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9 **TANK WASTE REMEDIATION SYSTEM**
10 **DRAFT ENVIRONMENTAL IMPACT STATEMENT**
11 **PUBLIC HEARING**
12
13
14 Portland, Oregon
15
16 Thursday, May 9, 1996
17 6:00 O'clock, p.m.
18
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Portland Public Hearing

May 9, 1996, Tape #1

Please note, it was difficult to transcribe the questions and comments posed by people not sitting next to the microphone. In many cases, only small portions of the questions/comments made by those sitting further from the microphone were audible, and able to be transcribed. In many cases nothing could be heard, and the note <inaudible> was made. Brackets < > were placed around notes made by the transcriptionist.

Thank you on behalf of the U.S. Department of Energy and State of Washington Department of Ecology. Tonight's public hearing is officially designated as the Portland, Oregon Public Hearing for the Tank Waste Remediation Systems Draft Environmental Impact Statement for the Hanford Site in Richland, Washington. This hearing is being held on May 9, 1996 in Portland, Oregon. We are commencing the hearing at approximately 7:00 p.m., and are scheduled to end at 9:00 p.m. However, if we need to go longer to receive all of the comments, this hearing will be extended. Tonight's hearing is one of two public hearings being held on the EIS in Washington and Oregon during the month of May 1996. The Department of Energy, and the State of Washington Department of Ecology have also sponsored a series of meetings for the on the EIS, as well as consultation meetings with the Hanford Advisory Board, the Hanford Site Natural Resources Trustee's, and Tribal Nations.

1 My name is Robert Carosino, and I am the moderator for tonight's hearing. I will
2 conduct this hearing to ensure that all individuals and organizations here tonight and wish to
3 comment on the EIS have a fair and equal opportunity to do so, in keeping with the both the
4 letter and spirit of the National Environmental Policy Act and the State Environmental Policy
5 Act.

6 The National Environmental Policy Act of 1969, commonly referred to as NEPA,
7 requires that any Federal agency proposing an action that might have impacts on the
8 environment, evaluate all reasonable alternatives and their potential environmental impacts
9 before taking an action. And the projected environmental impacts might be considered
10 significant, and an EIS must be prepared. NEPA also requires that the public be provided
11 opportunities to comment while an EIS is being prepared.

12 The Washington State Environmental Policy Act, commonly referred to as SEPA, is
13 very similar in NEPA in it's intent and purpose. Like NEPA, SEPA requires any State agency
14 proposing an action that might impact the environment, to evaluate all reasonable alternatives
15 for their potential environmental impacts before taking an action. Because NEPA and SEPA
16 are comparable and compatible in their purpose, intent, and procedures, the Department of
17 Energy and the State of Washington Department of Ecology have decided to prepare a single
18 EIS that satisfies both requirements in one document.

19 On Friday, January 28, 1994 the Department of Energy published a Notice of Intent in
20 the Federal Register announcing it's intent to prepare this EIS. On the same date, January 28,
21 1994, Ecology determined that a SEPA EIS was required for the project. The Department of

1 Energy, and Department of Ecology agreed to co-prepare the EIS in a Memorandum of
2 Understanding reached on February 15, 1994.
3 The format for tonight's hearing has been designed to give as many people as possible
4 an opportunity to participate. Including those who of you who do not wish to make formal
5 comments. And I'm going to say at this point that we're going to change the procedures a
6 little bit to make it more informal, given the size of the audience and our ability to do so. We
7 will, however, take formal comments for the record, and a verbatim transcript of the public
8 comment portion of this hearing will be made. All oral comments received will be included in
9 the transcript, and a transcript will also be made of the other public hearings and meetings
10 held on this Draft EIS. The transcript will be included in the Department of Energy and
11 Ecology's record of these proceedings. After the comments made have been reviewed, the
12 Department of Energy and Ecology will then jointly prepare the Final Environmental Impact
13 Statement. The Final Environmental Impact Statement is scheduled to be released in July of
14 1996. The Final EIS will be followed by a Record of Decision. The Record of Decision is
15 expected to be released in August 1996.
16 Before we take formal comments on the record, there'll be presentations by the
17 Department of Energy and the Department of Ecology. We're going to do this very
18 informally, and at this point in time I'd like to introduce to you Dr. Norm Dye of the Oregon
19 Hanford Waste Board, who'll provide some welcoming comments. We'll then have
20 presentations concerning this project before we go into the formal comment portion of the
21 meeting. Thank you.

1 Thank you. I want to welcome all of you as a, from the Oregon Hanford Waste Board.
2 This particular issue that we're talking about tonight is of great import to all of us, and our
3 environment, our well being, and so forth. Especially from the State of Oregon being most of
4 the population in the State of Oregon, or a large percentage, is downstream of the Hanford
5 Waste Site. One of the things that interests the Oregon Hanford Waste Board is how you
6 received information about this meeting, and also how, what you think about these meetings.
7 We're looking at affective ways to try to improve the distribution of information, what we can
8 do. You'll note in your packet there is a public meeting evaluation. Please encourage all of
9 you to turn one of those in, and that will provide us and help us. Again, I wish to welcome all
10 of you here.
11 Good evening. I'm Mary Lou Blazac from the Oregon Department of Energy. What
12 we'd like to do now is since we have a fairly small audience, we'd like this to be a bit more
13 informal. We're going to just form a circle of chairs. We'll have the presentations given to
14 you, so that will make it more conducive to a dialogue. We'd like to talk with you, we'd like
15 you to talk with us. So we'll take just a minute to make a sort of circle of chairs. The
16 microphone will be in the center of the group, and we will be recording what you're saying.
17 Thank you everybody for doing this ... on behalf of the Department of Energy ...
18 tonight. I'm Geoff Tallent of the Department of Ecology, we're co-preparing this ... this
19 seemed like a much better way of handling this. At least half of the group tonight is
20 representatives from other agencies and contractors who were involved with the preparation of
21 this EIS. Easier to handle the situation. Carolyn Haass is the Department of Energy

1 representative who is ... energy ... so we're going go through some of our talking points in
2 what we would have done with overheads. I have copies of the overheads so you'll have
3 something to look at if you want to follow along ...
4 We don't have extra copies here?
5 As a moderator, let me say that after this informal session we will go ahead and take
6 formal comments on the record. So those of you who wish to make formal comments on the
7 EIS, we certainly will give you all that opportunity. And please, if your asking a question
8 here that you also want to be considered in preparation of the Final EIS, please make that
9 comment formally once we go back into the comment portion of this meeting. Or provide it in
10 writing prior to the date that we set for receipt of comments which is May 28, 1996.
11 Also, when going through the presentation, feel free to ask questions as we go along.
12 We're going to try to make this as informal as possible. Don't wait 'til I get done talking on
13 my portion of the presentation, or Geoff. Just ask the question as it comes along. We'll be
14 more than happy to explain it. There's going to be a lot of information given, and we would
15 like you to have a thorough understanding.
16 If everyone is ready to begin, there's a presentation in your information packet that you
17 can pull out. The cover looks like this, and if you can turn to a page called the DOE Purpose
18 and Need, it's the second back page. Do you have your presentation in there? Oh, okay,
19 you're not going to look at the presentation as we go through it?
20 I can't find it.

1 Oh, do you not have one in there? Yea you do. It's the whole thing. It's the second
2 back page.
3 I think, as Geoff indicated before, this is the Draft Environmental Impact Statement
4 for the Tank Waste Remediation System program, it was co-prepared by both the U.S.
5 Department of Energy as well as the Washington State Department of Ecology. The reason
6 this occurred was we were trying to streamline our environmental process, and this was one of
7 the ways to do it, is to co-prepare this document. Because as Bob Carosino said previously,
8 we have both NEPA and SEPA requirements. And NEPA is the National Environmental
9 Policy Act, which any Federal agency or any major corporation doing a Federal action, needs
10 to analyze the impacts of their proposed action, as well as other alternatives of how to get the
11 work done.
12 The Washington State Department of Ecology, and I'm going to refer to them as
13 Ecology, has a regulation called the State Environmental Policy Act, and I'm not as familiar
14 with it as Geoff is, but the reason they do SEPA, as we would call it, is to aid them in the
15 permitting of the facilities that would be built for the proposed action.
16 On the first page you see the DOE's purpose and need for the action. The purpose and
17 need for the action, for the tank waste. I'm going to back up a little here. There's 2 things
18 that we're going to discuss here tonight. One of them is the tank waste that is stored at the
19 Hanford facility. There's approximately 56 million gallons of waste stored at the Hanford
20 facility in tanks. And the tanks, there are 177 tanks. One hundred forty nine tanks are single-
21 shell tanks, which means their a single wall tank. Twenty-eight tanks are double-shell tanks,

1 which means that there's two walls, and that there's some interstitium monitoring equipment
2 that can show us if there's any leakage occurring from the inner wall to the outer wall. I think
3 people have heard in the past that we've had single-shell tanks leak at the Hanford Site. I
4 think we've had approximately 67 tanks leak to date that we know about.
5 Also this need for action includes the cesium and strontium capsules that are stored at
6 the Site. These cesium and strontium capsules are stored in the Waste Encapsulation and
7 Storage Facility. That is a facility that is in the 200 Area where the tanks, where the actual
8 tanks are located too.
9 These cesium and strontium capsules are actually wastes that came out of the tank.
10 One of the things that occurred is in the 70's and 80's, DOE made a decision to take some of
11 the heat load out of the tank, or some of the radioactivity out of the tanks. And the way the
12 did it was they processed some of the waste, and they were able to take cesium and strontium
13 out and what happened was we put them into capsules, Alex probably knows more about these
14 capsules than I do, but, these capsules are, as I said, stored at the Site.
15 And what I'm going to do now is go into the purpose and need. One of the reasons we
16 want this action is we want to try and reduce risk to workers, the public, and the environment.
17 We also want to comply with our Federal, State, and local laws and regulations. And the big
18 one is we want to manage and dispose of these wastes, with the two things I stated before.
19 And we want to do it while we reduce risk to workers, public and the environment, and we're
20 going to manage and dispose of the waste within the current Federal, State, and local laws and
21 regulations.

1 If you go to the next page, Scope of the TWRS EIS. As I said previously, the scope is
2 the 56 million gallons of tank waste that we have in the 177 tanks. Also it includes waste that
3 could be stored in the future into those tanks. It also includes wastes in about 60 smaller
4 miscellaneous underground storage tanks. These tanks are, some of them are inactive, some
5 of them are active. And what I'm mean by inactive is their not in use, active means that their
6 still currently being used for some reason. Just to let you know, the estimated amount of
7 waste that are currently in the miscellaneous underground storage tanks is about 250,000
8 gallons.
9 There other item in the scope is the cesium and strontium capsules. And we have
10 approximately 1,930 capsules. The majority of the capsules are onsite, but please note we
11 have loaned out capsules to certain commercial companies and national laboratories, and they
12 have used them in the past, and we have requested them to be sent back to the Site. And
13 we're currently working with the people to get them sent back.
14 If you go to the next page, it has a tank on it. This is where you show the specific
15 actions that are within the EIS. And if you go to the ones that are inside the tank, this is the
16 specific actions that we're actually going to talk about tonight. The first one is the tank farm
17 operations and maintenance. This is the action that we are going to do to manage the tank
18 waste safely. The next one is the tank farm upgrades. The upgrades mean that we're going to
19 go in and we're going to upgrade the tank farm facilities to maintain them, one, into
20 compliance with the regulations, and two to help worker safety. And that includes ventilation
21 systems, instrumentation systems for monitoring, electrical systems to aid us in doing the

1 ventilation and the monitoring, as well as upgrading your waste transfer systems, which are
2 your pipes.
3 Tank waste remediation and disposal. This is where we're actually going to retrieve,
4 treat, and dispose of the tank waste. Miscellaneous underground ... oh, I'm sorry.
5
6 Yes, I have a question here, actually outside the scope of this EIS is waste characterization.
7 How do they decide how to do the disposal in a tank farm operation if you don't know the
8 kind of material your working with?
9 Okay, in the specific actions outside the scope. That is already covered under Other
10 NEPA Documentation. We have an Environmental Assessment, which is another type of
11 NEPA documentation you can do. And that was completed in the early 90's. So we are
12 already characterizing the tanks as we speak, it's just not part of this EIS. However, any
13 impacts from the characterization program is brought into the cumulative impacts section of
14 the Environmental Impact Statement.
15 So there's no question, characterization will influence the ...
16 That is correct, characterization does influence.
17 So, what we did was we used some calculated ... we used some information based on
18 historic information, what they put into the tanks, to our analysis. So what we have for
19 estimates, we don't know exactly what's there, but we felt the information we did have was
20 enough information for us to start distinguishing between the different approaches and
21 treatments.

