishes and protects living things. Thank you.
- PRESIDING OFFICER: Thank you very much. Could I 17 ask a question, if you don't mind. You mentioned, I'd just 18 be interested in your comment now or later.
- Obviously there have been reviews of the science by
  the National Academy of Sciences is one you mentioned. We

- 21 heard earlier from the EEG that was set up here in New
- 22 Mexico. Do you have specific comments about those reviews
- 23 that have been done?
- 24 RICHARD CLARK: Not at this point.
- 25 PRESIDING OFFICER: Okay, I didn't mean to put you

- 1 on the spot. Obviously there have been reviews done, so any 2 comments from you or others would be helpful to us.
- 3 RICHARD CLARK: I'm sorry, I wish I could. Yes, I 4 would defer -- I would just refer you to those people and to 5 their work.
- 6 DR. RICHARD PHILLIPS: Could I speak to that for 7 about 15 seconds?
- 8 PRESIDING OFFICER: Sure.
- 9 DR. RICHARD PHILLIPS: I asked Conrad Korsakoff
  10 (spelled phonetically), who at the time was the head of the
  11 National Academy of Sciences WIPP Review Panel for permission
  12 to present my findings, specifically my dissertation on karst
  13 hydrology to the National Academy of Sciences WIPP review
  14 panel. I was put on an agenda. I then received a letter
  15 from Conrad Korsakoff citing Pete Domenici and striking me
  16 from the agenda.
- Subsequently within the otherwise favorable review
  18 by the National Academy of Sciences WIPP Review Panel letting
  19 Conoco lamented that the unsaturated zone, that is the Dewey
  20 Lake Red Beds, the Mescalero caliche, the surface topography

- 21 and not being studied. And the reason, of course, that he
- 22 thought that is because I was not allowed to present my
- 23 findings.
- 24 PRESIDING OFFICER: Okay, thank you.
- Next is thomas Clements.

- 1 THOMAS CLEMENTS, JR.: Good morning. My name is 2 Tom Clements, and I'm representing the Lockheed-Martin Idaho 3 Technologies Company at the Idaho National Engineering and 4 Environmental Laboratory.
- I appreciate the opportunity to provide comment on 6 the proposed rulemaking to certify the Waste Isolation Pilot 7 Plant for the receipt and disposal of transuranic waste 8 produced for national defense activities.
- 9 For over 40 years the Idaho National Engineering
  10 and Environmental Laboratory has supported national defense
  11 activities in a variety of capacities. Since 1954,
  12 transuranic waste generated primarily be defense nuclear
  13 weapon activities have been sent to Idaho for disposal or for
  14 interim storage pending the establishment of a permanent
  15 repository to safely isolate these wastes from the biosphere.
  16 Since 1970, Idaho has placed into interim storage about 60
  17 percent of the total current inventory of waste managed as
  18 TRU waste. The receipt and storage of this waste has always
  19 been with the understanding that a final disposal site would
  20 be established.

- 21 The need for a permanent disposal site for defense
- 22 generated transuranic waste has been a long, recognized
- 23 concern. Development of a permanent disposal site for
- 24 transuranic waste has been considered since at least 1957,
- 25 when the National Academy of Sciences issued recommendation

- 1 for disposal in salt.
- In the early 1970's commitments were made by the

  3 federal government to the state of Idaho to establish a

  4 permanent disposal site for this waste. Many years of effort

  5 to locate a suitable disposal site were culminated in 1980

  6 with the authorization by Congress to develop the WIPP site

  7 for disposal of defense generated TRU waste.
- Since the authorization of WIPP, the Environmental

  9 Protection Agency has promulgated regulations to insure the
  10 protection of human health and the environment for the
  11 disposal of TRU waste and the criteria by which the
  12 determination of compliance would be achieved.
- We fully support the decision by EPA to certify

  14 WIPP for disposal of transuranic waste. The proposed

  15 rulemaking reflects the results of EPS's technically rigorous

  16 and methodical review of the WIPP compliance certification

  17 application to verify that disposal can be accomplished

  18 safely.
- 19 It is now time to complete this process and resolve20 the national issue concerning the long-term management of

- 21 defense generated transuranic waste. The importance much of
- 22 to the INEEL and the state of Idaho cannot be overemphasized.
- 23 Over the years commitments have been made to find a suitable
- 24 disposal site. Long term indefinite storage has been
- 25 determined to be environmentally unacceptable by past

1 environmental impact statements prepared for WIPP.

- To continue to delay initiating permanent disposal

  3 of this waste only increases the risk that a problem will

  4 occur such as a loss of waste confinement and the subsequent

  5 impact to the environment and the cost of remediation will be

  6 high.
- A settlement agreement established with the state
  8 of Idaho in October 1995 establishes milestones for
  9 initiating and completing removal of transuranic waste.
  10 Failure to meet these milestones will impact other national
  11 efforts such as the continued receipt of spent nuclear fuel
  12 at the INEEL for management from DOE sites in other states.
  13 An it also affects national efforts to achieve nuclear
  14 nonproliferation goals. There is no other oppose than WIPP
  15 for meeting these commitments made to the state of Idaho.
- We are concerned, however, with several of the ronditions established in the proposed rulemaking concerning REPA's certification of DOE site quality and waste related characterization programs. This proposed certification is redundant to establish processes and does not appear to add

- 21 additional safety for environmental protection value but
- 22 potentially delays the ability of the site to initiate waste
- 23 shipments to WIPP and will increase costs.
- EPA has been an active participant in the review of
- 25 quality assurance and waste characterization requirements

- 1 established for waste disposal at WIPP, and to our knowledge, 2 the comments generated by EPA were satisfactorily resolved.
- It appears that EPA has concluded that the WIPP 4 quality assurance program and requirements are in compliance 5 with 40 CFR 194 and then QA standards.
- 6 EPA has already participated in past DOE site
  7 characterization and certification audits such as that
  8 performed at INEEL in April 1997, and most recently at the
  9 Los Alamos National Lab.
- It appears that EPA has concluded that the process

  11 used by DOE Carlsbad Area Office to independently verify site

  12 compliance with WIPP quality assurance and waste

  13 characterization requirements is adequate. We would implore

  14 EPA to reconsider the need for duplicate certification

  15 process. Additionally, we would implore EPA to continue

  16 participating in the scheduled DOE site certification audit

  17 during the final rulemaking process.
- There's no justifiable reason in delaying the 19 initiation waste shipments to WIPP. The process is already 20 in place, served to ensure that requirements will be met and

- 21 that protection of human health and the environment will be
- 22 achieved.
- Since the early 1980's the INEEL has implemented a
- 24 strategy to improve transuranic waste management by
- 25 developing and implementing capabilities to characterize,

- 1 certify and transport transuranic waste to WIPP for disposal.
- 2 Since 1988, the original planned date to begin the
- 3 operations, the INEEL has continued to implement new or
- 4 changing requirements for waste disposal. Additional
- 5 infrastructure and improved waste characterization
- 6 capabilities have been implemented. We are ready to complete
- 7 the final certification audit and initiate waste shipments to
- 8 WIPP thus resolving a national issue and meeting federal
- 9 commitments made to the State of Idaho.
- In summary, we fully support the decision by EPA to
- 11 certify WIPP for disposal of transuranic waste and ask EPA to
- 12 reconsider the proposed certification process. Thank you.
- 13 PRESIDING OFFICER: Thank you for coming and for 14 your testimony.
- 15 Next is Clifford Howard.
- 16 CLIFFORD HOWARD: Hi. I want to say thanks to the
- 17 EPA for holding these hearings and letting you know what I
- 18 think. I'm representing myself and I'm here on my own time.
- 19 I support the proposed ruling by the EPA concerning
- 20 WIPP. I would like to see WIPP open and put it to use for

- 21 what it was built for.
- I believe WIPP is very safe and that's based on
- 23 about 11 years I spent working in the underground doing a
- 24 variety of tests to show we could permanently isolate waste
- 25 once the WIPP was full. I want to try you a physical

- 1 appreciation for what some of those tests were and give a2 physical appreciation for what some of the numbers mean in3 these reports you see.
- I did a lot of tests where we drill a large

  5 diameter of bore holes into the sale, either vertically down

  6 or horizontal. Then we would go into those bore holes, they

  7 might be three feet or 30 inches in diameter, come of the

  8 bottom of the bore hole about three feet and installed

  9 various seals at various thicknesses roughly around three

  10 feet. Then we would drill a smaller hole into the side an

  11 pressurize the zone underneath this test seal to see how well

  12 it could hold fluids in. Through that access hole that came

  13 in there, we pressurized fluids up through the seal in such a

  14 way to assess the efficiency of the seal.
- 15 The first time we did tests like this it was very
  16 exciting, we didn't know what we would find and we created
  17 these seals and started testing it. And, of course, we
  18 tested with gas and got a very tight seal. Present results
  19 we stated testing with brine, and over a period of days an
  20 weeks we increased the pressure, and there were a lot of

- 21 sophisticated parameters we were looking at to measure. But
- 22 the one thing that I understood was that if I went and looked
- 23 down on top of that seal, if I didn't see brine there, well
- 24 that meant to me it was working pretty well.
- We gradually increased the pressure on this first

- 1 seal we did in 1985 up to 500 psi, and we held it there at 2 that pressure for about like six months. I never did see 3 brine sitting on top of that seal. We put some brine under 4 the seal, it could have gone a number of places, but it was 5 clear to me that those seals were rock solid.
- We did similar activities and horizontal

  7 configurations and got similar results. There was some

  8 concern that after a long period of time the seal's integrity

  9 may degrade due to various factors. And we came and tested

  10 one of these seals nine years after we put it in and we

  11 brought the brine pressure up to 500 psi and watched it for

  12 about six months. We never saw any brine anywhere.
- We put in probably a few cups of brine behind the 14 seal, but one can never know whether that went either into 15 the concrete or into the salt or maybe compressing some air 16 that was in the system.
- We also tested clay based suit seal material and 18 the results from that test surprised me also. We looked at 19 these clay materials and they are fairly porous, and I though 20 well, this is a material that will probably let some brine

- 21 come through. And we constructed the seal by compacting
- 22 these things into blocks and carefully built the seals about
- 23 three feet thick. We started testing with brine and
- 24 gradually increased the pressure under that seal over a
- 25 period of days and weeks, and within a few months we were at

40

- 1 100 psi and still no brine coming through the seal and very 2 little brine going down into the test interval.
- I continued that test year after year. We ran that

  4 test for five and a half years or thereabouts, and I never

  5 did see brine coming up through that. When the test was

  6 over, we took apart the seal and found some evidence of brine

  7 down deep in the clay that was right next to the pressurized

  8 fluid, but higher up the blocks of this clay that looked

  9 about like the way it did when we put it in.
- So from a layman's perspective, I see the WIPP as
  11 intrinsically safe. I think that if some reasonable effort
  12 is made to seal the WIPP after it is filled with waste, I
  13 personally find it incredible that the waste will somehow get
  14 out to hurt somebody. I support your rule and I hope that we
  15 can get on with the process of waste disposal.
- PRESIDING OFFICER: Thank you for your testimony 17 this morning.
- 18 Deborah Lanudau.
- 19 (No response.)
- 20 PRESIDING OFFICER: John Dimas.

- 21 JOHN DIMAS: Mr. Hearing Officer, Ladies and
- 22 Gentlemen, my name is John Dimas. I'm a registered lobbyist
- 23 for wildlife and environmental issues. I've been a
- 24 registered lobbyist for 16 years out of my own pocket.
- 25 Nobody has paid me a nickel. I figured that I've taken from

- 1 the resource all my life, it's about time I started paying 2 back and that's what I'm doing.
- First of all, in order to understand WIPP you have

  4 to understand the Department of Energy. The credibility at

  5 the Department of Energy has been brought up time and time

  6 again with Rocky Flats, where they made guinea pigs of the

  7 civilian population by planting plutonium, by -- actually

  8 it's first degree murder. And it amazes me that they can

  9 murder civilians and get away with it. I haven't heard of a

  10 single member of the Department of Energy that has been

  11 brought up to trial for first degree murder. Why not, is

  12 there two laws, one for them and one for the civilians? Boy.
- They continue to ask for money. Last year at the 14 legislature they had a nuclear physicist who wanted a millon 15 dollars. He wanted that million dollar so they can 16 continually test the pits, the triggering devices for weapons 17 of mass destruction. He said, boy, I'd sure be embarrassed 18 if we dropped one of them bombs and that sucker didn't go 19 off. I got up and said, you know what, I'd be a lot more 20 embarrassed if that sucker went off and we killed a million

- 21 people and poisoned the atmosphere. He finally got his
- 22 million bucks, but they haven't stopped asking for money.
- 23 They want it from the state, they want it from the feds.
- They have not changed their ways, and they ain't
- 25 going to. They give us a little pittance and say, oh, we're

- 1 going to do this for civilians, we're going to do it for2 medicine to make the public better. Then they turn around3 and do the same thing they'd been doing for eons.
- They haven't changed, they don't want to change.

  There's no incentive for them to change until you disband
  them, start from scratch and put some people in there that
  are going to take care of the public and not do the stuff
  that they've been doing.
- 9 It's a horse and pony show, this is. Money is the 10 deciding factor. How can you tell me 30,000 years from now 11 that you ain't going to have a problem?
- In the biological community they've got a thing
  13 called SWAG. Do you know what SWAG is? Scientific wild ass
  14 guess. That's what you're doing, Oujda board science.
- 15 I'm real familiar with that southeastern part of
  16 the state. I spent a lot of time there. What causes all
  17 them sink holes? Have you ever watched the Pecos River all
  18 the way down? Once in a while you'll get a fissure or sink
  19 hole and that river will stop. You don't know where it's
  20 going. Is it going to the sale beds? If it does, within

- 21 30,000 years you don't think it is going to?
- It poisons the ground, the air, the wildlife. Look
- 23 at up here at Los Alamos. Just recently because of the
- 24 Freedom of Information Act, they started setting up cameras
- 25 and watching the wildlife and they see lesions on the side,

- 1 big old protrusions in the skull of dead animals up there.
- 2 Wow. I mean, what is this going to do to the people down
- 3 river that drink that water that the wind blows it down
- 4 there?
- 5 Every time I think about the Department of Energy,
- 6 I get real emotional, because I know what they are doing, and
- 7 yet they have no accountability. They won't even let anybody
- 8 who is unbiased go in there and find these problems. They
- 9 got canyons up that I know a person that snuck up into there
- 10 that's pretty smart and gets into stuff like that. But he
- 11 snuck in there and he said you couldn't hear any crickets.
- 12 He could not hear no sign of life whatsoever. Does that
- 13 scare you? It must scare somebody. It scares me.
- You ever heard of tatituranium? That's a byproduct
- 15 of plutonium. You know what they do with that tatituranium,
- 16 Persian Gulf, all of these tanks and stuff they say were
- 17 hidden. They shot so much of that garbage into the ground
- 18 right there, it vulcanizes, it turns into a fireball and
- 19 gives off radiation.
- Is that where Gulf War syndrome comes from? The

- 21 government says, oh, no, huh huh, there's so much lying by
- 22 the Department of Energy that it is unbelievable, and they
- 23 continue it. And then they get our own congressman to back
- 24 it for the dollar bill.
- You know what really bothers is seeing that red

- 1 light, so I'd like to bring up a point that came up a while
  2 ago is if you from Albuquerque and I'm sure you did the same
  3 thing up thre in Carlsbad, but then the Carlsbad group comes
  4 down here. I mean, is that right? They used to call that
  5 stacking. They get in the community room and stack all their
  6 troops where nobody else could oppose it. I understand
  7 everybody has a first amendment right to free speech and I
  8 would never go against that because I believe in it strongly,
  9 but I think everybody that comes out of here, I see where the
  10 government comes in. I was born and raised in Albuquerque.
  11 Thank you for your time and consideration.
- PRESIDING OFFICER: Thank you for your testimony 13 this morning.
- 14 Next is Ronald Firestone.
- RONALD FIRESTONE: I'm from Carlsbad and I was born
  16 and raised in Clovis. I'm here as a citizen today. I'd like
  17 to say that the WIPP project is a solution to the national
  18 problem on how we store transuranic waste.
- WIPP offers an acceptable means to store this waste 20 away from what we have today, above ground storage.

- It is a sound facility, it's ready, the people are
- 22 trained, and I've lived in Carlsbad for 14 years and I will
- 23 continue to call that home. I'm glad to be a resident of
- 24 Carlsbad, Eddy County.
- The WIPP project is ready and I urge you to give

1 your certification so WIPP can be certified.

- 2 PRESIDING OFFICER: Thank you.
- 3 Next is Rick Palkey.
- 4 (No response.)
- 5 PRESIDING OFFICER: Eva Khoury.
- 6 (No response.)
- 7 PRESIDING OFFICER: Next is Madeleine Aron. We're 8 a little ahead of schedule though. Is she here?
- 9 (No response.)
- 10 PRESIDING OFFICER: Is Dale Rucker here?
- 11 DALE RUCKER: Yes.
- PRESIDING OFFICER: By the way, the issue about 13 testimony got raised by the previous testifier. We apologize
- 14 to having to limit everybody to five or ten minutes. It was
- 15 the only way that we could, within a week, get everybody in
- 16 who wanted to testify. We didn't put a rule that people
- 17 couldn't testify more than once, and I think we've tried
- 18 everything including staying here until 11:00 last night to
- 19 make sure everybody got heard, so hopefully people feel like
- 20 we haven't excluded anybody.