1 Well it's just a concern because I think in January of 1996 DLL made that report about
2 how tank waste characterization was one of the things that's delaying cleanup. And the longer
3 we delay on this, the more the price goes up of our operations, and the more the budget seems
4 to be ...

5 Actually it's not in the scope, because NEPA has already been completed on that
6 activity. And NEPA, as we speak is, is being completed. Yes we've had some delays. We
7 recognize that, and we are currently changing the way that we do characterization. We have
8 been talking with Ecology. We have also been talking with the Defense Nuclear Facility
9 Safety Board, and we're hoping everyone is on board. We have taken samples from 122
10 tanks, which correlates to about 300 samples. We're in the process of doing additional
11 sampling. But remember, this EIS, because not all the data was available, we did take a lot of
12 historic data. We tried to be conservative in the numbers we were using so that we could get
13 the most bounding impacts out of this EIS.

14 With that kind of ... the need for characterization is out of the scope of the EIS. But
15 we recognize that it's essential to get this program done.

16 And in fact it's already underway. If there wasn't adequate NEPA documentation to
17 allow the characterization to be done, it would have to basically wait until this EIS is
18 completed. It's out of scope because we don't have to wait on this EIS to do that work. It's
19 already being done under earlier EPA documentation that was prepared. Very good point that
20 your making.

1 Most of the work that we actually do ... takes quite a bit of time for facilities ... turn
2 into glass. So we don't necessarily want to wait until characterization is done, then pick a
3 number ...
4 Let's remember, we plan on starting to do detailed design for our facilities in the '98, '99 time
5 frame. We know our characterization program, according to the Tri-Party Agreement isn't
6 going to be complete until 1999. We know that, but we're taking the best available data, to
7 date. Which we are taking the conservative assumption on this data, and we are going forth.
8 And if we get new data that we have to tweak our designs, we will. But if you let me get
9 down, I'll explain the rest of the specific actions out of the scope.
10 The last one here, as you know that's in the scope, is the capsule management and
11 disposal. The action outside the scope of work actually falls into two categories; 1) as we just
12 discussed that NEPA's already been completed; and 2) NEPA actions that would need future
13 NEPA documentation. The first two items here, waste characterization and cross site transfer
14 system already have NEPA documentation completed on them. As I said before, the waste
15 characterization documents were completed in the early '90's.
16 The cross-site transfer system had an interim action Environmental Impact Statement
17 off this TWRS EIS because it was an urgent need to get that done prior to this EIS being done.
18 We had a Record of Decision in December of '95 where we made a decision to go ahead and
19 construct the new cross-site transfer line. And it was due to we had a non-compliant system
20 that was transferring waste from the 200 West Areas in Hanford to the 200 East Areas. We
21 have started construction on the system. It started in December 1995. We have our contracts

1 in place. We've cleared and scrubbed the Site, we've started digging the trench to put the pipe
2 in. We will have this line operational by February 1998, and that's consistent with our Tri-
3 Party Agreement. Yes?
4 ... NEPA documents. What happens if congress changes NEPA requirements during
5 the time that we're working on this. Are we going to have down periods to environmental
6 health and safety requirements ...
7 One, NEPA can be, NEPA has nothing to do with quote your health and safety
8 requirements that you have to abide by. We know that regulations are sometimes working
9 documents and they can change over time, and they can be modified. But most likely your not
10 going to see regulations decrease, like for the health and safety of workers, the public and the
11 environment. Their usually going to increase in those levels of health and safety protection.
12 But the NEPA will evaluate in a bounding condition, the health and safety impacts to human
13 health and the environment. There's really no regulation on how you would do that in NEPA.
14 ... of NEPA is to take a look at a project that ... You take a look at it early under the
15 ...before you make a decision ... So even if congress ... we would presumably be done ...
16 That's correct.
17 Similarly the ... probably wouldn't change the SEPA requirements ...
18 The last four items under Actions Outside the Scope all have to do with closure. We're
19 talking remediation of the soils and groundwater contamination which could be from leaks that
20 have already occurred, or leaks that will occur from the actual remediation of the tank waste
21 into the soil. And decontamination and decommissioning of facilities that are built for the tank

1 farm retrieval treatment and disposal. And the tank farm closure. The actual closure of the
2 tanks. What do you do with them? Are you going to leave the tanks in place? Are you going
3 to leave the residual there? Cause there potentially may be residual. What are we going to
4 do?

5 The reason closure's not included in the scope of the EIS has to do with the maturity of
6 information available. One, we need to try and find out, we need to know what action we're
7 going to do for this tank waste. I'm mean, are we going to retrieve all the waste, or are you
8 going to leave some in the ground? Obviously this EIS tells us we're going to retrieve all the
9 waste, but we need to have some of these decisions made before you can determine what
10 closure is. Also, you need to have your characterization done.

11 One thing to note that we did use a hypothetical scenario in the EIS. And that's so
12 decision makers and the public can have information on how decisions made on remediating
13 the tanks may affect future decisions on the closure. I know that sounded kind of technical,
14 but what happened is you have various alternatives we evaluated. And they were anywhere
15 from leaving the waste in the ground with no treatment, to leaving the waste in the ground
16 with treatment, or to remove the waste from the ground. If you removed all the waste from
17 the tanks, I mean if you left the, I'm sorry, if you left all the waste in the tanks, then that
18 would be considered there would be some closure to the actual tank waste. So from an, from
19 taking all the waste out of the ground, we had to look at some type of closure, so you could
20 get some type of comparison of all the alternatives on an equal basis.

1 The next slide is your schedule for the EIS. Way back in January of 1994 we put out a
2 Notice of Intent for this EIS. And we went through a formal public scoping process. We
3 published an Implementation Plan in December '95. And where we are today is we published
4 a Notice of Availability that the Draft EIS for the Tank Waste Remediation System program
5 was on the street on April 12th. That began your public comment period. We are on a 45,
6 we have a 45-day public comment period. And we plan on closing that public comment May
7 28th. What's going to happen after that is we're hoping to have the Final EIS issued by the
8 end of July. And after that we're hoping to have a Record of Decision at the end of August.
9
10 Question <inaudible>
11 I cannot comment on that.
12 One of the reasons that people aren't here from my point of view is the fact that we had
13 in 1993, the summer/fall 1993 a citizens task force, appointed throughout the region to ... And
14 very good advice from very good people from all over the region ... and that the DOE and the
15 Tri-Party ... a public hearing feedback. And somewhere in this whole process, and once again
16 I'm just giving you my point of view, the DOE decided. Well first of all Congress started
17 mandating this whole privatization enterprise for our country on everything ... And in that
18 mandate it became a ... at Hanford, and of course the most dangerous and costly project ...
19 privatization effort on the part of DOE. And so we have a whole new EIS process to go
20 through because they changed the plan and they want to privatize this instead of doing it in the
21 way that they normally do. And the ... that the Hanford Advisory Board has given, and the

1 advice of all of us who appeared have put into this whole process. And that issues like this
2 don't need to be in the public out twice. We're not going to, we can't keep redoing things and
3 redoing things and expect public to come and hear your latest plan, when you ... in the first
4 place. And that's my ...
5 I wonder if anyone else has a comment.
6 It's very hard for most of the public to understand this stuff in the first place, and go
7 on ... and also all the weights presented in this bureaucratic language is far too late to ...
8 I must say I applaud you again with ... I think that's wonderful ... I have a very hard
9 time following ... using words that are hard to follow ... it's not easy to follow.
10 Several questions/comments at the same time <inaudible>
11
12 ... not that what your saying is wrong ... people that are already pulling ... I'm over
13 here because the relatives called last night and said ...
14 I know why DOE and Ecology are here.
15 ... and that's a fact with a lot of people. We spend a lot of money advertising for these
16 meetings, and obviously the four of you did not ... And some ... the Board of Health ... and
17 by ... some instances ... that this is part of ... and we're coming back and rehashing some ...
18 <Several minutes of silence>
19 Conversation <inaudible>
20 I think the first thing that needs to occur is they need to understand what alternatives
21 we've even looked at. What if we looked at the proposed action of how to build the tank

1 waste. And I will try and talk in terms I'm hoping everyone will understand. If I say
2 something you don't understand, please stop me.
3 You know, for me at least, it really would be useful ... just put down the package. It
4 would be really useful. I've seen your overheads, they're good, people have them in front of
5 them, but it's hard to follow sitting here.
6 Could we use the overheads ...
7 I think that people will actually get to see what your talking about, and visualize the
8 alternatives, etc., and it's really hard to sit in a circle ...
9 I have no problem with that.
10 Many people talking at once <inaudible>
11 Try and do it both ways, we'll try and do it informal here so we can talk to each other,
12 but we'll put the overheads up there so that most of you can look. Okay, we'll let you go
13 forward with your presentation, Carolyn. Thanks.
14 What you can see up on the board is, you see that we have a waste source up there.
15 The waste source on this graph shows that it's a tank waste. It's also the smaller tanks I
16 discussed earlier. And if you, these tanks, they contain hazardous waste, radioactive,
17 hazardous, and mixed waste.
18 There are four ways, four types of ways that we can retrieve from these tanks. And
19 it's called extent of retrieval. How much do you want to retrieve? We can retrieve, we can
20 not retrieve anything, we can retrieve the liquid waste and condense them through an
21 evaporator-type process where you boil down your liquids, we can retrieve part of the waste.

1 And I'm going down that second column there which is called partial retrieval, and then you'd
2 leave part of the waste in the ground. If you retrieved the waste, you would then have to treat
3 and dispose of that waste.
4 The last one under this, under retrieval, would show that you would retrieve all the
5 waste out of the tank as practicable. There may be times were we couldn't get everything out
6 of the tank until closure.
7 If you go back up to the very first block, continued management. That block says,
8 what that means is we would just continue to manage the tanks in a safe manner. That means
9 the waste would stay in the tanks, and those tanks could potentially degrade, and the waste
10 would probably go into the soil. And then it would eventually go into the groundwater, and it
11 would go, you know, to the Columbia River, and it would, you know ...
12 Enter your drinking water.
13 Enter your drinking water. That's correct. It would also affect, you know, the
14 shoreline user, everyone.
15 There were two alternatives that were evaluated under continued management. One is
16 the No Action. And the no action is required by NEPA, the National Environmental Policy
17 Act, to evaluate. And that just means we would only manage those tank wastes, and we're
18 saying we would management them for 100 years, which is our administrative control period
19 that we have set up in this document.
20 So what we're presuming is the Department of Energy does the same thing their doing
21 right now every day for 100 more years. But if a tank starts to leak, or something like that,

1 they don't replace that tank, they just let it leak because they can't do anything about it.
2 That's just an assumption we make on how this scenario might play itself out.
3 That's right. The second one is where you would do the same thing, but you would
4 delay it. And what we mean by that is that you would replace your double-shell tank, you
5 would replace your double-shell tanks twice, which there are 28 of them, and that's where all
6 your liquid waste would be stored. Your solids that were already in single-shell tanks would
7 stay in place, and the liquids would all be in the double-shell tanks. And you'd replace them
8 twice. And that means that your tanks deteriorating would be delayed by approximately a
9 hundred years.
10 When a tank starts to leak ...
11
12 That's right.
13 ... you just keep shuffling the liquids around among the tanks, without really doing
14 anything with the waste.
15 That's right. We are assuming that for the purposes of the EIS, they would be replaced
16 in the year 2035 and the year 2085. And then that means, as I said, your just delaying the
17 inevitable.
18 So in 2085, or sometime ... 50 year you have to ...
19 That's right. But they'd all be replaced twice.
20 We presume they'd be replaced twice. We figure the tanks last about 50 years, and
21 then they start leaking. It's a assumption we make.

1 We also make the assumption that there is little liquids left in the single-shell tanks that
2 would go into the soil. But remember, these alternatives would have no type of, I don't want
3 to use the word barrier, you know cover over the top of them, you know that could be
4 impermeable to precipitation. You know rainfall coming down so your flushing things
5 through the soil into the groundwater. There would be nothing there.
6 And it's very important to remember on both of these that we only assume that for 100
7 years. And just based on some recommendations and policy that's out there, we dropped that
8 assumption. After that we assume that nothing else happens. And after that point there's no
9 more management, and everybody goes home and ...
10 Basically we're looking at it to show people what happens if nothing is done. And the
11 preferred alternative will the be last one Carolyn gets to, which is a Phased Implementation.
12 That's retrieve the waste from the tanks. So you can take it out of there and turn it into ...
13 high-level glass ... laboratory presumably in Nevada or wherever they go ... We'd leave the
14 low-level with less risk behind here in this area of Hanford and some ... which would design
15 and contain it.
16 I was going to say it sounds like you've come to a preferred alternative already, the
17 way you talk ...
18 That's correct. Our EIS does have a preferred alternative.
19 And that's the vitrification.
20 No, it does include vitrification, yes.
21 No one of the ... is there somebody here who thinks that's a bad choice, and why?

1 Several people talking at once <inaudible>

2 Do we have any other choices?

3 We evaluated quite a few alternatives. I mean quite a few technologies that could deal
4 with tank waste if it were retrieved. There were vitrified, different type of vitrification, you
5 know there's different types of processes for vitrification. You could just solidify the
6 material. You could calcine material, of which what you do is drive off your liquids for the
7 most part you end up with a powder. Colin, what other technologies that were evaluated that
8 were rejected?

9 We a, that were rejected?

10 Rejected.

11 The ones that were accepted that are in the back of Appendix B.

12 There's a few that we didn't accept at all, that is shoot it to the moon. We decided it
13 wasn't a reasonable approach to take ... put it in the ocean, we didn't think that was a
14 reasonable approach. But this is an incredibly complex problem, there's a vast array of
15 different ways you could approach treating this waste. So what we tried to do in the way we
16 put together the alternatives we looked at, we wanted to give the whole spectrum. Everything
17 from leave it all behind and don't do anything. To retrieve everything, turn it into glass, and
18 send it out of state to someone else.

19 Okay, so is there anyone that thinks vitrifications phased implementation is wrong. Is
20 bad?

1 Sure. First what I think you need to know is in the front of the summary, at least for
2 some peoples sent out, stapled in new alternative of leaving 75 percent of the waste in the
3 tanks. And leaving that there forever. And it's very clear that there are some people within
4 the United States Department of Energy, and perhaps the contractor community, who would
5 prefer that alternative, although the official position ...
6 ... the secretary Tom Grumbly, and saw a reporter, and is quoted as saying that we
7 might consider that option because of cost considerations.
8 So basic implementation means your going to turn it to glass ...
9 No no
10 Several people talking at once <inaudible>
11 What's up here under ex situ and in situ combination, which is right next to increasing
12 levels of action. Partial waste retrieval. But we leave that in the EIS that was our middle
13 approach ... Some of the waste out of the tanks and try and get the worst waste out and turn it
14 into glass ...
15
16 You leave the lower risk waste in the ground.
17 Several people talking at once <inaudible>
18 Right ...
19 Several people talking at once <inaudible>
20 ... you carry some gravel, some concrete, try and reduce it so it can't leak out of there
21 and put a cap over it, but there's still quite a bit ...

1 It's very clear that there is some lobbying effort forum that type of proposal. The
2 second part of the question is are there other concerns about the phased implementation? I
3 think what you're bumping into tonight is some people who prefer comments who are
4 concerned that as DOE would like to ... implementation, basic implementation, involving
5 privatization as Kate has already mentioned. There are concerns that we will never have a
6 vitrification plant, and we will never characterize the wastes properly because of funding
7 considerations. There are several concerns as well that other people aren't ... to speak too,
8 that in fact this EIS is biased on cost issue against options such as no separation. Just that one
9 plant, several ... vitrify everything. Or minimal separation between extremely hot waste and
10 lower level waste.
11 What's wrong with the no separations?
12 The reason no separations is a problem for DOE is that right now all the waste in the
13 tanks at Hanford is considered high-level waste. Right now DOE has a policy that all high-
14 level waste will have to be sent to a national repository. The national repository only has so
15 much space available, which cannot take all of that waste. So if you do some type of
16 separations, and get some of those radionuclides out, you're making less high-level waste, but
17 then you are making quote a low-activity waste, or a low-level waste. So lower, that's right,
18 we do a classification of definitions. But we call it low-level waste, or low-activity waste.
19 Would you take a bath in this low-level waste?
20 No. But we are saying that we are going to immobilize it by vitrification, or whatever
21 process it is.

1 It's bad, but it's not nearly as bad as high-level waste.

2 What's it's half-life? ...

3 It depends on what's left in it, depending on the type of separation you would do.

4 Comment <inaudible>

5 No. It would depend on the separation you would do out of the actual, you know,

6 high-level waste. If you only took the cesium out, you would still leave some of your

7 transuranic elements, you know, anything of an atomic number above uranium.

8 You haven't really traced it exactly how you split apart the low-level and high-level

9 waste.

10 If you look at extensive separations up here, this is where you try and attain the

11 removal of all radionuclides. You take them all out and they all get sent to the National

12 repository.

13 It's 10 years behind schedule now, if we ...

14 So would they, so extensive, what's wrong with extensive?

15 Part of the problem with extensive separation is there's going to be a lot of research

16 and development. Technology development associated with it, and a lot of cost associated

17 with it. That the risk of just doing an intermediate separations is minimal. Or smaller, 'cause

18 it is being immobilized onsite. It's, you know, it's being put into a matrix that it's going to be

19 very difficult for any of the materials to reach out or come out and go into the environment.

20 This raises a question I have about vitrification. That earlier we heard about

21 vitrification that it wasn't possible as a technology for the kind of mixed waste that we have in

1 the tanks. That they're able to do it in France because they have a set kind of waste so that
2 they know what their doing.
3 I don't think that's true. We have done some technology development on the waste at
4 Hanford. We have had results back ... Bill Taylor who's our director for the disposal
5 program for the Tank Waste Remediation Program, he has been involved with this. He's also
6 coming from Raytheon, and was the project manager for the construction of HWVP, he is
7 very familiar with that. If you have a direct question on that ...
8 Well so, even with the kind of soups that we have in the tanks, it's possible to turn it
9 into glass logs?
10 That's correct. Two different types of glass logs ... which is a low-activity waste ...
11 Several comments made <inaudible>
12 Can you speak up? We can't hear you over here.
13 Can you tell us why at this point you believe that you can do this, that you can vitrify
14 the waste?
15 The waste that ...
16 Here Bill, you want this?
17 Conversation <inaudible>
18
19 What we did in the privatization effort, we took waste that are probably best
20 characterized. Their waste supernates that are in the double-shell tanks, and the sludge that is

1 available right now for vitrification. We provided the vendors with an envelope, we call it an
2 envelope, where we give the maximum and minimum of each product that's in the waste.
3 You mean you give them actual samples?
4 We will give every one of the vendors actual samples.
5 Actually, what the RFP says is they will get approximately one-quarter liters of the
6 material for them to do their bench scale test on, so they can then go in and complete their
7 conceptual design, and follow on with a more detail design which would lead to the actual
8 construction of the facility.
9 What do you mean, so they characterize it, they have to characterize this waste before
10 they vitrify it?
11 No. We have characterized the waste for them. But we actually give them the waste
12 so they can do their own testing for their design purposes. Not each of the vendors will have
13 the same, maybe the exact same design. There's going to be some tweaks. I'm sorry, what?
14 Question <inaudible>
15 Absolutely.
16 This is actual wastes. It's not stimulants.
17 People should remember what was said earlier is that this is for a few tanks that are
18 characterized, and in essence we're saying under this alternative the preference is to deal in
19 pilot-scale plants using a ... of pilot-scale plants. Only deal with wastes that is well
20 characterized and that is in the safest tanks. And then, Phase 2, if there's ever money
21 available for it, is private vendors build larger plants for other wastes. And I think that

1 Carolyn, you need to mention what their target date is for characterization right now, not just
2 the TPA requirement that's being characterized by the year 2001.
3 Comment <inaudible>
4 Current Tri-Party Agreement says 1999. That's correct.
5 And how many years behind are you in your target budget to meet that deadline?
6 Currently we do have some short falls in the '97, '98, '99 time frame, and we could
7 potentially be 2 to 3 years behind. But don't quote me on that. I'm not the characterization
8 person. Mr. Stone is from Ecology, but from a DOE perspective we have a potential to be
9 behind schedule due to budget short fall.
10 So indeed we're coming back to the point that in order to vitrify, this waste does have
11 to be characterized.
12 Sure it does, but your going to vitrify ...
13 So it can't just be a soup that you turn into a log, you do have to know what it is?
14 But your going to vitrify the tanks that you know first, and it's going to be an interim
15 process.
16 But you think it is possible to characterize these tanks. I thought that was the problem,
17 is they couldn't figure it out.
18 No. As I said before. We have taken samples from over 120 tanks. We have over
19 300 samples. We are in the process of analyzing them. We're in the process of writing
20 reports.
21

1 And it's possible to build one factory that vitrifies, makes logs, and then suddenly they have a
2 different kind of mixture from a different tank that they can transform to deal with than one
3 too?
4 That's one of the reasons we've given them an envelope for a minimum and maximum
5 concentration of various constituents within the waste so they will design within the ... whole
6 envelope. If there is for some reason there is something outside the envelope we may have to
7 do some modifications to the plate.
8 Could I suggest maybe that we, Geoff I know has a forum that might help us walk
9 through what some of the alternatives and impacts for some of the alternatives are. So it
10 might help us get to where we can get some background.
11 I don't understand why we're discussing all these alternatives, cause it seems to me ...
12 They have a plan ...
13 Can I, I think I need to just tell you briefly what alternatives we did look at, and then
14 we'll go directly into the preferred alternative and discuss that in detail with you. But I think
15 not everyone here may not know the alternatives we evaluated.
16 Conversation <inaudible>
17 The purpose of the EIS was to take a step back and look at some other approaches, and
18 ... but what you need to know is that ...
19 Actually that's not true ...
20 ... you need to know that.

1 So there are a couple of us out there that we're ... even though they have a preferred
2 alternative, so we need to at least hear about those.
3
4 And if the data about these is presented is such a way in this EIS to make, for instance,
5 the preferred alternative to look more expensive versus the other alternatives, then you'll
6 probably see some different pressure to kill the preferred alternative, kill the TPA, Tri-Party
7 Agreement half, and impose another alternative.
8 Question <inaudible>
9 Yes. And then risks are another issue, because you can look the cost in terms of risks
10 being skewed, and in terms of how expensive being skewed, as well as ...
11 Do you want to talk further into alternatives, then trade off among them?
12 You know what ...
13 I have a suggestion, and I need to hear from other people, I think we should only be
14 taking the time to look at the preferred alternatives, and the one we might end up getting when
15 the pressures off in Congress. I mean that makes sense to me, and if somebody else has
16 something more logical, please say so, and I address the Oregon Department of Energy.
17 I think the suggestion that Faye just made would be very helpful.
18 Can I make a comment about that? I'm assuming that the preferred alternative, the
19 alternative that you think congress may impose on us is the partial retrieval?
20 I think that one of the ones that's really out there, that's really worried my life from
21 what I read, from what looks like is in the draft Hanford, or a, Remedial Action EIS that's

1 coming out. I think that there's also possibility that their going to cap it and walk away. I
2 think that that is a possibility further down the road ... Congress.
3 That really is the case of what this EIS is about. Was to stack up these different
4 possibilities, and I'm not sure that you can say that any alternative is off the table of what
5 Congress may decide. Never quite know what their thinking. There's a couple of things that
6 may suggest that ... What this EIS gives us the chance to do is to analyze the different
7 possibilities, and ... <inaudible>
8 I can tell you, I mean I've sat in several meetings with Tom Grumbly, there has never
9 been any discussion that we would leave all those wastes in the tanks. Guaranteed, and just
10 cap it. Those discussions have not occurred.
11 Somehow I don't think so ...
12 Discuss partial moving of the wastes?
13 Carolyn I don't think you've put the costs of these different ...
14 No, it's very difficult to put costs associated with ...
15 Ecology has done that.
16 No. We do have it in the presentation.
17 I think that's very ...
18 Several people speaking at once <inaudible>
19 Why don't we go to this ... if you can bear with me for a few minutes, and we'll talk
20 through it, and if it's not a direction that this conversation is going, I'll let you know in a