- 21 DALE RUCKER: Good morning. I have copies of my
- 22 testimony for anybody who would like it.
- 23 My name is Dale Rucker. I'm here to talk to you
- 24 about a few issues that I am currently investigating as the
- 25 Performance Assessment Engineer for the EEG. My work at EEG

- 1 involves sensitivity analyses and on the computer codes and 2 parameter values that were implemented in the performance 3 assessment if the compliance certification application 4 submitted to the EPA by the DOE.
- 5 After investigating DOE's CCA and EPA's performance 6 assessment verification test, several areas appear to be 7 inadequately addressed. First and foremost, I believe that 8 the actinide solubilities used in the CCA and PAVT were not 9 characterized properly. The EPA examined this parameter in 10 their evaluation of the performance assessment but a true 11 sensitivity analysis was not investigated thoroughly. My 12 evaluation os solubility as it pertains to the performance 13 assessment found it is truly a critical parameter. Using DOE 14 values for solubility with different mineral species that 15 were not considered in the CCA that DOE has said to exist in 16 the repository during its 10,000 year history, complementary 17 cumulative distribution of functions (CCDF's) which were used 18 as comparison to the EPA's 40 CFR 194, come very close to the 19 limit.
- 20 My first Exhibit shows several curves from my

- 21 analysis. Although none of the curves violate the compliance
- 22 limit, I believe that they are important to show the
- 23 criticality of this parameter.
- 24 My next observation of performance assessment is
- 25 the treatment of spalled material reaching the surface from

- 1 an inadvertent human intrusion into the repository. Spall
- 2 can be brought to the surface by three separate mechanisms:
- 3 Blowout, stuck pipe and gas-induced erosion. For the
- 4 performance assessment of the CCA and PAVT, only blowout was
- 5 considered. Blowout is the sudden escape of repository gas
- 6 up the borehole, sufficient to cause all the drilling mud to
- 7 be blown out of the borehole. High velocity of expelled gas
- 8 will cause some of the compacted waste material in the
- 9 repository to break off and be entrained in the gas.
- The other two mechanisms of spall, stuck pipe and
- 11 gas erosion, were not considered in the CCA performance
- 12 assessment calculations. The importance of these two
- 13 neglected mechanisms lead me to my next exhibit, which show
- 14 that spalling releases were increased to include values that
- 15 range from eight cubic meters to 54 cubic meters CCDF codes
- 16 violate standards established by the EPA.
- 17 A 1994 memo by J.W. Berglund of Sandia stated that
- 18 releases due to these mechanism could be as high as 356 cubic
- 19 meters, 8 to 64 cubic meters are entirely plausible values.
- 20 Lastly, I would like to discuss briefly about my

- 21 analysis of air drilling scenario. Air drilling has been
- 22 established in the Delaware Basin in Lincoln Federal Well No.
- 23 1. Previous studies of air drilling included the amount of
- 24 solid material through a spalled event that would reach the
- 25 surface. Dr. John Bredehoeft, a hydrologist who is a member

- 1 of the NAS WIPP committee, concluded that released spalled
- 2 material could be as high as 1500 to 2000 cubic meters.
- 3 These values were obtained from using the code of the Hansen
- 4 investigation. Dr. Bredehoeft also stated in his analysis
- 5 that the use of GASOUT, the code used in Dr. Hansen's
- 6 investigation, may not be entirely appropriate for this type
- 7 of modeling. Yet it can give an indication of the magnitude
- 8 of the problem.
- 9 The solid release of material upon breaching the
- 10 repository is only half the issue. When a borehole intrudes
- 11 the repository, bring will also be brought to the surface,
- 12 and depending on the solubility of the actinides,
- 13 radionuclides such as plutonium or uranium will be brought
- 14 the surface with it. The CCA calculated that at most, less
- 15 than 60 cubic meters of bring come to the surface upon
- 16 intrusion. EPA's PAVT calculated a maximum of 180 cubic
- 17 meters of brine. These calculations assumed that bring mud
- 18 would be used as the drilling fluid. However, if an air or
- 19 air-foam mixture is used as the drilling fluid, the
- 20 overburden pressure of the fluid is much less than bring mud

- 21 thus allowing larger amounts of brine from the repository to
- 22 be released.
- 23 My analysis for the air drilling scenario using the
- 24 same codes as were used in the CCA and PAVT has shown that as
- 25 much as 1,000 to 2,000 cubic feet of bring could be brought

- 1 to the surface. The analysis includes solubilities from a
- 2 DOA analysis to actinides in solution with different mineral
- 3 phases of the backfill material. If the solubilities are
- 4 sufficiently high, then the practice of drilling with air
- 5 could bring enough material to the surface to violate the EPA
- 6 standards as documented in our 12/31/97 letter to the EPA.
- 7 This illustrates the importance of considering both the air
- 8 drilling and solubility issues.
- 9 This concludes my statement. I will be pleased to 10 answer any questions you may have.
- 11 PRESIDING OFFICER: Okay.
- MR. MATTHEWS: I have a very quick question. The
- 13 only issue of the gas alcove. You have some concerns as to
- 14 whether or not the gas alcove is --
- DALE RUCKER: Right,I didn't I believe I had time 16 to read that.
- MR. MATTHEWS: It's very handy to have your
- 18 prepared testimony here. Just so that I understand it and
- 19 I'm completely following your comment, would you suggest then
- 20 that perhaps use of other codes, other codes that we use in

- 21 the EPA's evaluation of the CCA would be more appropriate in
- 22 the gas alcove for investigating this issue?
- DALE RUCKER: To date I haven't seen a code that
- 24 will accurately predict or estimate or calculate the amount
- 25 of spalled material that will be released from the

- 1 repository. I found problems with -- well, the peer review
- 2 committee has found problems with the CCA'S spallings code,
- 3 I have found problems with the GASOUT code that I'll publish
- 4 soon, and I don't believe the EPA model accurately models the
- 5 scenario either.
- 6 So maybe a new development of the code over time.
- 7 MR. MATTHEWS: Okay, thank you.
- 8 PRESIDING OFFICER: Thank you very much for your
- 9 testimony. We're going to take a ten-minute break now. It's
- 10 10:30. We're going to take a break now and be back at 10:40.
- 11 (A SHORT RECESS WAS TAKEN.)
- 12 PRESIDING OFFICER: Let's go back on the record.
- Rick Palkey, is he here?
- 14 (No response.)
- 15 PRESIDING OFFICER: Eva Khoury.
- 16 (No response.)
- 17 PRESIDING OFFICER: Madeleine Aron.
- 18 MADELEINE ARON: Yes.
- 19 PRESIDING OFFICER: Great.
- 20 MADELEINE ARON: I've always been against WIPP

- 21 because I know that nuclear extra radiation is just not
- 22 healthy for anybody. And that's my concern is I don't want
- 23 truckloads of stuff that emits radiation, and they will.
- There is no way to completely stop it from coming
- 25 through my town, my state, my country. That's my main

- 1 concern. I'm in the health profession myself and it is very 2 frustrating being bombarded all the time with toxics from
- 4 So that's a very, very big thing. Not to mention 5 the possibility of accidents and leakage at the site.

3 many, many sources and having to constantly fight it.

- Transportation accidents is a huge concern, and since we don't have the, even the technical know-how to prevent all accidents. And the state doesn't have the money to have extra wonderful highways that are, I mean, it is just 10 absurd what we're doing.
- And healthwise as Dr. John Goss (sic) pointed out, 12 radiation is a cumulative thing. It is not something that 13 goes away and it's just not something that I want, and I 14 don't want my friends, my children anybody to have it or 15 future generations.
- I think one of the things that really disturbs me

  17 about the facts in this case is that only a certain

  18 percentage of the remote handled waste is even really known

  19 what it is. What is it, only 15 percent of it is known?

  20 That leaves 85 percent of it unknown.

- The same thing with the content handled waste, 80
- 22 percent is known. That leaves 20 percent unknown. That's
- 23 too many unknowns.
- And too many so called anonymous experts have been
- 25 giving their judgments to EPA et cetera, well, who are they?

- 1 How do we know they are scientists; what are their 2 qualifications.
- I think there has been a lot of sloppiness in this,

  4 it's very sloppy and obviously the nuclear, the defense

  5 industry and I think EPA does not really care about the

  6 citizens of this country. And you know what, we pay your

  7 salaries. Just remember that. Thank you.
- 8 PRESIDING OFFICER: Thank you for coming.
- 9 Robert Kehrman.
- 10 ROBERT KEHRMAN: Good morning my name is Robert 11 Kehrman, K-e-h-r-m-a-n. I'm an employee of Westinghouse, a 12 citizen of Carlsbad and have worked at the WIPP facility for 13 nearly 14 years.
- I would like to begin by congratulating the EPA on
  the recent completion of the 500 superfund site.
  Administrator Brown was recently in Philadelphia to announce
  the completion of cleanup at the public superfund site and to
  reiterate the agency's commitment to protect 70 million
  Americans, including 10 million children that live in the
  shadow of this nation's chemical legacy. The superfund's

- 21 accomplishments are significant because at the superfund, the
- 22 agency is not dealing with two senators and three
- 23 representatives who are the champions of this state's health
- 24 and safety, but instead has to deal with the other 530
- 25 members of Congress who similarly are seeking protection for

1 their citizens.

- I believe it is the same commitment that is driving

  3 your office to proceed in a timely certification of the WIPP

  4 which, when open, will address the legacy of this nations

  5 nuclear industry that impacts 50 million Americans.
- 6 Clearly the progress you have made in superfund and 7 the continued progress we anticipate with WIPP certification 8 indicate that the E in EPA still stands for protection.
- I would like to take a few minutes to correct some
  10 confusing information that was placed in the docket at the
  11 hearings on Monday. This has to do with the design and
  12 construction of the waste handling building and the plans for
  13 receiving waste at the WIPP. I focus on this topic not
  14 because it is the only misinformation we have heard this
  15 week, but because I believe it is a topic that has not
  16 previously been clarified in the rulemaking docket. I would
  17 first like to read the description of the waste handling
  18 building from the WIPP safety analysis report. Next I will
  19 explain how the design and construction are independently
  20 verified. Finally, I will briefly describe the waste

- 21 handling process.
- I know this topic is not directly related to the
- 23 focus of this hearing, however I believe it is important to
- 24 balance the inaccuracies in the rulemaking record with facts
- 25 and to illustrate the depth of protection that the WIPP has

- 1 incorporated to all aspects of this program.
- Section 4.2.1.1 of the WIPP Safety Analysis Report

  3 states, the waste handling building is a steel frame

  4 structure with insulated steel siding that includes portions

  5 of the building, and I underline portions of the building,

  6 such as the hot cell complex that are constructed of concrete

  7 for sealing and structural purposes.
- 8 The waste handling building acts as a confinement 9 barrier to control the potential for release of radioactive 10 materials and is classified as Design Class I.
- The waste handling building is designed for Design
  Class I loads including the design basis earthquake and the
  design basis tornado.
- In 1990, the DOE issued its final safety analysis

  15 report documenting the safety of all aspects of the WIPP

  16 facility. Prior to issuing this report, there were a number

  17 of independent reviews that were mandated. One such

  18 requirement -- there's a requirement for every DOE facility

  19 is what's called the safety evaluation. At WIPP the safety

  20 evaluation was conducted by Brookhaven National Laboratory.

- 21 Brookhaven was chosen because they were independent
- 22 of the WIPP design and construction and therefore able
- 23 provide an unbiased review. Brookhaven used a team of
- 24 technical experts from academy, industry and the government
- 25 to examine every aspect of the design, construction and

1 operation of the facility.

- There were no issues regarding the design and construction of the waste handling building and its ability to withstand the stresses imposed by traumatic winds of 185 miles per hour and earthquake accelerations of 9.8 centimeters per second squared. The waste handling is built adequately constructed, and that is a matter of record.
- The second area I would like to comment on regards

  9 testimony about the process for receiving waste. The waste

  10 receipt process at WIPP involves parking trailers with TRU

  11 pack tubes south of the waste handling building, removing an

  12 individual TRU pack from the trailer and moving it into the

  13 waste handling building where it can be placed in a specially

  14 designed block to be opened.
- 15 Contrary to the statements on Monday, no TRU pack
  16 tubes will be opened outside the building. Furthermore there
  17 are no plans to ever open the container of waste at the WIPP
  18 facility.
- 19 Testimony on Monday further confused the receipt of 20 contact-handled waste and remote handled waste. Waste in

- 21 this latter category were characterized on Monday as leaky
- 22 containers.
- We had at the WIPP a contingency to overpack any
- 24 container that we believed could pose a radiological threat
- 25 to workers, the public or the environment. For RH

- 1 transuranic waste this overpacking capability is in a hot
  2 cell which provides a shielded environment for performing the
  3 necessary steps.
- Since the WIPP waste generators are not yet

  5 prepared to ship RH TRU waste and they will not likely be
  6 ready until some time during the next decade, we are not now
  7 focusing on the operational readiness of RH facilities. When
  8 the time comes, the RH facilities will undergo the same
  9 rigorous operations of scrutiny we are now applying to
  10 contact handled facilities. Thank you.
- 11 PRESIDING OFFICER: Thank you. Next is Don Geuss.
- DON GEUSS: Mr. Chair, Ladies and Gentlemen, my
  13 name is Don Geuss. Why am I here today? Well, I joined
  14 Sandia as a contractor in 1970, retired in 1995. What was my
  15 job? My job was computers. Computers underground, above
  16 ground, WIPP. Early study starts somewhere in '75, '78, and
  17 I believe that Sandia hired some of the greatest physicist,
  18 engineers, technicians to gather all the necessary data to
  19 get WIPP opened in the safest possible way.
- Is there a risk? Yes, there's risk. I have six

- 21 children, 13 grandchildren, and there's always that area of
- 22 concern about risk. However, I endured risk going
- 23 underground to fix computers, and I think in this life
- 24 there's some risks at WIPP, but we have to take it because we
- 25 have to think about the alternatives. Don't forget, the

- 1 price was freedom for our country and the pleasures you have 2 today without worrying about communists or other people 3 threatening us.
- 4 So ladies and gentlemen, I give you this. Thank 5 you.
- PRESIDING OFFICER: Thank you for coming today.Next is Melody Stevens.
- 8 MELODY STEVENS: My name is Melody Stevens. I'm a 9 resident and registered voter of New Mexico.
- WIPP is a bad idea. You can tell at first glance
  11 that WIPP is a bad idea because there are too many
  12 components, too many unknowns and too many variables. The
  13 plan is to take dangerous life threatening material, and
  14 believe me none of us are fooled by the term low-level waste,
  15 and ship it by truck across 22 states to a site that has
  16 problems, put it a mile underground in such a way that we
  17 will never be able to get at it again no matter what. Can
  18 that really by the best idea possible? How could it be?
- 19 There are so many problems with this project every step of20 the way. DOE does not know how much waste exists, they don't

- 21 know what's in the drums, they guess.
- The waste causing the most concern because of poor
- 23 storage in most cases will not be moved to WIPP. It will
- 24 take 25 to 35 years to transport all the waste. There's no
- 25 budget for safer storage of this waste while it's waiting 25

1 to 35 years to be shipped.

- The nuclear industry has still not created a container that allows absolutely no radiation leakage. DOE will be trucking radioactive waste across 22 states through population centers, because just like in New Mexico there exists in other states population centers that do not have bypass roads.
- 9 traffic accident scenarios, in fact, in their own newsletter
  10 they talked about a WIPP truck running into a cow. DOE has
  11 not proven that they can seal the shaft, rooms for panels
  12 completely. They don't know exactly how waste and the
  13 repository conditions will interact.
- All the geological possibilities for total failure

  15 of waste containment are present at the site and a huge

  16 number of scientists who have relied on DOE's actual data

  17 have demonstrated that there's a flow path of water from the

  18 waste around the repository. Should it escape, it will

  19 travel on those low paths into the Pecos River which is only

  20 15 miles away from the site.

- DOE has not developed a plan to guarantee that
- 22 radioactive waste will not reach the accessible environment
- 23 for the 10,000 years mandated. The area around WIPP has
- 24 potash, oil and gas drilling. It is expected that this
- 25 mining and drilling will continue. There's strong

- 1 possibilities of drilling into the site as this mining 2 continues.
- I'm particularly concerned about the waste that's
  4 buried at these manufacturing sites and were buried before
  5 1972. They are stored in barrels that have a life of 20 to
  6 25 years. You do the math. They are leaking. They are
  7 creating a very real problem to those communities.
- Well WIPP doesn't address this. Instead the plan
  9 is to share the danger with 22 states while we continue to
  10 pollute the areas that are already being polluted. It would
  11 make much more sense to store the waste in monitored,
  12 retrievable secure storage near the manufacturing sites.
- One of the problems with WIPP, this whole process
  14 of approving WIPP, is that no energy or funding is being
  15 directed to more viable or less dangerous alternatives than
  16 WIPP.
- 17 Ultimately WIPP is an issue of science. It is not 18 an issue of prophecy or politics no matter how much our 19 elected officials want to make it a political issue. Science 20 deals with facts and it is to you the EPA that we look to

- 21 demand facts, proof that WIPP is safe and viable.
- We need you to reject process knowledge which is
- 23 just a fancy word for guessing. Cyber models which are based
- 24 on make believe facts, and the discarding of data does not
- 25 fit DOE's plan.

- What concerns many of us today is the possibility
  that you, the EPA, will not fulfill the trust that is needed
  and demand absolute compliance with the standards that have
  been set.
- We watched you hard last April when the letter from 6 Senator Domenici and other congressmen that threatened your 7 budget caused you within three weeks to determine that all of 8 a sudden the application was complete. It only happened 9 after this letter.
- You the EPA have to be our voice of reason and 11 sciences. Please look carefully at all that DOE is 12 suggesting and do not fall to pressure from political 13 officials who continually display a lack of concern for us, 14 for the health and well being of us, the citizens, they are 15 supposed to be representing.
- We condemned our enemies for the horrors of 17 radioactivity in World War II. We show extreme remorse today 18 and we apologize. Why are we even willing to risk 19 threatening us, our own people with that same potential 20 disaster?

- You know, we felt remorse for our enemies. What
- 22 about us? We're us, we're not -- we're the good guys. WIPP
- 23 is not safe. DOE even after 20 years, has not been able to
- 24 prove that it is safe. Even today as we speak there are
- 25 tests they have not completed, there are things they have not

- 1 done. The idea that well, when we develop a package to do
  2 the remote handling then it will be okay. You can't approve
  3 that it. It is not already in place. Hey, EPA, please do
  4 the job that you were created for and reject this
  5 application.
- 6 PRESIDING OFFICER: Thank you for coming today.
- 7 Next is Alan Solow.
- 8 ALAN SOLOW: Good morning. My name is Alan Solow.
- 9 I'm the vice president and director of federal programs for
- 10 Roy F. Weston, Incorporated. Weston is an engineering
- 11 environmental management company which provides technical
- 12 support services to industry in the federal government. In
- 13 fact, we are one of EPA's largest contractors to provide
- 14 services throughout the United States.
- My background is that I'm a health physicist. I'm

  16 certified by the American Board of Health Physics, which is a

  17 society dedicated to the protection of people and environment

  18 from the harmful effects of ionizing radiation.
- 19 I'd like to thank you for this opportunity to speak20 on your proposed rules, that is to certify the WIPP site so

- 21 that after decades of preparation finally become the world's
- 22 first deep geologic repository for the disposal of
- 23 transuranic waste. I speak today on behalf of myself and Roy
- 24 F. Weston.
- I have mostly compliments for you, but that I may

- 1 end this presentation on a positive note, let me first2 express my only concern. I commend the EPA for giving the3 public the many opportunities to comment on the WIPP.4 Clearly the EPA seeks and wants to accommodate the will of
- 5 the people. By the same measure, the EPA should obey our 6 elected officials who speak for the people.
- In the Land Withdrawal Act, Congress clearly
  8 expresses it is the public's desire for the EPA to
  9 expeditiously certify the WIPP as the disposal site for as
  10 much as 6.2 million cubic feet of transuranic waste. The EPA
  11 now wants to certify each of the some 570 waste streams that
  12 are destined for disposal and introduce the 30-day comment
  13 period prior to the certification of each waste stream.
- If we optimistically assume that a certification

  15 rule can be compete in three months, it would take the EPA

  16 about 142 years to certify all of those waste streams. Even

  17 if the EPA does simultaneously certify ten waste streams at a

  18 time, the process would take more than 14 years.
- I cannot find a passage in the Land Withdrawal Actthat gives the EPA authority over the 21 sites that generate

- 21 transuranic waste. Perhaps EPA cannot find it either,
- 22 otherwise you would have credited Congress rather an obscure
- 23 provision in your own regulation as the source of your
- 24 authority over waste streams and waste sites. The DOE has
- 25 adequately regulated itself in this area and Congress has

1 never indicated that EPA could do a better job.

- I therefore recommend that you not create anymore

  3 certification hurdles that would protract the disposal of

  4 this waste. Rather practice what you preach in the opening

  5 pages of your proposed rule that EPA's committed to the

  6 intent Congress clearly expressed in the Land Withdrawal Act.
- In all the respects I fully endorse the proposed

  8 rule and commend EPA for your thorough review of the

  9 Department of Energy Certification Application. Anyone who

  10 accuses you of blindly endorsing the WIPP project is not

  11 taking the time to read your rule for supplementary review.
- Besides accurately and succinctly translating
  13 complex information into plain English, you communicated in a
  14 way that leaves no doubt on where you stand on the WIPP
  15 project. Hardly a blind endorsement, the rules and analysis
  16 clearly demonstrate that you have carefully read and
  17 understand each of the 24,000 pages that compose the
  18 application and its appendices.
- 19 I also commend the EPA for its decisiveness. With 20 the WIPP spirit of performance set at 10,000 years, people

- 21 can concoct all sorts of scenarios that would cause the WIPP
- 22 to fail. Most popular scenario, inadvertent human intrusion,
- 23 has inspired the imagination of several WIPP opponents.
- Some claim that humans will inject brine into a
- 25 borehole. The borehole casing fails, the brine would come up

1 and find its way into the repository, dissolve the waste and 2 then find its way back out again.

- More recently the same opponents argued that
  4 someone would drill into the WIPP using air rather than
  5 fluid, thereby creating releases that are much larger than
  6 those modeled in the application.
- Although the EPA has courageously confronted those 8 opposed to the WIPP, I guarantee that you will hear more. The 9 opponents of the WIPP are driven to concocting more 10 outrageous ways for people to inadvertently exhume waste that 11 is buried some 2,000 feet below the earth's surface.
- I urge you not to take these scenarios too

  13 seriously. Heed the words of the National Academy of

  14 Sciences who stated, and I quote, we conclude that it is not

  15 possible to assess the probability of human intrusion into a

  16 repository over the long term. We do not believe it is

  17 scientifically justified to incorporate alternative scenarios

  18 of human intrusion into a risk based compliance assessment.
- 19 Thank you for this opportunity to voice myself and 20 my opinions on the proposed rule. The work you're dong is

- 21 both important and urgent and needs to be done well. It is
- 22 now time to open WIPP. Thank you.
- PRESIDING OFFICER: Thank you for coming today.
- Next is Ted Davis.
- TED DAVIS: Good morning. My name is Ted Davis.