1 Geoff. I have one concern. I really do. Is, I'd really like to give a one sentence
2 description of each of those alternatives, one sentence.
3
4 Question <inaudible>
5 I'd like to do it before we do that. Okay.
6 Let us know what your alternatives are, and then go through ...
7 If you go down In Situ Fill and Cap. All it is you would fill the tank with gravel, and
8 you put a cap over the top that is impermeable, or impermeable to some level. We won't go
9 into details there.
10 In situ vitrification. The waste is kept in place, but you would vitrify it in place, and
11 you'd put a cap over the tanks.
12 When you get to the partial waste retrieval, the Ex Situ/In Situ Combination, where
13 you take your high risk wastes out, you treat them and dispose of them. The low risk wastes
14 are left in place, and this scenario looks at just filling the tanks with gravel and capping them.
15 The next one. Ex Situ No Separations. You take the waste out of the ground, and
16 we're assuming 99 percent which is consistent with the Tri-Party Agreement, as well as the
17 Tank Waste Task Force, that we would take it out, there would be no separations. All the
18 waste would be high-level waste, and would have to be sent offsite.
19 Ex situ Intermediate Separations is where you would have some type of separations,
20 which would include cesium and a small amount of strontium. So you would still have some,

1 you'd have low-activity waste, which would be immobilized onsite, and stored permanently
2 onsite. The high-level waste would then be vitrified and sent to a geologic repository.
3 Extensive separations is where you take all the radionuclides out of the waste, and the
4 high-level waste goes to the geologic repository, the low-level waste would stay onsite. This
5 is where you maximize the amount of low-level waste, and you minimize the amount how
6 much high-level waste you have. But you take the radionuclides out of the waste.
7 The last one is Phased Implementation. This is our preferred alternative. And this is
8 where you would do your activities in phases. And we would try and apply a lessons learned
9 approach from Phase 1 to Phase 2. And what the Phased Implementation uses as a scenario of
10 intermediate separations.
11 Carolyn, did you describe leaving some of the waste as low risk wastes.
12 Yes.
13 What's the incremental lifetime cancer risk for folks onsite who, say are farmers over
14 the next several thousand years for that low risk waste.
15 We'll be getting into this.
16 Just a minute.
17 I think the point Carolyn, is
18 It's not low risk.
19 You shouldn't call it low risk waste. You should call it lower activity waste.
20 That's the other point ... is the question about high-level and low-level waste. All of
21 the waste in the tanks is high-level wastes. Even after it's separated. You've heard some

1 people talk about low activity, and some low-level. All of this waste is high-level waste. In
2 some of it what they do is separate it, and take the most radioactive parts out, that then
3 becomes the high-level, and high activity waste. The material that's had the more radioactive
4 material taken out is now the low activity wastes. But it is still extremely radioactive. I'm
5 sorry.
6
7 Does that mean, then, that it still has to go to the repository?
8 Under the Atomic Energy Act, yes.
9 This is a legal dispute between, I think, the ... of the public and the Department of
10 Energy. Their theory is we separate it and somehow, bingo, it's no longer high-level nuclear
11 waste. The law is very clear, the state's high-level nuclear wastes. And it changes the entire
12 set of scenario's again, if you understand that, in fact, it is all high-level nuclear waste in
13 Hanford. It came out of a reactor, it came out of these tanks as high-level nuclear waste.
14 So in a way, the separation, even the extensive separation where you take the cesium,
15 the worst stuff out ... here is true, that you just leave the rest of the stuff in the tanks, cap it
16 and walk away. And that's correct.
17 No. Comment/several conversations <inaudible>
18 ... the more risky stuff would be vitrified and taken out of the state.
19 Can you rationale with separating it and not ... <inaudible>
20 Well, do remember that the intermediate separations is what the Tri-Party Agreement
21 calls for as well as the Tank Waste Task Force ...

1 Several talking at once <inaudible>

2 That's alright, go ahead.

3 The fundamental ... may generate quite a bit of the high-level waste we have to send
4 off to the repository in some other state. Unless you some how separate the less risky, but
5 still risky part of it.

6 Also, if you did extensive separations, there is a large dollar amount for R&D to learn
7 how to separate those radionuclides out. So you do have a large amount of high-level waste
8 that would go to a repository. We're talking anywhere from 10 to 15 billion dollars.

9 There's only one repository right now that's even planned and it's not going very far
10 yet ... You can't try and keep some control's on how much waste, you are competing with
11 other Department of Energy sites around the country, your also competing with all the
12 commercial reactors for space in the repository. In fact that's the reason behind the idea of
13 separating ...

14 Question <inaudible>

15 Well also, the reason you don't go to extensive from intermediate is, we don't have a
16 lot of technologies that, we don't know how to remove technetium as well as we could, or
17 some of the transuranic elements. We're learning how.

18 Question <inaudible>

19 Well, I don't think people here want to postpone it, they want to get on with it.

20 ... show you some of the impacts of postponing it at least out to a hundred years and
21 you can see that there are some disadvantages to that.

1 Exactly.

2 But that is an option out there, to wait until you figure out something better too. But
3 you can see there's some risks and there's some costs associated with even doing that.

4 I just have a concern about processing it, in that I've heard that with like the
5 vitrification plants that to get all of the hundreds of thousands of gallons of waste through even
6 the plants to turn them into glass logs, that the plants would be obsolete before your done. So
7 if you have a processing stage before that, how many more years does that add before your
8 even ready to run them through the glass factories?

9 The Phase 1 of privatization is running 6 to 13 percent of the waste through. A
10 pretreatment facility that will separate the waste from high and low. If the overall, total mass
11 of stuff that they have in the tanks, 240 thousand metric tons of mass of processed chemicals
12 in 177 tanks, mixed in with 56 million gallons of liquids. And we have to run that whole mass
13 through a pretreatment facility. And in doing that we'll pull out about 17 thousand metric tons
14 of insoluble wastes, high radioactive waste, which will go into the ... to glass. But until we
15 run them all through the pretreatment facility, we won't be able to separate all the radioactive
16 nuclides. There's 250 megacuries of radioactive material in those tanks. And we're going to
17 try and separate 249 megacuries out, put it in the high activity waste, leaving one megacurie
18 behind in the low activity waste that will be dispensed through all the 416 thousand metric tons
19 of low-activity glass that we'll make at the end.

1 The low-activity waste will be in the form in a box, the specification calls for a box, 1
2 by 2 meters, by 1 by 2 meters, by 1 by 8 meters, and the contractor will fill those boxes up
3 with glass, or cullet, and put it on a loading dock for us to ... to site.
4 Are these boxes different from canisters?
5 Absolutely.
6 Are they really sufficient, given the fact that they will probably be in these boxes for at
7 least a hundred years.
8 That's correct.
9
10 Is that a sufficient conception?
11 Yes. They have been designed ...
12 Is that based on modelling, or is that based on real ...
13 No, I think it's been done by structurally designing the boxes, and based on
14 information that's currently available.
15 It sounds like it'll be a hundred years before we get them into the boxes. I mean
16 what's your time frame?
17 No. Our time frame to treat all the waste 2028.
18 Really?
19 Yes. That's in our Tri-Party Agreement, that we will have all the waste processed by
20 2028.
21 The low activity waste is done by 2024.

1 All these millions of gallons and hundreds of tanks by 2028?

2 That's correct.

3 Oh, cool.

4 And we have a commitment with Ecology, as well as the Environmental Protection

5 Agency to do that.

6 So could you finish telling us why vitrification will work?

7 Well I think it's proven technology. What we've done with the privatization RFP is

8 that we've told, we have not told vendors what to do. We just asked them, we told them what

9 we have, and they have to make a determination on how to do it. We're buying their

10 technology. We're not giving them detailed plans on how to construct their plant. We're

11 not telling them what technology to use to separate technetium, strontium, cesium. We're

12 telling them to bring their proven, mature technology to Hanford, build their plants, fund their

13 plants, construct their plants, operate their plants, and just give us a product that we've

14 specified. We want a product that basically does not leach waste out of over years.

15 Yea, and at this point, today, why use ... to do that?

16 Because we have had meetings with them, and they have told us they have technology

17 that is mature enough to do that. And again, you have to go back and look at the people. The

18 NFL has been operating ... field for many years, and we know they can make borosilic glass.

19 High-level glass. In Lahavy, France they have been making borisilic glass. Doratech has

20 been making silica glass. Low-activity glass. People are doing them.

21 Their starting doing them in Savannah River, right?

1 Savannah River's DWPF plant is ...

2 So those are your two contractors from Silifield ...

3 No, those are examples of, the question was why does he have some belief that this is

4 doable, and those are examples of situations where processes are being used today.

5 This is exactly what kind of dialog we were hoping to have tonight, but I'm not sure

6 we're going to get where we need to get for DOE for us to give them some input. And I think

7 if Geoff can walk through the process that he brought, sort of a graph what some of the

8 tradeoffs were and the options, the different. Then we can get to in time for the testimony

9 part. Before the 9 o'clock time frame. I'm sure that the folks from DOE, and I know that the

10 folks from the Oregon Department of Energy are willing to stay and talk about the issue after

11 9 o'clock. But I think there's some legal requirement, that we have to have the public

12 comment at 9?

13 Well, we said we would extend it as long as necessary to hear all comments. But I do

14 want to make sure that those of you that came tonight with the intent of making comments on

15 the Draft EIS, which is the basic purpose of this public hearing, do have an opportunity to do

16 so. And so I agree with you. I'd like to see if we could at least wrap up for a temporary time

17 period. This presentation and discussion portion. Let those that have comments they would

18 like to make for the record on the EIS, make those comments. And then, either after the

19 formal comment period, or for those of you who might not want to sit on the formal

20 comments, but might want to continue talking with some of the Department of Energy and

21 Ecology representatives who are here, you can talk on the side while the comments are being

1 taken for the record. That would be a good idea to go ahead, kind of quickly wrap up this
2 portion and give those people here who want to make comments an opportunity. By the way,
3 could you kind of give me an idea how many would like to make comments for the record.
4 Okay, we do have a fair number, so I do think it would be a good for us to have a quick wrap
5 up here, and then we'll go into the formal comment period.
6 Just quickly, moving through the impacts analysis, we don't want to take too much
7 time ...
8 Why don't we let them not ask you questions afterwards in another session, and you go
9 ahead and quickly walk through it.
10 This document is in the packet, is that correct?
11
12 Yes. There's table in your packets, which captures this on one page ... inside the
13 wallet it says Draft Environmental Impact Statement. ... It kind of changes my word ... a
14 little bit contingent, the shading is ... suggested way to high impact ... Okay, and maybe we'll
15 even ... follow along with it ... But what this table is is a snapshot of the pilot of the EIS. It
16 puts on one side all the alternatives that we looked at. And going across it we look at all the
17 different categories, the possible types of impacts that may happen as a result of what we do.
18 And while we ... try and pick and choose among the alternatives.
19 Just to point out a few key ones here because they came up during the discussion. The
20 first one is the one with the box around it, the heavy box around the bottom.
21 It's always on the bottom of the chart, isn't it?

1 The third one from the top is in situ fill and cap and top. That was the one Paige
2 mentioned she was afraid that Hanford may go, and that's basically the do very little and leave
3 it all behind. The fifth one down is, I think, very similar to what the one that Jerry's talking
4 about. That's take some of that, but leave much of it behind. You can see particularly where
5 those ones stacked up against our preferred alternatives, and other possibilities. As you look
6 across different types of categories we looked at, ... short-term, the types of things we would
7 expect to happen in the first hundred years, and these are the most ... result of workers out
8 there actually retrieving the waste. You can see that as we move across, the first column is
9 occupational accidents. Those are ... by workers following ... in actual construction facility
10 and working inside.
11 The second one is radioactive and hazardous accidents. That's when something like a
12 pipe inside one of the plants to retrieve wastes breaks apart and it sprays some of these tank
13 waste into the air and workers breath it in. These numbers are ... in terms of fatalities, so you
14 can see that there are some impacts. There are some potential fatalities if one of these
15 accidents actually occur.
16 The next column over is transportation. These are the types of accidents you might
17 expect to see when your actually transferring this waste. And this is transportation between
18 the Hanford Site and the repository, presumably in Nevada. You can see those numbers are
19 very low, but with what our analysis showed us, if you transport this material by rail in the
20 types of canisters they proposed, you don't have much potential of accidents, and if you do,

1 it's a relative small number of potential fatalities. For summary purposes, it would have to be
2 two deaths.
3 The next column are exposures to the workers and to the public, during the actual
4 treatment of this waste. As you can see, there is likelihood or possibility that some workers
5 may develop cancer if their working in these plants. At least given same ... that we assume.
6 And we assume that those controls are taken up to the minimum standards for ... Include
7 making plants more safe, and this being the minimum. And if you went to the minimum, you
8 have a statistical chance of some workers developing cancer. Next column is about the same
9 thing, it's just the workers driving trucks, transporting waste around, and working ...
10 The last two columns are under the short-term, the ... of the draft summary, in ...
11 habitat. Hanford, 560 square miles, has been kept out of farming and development for 50
12 years. It's a pretty unique and valuable resource out there in it's habitat. All of our
13 alternatives, except the No Action, would have some potential to affect the habitat.
14 The final column in short-term is the employment. It is important the number of
15 people you bring out to do this work will impact the roads, the schools, all of the functions in
16 the local area. The more people you bring, the more impact there are. Just in terms of short-
17 term impact, I think the trends developed simply, they're not surprising, their pretty self
18 evident. Don't do anything to the waste in those tanks, leave it behind, do very little
19 treatment, it's not going to have much impact in the short-term. This first hundred years or so
20 it's going to stay in the tanks. If you take it out of the tanks, you increase the likelihood of
21 some sort of accident, or injury to your workers or public. If your taking it up out of the

1 tanks where it's going to get to the air, there's a lot of workers working with it ... being
2 treated. Any questions about any of the short-term impacts?
3 Well, yea. Groundwater, people are saying that it won't get to the groundwater for
4 another 30 years ...
5 Several talking at once <inaudible>
6 Well I don't see how that stacks up with what case you lose saying in ... waste water
7 ... already there.
8 ... this isn't the first assumption in this EIS. The EIS has a narrow focus, it puts on a
9 certain amount of blinders for the purposes of getting this analysis done. ... look at
10 contamination already there ... in the groundwater. But we're not trying to tell you what
11 might happen with what's already there. We're trying to tell you what could happen with just
12 the tank waste is still contained in the tanks. ... <inaudible>
13 Well, yea, but it is hard ...
14
15 Well, what we're saying is that the waste that's still in the tanks, we don't expect those
16 to reach the groundwater for the next hundred ...
17 Under No Action it would be approximately 130 years.
18 Well under no action, how do you explain, you've got to do some explaining here.
19 We've tanks, it is 1996, we're basically, Hanford's been operating for 50 years. You have
20 evidence that tank leaks have reached groundwater. Strong evidence. In fact, so strong that
21 you ought to make that assumption throughout this EIS. Now, we all know that even tanks

1 that are quote pumped, will continue to leak. ... how can we say it will take 130 years for
2 tank leaks from tank wastes currently in tanks to reach groundwater, when we have
3 irrebuttable evidence that tank leaks 53 years groundwater. There is a big disconnect between
4 your assumption and the evidence. And it really goes then to everything about leaving any
5 waste behind in the tanks and the entire, you could look at the tank and the system, with the
6 soil with the system without being able to draw an arbitrary distinction between what has
7 leaked, and with what is in the tanks because in fact you may not have a system of ... in terms
8 of the tank itself.
9 Comment made <inaudible>
10 Yes, if you leave the tanks, for instance under phased implementing, I'd like to hear
11 what the risks are of delay. Given the fact that delay means waste in tanks. For an alternative
12 means waste in tanks. There is a serious question to what the presentation on this EIS is. And
13 you look at No Action, some of Congress is going to say, hell it's going to take 130 years for
14 it to reach groundwater. Why the hell should I pay an extra 30 billion dollars to get the stuff
15 out. Now that's number one. Number two you've got ... that this EIS may draw opposition's
16 on, and it's based on some erroneous assumptions, and not consistent with the evidence. And
17 the evidence shows clearly that it doesn't take 130 years for a tank leak to reach groundwater.
18 And therefore we do need to look at the problem of resources, to deal with the ... soil beneath
19 the tanks and moving the waste out of the tanks.
20 So your request is to change the data in the original ...

1 Yes, and that's just exactly the point I was going to make. We made these
2 assumptions, made assumptions as we were putting this EIS together, this information ... is
3 very recently ...
4 And also, DOE is still in the process of validating that data. DOE is still convince that
5 it does exist.
6 What is recent?
7 ... possibility this information is pretty accurate.
8 No we are validating the data ...
9 So your saying you continue to officially take the position as the Department that you
10 do not believe that tank leaks pose a threat to ground.
11 We did not say that. I said we are validating the data that you are referring to in the ...
12 stone. We are validating the data. Does that contamination exist that deep into the ... stone.
13 From that we can determine, it's true, some of our assumptions need to be changed.
14 Let me talk to this a little bit too. 'Cause I've been kind of working with Casey and
15 with this EIS on this particular issue. There is an awful lot of controversy as to how this
16 cesium that Casey detected using this technology, new technology that he has utilized at
17 Hanford is really telling us. Is it a preferential flow thing down borehole. And is it coming
18 from the tanks necessarily, or is this borehole intercepting it and getting that, this fluid which
19 is migrating from all these cribs and ditches which are around the tanks, they dumped an awful
20 lot of this nasty stuff in. It's intercepting it and going down, or is it in fact the tanks? There's
21 a lot of evidence on both side of this issue to support either argument.

1 Why,

2 Let me finish.

3 Why would you assume, if your being conservative, why would you assume that tank

4 leaks do not migrate fairly rapidly to groundwater? And a ...

5 ... General Accounting Office tell you of 1989 that you could no longer, and you

6 should no longer make the claim that tank leaks would not rapidly migrate to groundwater.

7 We made the assumption about how long it would take. We made it on what we

8 thought was pretty reasonable information when we made the assumption. And that's exactly

9 why we need to get your comments. We present this information ... the EIS, but we did not

10 have enough we felt to go on to pull it in together.

11 Question <inaudible>

12 ... now is we're assembling experts from across the country. I think Ralph is going to

13 be on this team, and there's going to be borehole experts, and there's going to be

14 radiochemist's, and we're going to provide them with hey this is what we got, this is what

15 we've detected. What is the best way for us to figure out how this stuff got there? We're

16 going to try to get this answer as soon as we can. When this information becomes apparent to

17 us, it's appropriate for NEPA, for us to go back and revisit this decision, if they were made,

18 and if their not made in this time frame we're talking about, we have to capture this

19 information by our mandated by the NEPA process for our final document.

20 This dialogue is good, but remember we just talked about ...

1 Well shit, every time we start talking about something somebody starts telling us we
2 don't have time for this and we've got to stop. You know that's why people get sick of these
3 meetings.
4 No, I want to do what's fair for everybody here, and I want to have the opportunity to
5 continue having some discussions, but I do also want to let the folks who came out in the time
6 period we advertised this meeting for to take hearings, make their comments. Then we'll
7 going ahead and continue to have informal discussions that we've tried to do here. But we're
8 really trying to do what the public here in the State of Oregon representatives have suggested,
9 try and make this informal. And I apologize we can't satisfy everybody here, but I also have
10 to try and work within the constraints of letting some formal ...
11 Can't we poll people and find out if there's anybody who came to make formal
12 testament, and do that right away, ...
13 Yea, let's go ahead and get the public comment out then, so that that's over and done
14 with.
15 Why don't you just turn your microphone ... the appropriate ...
16 Well
17 I don't mind staying as long as we need to keep the dialog going, but there are ... came
18 with specific reason ...
19 Does anybody have, need to give their comment right now? That's the question.
20 Well actually I think I will ... but I think my thinking ...
21

1 This equipment, you can't get it vocally? I can on that ...

2 We need your name.

3 Say we're going to do here, okay.

4 Part of the process.

5 We're going to take a break from the informal comment section at this time period, and
6 go on the record for formal comments on the Draft EIS. If you have a transcript of your oral
7 comments, or if you have prepared a written document that will supplement your oral
8 comments, please give that to me and I'll make sure that it's entered into the record. And if
9 you're not ready to make comments again, but want to make them at some time in the process,
10 you can either make them in writing tonight, or you can submit them in writing to the
11 Department of Energy by May 28, 1996. There's information at the sign-up table, as to the
12 address you should send those comments to. And comments received after that date will be
13 accommodated as practicable as we prepare the EIS. Written comments, I want you to
14 understand, this is important, written comments will be given the same level of consideration
15 as the oral comments that you make tonight. So don't be concerned if you don't want to make
16 an oral comment, want to make it in writing instead, now or later, they'll be given the same
17 degree of consideration when we write the Final Environmental Impact Statement.

18 Questions <inaudible>

19 I please ask you that when you come up to make a comment, make sure you talk into
20 one of the microphones. Please give us your name and your mailing address. And if you'd
21 spell out your name that would help the people who are transcribing the matter. If you have a

1 written comment to provide at the same time, you can provide a copy if it to me, and I'll make
2 sure it get's into the record. We've indicated here that we're going to change our process a
3 little bit. I would normally ask the first person who had signed up to make their comment, but
4 we've found that there's one individual here who needs to make a comment at this point in
5 time, and I'm going to go ahead and turn the microphone over to him. And sir, if you'd go
6 ahead and give us your name and address and go ahead and make your comment on the
7 record. Thank you.
8 Thanks. I am Brad Yazzolino, 6451 SE Morrison Court, Portland. I will make it
9 quick. I simply wanted to put this in perspective, in the sense that I'm in the art world. The
10 art world basically lasts for thousands of years in the same sense that the radioactivity does.
11 And I've been immersed in the geology of the Hanford area for the last year or so, and some
12 other aspects about the river. And basically you need to remove the radioactive material from
13 it's proximity to the river because in fact that river valley has been there for about 21 million
14 years. And it's going to persist in that area, and it's going to eventually wash your
15 radioactivity to the sea, and spread it all over the river valley if you leave it there. It needs to
16 be removed. You haven't, the people that picked that spot were thoughtful in the sense that
17 yes they found a place with nearly 3 miles of volcanic stratta underneath it that is relatively
18 hard, but it of course has relatively soft areas in between it. But the river is sitting on top of
19 all that hard material. The basalt. And so are your tanks. And so it's simply, if you would
20 just apply childhood physics to this matter, you have a rock hard basin with the tanks sitting
21 up on the surface. And you have a very tremendous and powerful river sitting next to those

1 tanks. And that river, if you'll all study the Missouri floods, that very well respected theory,
2 but geologically provable, that that river about 11,000 years ago for a period of 2,000 years
3 was flushing water over the top of the Hanford, as I call it, peninsula, at a level of probably
4 more than 800 feet deep. So with the coming atmospheric affects that may take place due to
5 global warming, no one can actually predict whether you will, in the next four or five hundred
6 years. And I think you need to take a longer term, 130 years. Shame on you all. Does
7 radioactivity observe those kinds of microseconds? No, and you all know that. And you need
8 to begin to face the long life of radioactivity, and the long life of the river. So, in the next
9 four or five hundred years your likely to see floods on the magnitude overtop the section of
10 Hanford that you have you're tanks in. Now that's why you need to move that stuff out of
11 there. It needs to be moved. And of course it costs billions. But these are the things humans
12 are good at, these kind of projects. And so I applaud all your effort. I know what goes into
13 this. I've seen what goes into this, I have the whole, relative almost the whole stack. But I
14 just want to make that general principal that you have a hard basin, with these tanks sitting
15 right next to it, and a flowing strong river next to it. And it is, I think I made the point.
16 Thanks very much. Sorry to interrupt.
17 Thank you very much with that comment. Why don't we proceed forward, and go
18 ahead and have those who had signed up for oral comments make their presentations, unless
19 those people want to, might want to tell me their willing to defer.
20 Comment made <inaudible>

1 Right. Right. For the record I'm just asking if any of those who've signed up, or in
2 the audience for other purposes, and want to go ahead and make a comment now, if you want
3 to do so we'll give you that opportunity. Otherwise we'll go back into the informal
4 presentation and discussion phase. Is there anyone who wants to do that?
5 Comment <inaudible>
6 Okay. Could you please go ahead, and you can use this. Sit down here if you want to,
7 or stand at that microphone if you want to, whatever you want to do.
8 Well I'd like to just do this because I have to get home to the kids. Not that I'm not
9 interested. My name is Lynn Simms, 3959 NE 42nd Ave. Portland 97213. I wanted to thank
10 everybody for coming on out here, and for all the hard work everybody puts into these efforts.
11 And I wanted to thank you for trying to accommodate everybody and to go into explanations
12 and not have it be so formal.
13 I think one of the issues here is that this project that we're talking about is probably the
14 largest civil works project, the most expensive, and the most dangerous project ever attempted
15 by mankind in history. And we're all very concerned about it and want to do the best we can
16 to make it work. And that's, everybody is emotionally involved with this, and there might not
17 be any good solutions, except to try to keep it out of the water, out of the Columbia River.
18 I wanted to formally also offer some kind words to the Department of Energy who
19 have worked very hard on this and working hard to change their image. Because I heard
20 today that to replace the monies lost by the gasoline tax revenues that there had been a
21 proposal again to replace your whole department. And it must be very difficult to work on

1 these gray issues and not get enough respect like that. And I'm also very mad about the fact
2 that here we are smack up against the Cold War mortgage legacy to us, given to us by the
3 Department of Defense, who get's more money than they ask for in their budgets, and we're
4 left kind of like the garbage men picking up after them all over the world right here in our
5 own backyards because they have to have enough money to fight a war on two fronts. And I
6 wonder if we're one of the fronts that their fighting against, or that they don't care about our
7 own homeland. And that's a persistent problem. And I just wish everybody has good luck
8 with this to get it out so that the Columbia River is not contaminated. Thank you.
9 Thank you very much. Is there anyone else that would like to make a comment at this
10 point in time? If not, we'll go back into the informal discussion phase of this meeting.
11 Comment made <inaudible>
12 We were talking a little bit about the groundwater contamination, are we done with
13 that?
14 Why wouldn't we make an assumption that it's greatest projects is what we should deal
15 with. Not some thing ... he might find out that it is indeed going to take 200 years before it
16 hits groundwater. Why don't we assume that since there is evidence that it's already hit
17 groundwater, that we speed things up. Why shouldn't we make that assumption? That seems
18 much wiser.
19 That's a good question. Why isn't everything based on that assumption.
20 I mean you don't wait until your child has gangrene before you start to deal with his
21 infection. You've got the same problem here. Why don't we make that assumption?