- 1 I'm a physician here in Albuquerque. I'm board certified in
- 2 Emergency Medicine and also specialize in Occupational
- 3 Medicine. I'm a long-term resident of New Mexico and
- 4 actually have been involved in the WIPP issue in one way or
- 5 another for the last 20 years.
- 6 I testified at the first WIPP hearing at the
- 7 convention center here in Albuquerque in 1978 or '79. In
- 8 addition, about 18 years ago I became the first, as far as I
- 9 know, private physician in the United States to become
- 10 certified by the Department of Energy as an individual who
- 11 could give DTPA, which is a healing agent, to individuals
- 12 contaminated with transuranic substances like plutonium.
- I built an interest in that because of the issue
- 14 that WIPP was going to open in that time frame. As an
- 15 emergency physician, I felt somebody in the state should know
- 16 how to deal with it.
- I followed the issue for a long time and have done
- 18 polls periodically of the emergency room departments in New
- 19 Mexico and other states along the WIPP route. I have
- 20 determined that in New Mexico, Colorado, Texas and so forth,

- 21 the hospital emergency rooms, emergency responders, emergency
- 22 physicians and others are basically completely unprepared to
- 23 handle radiation transportation accidents. They do not have
- 24 the equipment, training or expertise to deal with this. This
- 25 issue has been continually ignored and the band-aid has been

- 1 put on the solution for the problem by having some of the DOE
  2 people train a few emergency people along the WIPP route, but
  3 their training by now is outdated and, of course, new people
  4 would in as physicians into the various facilities, so we're
  5 basically unprepared. I was an expert witness for the state
  6 of New Mexico on a issue of a federal lawsuit also.
- I think in terms of the other scientific aspects of

  8 WIPP have more or less been proved over the years, that we

  9 don't have sufficient information to conclude that because of

  10 this type of material in salt beds near Carlsbad will solve

  11 any nuclear waste problem at all. It's again sort of a

  12 band-aid situation.
- The issue of burying nuclear waste in the salt goes

  14 back to Kansas probably 25 or 30 years ago, at which time it

  15 was more or less proven that storage or dumping nuclear waste

  16 in salt beds was not acceptable, safe or satisfy.
- So once again, 20 years later we're in the same
  18 situation and we're still looking at a process which will
  19 not solve the problem created either by the defense industry
  20 or the commercial nuclear industry and puts people across the

- 21 country at risk and puts the future status of the environment
- 22 around Carlsbad and along the transportation route of WIPP.
- 23 My final comment is that it is interesting to hear
- 24 from a previous speaker a parallel need to communism. My
- 25 view is that a totalitarian society like a communist society

- 1 is one where we see problems like WIPP where citizens are not
- 2 protected, there is coercion of the highest levels of
- 3 government to force people to accept things that are not safe
- 4 or reasonable for other people. I cannot see how that
- 5 parallel can in any way be drawn here.
- 6 Also it is interesting to observe armed state
- 7 police officers at this hearing. I'm not clear why that is
- 8 occurring. That to me would be the sort of thing I would
- 9 expect of a totalitarian communist society. Thank you.
- 10 PRESIDING OFFICER: Thank you for coming. Next is
- 11 Kris Kron.
- 12 KRIS KRON: I'm Kris kron. I'm here simply as a
- 13 concerned citizen of New Mexico. Since moving here in 1980
- 14 and hearing that they had discovered seepage of water into
- 15 salt caverns, I assumed that would be the end of this
- 16 project, which seemed only logical considering salt plus
- 17 water plus metal equals corrosion.
- However, here it is 1998, and after all of the
- 19 millions of dollars dumped into the project, the science
- 20 remains the same. Water plus salt plus metal equals

- 21 corrosion.
- Hydrology is not an exact science. The Pecos River
- 23 disappears underground for several miles in the Carlsbad
- 24 region. The low level aquifers under the Carlsbad region as
- 25 well as most of southern New Mexico and Texas. Water is our

- 1 most precious resource. The fact that opening this project 2 will very likely contaminate our water resources is foolish 3 and reckless.
- The Department of Energy, along with the media has

  5 continued to beguile the public by describing the contents to

  6 be stored at noxious objects such as gloves. Some of the

  7 articles are gloves, however, they are contaminated gloves,

  8 therefore not innocuous. Besides many of the containers

  9 supposed to be shipped from Andover, Idaho, Rocky Flats

  10 contain unidentifiable slurry of unknown chemicals.

  11 Transporting these containers on our notoriously dangerous

  12 highways is just another bad element of this still confused

  13 project.
- 14 It is appalling that Senator Domenici and
  15 Congressman Skeen basically blackmailed the EPA into
  16 approving this project by threatening to cut funding to the
  17 EPA.
- I as a taxpayer, want this project stopped, I don't

  19 care how much money and energy has been wasted so far. I

  20 want the DOE and EPA to stop and admit that the risks far

- 21 exceed the benefits, and it's questionable to what extent
- 22 this would be.
- 23 It appears the only benefit is that the DOE can
- 24 beguile public money to believe it has solved the problems of
- 25 disposable waste when in actuality it's just another DOE

- 1 cover-up literally by burying the evidence of the inability 2 to be accountable and responsible for the entities that it 3 oversees. Thank you very much.
- 4 PRESIDING OFFICER: Thank you for coming. Let me 5 do a quick check on a couple of people who weren't here 6 earlier. Debra Landau.
- 7 (No response.)
- 8 PRESIDING OFFICER: Rick Palkey.
- 9 (No response.)
- 10 PRESIDING OFFICER: Eva Khoury.
- 11 (No response.)
- 12 PRESIDING OFFICER: Okay. James Lewis.
- JAMES LEWIS: My name is James Lewis.
- WIPP is a very poor site for storing radioactive
- 15 waste. A salt formation with oil and gas drilling nearby is
- 16 unstable. Groundwater can enter the salt formation, form a
- 17 salt slurry, corrode the waste containers and allow the
- 18 waste to leave the area contaminating the nearby aquifers.
- 19 Transporting waste to the site will mean accidents 20 and contamination. Containers would not withstand major

- 21 accidents.
- A much better site would be a granite mountain away
- 23 from oil, gas and water. Such a site would only have to be
- 24 protected from rainwater. All containers should be
- 25 retrievable for inspection and so they can be moved later if

1 needed.

- It would be best to store all waste at the site of
  3 origin. This has the advantage of no transportation
  4 accidents. If there's not enough room at the site of origin,
  5 then cut back on production of waste. Do not use nuclear
  6 power plants for general energy which could be obtained more
  7 safely in other ways.
- 8 Use nuclear energy only for specialized uses where 9 it might have an advantage. It could be used for submarines 10 or for space travel too far from the sun for solar energy.
- One solution is to use up the waste by devising a 12 system to extract the remaining energy. The waste is being 13 dangerous for 240,000 years means lots of energy is still 14 there. Well, that's my statement.
- 15 PRESIDING OFFICER: Well, thank you very much for 16 coming.
- 17 Next is Virginia Corazon.
- 18 VIRGINIA CORAZON: Good morning. I'm here this
  19 morning as an ordinary citizen, a lifelong citizen of New
  20 Mexico, and I'm very strongly opposed to WIPP. I don't have

- 21 a lot of data and I don't have any knowledge -- we're talking
- 22 about a lot of different aspects, but just as an ordinary
- 23 citizen just like many of the people who spoke here today.
- I just feel like there are too many concerns that
- 25 haven't been adequately addressed. As long as those are

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- 1 there, it just seems very wrong minded to go ahead and open 2 something that further along the line we're going to have 3 problems with.
- There are those of us who have lived in New Mexico

  5 and we're not going anywhere. And when I decided to come

  6 down, I didn't even know the hearing was going to be held and

  7 thankfully my friend Richard did, because I don't feel like

  8 it was very well advertised and a little hard to find exactly

  9 how to get in here. And it would be nice if things were a

  10 little bit more open as far as people knowing.
- I just want to stay that there are those of us who
  lead to strongly about it even though we are not experts and we
  self-strongly about it even though we are not experts and we
  lead that we want to be here. We want to feel that our
  family, our children, our nieces and nephews, that they are
  leading to have a safe place to live. And that's all I wanted
  lead to say. Thank you.
- 17 PRESIDING OFFICER: Okay, thank you for coming.
- 18 Next is Sharla Bertram.
- 19 SHARLA BERTRAM: Good morning. My name is Sharla
- 20 Bertram. I'm here today to congratulate managers, staff and

- 21 contractors of the EPA who have worked so diligently to
- 22 insure an unbiased analysis of the WIPP. Thank you.
- In particular, I also want to pay tribute to Dan
- 24 Egan, the EPA scientist who almost two decades ago clearly
- 25 comprehended both the magnitude of the nation's need for

- 1 disposal of radioactive waste and the challenge to protect2 future generations of Americans from the consequences of that3 disposal.
- His legacy is 40 CFR Part 191, a rule designed to
  balance reality and idealism. The implementation of that
  rule through 40 CFR Part 194 has proven his wisdom
  withstanding all tests. Thank you for your careful
  sexamination of the certification application and all it's
  supporting materials. You have done a great service to the
  nation. As an environmentalist, I am aware of the
  consequences of the cold war and of the hazardous waste that
  remain. As a native New Mexican, I am aware that the role of
  state has played in the cold war and of our unique
  opportunity to permanently and safely dispose of a portion of
- I am proud to have contributed for over a decade to
  the scientific analysis of the DOE's Waste Isolation Pilot
  Relationary I am speaking to you today as a private citizen. I
  have been privileged to devote my career to understanding the
  analysis of the DOE's Waste Isolation Pilot
  relationary I am speaking to you today as a private citizen. I
  relationary I am speaking to you today as a private citizen. I

- 21 and to implementing the laws and regulations that govern the
- 22 disposal of defense waste. I encourage you to promulgate the
- 23 rule as proposed. You have indeed demonstrated that the WIPP
- 24 is and will remain a safe repository for defense transuranic
- 25 waste.

- You have also demonstrated your appreciation for
  the concerns of the good people of this beautiful state. I
  hope that the fears of those who have not had the opportunity
  to objectively evaluate the repository will eventually be
  laid to rest. Thank you.
- 6 PRESIDING OFFICER: Thank you for coming.
- 7 Next is John Hart.
- 9 small environmental consulting company in Albuquerque. I've
  10 been a contractor working on the WIPP project since 1979, and
  11 during that period I've been under contract with both
  12 Westinghouse and Sandia working on the project.
- My general comments today is I think EPA has done a 14 good job in its review of the compliance certification 15 application, and should be congratulated. I think you've 16 made a good decision. I think there are many reasons that 17 EPA can be comfortable with this decision. One of those I'd 18 like to talk to today is a general subject of conservatism.
- I believe there's significant conservatism builtinto the process by way of the rule that the EPA -- actually

- 21 the two rules that the EPA has promulgated and additionally
- 22 by way of the approach the DOE has elected to pursue in its
- 23 compliance evaluations. In the rule Part 191, we see a
- 24 containment requirement that is a probability based standard.
- 25 I think this is a very fair and logical recognition of the

- 1 fact that when we're dealing with predictions of long term 2 behavior of natural systems, there are some things that are
- 3 simply unknowable. There are inherent uncertainties.
- 4 A probability based standard is logical and
- 5 reasonable in that kind of situation, much more preferable
- 6 than some sort of a simple or arbitrary selection of a single
- 7 numerical value to be applied in a modeling situation.
- 8 Another significant example of conservatism in the rule is
- 9 the collective provisions called the assurance requirements.
- I see the assurance requirements as a backup or a
- 11 redundancy in the process. It makes sense. Our evaluations
- 12 of compliance with the containment requirements could be
- 13 flawed. There could be problems again because we're dealing
- 14 with things that are highly uncertain in some cases.
- Even if our containment requirement assessments are
- 16 flawed, the assurance requirements remain. They give us
- 17 added confidence that WIPP will be safe.
- There are several examples of conservatism in the
- 19 DOE I'd like to discuss briefly. One I think is interesting
- 20 that maybe a lot of people haven't thought about, and that's

- 21 kind of the general overall approach that Sandia pursued when
- 22 it started to develop its PA methodology and started to
- 23 establish the process that we applied to the compliance
- 24 evaluation.
- You heard from Rick Anderson from Sandia in

- 1 Carlsbad and Rick was a person at Sandia that was very
  2 important in establishing the original approach, he and a few
  3 others there. Rick and I have discussed this over the years
  4 and there were really two kinds of general approaches that
  5 could have been taken. One would be to say, okay, we've got
  6 this site selected, we've got facility, we know what waste
  7 wants to put in it. We can make it our job to find out why
  8 this is a good idea, prove to ourselves and the world that
  9 this thing is going to work.
- That was really not the approach taken at Sandia.

  11 Alternatively Sandia took the approach we have a given
  12 facility, a given site, a given mission, we think it is a bad
  13 idea. Let's prove to ourselves why this thing won't work.
- That was kind of the underlying approach for many
  15 years. A lot of time and dollars were spent, a lot of very
  16 talented people worked on this question and after this
  17 intensive effort and many years, the answers did come up. We
  18 can't find a fatal flaw. We can't prove to ourselves this
  19 thing won't work.
- 20 Other examples of conservatism in the process,

- 21 you've heard about include the seal's design, highly
- 22 redundant measures there.
- Human intrusion, there are conservative approaches
- 24 imbedded in that process as well. I think it is interesting
- 25 to understand that the process looks at a driller. A driller

- 1 is someone that is sophisticated. He has a specific mission
- 2 in mind. He'd spending a lot of money; he's using
- 3 sophisticated technology; he's defining pay zone; he knows a
- 4 lot about the geology of the site at which he's drilling.
- 5 Drilling is not something that is done casually.
- 6 But at the same time, the process assumes that this same
- 7 driller has no knowledge of the presence in the repository.
- 8 That, I think, is a very conservative approach.
- 9 Another example is the approach DOE took in
- 10 evaluating compliance with the drinking water protection
- 11 provisions in subpart (c) of Part 191. Even though available
- 12 data don't conclusively show that underground source of water
- 13 is present near the site, one is assumed to be there.
- Also there's a lot of conservatism in the bounding
- 15 analysis that was applied to that evaluation. In effect, DOE
- 16 assumed that contaminants are delivered throughout the
- 17 touring center with no real plausible pathways that have been
- 18 identified.
- 19 Anyway, in summary, there are other examples what
- 20 could be cited, and what we've got here, I think, is a series

- 21 of conservative assumptions combined with conservative
- 22 approaches, additional conservative assumptions on down the
- 23 line. The net result, I believe happens to be a very fair, a
- 24 very safe, a very conservative approach. Thank you very
- 25 much.

- 1 PRESIDING OFFICER: Thank you very much. Next is 2 Steve McCutcheon.
- 3 STEVE McCUTCHEON: Good morning. My name is Steve 4 McCutcheon. I'm vice president of Western Commerce Bank 5 which has offices in Eddy and Lea county and Bernalillo 6 county. I'm also a rancher who owns and operates a ranch in 7 Eddy County. I'm a third generation resident of Eddy County. 8 I have established family there. My wife and four children 9 reside there.
- I have paid some attention to the WIPP project for 11 a number of years. I think, in my opinion as a citizen, that 12 if anything could be said about the WIPP project, that I 13 think it speaks of overkill. But with my roots running as 14 deep as they do in Eddy County, I appreciate that and I 15 appreciate the posture that DOE has taken through the years 16 to ensure a safe and an environmentally friendly and 17 effective repository for transuranic waste.
- The project, as you know, began 22 years ago, and 19 we invited people from the federal government to come and 20 look at the salt beds that were in Eddy County. They are

- 21 somewhat unique and they allow an opportunity to safely
- 22 dispose of waste that is creating a national problem. As you
- 23 know, it is above the ground in many instances.
- As a citizen and as a businessperson in the
- 25 Carlsbad area and I think as a person who is perhaps as

- 1 affected as anybody in the room, everything that I have ever 2 had or done my entire life exempt for a few short areas, a 3 few short periods, have been in Eddy County.
- I urge that EPA move on with the final letting of
  the permit that has been proposed. I think that
  statistically speaking, I think there's potential that the
  waste where it is located now could affect very literally
  millions of Americans, and I think it needs to be reposited
  in WIPP. I think it is safe for the country; I think it is
  good for the nation, and certainly as a citizen of the area,
  the businessperson in the area, I feel no threat in any way,
  shape or form.
- I have known many of the people through the years

  14 who have worked at the WIPP project, and I found them to be

  15 extremely professional. I think they are an amazing and

  16 great group of scientists and support staff.
- I think one of the problems that has occurred with

  18 the WIPP project is that it has been -- in fact, when they

  19 started out putting it together they said well, somebody

  20 would stand up, and well, we need to have a say in that and

- 21 that's fine. And then another group. Pretty soon we had a
- 22 project that was so torn and pulled and regulated that it
- 23 almost could not move.
- But I believe that in the real years and with the
- 25 EPA standards that have been set and the compliance, that the

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- 1 project, the WIPP DOE project has been able to put in place.
- 2 I think we have met those requirements and I would urge that
- 3 we would open the facility timely.
- 4 The concept that always made our country great was
- 5 the concept of individual use. It is the concept of
- 6 beneficial uses. Water and land and all types of property
- 7 rights and human rights are established through use.
- 8 Easement of roads is an example of beneficial use. This
- 9 project has been there for a long time. It's been ready and
- 10 it has reached the final stages of readiness. I hope we can
- 11 put what the community and the state and everyone who has
- 12 worked, and you have worked so hard for some years, to find a
- 13 safe repository for TRU waste. I would leave THOSE thoughts
- 14 with you. Thank you.
- 15 PRESIDING OFFICER: Thank you for coming.
- 16 Next is Susan Rodriguez.
- 17 (No response.)
- 18 PRESIDING OFFICER: Jeff Radford.
- 19 JEFF RADFORD: Good afternoon or good morning. I
- 20 My name is Jeff Radford. I have been following this process

- 21 for 20 years and I've been concerned about the issue of
- 22 radioactive waste disposal for much longer than that, the
- 23 late 1960's.
- I have testified before the EPA and the DOE on many
- 25 times. I assume you have some record of my remarks

- 1 previously. I would like to say I am both saddened and
- 2 disappointed that after this point in this very long process,
- 3 I stand before you with you saying you are ready and willing
- 4 to allow the project to be opened.
- Although I have many concerns and have voiced those 6 over the years, this morning I would like to talk simply 7 about the passive institutional controls. I am a 8 communicator, a writer, a book publisher, newspaper 9 publisher. I'm interested in communication.
- When I first saw this process being proposed, I was
  11 extremely interested in how you were going to set about
  12 trying to communicate to future generations. That was one of
  13 the intriguing parts of this process as far as I was
  14 concerned.
- I doubted it was possible to communicate that far

  16 in the future, but I was really delighted to see someone was

  17 going to put some thought into that. That hasn't happened.