1 First of all, this information was just recently coming out here. I have not even seen
2 the draft on the SX Tank Farms. The first tank farm that the case men looked. We're pushing
3 Geotech to go in there and monitor tanks as fast as possible <inaudible>
4 ... studies predicting the eventual environmental impact with the tank leaks, do not
5 provide convincing support for DOEs conclusion that the impact will be low, or nonexistent.
6 DOE also said, DOE's not collected adequate data upon which informed management
7 decisions can be based or program priorities established concerning single-shell tank hazards.
8 And second, although DOE has maintained that the environmental impact of leaks will be
9 extremely low, or nonexistent, i.e., won't reach groundwater for over a hundred years, the
10 studies we reviewed do not provide convincing evidence that this is the case. Now, given that
11 this has been a controversy for 7 years, and the General Accounting Office said 7 years ago,
12 stop making the assumption that it takes a hundred years to reach the groundwater, why isn't
13 the assumption, it wouldn't even be conservative to say it takes 50 years to reach groundwater.
14 It would be conservative to say it takes 25 years to reach groundwater. So why isn't that the
15 basis, and how come your still clung to the idea that it takes 130 years in this EIS?
16 Well Gerry, first of all there is truly a division of experts in the field on this issue in
17 respect to what that document says. I can go out and I can talk to Jeff Surney, I can talk to
18 Vern Johnson, I can talk to ... all of these folks ... there is a dividing ... Now this effort has
19 been underway based on this report ... initiated. We just now in the process of being able to
20 capture this. We can't look at this stuff until it's been peer reviewed, and it means something
21 to somebody. It's just not ...

1 But your not answering my question. And ...

2 Jerry are trying to, I think one of the things you need to hear is some of the basic

3 assumptions we used for our vatif zone, and groundwater modeling. And I think Dave, behind

4 you can probably talk to you on that.

5 Well that's great. But I'd like to, I think this gentleman asked a question, and I think

6 he phrased it really well. Why wasn't a much more conservative assumption used about travel

7 time to groundwater?

8 We chose that assumption. We talked with the hydrogeologists. We looked at the

9 soils. That was the assumption that seemed reasonable for us for the purposes of our analysis.

10

11 And it may be a mistake.

12 It may be a mistake, and it also may be right. Like Bob was saying, there's a lot of

13 uncertainty.

14 It's one of these problems we've got, and we make them all over the world now, where

15 the assumptions, if you make the wrong assumption, and it is going faster, it's too late. It's

16 that slippery slope ...

17 There's no question about that.

18 And but we can't afford to make those assumptions. We must be conservative. We

19 can't afford to say well I'll pick a middle ground among the experts. See what I'm saying?

20 And we didn't necessarily pick a middle ground, we also didn't pick a very worst case,

21 we wanted to show what we thought was a reasonably conservative, is the way we looked at it.

1 But there is a lot of new information that's getting that's recent out there that's going to impact
2 the way we're look at it. We've already had discussions between Ecology and Energy about
3 how we intend to change this EIS. So we're looking at it. It's pretty new to us. But that's
4 why we need these types of comments. If you think we need to change these assumptions,
5 please let us know.
6 I've heard that. I have no question, I think we need to.
7 Well I'd like to ask a question. I understand that all this is ... and that there is
8 disagreements on this, but one point Casey made in February was he says he has to fight for
9 funds to do his research ... <faded out> I'm wondering why isn't DOE taking this more
10 seriously. I've also heard rumors that DOE and Westinghouse ... <inaudible>. I'd like to
11 know why isn't ... there for ... research.
12 I don't think, we are not, we cannot speak to that. We're talking managements above
13 us. I cannot answer that for you. That is a question you need to pose to our senior
14 management at the Hanford Site. We do not have the decision-making authority on the
15 budget, and where the activities go.
16 ... okay, say there's a task force that's been formed to work on this issue, is this one
17 ...
18 It's going to be the recommendation of the task force ...
19 Question <inaudible>
20 I'm trying to kind of stay out of this because hopefully we'll be going into this
21 unbiased as a member of this team. But I'd like to make one comment here that we seem to be

1 getting to a place where bigger picture. Your getting to what, to me, is the bigger picture.
2 You remember a couple years ago we had been talking about our concern about groundwater
3 along the river. U.S. DOE did refocus, the Tri-Party refocused and put their money, some
4 ER money ... reversing the gradient of ... the chromium, getting on with the very successful
5 ... around the ... uranium. So I think they did a good job doing what everybody said, the
6 public said. I think your now capturing what the next phase is, is they have to get across to
7 the U.S. DOE that we are concerned about the vadose zone. The tank waste, and all the crib
8 waste, and all the other stuff that's in the vadose zone, and we don't know where it's at, and
9 we don't have a good characterization of it. So the next big project has to be characterization
10 of the vadose zone so we have a handle on what's happening, how it's going to get to
11 groundwater, how long it get's to the river. And I think your capturing that by yourself
12 without detailing it, and I'm glad to hear your getting that. And that's what you have to tell
13 U.S. DOE. that the next step of the process is to characterize the vadose zone.
14 Okay, I believe at this point in time we have another individual who would like to
15 make a formal comment for the record. Sir, could you please give us your name and mailing
16 address, and then...
17 Peter Wright, 12923 SW Goodall, Lake Oswego. My only is with respect to DOE,
18 and I guess Ecology. I find that I'm really saddened by the fact that there's not a lot more
19 people here. It's the first time I've gone to a government meeting, which may be
20 characterized more by bureaucrats, than by human beings, and found that it's mostly human
21 beings who recognize that we're all in this together. And I really feel that your average is a

1 sign, at least to me, that there's a recognition that all of our kids are going to suffer from this.
2 And I just want to thank you very much, and I hope you get all the funding you need because
3 we do need, as that woman said, a lot more money to clean it up than we do to continue
4 making the messes. So I thank you. I'm sorry I was hard on you earlier.
5
6 Oh, no. No problem.
7 Thank you very much sir.
8 Anyone ...
9 Question/comments <inaudible>
10 What do you mean you didn't hear?
11 Comments <inaudible>
12 It was also advertised when, there's a mailing list of, that Hanford has that we sent out
13 the summary of this document to. There was a fact sheet in there of where the meetings were
14 going to occur. Also, when the meetings were going to occur, we advertised the day that the
15 EIS was released to the public, and we advertised a couple days before the meeting actually
16 occurred. In the newspaper both times. There were no radio advertisements for this.
17 Comments made <inaudible>
18 You know, these are the types of things we'd really like to hear, because we would like
19 to know how ... <inaudible>

1 You know, we're open to suggestions. And so, there's some great opportunities. You
2 can tell us right now, you can read it into the microphone, or there's a form you can fill out if
3 you have any specific ideas. It's in your packet.
4 I need to say something about this, and it's actually in response to your comment. I
5 have been involved only 6 years in this whole Hanford debaco. And for all of those 6 years I
6 have heard, and I have been prior to this myself, giving suggestions of how to reach the
7 public. I have told I don't know how many different people in Ecology, I don't know how
8 many different people in Westinghouse Public Relations, DOE Public Relations, Battelle
9 Public Relations, and whoever else, where the free radio stations are so they can do this at less
10 cost. I have told them where the free newspapers are. You know, we've told you time and
11 time again, many of us, not to put it in, you know don't think a notice, which happened
12 recently this year, a notice in the Federal Registry is going to draw the public out, thank you
13 very much. Because I don't read that on a daily basis. And I'm not pounding on anybody
14 particular in here, because once again we have a whole new slew of people that nobody has
15 told any of our input to. And I am very very frustrated that for 6 years, and I know it's gone
16 on well before the 6 years that I've been in this whole thing, that you have not heard how
17 public participation works here. And I hope it's on the record. I hope I'm speaking loud
18 enough for the mic. But there are ways to do this. We have bent over backwards. The
19 Hanford Advisory Board has had a public relations committee that has bent over backwards,
20 or public participation committee, that has bent over backwards and given very good input on

1 how to change it. And the Department of Energy, in particular, does not change it. And I am
2 angry about that. So just to know, we have worked at it, and they do not follow our advice.
3 Can I take a little poll? How many people here know what if you see an ad and it said
4 Tank Waste Remediation System. How many people know what that's talking about?
5 It's only those of us who've been involved for a while.
6 And so how many people ... If there's no one, if the general public doesn't know what
7 Tank Waste Remediation System is, and if the Department is afraid to use the words high-level
8 nuclear waste. It doesn't matter where you advertise, or what you do. This is about high-
9 level nuclear waste.
10 What did our ad say, David?
11 It said radioactive hazardous waste in big 32 or 48 point letters.
12 Okay, in the tanks at Hanford? Did it have in the tanks at Hanford?
13 It goes on to explain that, yea. I mean we tried using some innovative techniques to
14 draw people in and get their attention.
15 But I noticed, it's not just the ad. It's like, I looked at the materials tonight when I
16 walked and it struck me because I had looked at the ad previously. And that, none of the
17 materials, your presentation tonight doesn't say high-level nuclear waste. Presentation talks
18 about radioactive and hazardous waste.
19 Radioactive and hazardous and mixed waste.
20 Well you can legally, never mind public jargon, which these are the high-level nuclear
21 waste tanks at Hanford. If the public knows that's what your talking about, there's more

1 likely to be a concern. But legally it's high-level nuclear waste, which we've talked about
2 tonight, and as you've admitted, and it's not in ... the public materials mailed out and the
3 presentation, and it's not a shock to me that a lot of people might not know that Tank Waste
4 Remediation System is whether or not you leave high-level nuclear waste sitting in the ground.
5 So, somehow we need to convey that message better to get more people to turn out.
6 I'll consult with you for free.
7 I really didn't want to say that 'cause ... for six years, and people have said you know
8 what you've said ... doing it, but I know after being here tonight and repeating all the stuff
9 that Kay just said, oh yea those are good ideas, oh yea I'm going to even do it later on tonight
10 for the formal one. But then a while later it's the same ole thing. So I've come to the
11 conclusion that that's basically what the Department of Energy wants. They don't want a lot
12 of people here. They just want a few people here, and they want the sessions as limited as
13 possible, and the public, you know questions as limited as possible, purpose is ... by design.
14 Because if you think about it, how would you design it if you didn't want to many. You'd just
15 have some smaller article that's hard to read and blind on the 37th page of the, something in
16 the paper, and as you said you wouldn't have any radio or TV. And you just say I don't have
17 any money for anything else, and this is about it. And that's what you'd do. So as far as I'm
18 concerned, that's the end result you get, is what is clear to me.
19 I would like to make a comment too, which kind of goes along with this lady over
20 here. About 10 years ago, maybe even better. I'm 82 years old so my memory is not up like
21 it was when I was 20 years old. And they was talking about having this repository place in

1 three different places, one Hanford, and a couple other places. So I wrote a letter to the head
2 of the department, and also to the next head of department, explaining about what could
3 happen if you had leakage into the Columbia River with radioactive waste. And at that time
4 we had plenty of salmon. And I told them what would happen to the salmon, the salmon is
5 sold all over the United States. I also said that a lot of places along the Columbia River have
6 wells, and I'm sure some of the water comes from the Columbia River, and what this would
7 do. I got a letter from both gentleman. They're both just printed material, they were with
8 them in the answer to me, telling me about how safe everything was, that there wasn't a thing
9 to worry about. Everything was just perfect. Don't worry. About three years later it comes
10 out that that's about the most contaminated place in the United States. They just told me a
11 bold faced lie. Why should I even trust the Department of Energy? Can you answer that?
12 I don't know if I can answer that. But part of the purpose of this EIS was to try and
13 get an objective look at what those risks are, and we're not trying to sweep anything under the
14 carpet here, we lay these things out in terms of potential fatalities ...
15 Well I'm glad your finally doing something.
16 ... for you to see, and that's why we come out, we make a lot of assumptions in that.
17 You've heard a lot of questions about those assumptions, that's why we come out and ask and
18 try and get public input on our assumptions, before we go back and finalize this and make it
19 document we will use to make decisions. So that's what we're trying to do tonight.
20 I have a quick question too while I'm talking.
21 Please talk.