  18 If you look at what your interpretation of the DOE's proposal

  19 for communication into the future to warn them of the dangers

  20 that lies below the ground. You have said I think that the

- 21 best that the DOE could do was to proclaim that it was
- 22 virtually certain that its proposed warning markers would
- 23 endure and be understood for at least 700 years.
- I would point out that's an infinitesimal portion
- 25 of the radioactive wastes's 240,000 year half life. It's an

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- 1 insignificant part of the 10,000 year regulatory horizon.
- 2 But for some reason, and I think I understand why, the DOE
- 3 has declined to disqualify WIPP based on this failure of the
- 4 DOE to communicate the warning that it needs to communicate.
- You merely note that the earlier compliance
  6 criteria specified that DOE should make it's warnings as
  7 permanent as possible. Now, maybe that's as permanent as
  8 possible, but that's not certainly what I was looking for.
- 9 If things are not practical, they are not
  10 practical. If the project is not practical, don't do the
  11 project. In this case, as in many other instances, the basic
  12 problem is that the EPA's certification process was rendered
  13 essentially meaningless by corrupted compliance criteria
  14 determinations.
- As a general rule where WIPP could not comply with 16 rational, common-sense disposal requirements, the corrupted 17 criteria simply asserted they didn't have to. In other 18 words, the criteria rewrote to fit the project. You and I 19 both know that is wrong.
- If the DOE couldn't show compliance, then say,

- 21 well, it's not important to do so. I believe I understand
- 22 the political and bureaucratic pressures that have leveraged
- 23 up to brink of allowing this ill-conceived project to go
- 24 forward.
- I too was once a federal employee, a civil servant,

- 1 and I too was placed in a situation where I was being forced
  2 to do something I knew was wrong and could be disastrous. I
  3 was under James Watt in the United States Department of
  4 Interior, a man who was later convicted for criminal wrong
  5 doings. Not necessarily while in office but afterwards. I
  6 would contend that he was doing the same kinds of things when
  7 he was Secretary of Interior.
- I resigned in protest and publicized my views

  9 widely. I urge you to do the same. That was 16 years ago

  10 that I resigned in protest over something that I saw the

  11 federal government doing that I knew was wrong and it was

  12 generally recognized as being wrong.
- Since that 16 years that I resigned, my life did
  14 not fall apart. I live in a fine, new custom home. My son
  15 graduated from college phi beta kappa. I have two successful
  16 businesses, one of which is a book publishing company, and if
  17 any of you do take me up on my offer to resign, I would very
  18 much like to discuss with you the possibility for a book
  19 contract. Thank you.
- 20 PRESIDING OFFICER: Thank you very much for coming

- 21 today. That's the end of the scheduled list. We have a
- 22 little time left and I know we have at least one person who
- 23 wanted to testify and came in today. Let me check first for
- 24 people who weren't here earlier.
- Debra Landau.

- 1 (No response.)
- 2 PRESIDING OFFICER: Rick Palkey.
- 3 (No response.)
- 4 PRESIDING OFFICER: Eva Khoury.
- 5 (No response.)
- 6 PRESIDING OFFICER: Susan Rodriguez.
- 7 {No response.)
- 8 PRESIDING OFFICER: Ms. Ward, I think it was.
- 9 EM WARD: Good morning. Last night I attended the
- 10 expert and public testimony regarding the WIPP site. What I
- 11 saw and heard prompted my testimony today. During the break
- 12 last night called by Mr. Wilson, I went into the lobby to get
- 13 some water at one of the fountains. The four panel members
- 14 present here were walking together and took the escalator
- 15 upstairs. Mr. Matthews, who is not here this morning was not
- 16 with the rest and he was walking and talking ostensibly,
- 17 amiably with a man who later accompanied a declared Sandia
- 18 scientist out of the hearings.
- This man was walking very closely alongside Mr.
- 20 Matthews and speaking to him in a familiar manner. Returning

- 21 to the room, I overheard the unnamed man, that's only because
- 22 I don't know his name, telling Mr. Matthews his opinion of
- 23 quotations "the ploy" closed quotations, those were his
- 24 words, used to give an expert witness more time to testify.
- I felt I could not let this go unchallenged, so I

- 1 walked up to the men and suggested that perhaps the gestures2 by the public were a show of respect for the speakers3 knowledge of the subject.
- Apparently unable to counter this statement or

  5 attack the speaker's basic argument, the man lodged into an
  6 attack on the speaker himself, saying and almost yelling, and
  7 here's where I'd like the panelists to read because that
  8 speaker is also here in the audience and I'm uncomfortable
  9 repeating what the man said, but it is in the written
  10 testimony.
- So Mr. Matthews heard this and remained standing with the man with no comment. I left my position, I was right next to them, and walked away in disgust. I had actually wanted to direct questions to Mr. Matthews this morning outlining his relationship with the man who made these comments and if he thought that man was trying to 17 influence his thinking.
- Curiously after the break the aforementioned Sandia
  19 scientist and his companion, a woman who declared herself a
  20 chemist, graduate of John Hopkins University, former dean at

- 21 I believe Western Washington University and current Sandia
- 22 National Laboratory employee spoke in favor of certification
- 23 and opening of the WIPP site.
- She acknowledged the variables involved in the
- 25 standards used and their may be quibbles with certain aspects

- 1 and computer models. She even admitted it could not be
  2 proved that WIPP would be safe for 10,000 years. However,
  3 her response to this was that safety could not necessarily be
  4 disproved.
- Now ladies and gentlemen, that is a ploy: Changing 6 the argument. The other ploy illustrated here was by Mr.

  Matthews companion on attacking the speaker rather than his 8 arguments. The alleged scientist's statement was not only 9 disingenuous, but in fact, bad science.
- To support my contention, I call on my own

  11 experiences in engineering and medicine. I recall during my

  12 undergraduate days, a particularly tough engineering

  13 professor explaining his policy of no partial credit on

  14 exams. His question to the audibly dismayed class was in

  15 this vein: Do you want partial credit if only half your

  16 bridge falls down on and kills fewer people than if all of it

  17 collapses? No one in the class could respond to that out

  18 loud.
- A monumental event in US history occurred during my 20 post graduate period, the Challenger explosion. Now, I was

- 21 too young to be aware of what was going on when President
- 22 Kennedy was assassinated, but old enough to know where I was
- 23 and what I was doing as were many when the Challenger
- 24 exploded. This was my generation's national event.
- 25 Investigations showed that there was documented opposition to

- 1 the flight as planned. Morton Thiokol engineers voiced and2 documented their concerns about the performance adequacy of3 the now infamous O-rings.
- These were the people who designed, made and tested the things. They were worried that the rings would not be safe in launch conditions. The decision was made by a person without technical training, he had, to my recollection, an education degree, to continue the launch.

  The economic and political stakes outweighed the safety of the shuttle crew. We all know what happened.
- 11 An engineer who had been involved in the space
  12 program for many years spoke out. He made the point of how
  13 the fundamental bottom line regarding launch had changed over
  14 the years in the nascent phases of US space flight, the
  15 paramount issue was safety. He spoke of how team leaders
  16 mandated to engineers and scientists, prove to me to the
  17 highest standard that we can fly.
- In the 80's managers under economic and political
  19 duress, mutated a standard to a dictum, show me why we can't
  20 fly. This was an abdication of responsibility, of a basic

- 21 principle of the scientific method, the null hypothesis and
- 22 its level of rejection. This is exactly what the Sandia
- 23 employee did last night with her statement.
- Now I acknowledge Mr. Hart's testimony about how
- 25 the Sandia engineers you spoke to what you're supposed to

- 1 prove, and my contention is with the evidence presented so 2 far, though they sought this standard to fly, it wasn't the 3 highest.
- Now the majority of thorny ethics and technology

  5 questions I have encountered have been during my training and
  6 career in medicine. During medical school, students were
  7 sometimes asked a single question in the discussion of
  8 diagrams and treatment and prognosis regarding a particular
  9 patient in a particular situation. What would you do if she
  10 were your mother. This or a permutation of, is the question
  11 I ask the panelists: Would you and your family live at the
  12 WIPP site? Also what's your price to do so?
- To close I share an observation. Historically
  those who have believed themselves to possess intellectual
  and technological and I'll add political, financial and
  religious superiority have actually possessed and exhibited
  moral and ethical inferiority. Thank you for this time.
- 18 PRESIDING OFFICER: Thank you for coming.
- 19 Is there anyone else who wanted to comment that 20 hasn't had a chance?

- 21 (No response.)
- JEFF RADFORD: I forgot to submit something for the
- 23 record.
- 24 PRESIDING OFFICER: Okay, we can do that now.
- 25 Anybody else?

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JANUARY 8, 1998 - ALBUQUERQUE AND SANTA FE, NEW MEXICO

- 1 (No response.)
- JEFF RADFORD: This is Jeff Radford again. I am 3 submitting for your record a copy of a Beowulf poem written 4 in old English 1200 years ago, and I content that none of you 5 all and probably no one in this building can read this 6 warning which is written in old English.
- 7 PRESIDING OFFICER: Okay, thank you.
- Ms. Ward raised an incident last night I'm sorry to

  9 hear about, I must say. I know these are a lot of very

  10 difficult, technical and policy issues involved here, and I

  11 have to say I think all of us have been impressed by the

  12 thought and care that went into all of the testimony, and I

  13 think on both sides there are strong feelings on both sides.

  14 And I think we all appreciate the professional way all of

  15 you with your deep thoughts have come in and spent the time

  16 to give to us. I'm sorry to hear about the incident last

  17 night.
- With that, a reminder that our hearing record is
  19 open until the end of February for any of you who have
  20 additional information --

- DR. RICHARD HAYES PHILLIPS: February 27, I don't
- 22 want anybody to miss it.
- 23 PRESIDING OFFICER: We won't quibble over a day.
- 24 People if you have comments on what you have heard other
- 25 people say or additional information you'd like to provide to

1 us, please do.

We are going up to Santa Fe. We will be there this

3 afternoon and tonight, all day tomorrow and as long as it

4 takes to give everybody a chance to give us their comments

5 there. So thank you all for the time you have spent and for

6 your time and attention. Thank you very much.

7

## 8 AFTERNOON SESSION

- 9 SANTA FE, NEW MEXICO
- 10 PRESIDING OFFICER: Good afternoon. I have a few 11 opening remarks and then we'll get on with the testimony.
- We have a full schedule today and tomorrow. As you 13 probably know, we started the week in Carlsbad and have been 14 holding hearings in Carlsbad and in Albuquerque yesterday and 15 this morning and then came up here this afternoon.
- We'll be here this afternoon and this evening and 17 all day tomorrow. We'll be here as late tonight as we need 18 to, as long as there are people who want to testify. We're 19 already scheduled up to about 9:30, but I think we'll have 20 some other people who will come in to make comments.

- 21 My name is Richard Wilson, and I'm the Acting
- 22 Assistant Administrator for the Environmental Protection
- 23 Agency's Air and Radiation program, and will be presiding
- 24 officer here today and tomorrow.
- First of all, let me introduce you to the other

- 1 panel members. With me this morning are Larry Weinstock,
- 2 Frank Marcinowski on my left, and Mary Kruger and Keith
- 3 Matthews on my right, all of whom actively are involved in
- 4 the radiation program with EPA and particular WIPP.
- Now some of the ground rules for the hearing. It's 6 an informal legislative public hearing. There isn't any 7 cross-examination. People will present their statements. 8 They may be questioned by the panel members.
- 9 We're here to listen to your comments. We have a 10 court reporter who will produce a transcript of today's 11 proceedings. If you have a written copy of your statement, 12 it would help a lot if you could give it to us, particular to 13 the reporter.
- I'd ask all of the witnesses to start out withsaying your name and spelling your name and your organizationso the reporter can have it correctly.
- We have allowed individuals five minutes to

  18 testify, people representing organizations will be allowed

  19 ten minutes. Again, the purpose of the hearing is to solicit

  20 public comment on our proposed decision to certify that the

- 21 WIPP is in compliance with our radioactive waste disposal
- 22 standards, and I would ask people to please confine their
- 23 comments to that subject. We're going to be here all day.
- 24 Actually we'll be here as late as we need to be to make sure
- 25 anybody who has comments has a chance to make them to us.

- People who registered in advance were given the time to speak. Others, if there are others here now who haven't registered but would like to speak, if you'll check in with the registration table outside, we'll do our best to accommodate your schedule.
- We're going to use a timer for the hearing. As I said, we have a lot of people who want to testify, and we're going to hold people to the five- and te-minute time rule in 9 order to make sure everybody has a chance to give us their 10 comment. There's a little timer here. Basically it will 11 start green. When you have about three minutes left, it will 12 turn to yellow, and when it turns red, I will ask you to 13 please conclude your comments.
- I remind you that we'll gladly accept written

  15 comments today or anytime up until February 27. The comment

  16 period is open until the end of February, and written

  17 comments are accepted up until then. Anybody who has more

  18 than five- or ten-minutes worth to tell us today, we'll be

  19 happy to take it in writing, or if you have thoughts after

  20 hearing other people's comments or additional information to

- 21 give us, please feel free to do so. Please see the
- 22 information table and refer to the fliers that are available
- 23 outside regarding docket locations and hearing ground rules.
- 24 The transcript for today's hearing will be
- 25 available at each of the EPA dockets in about two or three

1 weeks. So that's how the hearing's going to work.

- 2 A little bit of background on why we're here. In
- 3 1992, Congress required EPA to insure safety of the WIPP
- 4 site, and in response EPA set disposal standards in 1993,
- 5 requiring DOE to demonstrate that WIPP will be a safe
- 6 disposal facility for thousands of years into the future.
- 7 Then in February 1996, EPA followed those general standards
- 8 with more specific compliance criteria relating to WIPP.
- 9 The compliance criteria is to clarify the
- 10 requirements of the radioactive waste and it is over
- 11 regulations that require DOE to provide EPA with specific
- 12 types of information in its compliance certification
- 13 application.
- Then in October of 1996, EPA received DOE'S
- 15 Compliance Certification Application and immediately began
- 16 our review for completeness and technical adequacy.
- 17 In November of 1996, we announced that the
- 18 application had been received and solicited public comment on
- 19 the application and announced our intent to conduct the rule
- 20 making. That began a 120-day comment period and public

- 21 hearings to obtain comments were held in New Mexico in
- 22 February of 1997. Then in May of 1997, after those hearings,
- 23 we determined that DOE's application was complete, and by law
- 24 EPA has one year from this date, May of 1997 until May of
- 25 1998, to make a final decision on the certification.

- 1 We have consulted with scientific experts and the
- 2 people of New Mexico prior to issuing a proposed decision.
- 3 We've reviewed the information on the WIPP's ability to
- 4 safely contain radioactive waste, and as required by EPA
- 5 standards, DOE has had the necessary portions of the
- 6 application peer reviewed by independent experts.
- 7 On October 30 of last year we issued a proposed
- 8 decision that the WIPP will comply with requirements of EPA's
- 9 radioactive waste disposal regulation and compliance
- 10 criteria.
- We are proposing that DOE meet four conditions for
- 12 this certification. These are first of all, that EPA must
- 13 approve the execution of waste characterization activities
- 14 including a determination of the radionuclides and other
- 15 contents of waste disposal containers currently stored at
- 16 waste generator sites before the containers are allowed to be
- 17 transported to WIPP for disposal.
- Secondly, EPA must approve the establishment and
- 19 execution of quality assurance programs for waste
- 20 characterization activities before the containers are allowed

- 21 to be transported to WIPP for disposal. Quality assurance
- 22 programs will confirm the waste characterization is done
- 23 properly.
- 24 Third, DOE must submit to EPA prior to the closure
- 25 of WIPP a detailed plan and schedule for implementing passive

- 1 institutional controls, including an elaborate marker system
  2 intended to warn future generations about the hazards of the
  3 radioactive waste buried in the WIPP.
- 4 And fourth, DOE must seal waste storage panels
  5 within the WIPP with strong concrete barriers which are
  6 engineered to contain hazardous material.
- Having proposed our decision, we're now here to
  8 obtain feedback from New Mexico citizens on this proposed
  9 decision. As I mentioned we're also accepting written
  10 comments on the proposed decision, and all written comments
  11 must be received in the EPA docket by February 27, 1998.
- 12 Again I assure you that all written and oral
  13 comments will be carefully considered before we make a final
  14 decision on whether the WIPP complies with our regulations.
- Again on behalf of EPA, I want to thank all of you
  16 and all of your colleagues who will be joining us later, for
  17 taking the time to come and meet with us here today. We
  18 appreciate it. We appreciate your input. We've had
  19 excellent testimony both pro and con in Carlsbad and in
  20 Albuquerque, and we're looking forward to additional

- 21 information here today and tomorrow.
- With that we'll start. The first witness is Carol
- 23 Miller.
- 24 UNIDENTIFIED SPEAKER: One quick question.
- 25 PRESIDING OFFICER: Yes.

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JANUARY 8, 1998 - ALBUQUERQUE AND SANTA FE, NEW MEXICO

- 1 UNIDENTIFIED SPEAKER: Can you identify the panel 2 as to who they are with.
- PRESIDING OFFICER: Everybody on the panel is with 4 the Environmental Protection Agency.
- 5 UNIDENTIFIED SPEAKER: Well, the one I can read 6 from here is with the -- oh, I see.
- PRESIDING OFFICER: Mr. Matthews is in the General 8 Counsel Office of EPA. The rest of us are in the Air and 9 Radiation office.
- 10 UNIDENTIFIED SPEAKER: Okay, thank you.
- 11 CAROL MILLER: Thank you. My name is Carol Miller.
- 12 I'm here today representing the New Mexico Public Health
- 13 Association where I chair both the Public Health Policy
- 14 Committee and the New Mexico Public Health History Project.
- The Public Health Association is an affiliate of
  the American Public Health Association. Both of these
  roganizations have official policy addressing public health
  sconcerns related to the proposed operation of the WIPP
  facility.
- 20 Unlike medical care, the mission of public health

- 21 is to look ahead into the future and to prevent adverse
- 22 health effects from occurring. Our mission is prevention.
- This is not the first time I've testified in a
- 24 public hearing regarding the WIPP site, but I want to draw
- 25 attention to the fact that we're in the Octaviano Ambrosio

- 1 Larrazola Auditorium and Governor Larrazola was the governor2 who establish the Department Of Health in the state of New3 Mexico in 1919, and we hold him very highly in the public4 health community.
- In fact, the New Mexico Public Health Association
  6 every year honors one New Mexican with the O.A. Larrazola
  7 Award for outstanding and longstanding contributions to
  8 public health in New Mexico. I was honored to receive this
  9 award in 1996, in recognition of my two decades of public
  10 health service in New Mexico, so because we are in this room,
  11 which is really the heart and soul of public health in our
  12 state, I will urge you on behalf of more than 300 public
  13 health professionals and advocates in New Mexico and 60,000
  14 members of the American Public Health Association, to address
  15 the public health concerns presented to WIPP related to the
  16 WIPP site which have not been resolved.
- In reviewing my files to prepare for my testimony,
  18 I found an article from January 1991, seven years ago from
  19 the Nation's Health, a monthly newsletter put out by the
  20 American Public Health Association. I was quote in the

- 21 article, and what I said then sums up how I feel today, and
- 22 I'll quote from that article.
- Another issue is DOE's choice for transportation
- 24 route for the waste which Miller argues includes some of the
- 25 nations most dangerous roads and traverses rural areas where

- 1 poorly trained emergency personnel would be the first to 2 respond to a radioactive accident. It shows the agency, 3 referring to the EPA, is willing to roll over and play dead 4 on whether WIPP is safe.
- The public health community is not asking anything 6 radical of the EPA, and I'm going to go through one by one 7 the four points we have asked to be addressed which we feel 8 are still not sufficiently addressed.
- Number one, delay the opening until federal health
  10 agencies independent of the Department Of Energy assure its
  11 safety. We think it is inappropriate to have an agency with
  12 an interest in moving waste to a facility be an agency that's
  13 involved with establishing the standards.
- 14 For example, the Occupational Safety And Health
  15 Administration is an example of other public health agencies
  16 that need to be involved to make sure that workers in all of
  17 the facets of moving the waste to the WIPP site are cared for
  18 in our state.
- 19 Carry out the independent baseline health studies20 which were promised in the agreement signed between the state

- 21 of New Mexico and the Department Of Energy.
- On July 1, 1981, almost 20 years ago, a stipulated
- 23 agreement between the state of New Mexico and the Department
- 24 Of Energy was negotiated by Jeff Bingaman, who was Attorney
- 25 General at the time. I'm going to read Item 7.e. of the

- 1 stipulated agreement which I believe has some legal authority 2 and is supposed to be carried through.
- 7.e. says that the DOE will provide funding for and
  4 assistance in conducting baseline health studies of
  5 inhabitants in neighboring communities near the WIPP site and
  6 reasonable periodic monitoring thereafter.
- We have expressed emphatically to the EPA numerous 8 times that before any facility opens, the importance of 9 having these baseline health studies completed, and we're 10 very discouraged that that has not been addressed. Both DOE 11 dropped the ball on the baseline health studies and it 12 appears the EPA has also dropped the ball on that, because we 13 communicated that in 1991. We were told those studies would 14 take about six years. They, in fact, could have been 15 completed, and the DOE has agreed to pay for those studies 16 and yet nothing has happened.
- 17 I'd like to talk a little later if my times doesn't
  18 run out, about the shameful history of public and private
  19 radiological health studies, because with the new
  20 declassification with many documents, we in the public

- 21 community have prove of 50 years of lies and cover ups with
- 22 the health effects of the nuclear industry.
- The government needs to remedy this ugly history by
- 24 building safety and health assessments into all its present
- 25 and future projects, especially one which purports to be our

1 nation's first permanent, nonretrievable waste disposal 2 facility.