1 They're talking about draining these tanks down to where they have little left in it. I
2 wonder if anything could be put into that to cause it to congeal, which would cause the
3 seepage to take longer, because you get less leakage if you have something congeal, then if
4 you have it a liquid.
5 Yea, that's what we do. We look at our different assumptions where we take most of
6 the waste out of the tanks. We do look at then stirring in either some gravel, which will help
7 somewhat bind that liquid up, or stirring in concrete to bind up that last little bit that's left. So
8 we do look at measures to do that. And you can see from the chart that I was showing you
9 earlier, if you look at some of those columns, there is still even with doing that, some residual
10 risks, and potential threat to people.
11 Yea, you said take it longer.
12 It'll take it longer, but it will occur.
13 I don't think there's anyway to involve more of the public than this because it's just too
14 darn technical, and most people just can't ... I'd like to say that I felt this summary was well
15 written, it's much better than the kind of literature you guys used to put out. It might make it
16 even better to hire a science writer, somebody who writes for popular mechanics, or
17 something. As far as these meetings go, I'd like to suggest that next time you start with the
18 public testimony right off the bat, get it out of the way, so think about that. And I know this
19 is real radical, but I would like to suggest you skip the presentation and just have questions
20 and discussion, and hope that a few of us that will come have already read some of this stuff
21 and are prepared to talk about it.

1 I'd like to point out one thing. Two years ago the U.S. Department of Energy, the
2 Environmental Protection Agency, and the Department of Ecology held 15 meetings in Oregon
3 and Washington, in five cities, three repeats. And in those meetings, about this same subject,
4 actually it went by a worse name of the Tank Waste Remediation System Rebaselining. Each
5 city pulled out between 100 to 150 people for each of the 3 meetings in 5 cities. So it can be
6 done, and DOE and Ecology, and EPA have already done it.
7 I think that cuts to the chase of the questions to why there aren't more people here, at
8 least in my opinion. It's because much of this was done more extensively a few years ago,
9 and those meetings did not have the extent of advertising we did for this.
10 Yea but ... <inaudible> ... and that's what got me involved. I read the article and
11 just got mad myself, you know, and a lot of people come to those meetings because basically
12 they just wanted to yell at you guys, and I don't blame them. But we kind of got past that
13 stage, and now we want to argue with you. So, and talk about this stuff. I think a lot of
14 people were stirred up about it, and came and expressed their feelings. And then after a while
15 they realized how technical this is, and now they don't come anymore.
16 You know a lot of people came to those meetings because an effort is made to make
17 sure that APOE and nonprofit groups get the word out directly to their audiences or
18 constituents, and then do follow up and letters of invitation, and ODOE has done that
19 repeatedly. They have the ability to do it, and have proven they can do it. And when we had
20 the ability to do it with Ecology, a month ago, two months ago, about budget priorities.
21 Imagine a more deadly subject than DOE's budget, we had a hundred people at a meeting in

1 Seattle. And I think the difference is attributed to a wide range of things. The public thinks
2 they went through this two years ago, yes. But the public doesn't know that there's anyone
3 considering throwing out what was agreed to two years ago. If the ad said if you don't speak
4 up now, the TPA baseline for removing waste for the tanks could be ripped up, you might get
5 a hundred people. The assumption from the materials was that no one's considering it, so
6 there were no resources to try to allow people to get that message out, so why would people
7 come to Tank Waste Remediation System.
8 So what could we do to get the message out? I think we would be hard pressed to run
9 an ad allegedly ...
10 No, no, no, I was encouraged when I saw the draft of this ad, because it wasn't the
11 normal 12 point type, 5,000 words in 3 inches. And so that was encouraging. But I think that
12 a lot can be done, and it comes back to that Tri-Party Agreement community relations plan in
13 holding monthly, and bi-monthly meetings to plan this out, and working with, well Energy has
14 to work with Ecology and EPA, and the three agencies have to work with ODOE and the
15 public interest groups who have the ability to get people out. And, each time it's going to be
16 ...
17 The public interest groups in Portland have no money.
18 However, most of the people that came here tonight from the public are here because I
19 told them. And I did that for free because I want to, and I didn't call a hundred people
20 because I don't have time. So that's sort of a point right there, and I'm not trying to just shine

1 my apple here, but I'm just saying that you guys aren't using us, and your not listening to us,
2 point blank.
3 Can I just add too, Paige, we've talked about this. I think it's very clear in the Oregon
4 Department of Energy that we as bureaucrats, that we have got to stop expecting the people in
5 the Northwest to continue to give up their limited amount of free time to come out to public
6 meetings. We've got to make an effort to go to the people, and quit expecting them to come
7 tonight. If my child had a soccer game I wouldn't be here tonight, would you? We've got to
8 quit expecting other people to give up their lives for this when they've got other things going
9 on during the day that we would have access to them, and they could help make these
10 decisions. That's very clear to us.
11 And I have to say, because Mary Lou probably won't say this for herself, the
12 Department of Energy has done this so incredibly successfully this year, I mean the Oregon
13 Department of Energy, and I don't, you know, it's cheap. It's free. Follow their model and
14 use them. You know, and frankly I think that any meeting that we have in Oregon should be
15 totally in the hands, with the financial help of DOE, totally in the hands of the Oregon
16 Department of Energy. You know, and half of us here consult with them, and we work
17 together. And when you get somebody else in the mix that doesn't have their heart in this
18 place, then their not going to do it right. Their going to screw up the communications
19 somehow, and that's what's happened tonight. So my hat off to the Oregon Department of
20 Energy for the efforts they've done in the past, and if they had of been in control of this
21 tonight, I think this would have been different.

1 Your mail materials could be a lot better. Your newsletters and stuff that you send out.
2 Somebody said to me, who's on your mailing list, said to me he just doesn't get it basically.
3 Again, if you could hire some popular science writers to help you know some colorful
4 diagrams and stuff and just put it in real plain English. Because the language that you folks
5 use doesn't communicate real well to the public.
6 If I could make a very brief formal comment. Can I do that at this time?
7 Sure make sure your on the record it's a formal comment, and your Mary Lou Blazac.
8 Okay, this is Mary Lou Blazac, Oregon Department of Energy, and I'm at the Salem
9 office. I had passed out a comment, or a formal comment that I would like to have read into
10 the record. I won't do that now, it would be lengthy. I just like want to say on the record that
11 Governor Kitshopper and the Oregon Department of Energy strongly support the proposed
12 alternative in this Environmental Impact Statement. The retrieval for all the tank waste that
13 are technically possible, up to 99 percent we think is critical that that occur. The need for this
14 undertaking is compelling in our minds. The potential impact to the Columbia River cannot be
15 impacted in this way. The other alternatives under consideration leave most, or all of the
16 waste in the tanks, with the exception of the in situ vitrification, which is an immature and
17 unproven technology. Other alternatives do little to remove the hazards posed by the waste.
18 The major criteria that must be applied to any decision is the protection of public health and
19 safety and the environment. This criteria eliminates all of the alternatives, which leave all or
20 part of the waste in the tanks, except in situ vitrification. The EIS claims a lower risk for in
21 situ vitrification, although it's an immature and unproven technology. Because the in situ

1 vitrification technology is uncertain, we oppose all of the alternatives, which leaves the waste
2 in Hanford tanks. The preferred alternative relies on using proven technology, and using a
3 phased approach. We think a learn as you go approach makes sense, given the history of
4 Hanford. And that should identify problems earlier, and at smaller economic and
5 environmental cost. Although we support the preferred alternative, it will not resolve all the
6 issues related to the high-level waste at Hanford. We believe there will continue to be a need
7 for ongoing monitoring, characterization, and pumping and treating of groundwater
8 contamination caused by waste, which has leaked and migrated from the tanks. We will
9 continue to support fast, speedy, and cost-effective cleanup at Hanford. We believe the
10 preferred alternative is a step in that direction. Thank you.
11 Conversation <inaudible>
12 People want to have more discussion, or go on to formal comments?
13 I'll give my formal comments.
14 I would like to point out that even if we don't have more information discussion
15 tonight, my phone number and Carolyn's phone number is in that information package. Your
16 welcome to call and ask us questions, in fact we'd like to encourage you. We'd like to explain
17 how we approached what's in this EIS.
18 Okay, my name is Paige. These are formal comments for the record. My name is
19 Paige Knight, I'm the Chair of Hanford Watch here in Portland. And I live at 2285 SE
20 Cypress, Portland Oregon, 97214. Hanford Watch supports the phased implementation plan,
21 not because it's so great, but because it gets the waste out of the tanks. It is our conviction

1 that waste must be removed from the tanks and put in a stable form. If this new preferred
2 alternative reaches a point of failure, you must be prepared to turn back immediately to the
3 path outlined in the TPA, and follow the advice given by the Tank Waste Task Force, in the
4 summer and fall of 1993. That advice can be summed up in the words get on with cleanup.
5 The public has stated time and time again that the DOE must get on with it. Hear us. Do not
6 change paths again.

7 One of the proposal alternatives is to take wastes from only from the double-shell tanks
8 which are not yet leaking, vitrify them, and fill the single-shell tanks with sand and in effect
9 walk away. This would possibly push the liquid waste deeper into the ground, hastening the
10 contamination flow to the groundwater, and thus to the Columbia River. Presently, at the T
11 Tank Farm, plutonium has become bound up in chemicals of the tank waste, and is moving
12 rapidly toward groundwater. This is an inkling of what is to come in the next 100 years if the
13 waste is left in the tanks. This is thus, an unacceptable alternative.

14 The alternative of long-term management also is unacceptable because according to the
15 TWRS EIS that document will end in, that management will end in 100 years. This possibility
16 the amount of time previous to the waste plumes becoming a severe health risk to the public
17 and the environment.

18 The in situ alternative is also unreasonable, because again no protection of the
19 groundwater is offered, and security and external control will end in 100 years. And that's
20 when the contamination, theoretically, is going to become a real problem for the health and
21 environment, health of people and environment. Further, the use of riprap basalt is suggested.

1 And we fear that this material will be taken from sites at Hanford, that are sacred to the Indian
2 tribes.

3 In short, any plan to leave this deadly brew of wastes in the tanks is totally
4 unacceptable, and will meet with the resounding opposition from the citizens of the region.
5 Water is sacred, and must be protected at all costs. Hanford Watch is submitting, as part of
6 it's comments on this EIS process, it's comments to the Department of Ecology in February of
7 1996, which iterate the need for true cleanup, as expressed by the Tank Waste Task Force in
8 1993. And the advice of the public and the round of public hearings that followed.

9 Please enter the TWRS Task Force report into this record, as well as the Hanford
10 Advisory Boards advises number 1824 and 32. The DOE must get on with cleanup, quit the
11 delays, and remove the waste from the tanks.

12 Some other little notes that I wrote tonight in the process of all of this is that repository
13 costs must not be included in the total cost of any plan implemented. Cleanup dollars must go
14 first towards stabilizing waste in a quality form that is not water soluble. Repository room
15 must be considered. If Yucca Mountain is ever a viable option, it will only hold a small
16 portion of Hanford waste. So the form of the waste must be not only stable, but retrievable.
17 My reasoning there is that more than likely the waste in any kind of form is going to be sitting
18 at Hanford for at least 40 years, and I would suspect much more than that. If privatization
19 fails, you must start over, do it quickly, but you must do it. The DOE must not have the sole
20 authority to determine failure in this process.

21 Comment <inaudible>

1 Someone want to go before me who's been waiting?

2 <Several minutes of silence at beginning of tape>

3 I'm going to start. For the record, I'm Gerald Pollet, Heart of American Northwest.
4 We are concerned that the Department of Energy falsely inflated the costs of waste removal
5 and glassification options to justify leaving waste in the tanks. We are also concerned that the
6 rate the costs have been presented would erroneously lead policy makers to the conclusion,
7 when combined with the use of erroneous assumptions as to risk, lead to the conclusion that in
8 fact it would be cost affected to leave waste behind.