- The third thing we had was to develop and implement

  4 with public involvement standards which assure the safe

  5 operation of nuclear waste respositories. That one was

  6 actually developed before the WIPP site was constructed. We

  7 feel that the way that you adequately assure safety in a

  8 facility is you set standards and then you build the facility

  9 to those standards.
- 10 What happened in this case actually is that the
  11 facility predated and the standards were, we believe,
  12 arranged to fit the actual how the facility was going to
  13 operate, that it was done backwards. There's still not a
  14 uniform nuclear waste repository standard, but rather a
  15 custom made for WIPP regulation.
- The development of safe transport and the mandated 17 use of alternate bypass routes around population centers.

  18 This was not even close to being met. Using the example of 19 Santa Fe, because the bypass has not been constructed, the 20 waste will drive straight through the middle of town on St.

- 21 Francis Drive.
- The city response was initially very strong but
- 23 ended up being watered down to only regulating the hours of
- 24 transport through the city. We feel this is an absolutely
- 25 unconscionable violation of the public health not to have

1 safe alternate routes available for moving the waste around.

- Have these protected measures, these four, not been

  fulfilled because they cannot be met? Does this mean that

  the handling, transportation and facility cannot meet a

  public health safety standard. We in the public health

  community in New Mexico want to know why these concerns have

  not been addressed.
- One of the biggest problems with approving the

  9 opening of WIPP, and you did talk about the characterization,

  10 that has been a real issue with us that, in fact, the studies

  11 were done, computer modeling of what the expected waste

  12 stream would be, yet there is no accurate information as to

  13 what the waste stream actually is going to be. That is a

  14 serious problem for us. We think it invalidates many of the

  15 assumptions about the facility when it actually becomes

  16 characterized.
- 17 1997 was a sentinel year for the information
  18 release of health studies because of the declassification
  19 that I mentioned. What we've learned is that more health
  20 studies are needed before we make important changes to the

- 21 nuclear facilities in this country such as maybe a permanent
- 22 waste facility.
- There has not been adequate testing on plutonium,
- 24 strontium-90 and cesium. There's a bill in the U.S. Congress
- 25 right now, Senate Bill 1524, which calls for additional

- 1 studies and looking at those particular radionuclides. So it
- 2 seems as if it would make good public health sense to
- 3 complete the studies and work with the health effects and
- 4 health risks before we start moving these materials around.
- 5 I'm cutting out as I go, because I know that I have 6 more than ten minutes here.
- A study was released in October, just as an 8 example, the National Cancer Institute released a study on 9 the effects of above ground Atomic bomb tests on the american 10 public. And they have said that we can expect up to 75,000 11 thyroid cancers from Iodine 131 being in the milk supply and 12 people being exposed to that.
- We have not looked at any of the other

  14 radionuclides that are affecting the health of the American

  15 people. We're very upset about this first release of

  16 information. The study was completed for a number of years

  17 and was only made public after it was ordered by an Act of

  18 Congress. We feel it is inappropriate for agencies whose

  19 mission, the Environmental Protection Agency, to move forward

  20 before there is adequate information. There are serious

- 21 future risks.
- There are scandals associated with this also. We
- 23 learned that in the 50's and 60's that the federal government
- 24 notified film manufacturers like Kodak to tell them when tere
- 25 were going to be above ground tests because their film

- 1 clouded and they couldn't sell it, but they never told the
- 2 American people that they were being exposed to very high
- 3 levels of fallout that would cause them health problems.
- 4 Protocols for screening at risk populations need to
- 5 be developed. You can't develop the protocols until we have
- 6 the baseline health studies which are desperately needed in
- 7 southeast New Mexico before any waste is implanted there.
- 8 The federal government needs to establish and
- 9 adequately fund programs to pay for medical costs associated
- 10 with government caused cancers and other health problems, and
- 11 we are also working to seek the compensation of victims and
- 12 their families.
- Basic research is still needed to determine the
- 14 best methods of nuclear waste management. The WIPP approach
- 15 is supplying an ancient technology which I call the ostrich
- 16 technology. Dig a hole, bury it and hope nobody ever finds
- 17 or disturbs it at anytime in the future. Using a deeper and
- 18 deeper hole does not make this more technologically advanced
- 19 solution than digging just a regular sized hole.
- I join others in recommending that an alternative

- 21 waste management strategy be developed on site at the
- 22 facilities where the waste is currently located. If the
- 23 funding that has gone into WIPP had been used to develop
- 24 alternate treatment technologies, as a nation we might be
- 25 closer to a permanent solution to the nuclear waste problem.

- 1 Above ground retrievable storage will allow past 2 and present waste to be treated with future technologies 3 still to be developed.
- Why does the New Mexico Public Health Association
  5 speak out on these issues? New Mexico is the heart of the
  6 nuclear weapons program from its first day until its last. I
  7 just have one paragraph to close here.
- 8 PRESIDING OFFICER: Okay.
- 9 CAROL MILLER: Public health concerns must be
  10 addressed. We have already placed two generations at risks
  11 from the activities of nuclear industry. We need to focus on
  12 mitigating these past activities. WIPP is only designed to
  13 hold .01 percent of the existing nuclear waste. We need
  14 intensive research to focus on safe, above ground,
  15 retrievable storage to solve the waste problem. We do not
  16 need a small tremendously overbudgeted band aid. Thank you.
- 17 PRESIDING OFFICER: Thank you for taking the time 18 to come today and we appreciate your testimony. If anybody 19 would in the back, I mean you're welcome to stand. There are 20 seats over on this side.

- 21 Next is Dominique Mazcong.
- DOMINIQUE MAZCONG: I just got out of bed to come
- 23 here and I forgot my few notes, so I'll speak from my heart.
- 24 I became an American citizen in 1989 on this very issue, and
- 25 I have spoken at every hearing since then. And even though

- 1 sometimes I'm able to do a lot of homework and come with a
  2 lot of details about very complicated things, I think the
  3 main thing that I and many, many citizens from the state are
  4 appalled by is that this very unique, not only in the country
  5 records of the nuclear repository, but in the world is really
  6 doomed, was doomed from the very beginning.
- And when in the papers we hear about 10,000 years, 8 you know, when you talk about plutonium, you talk about 9 240,000 years. So it's a very -- it's just so crazy. Even 10 if we go over all of these things, it's not going to work.
- I reread one of my last testimonies where I was
  12 quoting an article from, I forgot the source now, but a
  13 scientist had predicted that there would be a serious chance
  14 for earthquakes in New Mexico. And a few days ago we heard
  15 that there were several earthquakes in the southern part of
  16 the state. They were over three on the Richter scale. It's
  17 not very high but I don't need to be a seismologist to know
  18 that that's the beginning often of bigger earthquakes.
- 19 As Carol Miller mentioned, I feel that a very wise 20 solution would be to leave this waste where it's

- 21 manufactured, and for many times I have spoken of a project
- 22 that is called the Nuclear Guardianship Project which really
- 23 is a vision where the waste that is stored and kept by the
- 24 people who have produced it. And I feel that it is so
- 25 dangerous to carry, to transport this waste and it is putting

- 1 in danger too many people, and not only people but all life 2 and our Planet Earth.
- 3 So I urge you as our representatives or witnesses 4 to really pass on to the powers that be that this is the 5 worst the idea.
- I became an American citizen not only for this

  issue but because I believe in the higher destiny of this

  country. And I believe that when one has such a destiny, one

  has the courage of saying times are changing, we're admitting

  we made a mistake even though we have spent a lot of money.

  Let's all get together to find better solutions and to change

  umind.
- 13 It is not too late so I urge you to consider this.14 Thank you.
- 15 PRESIDING OFFICER: Okay, thank you very much.
- Next is Attorney General Tom Udall.
- 17 ATTORNEY GENERAL TOM UDALL: Mr. Wilson and other 18 members of the panel, thank you for giving me the opportunity 19 to speak, and thank you for being here with us today.
- 20 At the outset, I would just -- I'd like to show you

- 21 what I think is probably the most important part of your job
- 22 here today, and that is this stack of scientific reports
- 23 that's come in the last couple of reports. This is more than
- 24 two inches of scientific reports, independent scientists and
- 25 international panel that has taken a look at the DOE

- 1 application, a group of independent scientists known as the2 Environmental Evaluation Group and also a distinguished3 scientist by the name of John Bredehoeft.
- All of them have said, I think, that there are very

  5 serious problems, major scientific problems unresolved, yet

  6 to be resolved, have to be worked on. And I think it's

  7 really your task to address those issues and come to grips

  8 with that, because my sense in reading between the lines is

  9 they are saying that the facility doesn't comply unless you

  10 resolve those problems. And that's, I think, a very serious

  11 issue.
- The proposed decision by EPA results from what I

  13 believe is the effective process and reaches an unsupported

  14 and wrong conclusion. DOE has not shown that WIPP will

  15 comply with radioactive waste disposal regulations. EPA has

  16 not required DOE to do so. Nor has EPA independently

  17 determined that WIPP will comply.
- 18 EPA seems to have focused its efforts not on
  19 testing DOE's compliance demonstration but on making DOE's
  20 compliance task easier. When outside parties like my office

- 21 have raised real problems involving compliance, EPA has
- 22 ignored the issues. In short, EPA has not done the job to
- 23 protect public health and safety.
- The problems with EPA's determination are
- 25 fundamental. Many of these problems were identified in last

- 1 year's reports by the International Peer Review Group, one of 2 the reports that I showed off just earlier. That group's 3 report which EPA has largely ignored, and I understand you're 4 saying you're not looking at what international scientists 5 say, but you've ignored it in responding to comments and it 6 contains severe criticisms of the facility and the process by 7 which it is to be evaluated.
- 8 First, it points out EPA's evaluation does not
  9 attempt to determine that WIPP will be safe. Rather, EPA
  10 states only that WIPP will comply with certain regulations.
  11 It is not a safety assessment. Such a limited analysis would
  12 not be acceptable anywhere else in the world where disposal
  13 sites are planned.
- In addition, the international group said EPA's

  15 compliance determination is arbitrarily limited, that there

  16 has been no determination that the limited scenarios examined

  17 in assessing compliance are the most appropriate from a

  18 safety standpoint.
- No one, least of all EPA, has determined to those 20 scenarios actually correspond as best we can tell to the risk

- 21 the repository will face. Even so, EPA could if it had
- 22 wished performed a credible job of assessing the compliance,
- 23 but EPA did not do that.
- Instead EPA assumed a passive attitude toward its
- 25 mission. First EPA failed to equip itself with expertise at

- 1 the level necessary for the task. Assessment of WIPP's
- 2 performance calls for the highest level of scientific
- 3 capability. Scientific issues in fields like actinide
- 4 solubility, rock mechanics, material science and other
- 5 exacting disciplines have not been raised.
- 6 Frequently DOE has presented only fragmentary
- 7 research results or informal analysis to support important
- 8 issues of compliance. To analyze DOE's claims critically, as
- 9 EPA must, requires a high level of master of the subjects.
- EPA plainly has not equipped itself with such
- 11 capability. In fact, one of the most painful aspects of
- 12 EPA's proposed ruling has been EPA's refusal even to identify
- 13 the outside consultants on whom EPA has relied to support its
- 14 decision. How can EPA ask the public to have confidence in
- 15 the decision whose authors refuse to be named and who will
- 16 not reveal all of their credentials.
- 17 All of the credentials of the scientists I talked
- 18 about earlier in that two-inch stack, their credentials are
- 19 on the table. Some of them have been slandered by others
- 20 earlier in the testimony, which I think is disgraceful in

- 21 this process.
- Next, EPA has refused to adopt a critical approach
- 23 toward DOE's application. On key issues, we find EPA's
- 24 proposed decision simply recites arguments advanced by DOE
- 25 and fails to examine their validity.

- EPA has picked and chosen the scientific issues on

  which EPA will do independent work. In doing so, EPA has

  stayed well away from any questions that might actually cast

  doubt on WIPP's compliance. In fact, EPA has put future

  major efforts into work that supports the compliance showing

  like the revisions of the actinide solubility does.
- EPA's attitude reflects a basic misunderstanding of 8 the regulator's role. It also means that the entire burden 9 of effective criticism falls on outsiders like our office, 10 the Environment Evaluation Group and other organizations.
- 11 As outsiders, we cannot be nearly as effective as
  12 EPA because we can participate only within the limits of the
  13 rulemaking process which is extremely constrained. Outside
  14 organizations, as you well know, have very limited resources
  15 compared to EPA and DOE. Nevertheless, we and other
  16 outsiders have shown you several clear cases of
  17 noncompliance.
- If you want examples, take these. We presented
  19 several reports about fracturing and marker beds that run
  20 beneath WIPP; showing how those fractures would be created by

- 21 fluid injection or by gas pressure in WIPP; How experts show
- 22 that DOE's prediction of the extent of fracturing conflicts
- 23 with principles of fracture mechanics and was not supported
- 24 by the data.
- EPA never raised these issues because EPA

- 1 apparently lacked the skills or the initiative to do so. Why
  2 were you waiting for others to raise these issues. This is
  3 your job. Why didn't you resolve those issues before you
  4 published your proposed decision? EPA issues its proposed
  5 rule without even considering the problem, which is clearly
  6 an important problem.
- Again we have submitted papers on air drilling.

  8 Everyone expects that someone will drill into WIPP in the

  9 future probably several times. Air drilling is the drilling

  10 technique that is known today and is feasible at the WIPP

  11 site.
- Our reports show that air drilling into WIPP would 13 cause hundreds of cubic meters of waste to fracture and be 14 brought to the surface. EPA's 10,000 year standard would be 15 violated in less than a day.
- DOE has not analyzed air drilling at all. EPA has 17 not analyzed air drilling either. EPA staff has acknowledged 18 that air drilling is a serious issue, and that they are going 19 to investigate further.
- Why didn't you look at the impact of air drilling

- 21 on your own initiative? Why did EPA wait for outsiders to
- 22 raise an issue of such safety implications?
- We have also submitted a paper showing that even
- 24 when drilling with mud, if WIPP is intercepted, first a large
- 25 volume of waste would be fragmented and next gas pressure

- 1 would push waste against the drill string and cause it to
  2 stick. This is the scenario of stuck pipe. When the driller
  3 tries to free a stuck pipe, he brings a large volume of waste
  4 to the surface.
- DOE's compliance application does not include stuck 6 pipe. We have shown that stuck pipe can cause the release of 7 hundreds of cubic meters of waste. Why didn't EPA pursue 8 this issue? Where have you been?
- 9 Yet again EEG has studied how air drilling would
  10 release large quantities of contaminated brine to the
  11 surface. They have shown that direct brine releases would
  12 amount to hundreds and even thousands of cubic meters, much
  13 more than DOE assumes. This is another issue that EPA has
  14 not examined.
- 15 EEG has shown another thing. They have shown that 16 releases of the size that would be caused by air drilling or 17 stuck pipe or direct brine release would violate the disposal 18 standards. EEG found that if releases caused by drilling 19 intrusions vary from 8 to 64 cubic meters, the release limits 20 under the disposal regulations are violated.

- 21 The releases from air drilling or stuck pipe or
- 22 direct brine release are much larger than that. This is very
- 23 important. EPA has tried to dismiss many compliance issues
- 24 by saying that however the issue is resolved, the standard
- 25 would not be violated. This is not a fair response, because

- 1 it means that the only comment EPA will listen to is a full 2 own performance assessment.
- As to the problems I have listed, EPA cannot make
  4 that response because the releases caused by air drilling and
  5 by stuck pipe are in the hundreds of cubic meters. And fluid
  6 injection can cause thousands of cubic meters to be released.
- These unanswered compliance problems undercut other 8 parts of your proposed decision. For example, EPA is 9 obligated to enforce the requirement for engineered barriers 10 in the disposal regulations. EPA has decided to allow DOE to 11 put waste into WIPP contained in simply 55-gallon steel 12 drums.
- EPA's decision is based on DOE's study to engineer

  14 alternatives, but DOE's study completely fails to ask whether

  15 different waste containers would reduce the impact of fluid

  16 injection or air drilling or stuck pipe or direct brine

  17 releases.
- That is to stay DOE's study leaves out the release
  19 scenarios that really matter. If DOE had studied engineer
  20 barriers based on the scenarios that cause major releases of

- 21 radioactivity, it would have discovered something very basic,
- 22 that one of the big problems with WIPP is the sealed waste
- 23 drums. These drums rust, generate hydrogen gas under high
- 24 pressure. That gas pressure creates most of the problems in
- 25 an air drilling or direct brine release scenario because the

- 1 gas pressure fractures the waste. The gas pressure is one of 2 the major causes of fracturing of interbeds.
- If you had required DOE to examine engineered
  4 barriers seriously, you would have seen clear benefits in
  5 replacing those steel drums with containers that do not turn
  6 WIPP over the centuries into a pressurized canister of
  7 radioactive waste waiting to burst upon the next intruder.
- What most concerns me now is how EPA will deal with 9 these unexamined, but by EPA's own admission, important 10 scenarios violating the disposal standards.
- Since EPA rushed its proposed decision to
  12 publication without examining these scenarios, EPA has not
  13 expressed itself. No one knows what EPA really thinks about
  14 release scenarios like air drilling or fractures in the
  15 Salado marker beds or stuck pipe, because you have not said.
- No one knows whether EPA would consider it
  ressential to replace those steel drums with safer containers
  la in light of the dangers of those released scenarios.

  Conceivably EPA will not express itself on those issues until
  dits final decision.

- 21 If you take that course, the public commentors who
- 22 have been the only ones to raise these issues, will have no
- 23 chance, none whatsoever, to comment on EPA's decision of
- 24 these critical issues.
- Even more basically, the public has a right to

- 1 demand that EPA do it's job to protect public health and 2 safety.
- Several serious issues as to WIPP's compliance have

  4 been raised and EPA has not dealt with them, not even

  5 tentatively. We are frankly concerned that when it deals

  6 with these issues, EPA will paper over the problems with

  7 inadequate science. When EPA presents inadequate science,

  8 the public has a right to complain about it and to call upon

  9 EPA to explain itself.
- 10 If the public is to participate in EPA's decision
  11 making, EPA should announce its decision on those issues and
  12 allow public comment. By that I mean EPA should repropose
  13 its decision, this time dealing with all of the significant
  14 violations of the disposal standards, and assessing how
  15 engineered alternatives would reduce those violations.
- EPA should take public comment before making its
  17 final decision. That kind of process would allow independent
  18 scientists and anybody who happens to have any expertise to
  19 speak to you and be heard.
- Simply speaking, we are asking you to allow the

- 21 public to comment on the major compliance issues for WIPP.
- 22 There is no need to go into detail about the other problems
- 23 we have with the proposed compliance determination. We will
- 24 submit further written comments, and we hope and expect EPA
- 25 will respond fully when it issues the proposed rule.

- This may be my last appearance before a panel of 2 EPA concerning WIPP. Throughout this process, I have 3 implored EPA to be faithful to its responsibility to health 4 and safety, to recognize that if EPA does not do that job no 5 one will. That is still my hope and my request.
- Protecting the public cannot be done coming from a

  7 commitment to assist another agency's program or from the

  8 position it is the public's duty to bring up any safety

  9 problems, or from the assumption that safety questions are

  10 simply political posturing, or from the position that EPA

  11 need only comply with the minimum requirements of notice and

  12 comment rulemaking.
- 13 Protecting the public can only be achieved if you
  14 start a commitment to do exactly that and nothing less. I
  15 ask you to recall that EPA is intended by Congress to be the
  16 independent regulator of DOE and WIPP, to recall your
  17 commitment to protecting the public, and to base your actions
  18 in that commitment as you continue and conclude this
  19 rulemaking.
- With that, I'd be happy to take any questions, Mr.

- 21 Wilson or other members of the panel. I know, Mr. Wilson,
- 22 you asked that we have the opportunity to meet while you were
- 23 here. I've been busy working on my testimony, but I hope you
- 24 aren't offended that I haven't had breakfast with you or
- 25 something, but I hope that you will take that extra hour that

- 1 we might have eaten breakfast and maybe read back through the 2 testimony and take a little heart. Thank you very much and 3 it was a pleasure to be with you.
- PRESIDING OFFICER: Thank you very much for spending the time with us today. We look forward to your written comments. I think we'll be spending that hour in this room, frankly. We have a long list of witnesses both tonight and all day tomorrow, but thank you again for all your efforts on this project.
- 10 ATTORNEY GENERAL TOM UDALL: Thank for coming to 11 New Mexico.
- 12 PRESIDING OFFICER: Next is Jennifer Salisbury.
- 13 JENNIFER SALISBURY: Good afternoon. How are you.
- 14 My name is Jennifer Salisbury. I'm the secretary of the
- 15 state Energy, Minerals and Natural Resources Department, and
- 16 I'm also the chair of the state's Radioactive Waste
- 17 Consultation Task Force which was established by statute to
- 18 provide input to the executive branch of the legislature on
- 19 WIPP activities. And so I'm here to present testimony on
- 20 behalf of Governor Gary Johnson, as well as the executive

- 21 branch of the government regarding EPA's proposed decision on
- 22 whether WIPP complies with the applicable disposal
- 23 regulations under 40 CFR.
- Like everybody else probably we're going to be
- 25 submitting a more detailed response and appreciate it if this

1 committee would accept those.

- First of all, I like everybody else would like to

  3 thank you for giving us the opportunity to appear before you.

  4 We think it is very important that you are having hearings

  5 throughout the state and that all New Mexicans must continue

  6 to be provided with sufficient opportunities for meaningful

  7 participation in the whole process. Especially since there

  8 are far reaching and long term implications.
- 9 In its draft rule EPA proposes to certify that WIPP
  10 will comply with radioactive waste disposal regulations and
  11 compliance criteria. If finalized, that means EPA's
  12 certification of compliance will allow Los Alamos to ship
  13 transuranic waste for permanent disposal at WIPP.
- It's with pride at this point and conviction that

  15 the executive branch of state government goes on record

  16 supporting EPA's proposed decision to authorize the

  17 commencement of WIPP disposal operations.
- The enabling legislation that was passed by the

  19 Congress in 1996 established the project, and this is quoted,

  20 for the purpose of providing a research and development

- 21 facility to demonstrate the safe disposal of radioactive
- 22 waste resulting from the defense activities and programs in
- 23 the U.S., end quote.
- Obviously the construction operation of a geologic
- 25 repository for nuclear waste is the first in this country and

- 1 also in the world and so I felt important that we continue
  2 developing WIPP as a research project that's based upon the
  3 solid scientific foundation.
- We view that the base interim approach to the project during the past 24 years has resulted in the establishment of a solid scientific foundation.
- In recent times there has been vocal opposition and 8 argument that WIPP should be abandoned or deferred. The 9 logic we think behind these calls appears to be that WIPP 10 waste can reside safely where they are for some indefinite 11 period until science provides an inherently safer 12 technological solution.
- We think that the line of reasoning is not

  14 understandable and especially when you look at it from a

  15 taxpayers perspective, it makes no sense to us to abandon a

  16 \$2 billion investment.
- We're also not aware of any good reason why we as a landion cannot pursue advanced technological alternatives to land the safe disposal parallel with the WIPP project. Moreover, leaving this problem to be resolved by some future generation

- 21 is precisely in our view how we got into this predicament in 22 the first place.
- DOE's predecessors focused little effort on the
- 24 waste problems from 1940 to 1970. Instead DOE concentrated
- 25 almost exclusively on weapons production. The results are all

- 1 too apparent in contamination problems that not exist 2 throughout the DOE nuclear weapons complex.
- We must not let history repeat itself. All 4 promising solutions to the waste problem must be pursued, and 5 this includes WIPP.
- Because of our long standing familiarity in this

  7 state with the defense industry and the defense programs of

  8 DOE, the state of New Mexico recognizes how WIPP is

  9 inextricably linked to our national security. Namely in our

  10 mind through maintenance of a strong nuclear deterrent. As

  11 long as there is a deterrent as one of the cornerstones of

  12 our national defense policy, the U.S. will continue to

  13 generate nuclear waste. I mean, that's the realities of

  14 what's going on, waste which ultimately must be disposed of

  15 in a safe environment and sound manner.
- The continued reduction of U.S. nuclear weapons in 17 our stock pile does not mean that we can ignore the ever 18 increasing volume of stored waste.
- 19 The opening WIPP for disposal operations is an 20 issue that's an obviously intense local as well as national

- 21 interest, as you can see from the people here today. As
- 22 such, it is an issue that warrants a totally but safe
- 23 resolution. Protection of public health and the environment
- 24 must be the priority consideration in any and all decisions
- 25 that EPA makes regarding WIPP suitability as a permanent

1 repository.

- 2 Consequentially we believe that it's important to
  3 understand that our concurrence that I identified earlier of
  4 EPA's proposed decision is necessarily and unalterably a
  5 condition of WIPP's complying with all applicable laws,
  6 regulations and other requirements.
- The state of New Mexico stands steadfast in this
  8 position. WIPP should be opened for disposal only when the
  9 project fully demonstrates such compliance to our external
  10 regulators.
- New Mexico firmly believes as one of the primary

  12 entities responsible for regulatory enforcement at WIPP, EPA

  13 must be fair, impartial and truly independent from DOE in

  14 administering its certification process for determining

  15 WIPP's compliance with the applicable regulations.
- Public confidence in DOE's ability to safely
  manage, store and of dispose of defense transuranic waste can
  be bolstered only through such independent regulation and
  oversight.
- I want to turn briefly to the issue of WIPP opening

- 21 for disposal operations absent a Resource Conservation And
- 22 Recovery Act Permit under part B, RCRA permit that the New
- 23 Mexico Environment Department is required to issue by law.
- 24 As EPA and others are aware DOE has announced its intention
- 25 to commence disposal of nonmixed TRU waste upon EPA's

1 certification of compliance.

- While we believe the federal law clearly authorizes

  3 DOE to do this, the state believes such a move is only a

  4 first step. We firmly believe the long term solution

  5 requires all permits to be in place. Nonetheless, if DOE

  6 proceeds to dispose of nonmixed TRU waste without a RCRA

  7 permit, it becomes even more critical that EPA carefully

  8 assess and closely monitor all waste characterization and

  9 certification activities at the various DOE generator and

  10 storage facilities.
- We specifically recommend that EPA use unannounced 12 comprehensive site audits of those facilities throughout the 13 early years of WIPP's operation life. The state of New 14 Mexico also believes the establishment of a permanent EPA 15 presence at WIPP is warranted given the unprecedented scope 16 and significance of perspective radioactive waste operations 17 there. Such a demonstrable commitment to safety was embraced 18 long ago by the U.S. regulatory commission which has 19 established an on site regulatory presence at numerous 20 commercial nuclear reactors.

- We're convinced that a similar commitment by EPA in
- 22 the form of resident WIPP site acceptance will also serve the
- 23 agency well both in terms of more effective EPA oversight and
- 24 enhancing public confidence in its regulatory enforcement.
- 25 Consequentially, the state urges EPA to

- 1 aggressively pursue funding for the opening of a field 2 office here in New Mexico.
- Finally I want to comment on the relative safety of

  4 the transportation developed for the WIPP shipping campaign.

  5 After many years of preparation we are thoroughly convinced

  6 that the transportation safety program developed jointly by

  7 DOE, New Mexico and other western states is arguably the best

  8 in this country, and will greatly minimize those opposed by

  9 WIPP shipments. Without question, it will significantly

  10 reduce the probability and severity of any WIPP

  11 transportation accidents.
- The cooperative safety programs address both

  13 accident prevention and emergency response. It is noteworthy

  14 to mention that many of its components are extraregulatory in

  15 nature. In other words, they go well beyond the minimum

  16 transport requirements established under existing law.
- 17 For example, if a WIPP driver receives a single
  18 moving violation, the driver will be fired. Another example,
  19 each WIPP shipment will be inspected mechanically and
  20 radiologically by state personnel before it's dispatch. The

- 21 vehicle must be entirely detect free before being allowed to
- 22 leave the DOE site.
- No other hazardous waste shipment on the road today
- 24 is subject to such stringent requirements. In addition, DOE
- 25 and the state have provided extensive WIPP emergency response

- 1 training throughout New Mexico in the last ten years. In
  2 conjunction with this training, emergency response drills and
  3 exercises have been conducted with the affected communities
  4 and Indian tribes along the entire WIPP transportation
  5 corridor. These activities have involved all responder
  6 levels, including emergency personnel in the field and at
  7 hospitals.
- The state is committed to ensuring that such 9 transportation and exercises will continue. We believe every 10 reasonable precaution has been taken. For these reasons we 11 believe the WIPP campaign can and will be conducted in a safe 12 and uneventful manner. We are committed to ensuring this 13 happens.
- The state of New Mexico commends EPA for its

  15 excellent work in carefully and closely investigating every

  16 potentially significant issue surrounding WIPP's compliance

  17 certification application and certainly for conducting an

  18 independent comprehensive performance assessment verification

  19 test over the past year. We believe the test has contributed

  20 substantially toward our confidence that WIPP meets the

- 21 applicable disposal standards under 40 CFR and will perform
- 22 as projected. Yet all participants in the WIPP project must
- 23 be kept in mind that we all share a single common goal, the
- 24 safe management, storage and disposal of defense radioactive
- 25 wastes.

- 1 Thank you very much for letting me appear before 2 you once again and good luck.
- PRESIDING OFFICER: Thank for very much for your 4 testimony and thank you for your help and that of your staff 5 as we work through these issues. We have gotten a fair 6 amount of testimony during the hearings on the transportation 7 issue. We'll make sure your office has a copy of the 8 transcript. There are a number of comments and suggestions 9 on this issue.
- 10 Next is A.J. Fiorina.
- 11 JIMMY JOE GONZALES: That's Mr.Fiorina. My name is 12 James Gonzales and we're going to switch, if that's okay.
- 13 PRESIDING OFFICER: Sure.
- JIMMY JOE GONZALES: My name is James Gonzales.

  15 I'm a resident of Santa Fe, formerly worked for the mayor of

  16 Santa Fe back in 1992. One the concerns we addressed back

  17 then was creating a bypass around Santa Fe, and one of the

  18 key factors was that it would be used to move the waste up in

  19 Los Alamos and go outside of Santa Fe to get out of the

  20 residential areas. So I have a long history and concern

- 21 about the issues that are being presented today.
- But in particular, I just would like to express
- 23 recently there has been some deaths highly publicized deaths
- 24 about skiing, a congressman and also a family back in
- 25 Massachusetts. One of the surprising things that came out of

- 1 that is that there were 74 death last year in skiing.
- Then they brought out that there were over 400

  3 somewhat accidents in bicycles. And the reason I would bring

  4 that out, you would not see that close similarity in bicycles

  5 having that many accidents.
- The reason I want to make that point is the fact is
  I think that moving that waste out of Los Alamos has to be
  safer going down to Carlsbad, and I think the sooner we do
  that, the better off we're going to be.
- One of the reasons for that is recently we had a

  11 fire, the dome fire in that area, and one of the concerns

  12 were they were even going to have evacuate people from Los

  13 Alamos.
- The issue is there are some real possibilities and
  15 probability that something is going to happen to that waste
  16 up in Los Alamos. It's going to be much safer and the sooner
  17 that you move it out of Los Alamos the better off we're going
  18 to be, because it's going to contaminate the water sheds,
  19 it's going to contaminate that beautiful area, the national
  20 forest that surrounds that area, and just speaking from a

- 21 personal standpoint, I think the scientists are going to
- 22 continue to argue even if you approve or disapprove it. But
- 23 I think the consensus that you've drawn from all the
- 24 information that you received, I think the scientists have
- 25 said the containers that are transporting it are safe as was

1 mentioned by the previous speaker.

- Secondly I think that we in Santa Fe are ready to

  3 start accepting the fact that we have to get this waste out

  4 of Los Alamos and are willing to have it trucked through our

  5 neighborhood. There are some that oppose that, but issue is

  6 there are some that say it is a lot safer down in Carlsbad,

  7 and the sooner we get it out the better off we're going to

  8 be.
- And I just wish to make the last point is that I

  think that there has been a thorough job done by EPA and I

  think that the state has done a good job, and I think it is

  time now to open that place up and get started and move

  ahead. Thank you.
- 14 PRESIDING OFFICER: Okay, thank you for your15 testimony.
- 16 Next is Bernice Valencia.
- 17 DAVID ARMS: I'm taking Bernice's place.
- My name is David Arms and I'm an active sportsman, 19 mainly fisherman here in New Mexico and have been for 20 20 years. I just, I'm really having a hard time bearing the

- 21 thought of the amount of damage from the disposal of the
- 22 radioactive waste from Los Alamos National Laboratory and
- 23 what it is doing to the fish that is in the New Mexico
- 24 streams and lakes. Especially Cochiti lake which I remember
- 25 back they found some there.

- 1 A lot of that comes with a lot of these lakes,
- 2 well, very few of them are handicapped accessible, and it
- 3 just so happens that there are a couple that I'm allowed to
- 4 fish at that I can really get to, one of them being Cochiti,
- 5 is already being affected by this waste.
- 6 I just can't believe with all the studies by the
- 7 scientists that they have come up with any reason not to move
- 8 the waste out of Los Alamos from where it's leaking from and
- 9 to a permanent WIPP storage at WIPP.
- That pretty much sums it up. I know it is already
- 11 in Cochiti and I'm just really not ready to see anymore get
- 12 out and into the water and hurt anybody else or any of the
- 13 other fish that are already out there. That just kind of
- 14 sums it up. Thank you for letting me testify.
- PRESIDING OFFICER: Well, thank you for taking the
- 16 time to come down today.
- 17 Next is Andrea Serna.
- 18 RICHARD HALFORD: She's not going to make it. I
- 19 was scheduled for a couple down or next.
- 20 PRESIDING OFFICER: No, I don't have you on the

- 21 list.
- 22 RICHARD HALFORD: Okay, can I take her place? I'll
- 23 be brief.
- 24 PRESIDING OFFICER: Okay.
- 25 RICHARD HALFORD: My name is Richard Halford. I'm

- 1 a state employee and I work right next door. Hopefully what 2 I'm going to say hasn't been said yet, but I'm for the WIPP 3 plan. That doesn't mean I'm for nuclear waste, because, of 4 course, we all know how nasty that stuff is, and it would be 5 foolish to say to be for something like that.
- That being said, nuclear waste has been here before

  7 WIPP, during WIPP and even if WIPP is abolished or pushed to

  8 the side, it's still going to be here and we have to do

  9 something about it.
- 10 Rather than what's being done now, having it stored
  11 in temporary locations in Los Alamos and having is accumulate
  12 while we decide what to do, personally the idea of temporary
  13 storage makes me a little comfortable. I don't think the
  14 phrases temporary storage and nuclear waste should be used in
  15 the same sentence, personally, but I think we would be better
  16 served to get all the of the waste moved into one area where
  17 we could watch it, we could keep an eye on it, monitor it.
- I think it would be better for the environment than

  19 having contamination start across our state and our country.

  20 If we had one area it would be easier to watch and get it out

- 21 of the towns, out of the -- the gentleman before me mentioned
- 22 the streams and where it could contaminate the streams and
- 23 lakes. And recently there's an article in the New Mexican, I
- 24 don't remember when exactly it was, but it was about how they
- 25 found traces of contamination of around the water supply, and

- 1 of course it was at a level that wasn't dangerous, it was low 2 levels, but why wait for the next time.
- We should just get it out of there, take it to an 4 area where its specifically designed to hold these 5 contaminants and get it out of the towns and where it 6 belongs. Thank you.
- 7 PRESIDING OFFICER: Okay, thank you for coming.
- 8 Next is Deborah Reade.
- DEBORAH READE: I'm Deborah Reade. I live here in 10 Santa Fe. I have a prepared statement that I want to clear 11 up some misperceptions that I think people have about the 12 waste at Los Alamos.
- The transuranic waste which is slated to go WIPP

  14 from Los Alamos is not the waste so far that is contaminating
  15 our streams and our surrounding areas. It is the legacy
  16 waste and the old waste dumps. There's also a major waste
  17 disposal site for low level waste. The transuranic waste
  18 that's supposed to go to WIPP is above ground, well,
  19 primarily above ground retrievably stored and monitored.
  20 Therefore also, to say also that waste will be refilled.

- 21 It's now in fabric domes that are a danger if
- 22 there's a fire, but it is the WIPP project itself which is
- 23 keeping us from having safer storage for it because Los
- 24 Alamos is spending all of its money getting ready to ship to
- 25 WIPP instead of building a secure storage facility for that

1 waste.

- That waste will be renewed constantly over the next

  3 35 years as Los Alamos creates more transuranic waste, so we

  4 will not be moving this waste out forever. It's going to be

  5 continually replenished, continually being moved through our

  6 town and also being continually moved across the nation from

  7 other places, so there will be possibility of contamination

  8 as we have accidents along the route.
- Now my prepared statement is that New Mexicans
  10 fought a long battle to have an outside agency certify the
  11 WIPP project could contain radioactive waste for 10,000
  12 years. We did this to avoid having the DOE certify itself as
  13 safe and the EPA was given this responsibility.
- Now,however, it appears your agency is little more
  than an extension of the DOE. And every step from laying
  down criteria to reviewing the compliance criteria
  pplication, you are doing their bidding.
- The WIPP project is the first of its kind, and as

  19 such should be required to meet the strictest criteria.

  20 Instead you have back room meetings with the DOE from which

- 21 the public was excluded and which resulted in significant
- 22 criteria being accepted. Your review of DOE's application
- 23 that you reviewed, you outside experts and consultants whose
- 24 names, qualifications and affiliations you have refused to
- 25 reveal to the public.

- Is your refusal because you are embarrassed that
  the seconsultants are poorly qualified, or do they have some
  kind of affiliation with the DOE and therefore a conflict of
  tinterest? Your refusal to reveal this information before
  these public hearings invalidates the hearings because it
  makes it impossible for the public to judge accurately
- 8 In fact, it would appear that these consultants may
  9 not be qualified. Why else would DOE be able to pass up so
  10 many unknown assumptions and poor science in their
  11 application.

7 comments on the preliminary acceptance of the CCA.

- DOE still doesn't know what radionuclides are in

  13 the waste, knowledge that is crucial in calculating the

  14 leases. You left it at extrapolations and assumptions about

  15 the waste in the CCA. Supposedly this be taken care of when

  16 individual drums are characterized before transport. The

  17 characterization process is barely working at Los Alamos, and

  18 it's based way too much on process knowledge.
- 19 Knowing DOE's past history, how can you believe 20 this characterization will work even this well two, five or

- 21 ten years from now.
- DOE still has a poor understanding of the geology
- 23 of the site. In their arrogance, they haven't bothered to do
- 24 the testing and exploration necessary to truly characterize
- 25 the site. Instead they relied on more assumptions about the

1 site, the waste and the interactions between the repository 2 and the waste and you let them do this too.

- When information that clearly threatens the

  4 acceptance of the repository like the heartened scenarios

  5 brought to your attention, you manipulate technicalities so

  6 this can be ignored.
- I feel like the boy in the legend of The Emperor's

  New Clothes. The site is obviously flawed, water seeping in

  flowing down shafts. There are fractures, probable karst,

  huge brine reservoirs, massive research extraction all around

  it, and yet you continue to see it is as an agreement because

  DOE is King.
- Now if DOE had a stellar reputation for meticulous,

  14 scientific work in the areas of waste management,

  15 environmental protection and cleanup, perhaps some of these

  16 assumptions could be accepted or we could have some

  17 confidence that the facility, in spite of its numerous

  18 problems could contain the waste. But instead the WIPP

  19 project has the same old shoddy approach as everything else

  20 DOE does, everything else except making bombs, computer codes

- 21 and propaganda.
- They are very good at using terms like low level
- 23 waste for waste that has to be remote handled.
- 24 This is an organization that states the increased
- 25 risk to an individual from living near a facility that has

- 1 plutonium residues and acid is less than a riding a bike for 2 ten miles.
- This is an organization that calls operations with 4 anticipated radioactive releases incident free, and this is 5 an organization whose sites are all leaking chemicals, 6 radioactivity or both.
- In your hearts you know this repository is going to 8 leak, but so what if it leaks 100 or 1,000 years from now?

  9 It is just a remote desert in New Mexico and you all will 10 long gone.
- I believe EPA is basing its acceptance of WIPP on a
  12 policy decision not on a scientific decision. I believe that
  13 it wouldn't matter what scientific information on the
  14 project's flaws anyone showed you, you would still pass the
  15 project. In fact, I believe you made this decision to
  16 approve the WIPP before the CCA was even submitted.
- You must have had some ideals when you joined EPA.

  Remember those ideals. I am making a final plea with you to
  have some guts and demand strong, complete scientific proof
  that the WIPP repository can contain the waste for 10,000

- 21 years or refuse to pass this project. Thank you.
- PRESIDING OFFICER: Thank you.
- Next is John Otter.
- JOHN OTTER: My name is John Otter. I'm a resident

25 od Santa Fe.

- Imagine that you're lost in the wilderness without
  resources and you know that you can live for perhaps ten days
  without food, but you look around and you see that you're in
  an environment that has a lot of resources naturally, and so
  you think you might be able to eat some of them. But you
  don't know which ones are poison or which ones are good to
  at the wilderness without
- Well, you live very lightly on one thing, because

  9 you need to isolate the particular item. If you're not

  10 successful you go on to something else. If you are

  11 successful, then you try a little more and try a little more,

  12 and you get as much as you can.
- Here we have a facility which hasn't gone through
  that kind of process. We have a facility which is a huge
  facility, which has spend \$2 billion so far with \$17 more
  find billion lying in the wings or something. And it's well known
  in the scientific community even if you test very carefully
  fully all the components that go into a complex machine, when you
  fully actually do the full scale machine, you find out a lot of
  things you didn't find out before.

- It is unwise to go full steam ahead with this
- 22 facility when it hasn't had that process of small scale
- 23 testing, immediate testing, large scale testing. That's one
- 24 problem with WIPP.
- 25 Another problem is that the facility has been

- 1 designed to be safe for 10,000 years. Why 10,000 years? The
- 2 half life of plutonium 239 is 24,065 years. There will be
- 3 one-eighth of plutonium 239 left in 7,200 years. It's an
- 4 arbitrary decision. Furthermore, it's a decision which
- 5 probably presses the believability of the purpose is set to
- 6 meet the believability of the public or the experts.
- 7 However, it's not an adequate length of time.
- 8 Furthermore it's not even that length of time is not one
- 9 which we can predict or even know about. It is a convenient
- 10 fiction we can predict the 10,000 years ahead safely.
- We just had a few little earthquakes in southern
- 12 New Mexico, I think it was. They were three on the richter
- 13 sale. But the investigation so far has revealed that we
- 14 don't know why they occurred, what would be the probability
- 15 of future occurrences.
- We had an ice age 10,000 years ago. What's going
- 17 to happen 11,000 years from now? We just have to admit we
- 18 don't know and we can't -- it's an impossible thing to
- 19 predict the safety of a facility like this say 10,000 years
- 20 from now.

- 21 So their arguments as to whether WIPP is safe or
- 22 not safe based on the scientific expertise that's been
- 23 applied through careful examinations and all the millions and
- 24 hundreds of dollars and the analysis of the project.
- 25 Maybe they are right and maybe they are wrong. I

- 1 tend to agree with our previous speaker, there are some
  2 reservations I would have about that. But even if all the
  3 experts and all of the careful work, and I know a lot of
  4 careful work has been done essentially with regard to this,
  5 it is not adequate because it is just an impossible problem
  6 to predict all the things that might occur that far in the
  7 future.
- 8 So I think we need to debunk that fiction that even 9 if we convince ourselves that 10,000 years we're safe, it's 10 not possible or adequate.
- Also we spent \$2 billion on this project. Well, it
  12 is often said or often a ploy that is used in trying to push
  13 forward with a certain degree of popularity, that because we
  14 spent so much money on the item that we should be justified
  15 in spending the rest of the money, over \$17 billion as I
  16 understand it, on this project.
- I don't think that's a good excuse. It should

  18 stand on its merits not on the amount of money we've spent on

  19 it so far.
- 20 So basically we don't know a real good way to

- 21 dispose of this waste. As someone pointed out, this is a
- 22 political decision not a decision based on rationality or
- 23 scientific expertise that's valid.
- 24 What do we do? Well we have a really impressive
- 25 fantastic advance of scientific information and understanding

- 1 that has occurred over the last ten years, 20 years, 1,000
  2 years. So if we keep this above ground, just because it's
  3 leaking somewhere visibly, we cannot safeguard it in the
  4 regional or local situations where the waste now exists, we
  5 can state, you can keep it there if we have to keep it there
  6 for 200 years. In that period of time certainly we'll find
  7 some scientific either uses for the material, better ways to
  8 dispose of it, things of that nature. So that's what we
  9 should do.
- 10 PRESIDING OFFICER: Okay, thank you.
- 11 Next is Steve Probst.
- 12 EARL POTTER: Steve Probst could not be here today.
- 13 My name is Earl Potter and he asked me to take his place.
- 14 PRESIDING OFFICER: Okay.
- 15 EARL POTTER: My name is Earl Potter and thirty
  16 years ago this fall I came here to New Mexico, and my two
  17 children, now adults, were born and raised here. The law
  18 firm of which I'm a part periodically provides services on
  19 behalf of employees at Westinghouse, Waste Isolation
  20 Division, but I'm not here today to discuss legal and

- 21 scientific technicalities but to focus on two major ways WIPP
- 22 will increase the protection of the environment in which my
- 23 family and I live.
- 24 These are, first the waste proposed to be stored at
- 25 WIPP will be far safer there than at Los Alamos or the other

1 temporary facilities where it is presently located.

- 2 Second, the proposed transportation system for that 3 waste offers comprehensive protection. Objections to it 4 ignore the realities of almost 50 years of safe transport 5 with far more dangerous materials.
- Some say leave the waste where it is and science

  7 will come up with a way to make it harmless in the near

  8 future. For my history courses in college, I recall similar

  9 promises were made in the 15th century about changing lead

  10 into gold. Instead of approving and opening WIPP the EPA is

  11 being asked federally to rely on the company to protect the

  12 environment.
- Leaving the waste above ground in temporary storage
  14 facilities such as Los Alamos poses a much greater risk to
  15 the citizens of New Mexico than the long-term isolation for
  16 the waste in the WIPP underground repository.
- Disposal of the waste at WIPP rather than leaving
  18 it where it is unquestionably improves the protection of the
  19 in environment in the state where I live.
- You may have seen last week's Santa Fe Reporter,

- 21 which had a very interesting and thorough article which
- 22 concluded for thousands of shipments of hazardous waste and
- 23 hazardous nuclear materials through and from Los Alamos had
- 24 occurred on St. Francis Drive, right outside here, without a
- 25 notice to local authorities or residents since this road was

- 1 built more than 30 years ago. The cover page of this paper
- 2 had a picture of WIPP transportation truck. The clear
- 3 message of this piece was that we needed a well-designed,
- 4 thought out way of transporting nuclear waste.
- 5 WIPP's specially designed containers,
- 6 transportation protocol, emergency training and a highway
- 7 system will provide the exact protections the article found
- 8 lacking in the transportation of other nuclear materials, and
- 9 the Santa Fe City Council recognized with enormous
- 10 improvement that the WIPP system would be, with its recent
- 11 agreement with DOE on transportation times and methods.
- The air and water in our state are cleaner because
- 13 of the efforts of EPA as is true of every state in the United
- 14 States. Like many of the waste disposal facilities EPA
- 15 regulates such as sewer plants, WIPP is an important tool to
- 16 protect the environment we all love.
- 17 EPA's careful scrutiny of WIPP has improved the
- 18 level of protection in the environment which will occur.
- 19 When WIPP opens, it will be another of EPA's successes in
- 20 improving the quality of our air and water in America. Thank

- 21 you for the opportunity to speak to you today.
- 22 PRESIDING OFFICER: Thank you for coming.
- Next is Karen Keahbone. Is she here?
- 24 MICHELLE BACA: Good afternoon. My name is
- 25 Michelle Baca. Karen Keahbone could not be here, she could

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1 not get off work, so I'm speaking in here place.

- I'd like to thank you for allowing me to share my

  3 concerns regarding the Waste Isolation Pilot Plant. I am a

  4 life long citizens of New Mexico and would like to see this

  5 magnificent state flourish rather than deteriorate, which is

  6 why I believe the WIPP site at Carlsbad should be allowed to

  7 open to store radioactive waste from Los Alamos and

  8 elsewhere.
- 9 It is a disgrace to put the fate of the citizens of
  10 New Mexico at risk by the exposure of such ungodly waste.
  11 The argument may be that some are concerned for the present.
  12 I believe that not following through with WIPP is
  13 catastrophic for both the present and the future. Because
  14 generations before mine chose to procrastinate and not take
  15 the initiative does not mean I will take the same approach.
- My family and others have already been affected by 17 the finding of radioactive plutonium in Cochiti lake. This 18 is factual information. That is only one case of how many?
- 19 If those shipments will remain hazardous for20 perhaps 10,000 years, stored a mile underground in salt

- 21 caves, imagine how much more severe the case would be leaving
- 22 it exposed in the wide open.
- The Department Of Energy and the EPA have done
- 24 their jobs. Scientists and researchers have done their jobs
- 25 as well. I believe it is far past the due date to do ours.

- 1 I believe that by taking proper precautions, the waste can be 2 safely transported to Carlsbad.
- As in anything else there's a risks I'm aware. But 4 at the same token, there is even greater risk by not seeking 5 the proper precautions and leaving it as is.
- 6 I am a citizen of New Mexico. I am the present and 7 I am the future and I would like to see the WIPP in action.
- PRESIDING OFFICER: Thank you for your testimonytoday.
- 10 Next is Shawn Gormerly.
- 11 SHAWN GORMERLY: Good afternoon. My name is Shawn
- 12 Gormerly. I'm here to represent the Village of La Bajada.
- 13 We are a life long -- well, very historic area. We're
- 14 situated southwest of Santa Fe along the Cochiti or Rio
- 15 Grande basin and so forth.
- I prepared some things I wanted to say today, but I
- 17 think I'll speak more from my heart. I'm here in concerns
- 18 with my neighbors, my family, my friends, my children. I'm
- 19 30 years old and I've got a two-and-a-half year old son that
- 20 I have to think about and the other children in this

- 21 community.
- I'm in very much in support of this transportation,
- 23 as long as it is done safely. I don't see that it's going to
- 24 benefit us at all to have this stuff sitting the way it is
- 25 now. And I just I think it's a real shame what our

- 1 government has done to us, and I really think we should clean 2 up our act and think of our future. Thank you.
- 3 PRESIDING OFFICER: Thank you.
- 4 Now Mr. Fiorina.
- A. J. TONY FIORINA: My name is A.J. Tony Fiorina.

  6 To those of you who are not acquainted with me, I am a New

  7 Mexican. My wife is Betty Fiorina. We are the parents of

  8 two sons Tom, former municipal judge of Santa Fe and Gary,

  9 foreign combat veteran.
- Needless to say, I am very proud of both of my
  11 sons. We have four grandchildren, 23, 15, 13 and 5 years ago
  12 of age. We also have one great grandchild which is three
  13 years old, my pride and joy. All are native Santa Feans.
- Today I would like to take just a few minutes to

  15 express my thoughts and opinion on nuclear waste. As you

  16 know, nuclear waste is very close to us here in northern New

  17 Mexico and too close for comfort.
- 18 It is my firm conviction based on fact that the
  19 temporary storage of nuclear waste is presently in above
  20 ground containers and they have been for sometime. This is a

- 21 positive fact I've witnessed. Temporary storage of nuclear
- 22 waste above ground poses a substantial concern to all of us.
- We are all aware that winds are getting stronger
- 24 each year. The weather is changing, the storage of
- 25 radioactive waste is so inadequate that a serious windstorm,

- 1 firestorm, rainstorm could disburse this waste throughout Los 2 Alamos, Espanola, Santa Fe and countless other sites in the 3 area.
- The longer we wait to have this waste, the more dangers that our citizens an wildlife and ecology will 6 encounter.
- We have several outlying areas where this waste is

  8 being stored at the present time throughout the United States

  9 with the same dangers and they are exposed to the same

  10 dangers. Also bad things like El Nino, what happened in

  11 Cimarron, New Mexico. They had this windstorm that threw

  12 everything up and down. In my opinion, I say move the

  13 nuclear waste now with federally funded maintenance, the very

  14 latest technological equipment and expertise. I am confident

  15 that our government is working hard to protect the health,

  16 welfare and safety of our people. Thank you. Think about

  17 it.
- PRESIDING OFFICER: Thank you for coming today and 19 giving us your testimony today.
- Felipe fe DeBaca.

- 21 ROBERT ORTIZ: My name is Robert Ortiz and I'm
- 22 standing in for Mr. Baca who could not make it. I'm
- 23 representing the VFW, Veterans of War post 251. The Veterans
- 24 of War Post is endorsing a resolution in support of removal
- 25 of dangerous stored radioactive waste from Los Alamos

- 1 National Laboratory and calling on all agencies and
- 2 governments involved in the decision to act quickly so that
- 3 waste can be placed in a safe repository and the safety of
- 4 our citizens can be assured. The resolution reads as
- 5 follows:
- Whereas the transuranic waste has been stored in 7 temporary structures in and around Los Alamos National 8 Laboratory for decades;
- 9 And whereas the storage containers are at best 10 questionable for further long term use;
- And whereas there has been two major forest fires 12 in proximity to this dangerous storage posing a threat of 13 radioactive threat;
- And whereas the community of Cimarron, New Mexico
  15 was struck by a tornado within the past 12 months and the
  16 community of Tesuque similarly hit within the past decade;
- 17 And whereas Los Alamos is always at risk of a18 similar natural disturbance capable of immense destruction;
- And whereas there's a constant danger of flashfloods throughout New Mexico;

- And whereas the radioactive waste at Los Alamos
- 22 National Laboratory is highly dangerous if inhaled and
- 23 otherwise ingested;
- And whereas we are located downhill and often
- 25 downwind from Los Alamos National Laboratory, the subject of

- 1 this distribution of such waste through wind, water, fire and 2 other forces of nature.
- Now, they are being resolved by the governing body
  4 of this organization that all responsible agencies and
  5 officials act promptly to eliminate the dangers of Los Alamos
  6 National Laboratory waste to our community and our citizens
  7 by removing is to a safe, long-term repository. Thank you.
- 8 PRESIDING OFFICER: Thank you for coming.
- 9 Next is Charlie Griego.
- 10 CHARLIE GRIEGO: Hello. My name is Charles Griego,
  11 and I'm a retired city employee from the city of Santa Fe. I
  12 worked with the city of Santa Fe for 25 years, and I want to
  13 tell you something about nuclear waste and stuff like that,
  14 because I worked with dangerous stuff like acid and all kinds
  15 of stuff.
- I want to tell you that it is real dangerous when 17 you work with acid and stuff like that for the kids out there 18 and for the public and for everybody. Let me read this to 19 you.
- 20 My name is Charlie Griego. I am a retired city

- 21 employee and I have worked among the young in this community.
- 22 It is that capital I speak to you today as one who believes
- 23 he knows both the promise of settlement of all residents of
- 24 this committee regarding WIPP as the driver winds often loads
- 25 across our city. From the city long to protect our young

- 1 from Los Alamos National Laboratory.
- I speak among the young, the public, and everybody,

  3 all the young kids that are growing up today, all over here

  4 in Santa Fe. I hope that the high counsel with ability to

  5 protect our young and the dangers of this nuclear waste will

  6 be subdued in Los Alamos. I also protect my family, my

  7 friends, my neighbors and people over there.
- I want to tell you something. You know, I worked 9 with the city of Santa Fe. One day there was a leak in the 10 heater up there. I told my department head, there's a leak 11 up there. He didn't want to believe me that there was a 12 leak, and I told him, it's going to start a fire. And they 13 didn't want to pay attention to me.
- The next morning I came into work at 5:00 in the
  15 morning. The heater was leaking, I had to call the Fire
  16 Department. I had to call the police. I had to call
  17 everybody for emergency right away, my boss, my department
  18 head and everything. And the building was on fire because
  19 they didn't want to pay attention to me. So it cost the city
  20 of Santa Fe a lot of money to take care of that heater and to

- 21 take care of all the acid and stuff that was going on in that 22 building.
- We had to remodel the building for the city of
- 24 Santa Fe for the young kids that were growing up and
- 25 everything, for the swimming pool. So today I ask you to

- 1 please, with all of these people that came up here and speak
  2 to you and talk to you and everything about this, I ask you
  3 to please study it and I hope that we can work together and
  4 solve a problem for the kids, for the families and for the
  5 people out there.
- I ask you, thank you very much for listening to me

  7 today. I am very happen to be retired and I will be working

  8 out there to support a lot of these young kids because I

  9 coach Little League Baseball 20 years. I help the young

  10 handicapped children with wheelchairs at the Elks Club. I've

  11 done a lot of committees out there to help these people and I

  12 hope that today you are sitting down there, and I ask you to

  13 please study this, that we can move it away from Los Alamos.

  14 I ask you thank you very much.
- 15 PRESIDING OFFICER: Thank you Mr. Griego for coming 16 today and for your testimony. We appreciate it.
- 17 Next is Deborah Altshuler.
- DEBORAH ALTSHULER: I'm Deborah Altshuler. I am
  19 stunned and overwhelmed by the total breakdown of checks and
  20 balances when the health and safety of the public is even

- 21 potentially at risk.
- How can the DOE and EPA justify dismissing the
- 23 heartened scenario in Bredehoeft's work and call your search
- 24 responsible science?
- I understand that you are the Environmental

- 1 Protection Agency. What exactly is your intent and purpose.
- 2 How can you in good conscience deviate at all from protecting 3 the public.
- I request that you require the DOE to resublimed a compliance agreement that includes the issues of the heartened scenario modeling air drilling releases from eager air and mud drilling and the possibility of drilling into the WIPP site and hitting a brine reservoir. I caution you to 9 stay profoundly aware as to your motivation an level of 10 integrity. If it is political motivation it entails possibly 11 the health and safety of the people it represents.
- 12 PRESIDING OFFICER: Thank you.
- 13 Next is Bennie Atencio.
- BENNIE ATENCIO: Thank you for allowing me to come
  15 before this body again. I testified twice before and I'm
  16 probably going to repeat the same thing I've said in the
  17 past.
- 18 My name is Bennie Atencio and I have a prepared 19 statement so I'm going to be reading it. I am commenting 20 today as an individual and I'm positive my concerns are

- 21 shared by other pueblo people.
- All of us in north central New Mexico, native
- 23 people, Angles, Hispanics, share a single dependency, we call
- 24 on the waters of the Rio Grande. This river has been the
- 25 source of life for our people on the high deserts for

- 1 thousands of years.
- This river runs through the heart of our land and the river, small rivers that contribute to the Rio Grande and the water table beneath it, have for our entire life, provided our crops, our herds and our people. This river, the Rio Grande, also runs at the foot of Los Alamos.
- As the federal government slowly admitted the 8 serious dangers created by radioactive waste, we began to 9 fear what might happen to our rivers, to the source of life 10 for our people because of the radioactive waste being kept 11 above the river in Los Alamos.
- Since this public debate in WIPP began, we have larger lar
- We have been told that the waste is low level, but
  17 at the same time, to protect our future generations, this
  18 waste should be stored in caverns half a mile beneath the
  19 earth. Now we have learned that although this waste is low
  20 level, it must be shipped in airtight, sealed containers.

- We have also learned that the crews that ship the
- 22 waste should be trained and that emergency crews along its
- 23 path must be trained. We have been told that before this
- 24 material is shipped through the land of native people, teams
- 25 must be specially trained to deal with accidents should

1 something terrible happen.

- Incidentally, none of our people have been trained

  yet. Before any radioactive waste is shipped along the lands

  of native people, that training must take place. We have

  also learned that it is important to move this radioactive

  waste to somewhere safe because although it is called low

  level, it is powerful enough that even after thousands of

  years, exposure to it can harm the health of people.
- 9 But you can see the most important thing we have
  10 learned within five to ten miles of our lands, our homes, or
  11 sacred mountains, hundreds of thousands of tons of dangerous
  12 active waste is kept in temporary containers and worse more
  13 than 20 years of accumulation of radioactive waste is buried
  14 in the grounds in shallow trenches.
- 15 If you ignore all of the different kinds of dangers
  16 this creates but one and think only about the threat to our
  17 river, to Rio Grande below Los Alamos, that single thread is
  18 so big that in its space there can be only one response.
- 19 This dangerous radioactive waste must be moved from 20 Los Alamos and it must be moved as quickly as possible.

- 21 Please understand the sacredness of the environment and
- 22 environmental matters matters to us.
- 23 If you understand our culture, you know that it
- 24 matters to us more than it does to many people on this earth.
- 25 So we insist that the place where this waste is finally

- 1 stored is secure and the environment around that place is
- 2 protected. I believe that place to be WIPP. So those who
- 3 favor WIPP and those who oppose it, please understand this:
- 4 Every legal maneuver, every stalling tactic, every tiny
- 5 victory, every tiny defeat in your battles between ideas and
- 6 theories, signs and principle is to us another hour, another
- 7 day, another week, another month of our life, livelihood, way
- 8 of life threatened by tons of thousands of radioactive waste
- 9 stored on the land that has been part of our horizon for our
- 10 people's time on this planet.
- 11 As to fight amongst yourselves to determine
- 12 acceptable levels of safety for your communities and for the
- 13 WIPP site, understand that every minute of delay condemns our
- 14 communities our crops, to another minute of grave danger.
- 15 Thank you for the opportunity to appear.
- 16 PRESIDING OFFICER: Thank you Mr. Atencio for 17 coming.
- 18 Next is Cynthia Deti. Is she here? Dealt I we had
- 19 planned to take a break given. Number of people who have.
- 20 (No response.)

- 21 PRESIDING OFFICER: We'll try later.
- We had planned on taking a break from 5:00 to 7:00
- 23 for dinner. Given the number of people who have requested to
- 24 testify, we're going to stay at least another half hour until
- 25 say 5:30, as long as there's somebody here and that will

1 allow us to get some more people in perhaps without having to 2 stay so late tonight. So let me see if people are here.

- 3 Pamela Baumgarter, are you here?
- 4 PAMELA BAUMGARTER: I'm here.
- Thank you for this opportunity to speak. I've been 6 going to these things for 20 years. One of my concerns

  7 is -- part of my concern is our Senator Domenici. Domenici's 8 been in office about 25 years. I guess the WIPP project has 9 been going on for about 24 years. He's very pronuclear and 10 he feels that those of us who aren't pronuclear are just a 11 small faction.
- I also understand that he's considered a very

  13 powerful senator, and that he controls things like the

  14 funding for the EPA. So I always have questions about how

  15 truly unbiased you can be when you have someone like that

  16 threatening to cut your funding.
- I just heard him on the radio yesterday talking
  18 abut how in China they'll be building nuclear power plants
  19 with our designs. So he also has an interest in the
  20 viability of selling our technology to China as feasible

- 21 nuclear reactors.
- Also knowing he has treaty where we are supposed to
- 23 bring waste from Europe back here, I'm wondering if that's
- 24 another part of the deal. So that would be another incentive
- 25 to prove we have safe and easily complied with ways of

1 storing waste.

- Also I have concerns about we're not allowed to vote on these issues. As a person I don't really have a voice in this. I have concerns about how we're not allowed to sue about these issues.
- People who have been exposed to radiation by the government really have no recourse, because the government 8 has -- I don't know the legal terms, I just know they are not 9 at fault.
- So I look at all of these stacks of documents. At 11 one point the whole EPA certification, we carried it out of 12 the office of CCNS and it took like five of us carrying these 13 huge stacks, too many pages. And to me I don't know how 14 relevant it is. It's just like a giant disclaimer to me, but 15 I have lots of issues around this, around the feasibility and 16 that here's our Senator and he's like selling us lock, stock 17 and barrel down the nuclear rail because it is profitable to 18 him, and he's there in New Mexico until 2002.
- 19 So even with just WIPP we need to be looking at 20 what kind of international agreements he's made. I think

- 21 it's terrible that this nuclear waste has to go all over the
- 22 country. I don't really believe that people are prepared all
- 23 over the country for potential nuclear accidents in their own
- 24 backyard.
- I mean, I see finally we're getting road

- 1 improvements on what are the WIPP routes, but I wonder why it
  2 has taken even like 17 years and we still don't have a bypass
  3 here. I don't think all of the highways are adequately ready
  4 for this either.
- I think it's also been proven that it's more

  financially feasible to leave the waste where it is. But I

  understand the concerns of people like with the waste still

  being at Los Alamos, however, as one woman pointed out I

  think there is something like 2,002 sites leaking at Los

  Alamos, and WIPP is not designed to deal with that. WIPP is

  designed to deal with only a small percentage of waste.
- We need to really deal with the real problems which

  13 are the waste that is leaking at all of these sites. I know

  14 that Rocky Flats was shut down because of crimes against the

  15 environment, and I'd like to know what the criteria of that

  16 is. I would apply that to Los Alamos also.
- 17 So I think we should stop WIPP while we still have 18 a chance. Thank you very much.
- 19 PRESIDING OFFICER: Thank you for coming.
- 20 BONNIE BONNEAU: Greetings. I work with a group

- 21 called the Legions of Living Life, and we ask blessings of
- 22 divine light upon our hearts and mind and souls. And we can
- 23 see and understand the preciousness of life on this earth, of
- 24 our life on this earth like any life on this earth.
- You can't like just pay money and get life, even

- 1 though they are trying to clone it, you know. I mean life is
  2 a miracle and it's very, very precious. And for right, 50
  3 years, our whole lifetime they've been making nuclear waste
  4 up at Los Alamos. And a lot of people are really scared
  5 about it and well we should be, because we live in a very
  6 much dangerous area here. And they are right about winds and
  7 fires and the rains.
- But WIPP is not designed to protect us from all 9 that. They are not going to take all the WIPP from Los 10 Alamos, only barely four percent. And the most dangerous 11 waste at Los Alamos is buried in the ground and the rains are 12 hitting and washing it into the aquifers and it's going into 13 our rivers. And a lot of it is scattered around. They just 14 do little explosions and blow it up in the air and they say 15 oh, it's leaving Los Alamos so we're safe here, as their 16 documents say, well, it blew up in Los Alamos.
- So for the community up there, they think they are
  18 safe. They just go oh, well, it disburses. But the WIPP is
  19 not answering the many people have testified that they want
  20 you to save us from the waste of Los Alamos, but we would

- 21 like that but the WIPP isn't the answer to the dangers of
- 22 waste at Los Alamos.
- I wanted to mention a bunch of breach scenarios
- 24 that nobody really considered like from the packing at the
- 25 original site to the transportation where the crashes are

- 1 only designed for crashes of 35 miles an hour, so are we
  2 going to lower our speed limits around here to like 15 miles
  3 an hour since they -- I mean, we're not going it lower our
  4 speed limits to 35 miles an hour. Those caskets should be
  5 designed for 150 miles an hour. They should be designed for
  6 the things dropping of the trucks and bouncing 20, 30 feet
  7 like a rubber ball and not just designed to fall three feet
  8 and they all break open. You know, the caskets are not safe
  9 at all.
- The salt itself melts at a very low temperature and
  there is going to be this very hot remote handled waste that
  there is going to be this very hot remote handled waste that
  the it you sit it on the salt might melt. The salt might melt
  the whole way into the brine reservoir which would be a way
  to get a brine breach scenario where it gets too hot that the
  salt loosens up that the brine reservoir under all that place
  to comes plowing through.
- There is so many possible breach scenarios. Some 18 are what the attorney general covered, but there's no way 19 that any of these documents have even touched the real 20 dangers.

- There is inadequate data the whole thing is
- 22 conjecture. All of these documents are based on wishful
- 23 thinking and guesswork and just not good science at all.
- 24 There is not science to cover most of the real dangers
- 25 involved with transporting or storing radioactive waste for

1 that length of time.

- Even though the way that it is stored now is not 3 very good, there's no since in putting it that's very, very 4 worse, where it's not going to be retrievable, where it can 5 enter the aquifers. Where it is right there between above 6 it, water below it, water around it and on its way into the 7 Rio Grande and eventually it goes into the oceans.
- I hope that you will be responsible for protecting

  9 our environment and not just protecting your political rear

  10 ends, and stand up to the government and the governors of all

  11 of those other states and say New Mexico has aquifers too.

  12 We know it's going to the aquifers in Oregon and Idaho but

  13 you know, is it fair that it's in the aquifers in New Mexico.

  14 I mean, what they are talking about, is this contaminating

  15 another aquifer and not cleaning up the stuff that's really

  16 contaminating the aquifers now where it's in the cardboard

  17 boxes in the trenches.
- And much of the waste they are creating Los Alamos
  19 is even more disastrous chemical type waste and germ warfare
  20 type waste, and there's really strange stuff and you should

- 21 shut the whole DOE down.
- PRESIDING OFFICER: Did Cynthia Deti come in?
- 23 (No response.)
- 24 PRESIDING OFFICER: Julie Southerland.
- JULIE SOUTHERLAND: Hello. I'm here to plead for

- 1 the lives of the future generation of children, and I would
  2 really like to encourage you to come from the heart and give
  3 thanks for our beautiful children and the children that are
  4 to come and give them some hope for the future.
- It's just incredible to me that we should think of 6 moving this waste down the highway to a repository that for 7 ten years has been known to be breached already, it's already 8 leaking. And I just pray that you will come to the right 9 decision and not open WIPP.
- And I just am so sorry that my oldest child isn't

  11 here with me fighting this issue, but he lost hope and died

  12 two years ago, so -- going on two years ago. And I just pray

  13 that the children that are living, the children to come won't

  14 lose hope and that we wil do something for them for their

  15 future, and that we give thanks for the life we've been given

  16 and the opportunity to make this a better place. Thank you.
- 17 PRESIDING OFFICER: Thank you for coming.
- The next name I have looks like Anna Hanson.
- 19 ANNA HANSON: My name is Anna Hanson. Thank you 20 very much for being here for us to give our opinions to you.

- 21 I've spoke at these hearings since 1986 through into whenever
- 22 they started. I am totally opposed to you burying waste down
- 23 in the ground. I feel it is like us taking an ostrich and
- 24 burying something and not looking at what we're doing.
- I hear in the audience all of these people being

- 1 really concerned about Los Alamos and well they should be.
- 2 Los Alamos a nightmare. It is leaking waste from the 50's,
- 3 from the 40's when they started there. It is a big problem.
- 4 EPA needs to clean up Los Alamos. It's really, really
- 5 important. That is a very big, big problem.
- 6 The amount of waste that's going to be moved from
- 7 Los Alamos is so minuscule that the big problem that is
- 8 there, that I would really hope that you would really take
- 9 time to look into that issue. So that's one of my concerns.
- The breach problem is a really big problem with
- 11 WIPP. I know that Westinghouse and DOE only are responsible
- 12 for that place for 700 years, and after 700 years then it's
- 13 like who cares what happens to WIPP. We're not responsible
- 14 any longer. We only have a commitment for 700 years when the
- 15 waste lasts for 40,000 years. So that's a big gap.
- The other thing I'm also concerned about is when
- 17 DOE was here, they didn't even know that the bypass was not
- 18 built around Santa Fe, so that is big problem. The lack of
- 19 communication by them not knowing there's no bypass. The
- 20 citizens of Santa Fe deserve to have a bypass, but the WIPP

- 21 does not deserve to be moved.
- I think all the waste needs to stay where it is.
- 23 We have brilliant, brilliant scientists in Los Alamos who
- 24 could one, clean up the mess; and two, create situations that
- 25 could neutralize the waste, use the plutonium, use the

- 1 transuranic waste and reprocess it in a way that is not 2 dangerous to health and safety.
- 3 So for the benefit of all human beings, please do 4 not open WIPP, do not move waste, do not damage the resources 5 of this country, and please clean up Los Alamos. Thank you.
- 6 PRESIDING OFFICER: Thank you.
- 7 Next I have Ray Armenta.
- 8 (No response.)

16 the distance to Santa Fe.

- 9 PRESIDING OFFICER: M.G. Lockhart.
- M.G. LOCKHART: My name is it M.G. Lockhart from 11 Los Alamos. Thank you for this opportunity to comment on 12 WIPP. Over 12,000 cubic meters of transuranic waste are 13 stored at Los Alamos within one-and-a-half miles of the Rio 14 Grande. Placed end to end in cubic meter sized containers, 15 this waste would reach seven-and-a-half miles, which is half
- This waste is the result of 54 years of nuclear

  18 weapons operations at Los Alamos National Laboratory. More

  19 TRU waste will be generated by environmental restoration,

  20 which is also known as cleanup, even if Los Alamos National

- 21 Laboratory were closed today.
- This waste will not go away. Storing waste above
- 23 ground creates a higher risks of an accidental release to the
- 24 environment than does storing the waste underground in WIPP,
- 25 including the risks incurred during transportation.

- I represent the Responsible Environmental Action
   League. REAL supports WIPP as the best alternative for
   storing radioactive waste. Opponents of WIPP present four
- 4 basic arguments: They don't like the nuclear weapons program
- 5 which is generated and will continue to generate radioactive 6 waste.
- They don't trust the Environmental Improvement

  8 Agency to protect the public. They don't trust scientists to

  9 come up with a workable solution and they don't want the

  10 waste transported through Santa Fe.
- The Responsible Environmental Action League has
  leavery confidence in the process which EPA is using to
  sevaluate WIPP. We urge you to approve an expeditious WIPP
  depening. Thank you very much.
- 15 PRESIDING OFFICER: Thank you.
- Next Patti Bushee.
- 17 PATTI BUSHEE: I'm here today speaking as an 18 individual. I also serve on the local governing body, city 19 counsel here and I represent District I.
- I'm going to presume that most of you folks come

- 21 out of Washington D.C. or that way in some form or another,
- 22 and I hope they give you a moment to explore our beautiful
- 23 city and the rest of this state. Because I guess you could
- 24 imagine in a more personalized sense what it would be like if
- 25 we were shipping the waste around the beltway to head down

- 1 into Virginia or Maryland to store this kind of waste with no2 emergency preparedness, no warning to local officials if3 there were to be an accident, no possibility of stopping this4 from coming through a city as beautiful as this one.
- I know you've had a chance to listen to some of the 6 people that I may represent here in this city and have an 7 understanding this is going to go through the heart of our 8 city.
- Now, we've managed to pass ordinances restricting

  10 the hours, because that's all you've allowed us to do.

  11 Federal government doesn't allow us to do anything but that,

  12 and we've created the narrowest window of opportunity.

  13 However, the waste shouldn't be coming through the middle of

  14 the city. There is no bypass system completed. It's been

  15 promised for decades. Why it's not in place -- what's the

  16 rush for sending this waste through the middle of St.
- I hope you get the opportunity to take the drive

  19 that the waste will also take from Los Alamos through our

  20 city and onward and understand what it means to people here,

- 21 that if there were an accident, now grant you enough waste is
- 22 probably already headed up to Los Alamos that we don't even
- 23 know about, but what do we do in the event of an accident?
- 24 What would you do if you lived here and you had property, you
- 25 had a business, you had a life?

- I mean, I get the feeling that people in other
- 2 parts of the world look at New Mexico and view it perhaps as
- 3 disposable and that we're out here in the desert, not many
- 4 folks, and if there are folks here, perhaps they are from
- 5 different ethnicities that people aren't taking into account.
- 6 But look how beautiful this is. We're called the
- 7 Land Of Enchantment for a reason. Grant you, I'm not going
- 8 to be a scientist and speak to what WIPP is all about.
- 9 You've heard from people far more articulate and
- 10 knowledgeable than I am about the saltbeds that you're
- 11 planning up to receive this waste. I know there are a lot
- 12 more occurrences of higher level waste that are not being
- 13 taken care of currently that are in the arroyos around Los
- 14 Alamos.
- All of those are things you're going to debate and
- 16 you're going to have to debate those with all the scientists.
- 17 I have always, as an individual, counted on the Environmental
- 18 Protection Agency to protect me. And I know at this point I
- 19 guess that's all we can really ask for. If you'll look
- 20 around, and please take into account what this means to

- 21 someone that lives in a city as beautiful as Santa Fe, and a
- 22 state as enchanting as New Mexico.
- It's not some little speck on a map, it's not a
- 24 desert that doesn't have all that many people to worry about.
- 25 I mean, not even Nevada is having to take the kind of waste

- 1 that we're looking at. It's an expert. It's an expert that 2 in my day I'd never hope to see ever happen.
- But the other reprehensible thing for me is that
  4 industry, the transuranic waste that is the result, was ever
  5 allowed to be created, whether it be for power and even force
  6 for weaponry without having the forethought of how to clean
  7 it up. So here we are after the fact figuring out how to get
  8 rid of it. And so we've chosen New Mexico. This city has
  9 been around for 400 years. We're celebrating our 400th
  10 anniversary this year, 1998.
- We've lived through a lot of hard things and boy, I
  hate to see us have to live through this, but just take into
  account that unless this bypass at a minimum is in place,
  you've left us no opportunity to take care of the public
  safety and health and welfare issues, and that's difficult as
  an elected official to feel like I can't say to people yes,
  we will not send this kind of waste through the heart of your
  scity.
- 19 The bypass has to be in place at a minimum. You 20 can continue to debate the science. I think there's a lot

- 21 more to look into there as well. Thank you.
- 22 PRESIDING OFFICER: Thank you for coming.
- Is Cynthia Deti here?
- 24 (No response.)
- 25 PRESIDING OFFICER: Ronald Redmond.

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- 1 RONALD REDMOND: (He and his wife and kids are 2 dressed as devils.)
- It's wonderful to be here. We just want to -- oh,

  4 here's my family. We're on vacation in New Mexico, you see.

  5 Things are getting to be more of the kind of climate that we

  6 like, that suite our tastes, so we brought the wife and the

  7 kids. Please have a seat here, have a seat here.
- We want to thank you all for the kind of attention

  9 that makes situations like this happen. You know, very

  10 specific type of attention, not broad attention, but, you

  11 know, very specific issues like national security perhaps,

  12 and vague things like corporate economy and things such as

  13 that.
- At this point we encourage you to, not as you being
  15 representative, I don't expect that you be representatives of
  16 the Department of Energy or the government but we want to
  17 encourage you to spread the message that all is fine and
  18 nothing to worry about. That these people, they are a little
  19 overwrought, a little overconcerned, a little extra stress in
  20 their life. So I think they're just projecting this onto

- 21 this situation.
- So in general I want to say thank you very much
- 23 scientists at Los Alamos, the fat 40. I want to thank all of
- 24 those good products that we have put out there.
- 25 UNIDENTIFIED SPEAKER: Keep making that waste.

- 1 RONALD REDMOND: Oh, of course. That's right.
- 2 It's about jobs, right? Without waste there would be a lot
- 3 of people put out of jobs, all right? So we ask everybody
- 4 here to consider and trust the government. Think of the
- 5 trust and feel free to WIPP the earth, it's okay. She can
- 6 take it. I know. Thank you very much.
- 7 PRESIDING OFFICER: Is there anybody here who's
- 8 scheduled for this evening who would rather go now?
- 9 SARA BATEMAN: My name is Sara Bateman, and my only
- 10 concern is that we do have to take care of this waste, but my
- 11 concern is for the future. So if you find somewhere to put
- 12 this waste, it really means that we're going to make more
- 13 waste, right? That we're going to have a place to put it, so
- 14 that's what's scary to me, you know, is that we've come so
- 15 far with waste, that nuclear energy can blow up the whole
- 16 world now. I know it is idealistic, just finish it off now.
- 17 We do need to put it somewhere, I understand that, but it
- 18 really means putting it and making more, so that's what I'm
- 19 against. Thank you.
- 20 PRESIDING OFFICER: Anybody else?

21	(No response.)
22	PRESIDING OFFICER: Okay. We will reconvene at
23 7:00 this evening. Thank you all for coming.	
24	(The Afternoon Session was concluded at 5:25 PM.)

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