9 When we look at the order of costs, excuse me, the cost order, as presented in the EIS
10 of the alternatives, which involve removing the waste from the tanks, the first alternative with
11 lowest cost is the Ex Situ In Situ Combination with a total cost estimate range of 23 to 28
12 billion dollars. The second least expensive is extensive separation, with a cost range of 27 to
13 36 billion dollars. Third is Intermediate Separation, 30 to 41 billion. Fourth is Phased
14 Intermediate Separation, the preferred alternative, 32 to 42 billion. And then, hold on to your
15 wallets, the No Separation alternative is 69 to 252.6 billion dollars. Unfortunately these costs
16 have been totally manipulated by adding in the cost of a hypothetical charge by the Department
17 of Energy to itself, for depositing high-level waste in a hypothetical repository that is a decade
18 behind schedule, and which, the only the thing that is not hypothetical, in which the
19 Department admits will never have sufficient capacity to store this waste.

20 So why is this presented in the cost estimates, especially in the presentation in terms of
21 high-level summary cost estimates, other than to skew the appearances. If we remove the

1 astonishing 211 billion dollars in hypothetical costs, which the Department of Energy would
2 charge itself for placing hypothetical waste in a hypothetical repository, that will
3 hypothetically be completed a decade or too behind schedule, and which doesn't have capacity
4 to take the waste, even if you were to hypothetically send it. If we remove the 211 billion
5 dollars, and remove all consideration of repository costs from the mix, we get some very
6 interesting policy results. All of a sudden, although the Ex Situ In Situ Combination, in other
7 words, leave the waste partially behind, is still the cheapest. It is only the cheapest by the
8 barest of margins.

9 The extensive separation, which Westinghouse and the Department of Energy at
10 Richland have favored repeatedly, despite advice to the contrary, goes from second place to
11 fourth place. In fact, the extensive separation option goes from what would be first in terms
12 of total retrieval options, to number 4th, and goes from having a 5 to 6 billion dollar cost
13 advantage over the TPA preferred alternative, to having a 5 to 6 billion dollar cost
14 disadvantage over the TPA. In other words, if I'm a Washington D.C. decision maker, I look
15 at this and say, you mean if we could just do extensive separations, I can save 5 to 6 billion
16 dollars over that ridiculous thing that was forced down my throat by the Department of
17 Ecology for Tank Waste Remediation for the preferred alternative. Well yes, our cost
18 estimates are 5 to 6 billion dollars cheaper if we can just build a hugely expensive extensive
19 separations plant with untried technology. In fact, the decision makers will not know that that
20 cost advantage not only evaporates, but turns into a cost disadvantage of 5 to 6 billion dollars
21 if we get rid of the hypothetical repository charge.

1 In fact the No Separation alternative goes from a quarter trillion dollars, 252 billion
2 dollars, down to a price range that is comparable to all the other alternatives. And what is
3 interesting is it has the least technical question. And the EIS is based, in terms of these costs,
4 costs include a 30 to 50 percent capital cost contingency. This is pretty bazaar. We're
5 spending tens of millions of dollars on research development design phased approach. Is this a
6 signal?
7 Let me know if ...
8 Thank you. We are spending tens of millions of dollars on design, which ought to
9 drive down contingencies. Thirty to fifty percent contingency is the way Hanford has done
10 business with capital construction projects in the past. It is sinful. It is not going to be able to
11 continue. If we eliminate, and we use different factors for contingency, take a look at the fact
12 that a No Separation alternative means you build one plant with the simplest technology,
13 vitrification. You vitrify everything. You don't try to separate. You just vitrify. You do not
14 have to build a multi-billion dollar separation plant. You do not have to build separate low-
15 activity and high-activity vitrification plants. You could, and this EIS fails to consider the
16 alternative which was eliminated earlier in this process, of having a very very simple
17 separation of low activity and high activity, in terms of which melter waste is directed too, at
18 the front-end of such a plant. If we look at the cost issue alone, the no separation option
19 actually drives down into the cost range, and perhaps will compare more favorably than the Ex
20 Situ In Situ Combination even.

1 The cost assumptions, as with all other assumptions, are critical. Building in 30 to 50
2 percent contingencies for one set of options is not acceptable for this type of policy decision
3 making. And we can't afford to continue with 30 to 50 percent contingencies for capital costs
4 at Hanford.
5 The Tank Waste Task Force, convened by the Department of Energy, U.S. EPA, and
6 Washington Department of Ecology, urged that the Department of Energy abandon making
7 decision making on the basis of high-level nuclear waste canisters, and their theoretical costs
8 for being placed into a repository. Our advice was, now I need to turn to the appropriate
9 page, on page 11 of the Task Force Report under Values, under Waste Form and Storage. Let
10 the ultimate best form for the waste drive decisions, not the size or timing of the national
11 repository. This EIS has failed to consider that advice. More importantly is the next bullet in
12 our advice. Accept the fact that interim storage at least, at least, of the waste in an
13 environmentally safe form will occur for some time at Hanford. Select a waste form that will
14 ensure safe interim storage of this waste. The message was, Hanford is going to be the home
15 for the high-level nuclear waste. Select the best form, and don't even put into the mix the
16 theoretical cost of the repository, which the Department will charge itself, nor the theoretical
17 capacity of it, because it doesn't have the capacity to handle it anyway, under any scenario
18 here. We request that this advice be addressed, and placed in the front of this EIS. And it be
19 addressed in the summary and throughout. We request that the repository costs be relegated to
20 an appendix, and the total cost summaries be redone to show the total cost without the
21 theoretical hypothetical self-dealing charge for replacing waste in the repository. When that is

1 done, we should examine carefully the no separation versus the extensive separation scenarios.
2 And we should see how much we pay for unproven technology under extensive separation,
3 versus no separation and intermediate separation.
4 I'd also like to submit for the record relevant pages from the United States General
5 Accounting Office report of 1989 regarding tank leaks. And I hope that we have captured the
6 dialog sufficiently from this evening for the record, so the record will reflect our concerns
7 about the use of any assumption as to the travel time for tank leaks to groundwater. We
8 believe that tank leaks to groundwater travel time in this EIS should be based on the
9 assumption that it takes 25 years or less for tank leaks to reach groundwater. And that the
10 entire vadose zone, not just the tank itself, needs to be looked at as part of integrated system in
11 this EIS.
12 There is one other area of risks that we would like to spend another piece of paper on,
13 and that has to do with explosion risks. We believe that the assumptions used are erroneous,
14 and the Department of Energy had more than ample time to incorporate additional data about
15 the risk of explosions in far more tanks than that are on the Watchlist today. The Wyden
16 Safety Watchlist Law requires the listing of tanks that have the potential for uncontrolled
17 release of fission products, i.e., an explosion. We know that the Department has been sitting
18 for months and months on a recommendation that 25, in other words twice as many tanks,
19 have the potential to explode. That greatly changes the risk assumptions used and the
20 presentation of data in the EIS.

1 The bottom line is throughout this EIS that the policy makers will view an extremely
2 skewed cost versus risk and benefit analyses in this EIS if they look at it today. And
3 everything in the EIS is driven currently towards saying let's leave it behind. The risks aren't
4 so high. Risk of explosion aren't so high. The risk of fatal cancers aren't so high from
5 leaving it behind. The costs are so much lower than retrieval. When in fact the risks are so
6 much higher from leaving it behind, or any delay, and the costs are actually similar for
7 retrieving, as they are for leaving it behind.
8 I have two minor points that I wish to say. One is, I think that in this EIS something
9 unique was done that is very valuable, and we'd like to thank Ecology and U.S. DOE for
10 including these visualizations of the risks in these risk isoplath maps for the first time. It
11 allows the public to see that if in fact you take a look at leaving waste behind, along the
12 Columbia River, the risk of fatal cancer at a glance you can see there are areas that have
13 extremely high risks of fatal cancer. I think this is, it's an innovation to not just present data
14 in tables, but to present this as a map where you can visualize what the risks are for different
15 locations.
16 Secondly, lastly, we are concerned that the joint state U.S. DOE EIS effort was a noble
17 effort at saving costs and streamlining. And we feel that DOE, U.S. DOE, excuse me, has
18 jeopardized the success of this experiment. Jeopardized it by failing to provide all relevant
19 access, all data, excuse me, data access for all relevant data to its partner in this EIS. The
20 Department of Energy has been sitting on data about tank leaks. It has been sitting on data
21 and has known that it has evidence about additional types of wastes, radionuclides, not just

1 cesium that have moved from tanks. It hasn't shared that data, and seems to be sitting on that
2 data in such a manner as to try to prevent it from coming out during the public hearing and
3 comment period on this EIS. That would be extremely bad faith. It has to release that data,
4 and maybe even do a supplemental mailing to the public, and share it immediately with its
5 partner if it expects to ever be able to go ahead and do a joint EIS again. And we're very
6 concerned that Ecology can't be a full partner in an EIS when it's co-partner has control over
7 all the data, and attempts to sit on it and evade public disclosure. Thank you.
8 Thank you. Thank you, Mr. Pollet. Just for the record, you referred to some written
9 documents that you were going to provide, do you want to provide those now, or ...
10 Yes.
11 ... providing those in a separate session. Okay, if you'll provide them now, I'll make
12 sure they get into the record of this proceeding. Now let me see, we had some other
13 individuals who had signed up to make comments. I think some of these people have spoken
14 already, but let me go through the list. Robin Klein?
15 Ms. Klein, if you would please go ahead and give us your name and address ...
16 I'm just going, forgive me, I'm just going to read it because I'm tired and it's late. I'm
17 Robin Klein. I'm with Hanford Action of Oregon. Most of what is being in the TWRS Draft
18 EIS is not new. The DOE's preferred alternative is Phased Implementation, and I'm not going
19 to comment on the merits nor the problems associated with the technologies for waste
20 treatment and disposal that are under consideration and presented here in this EIS, this Draft
21 EIS. Except to say that the No Action alternatives, including Long-Term Management, are

1 unacceptable options. They are not within the range of reasonable alternatives as the Draft
2 EIS states, but are imprudent, hazardous, and in violation of the TPA. While it is true that a
3 clearly proven, good solution does not exist, it is also true that the liquid wastes must not
4 remain in these tanks. The leaking tanks are the greatest source of waste contaminations to the
5 soils. Contaminated waste originating from the tanks are moving toward groundwater.
6 Groundwater contaminated with Hanford pollutants already in the soils is now in
7 communication with the Columbia River. Cleaning up waste once in the soils will take heroic
8 efforts. Once they get into the river, the long-lived contaminants are practically irretrievable.
9 The single most affective measure we can take to protect the river in the long run is to stop the
10 driving force that enables rapid migration of the wastes offsite, get the waste out of the leaking
11 tanks soon. So it is important to have an aggressive plan in place.
12 In the mean time we're calling for funding to develop real solutions. Not just for
13 Hanford tank wastes, but to address soundly the global problem of disposing of dangerous
14 radioactive materials worldwide. At the same time we're being asked to comment on TWRS.
15 I'm going on a slight tangent here on purpose. We're also being asked to comment on the
16 PEIS for disposition of weapons usable fissile materials nation wide. There we are faced with
17 the ominous alternative, possibility of processing the worlds stores and reactors, with the
18 likelihood that this could occur at Hanford. I hope that in parallel, with comments on what to
19 do with the tank wastes, we don't lose sight of the pressure mounting to fire up reactors once
20 again along the Columbia River. This is a non-solution to a problem, for which there is no
21 good solution. Maybe if just a fraction of the dollars that were spent on developing those

1 horrific weapons were spent on coming up with a permanent real solution, funding those great
2 minds at the labs in Los Alamos Sandia, we'd probably stand a chance, and I believe we
3 would. After all, that stuff's going to be around a while one way or another. But don't revive
4 a failing nuclear industry at the price of health and safety of our futures.
5 At the same time, we must act aggressively and do what we can now to prevent further
6 calamity and contamination. Also, the Draft EIS considers these hypothetical users over the
7 next 10,000 years. It is ludicrous to consider such bearing uses, or to consider controls or
8 restrictions for use of soil, groundwater, whatever, so many years hence. Therefore we have
9 a responsibility, an obligation to clean up the site to the fullest extent possible, and as
10 aggressively as we can to reduce spread and impact of the contaminants.
11 For the record, the anticipated numbers of cancers and fatalities in the Draft EIS that
12 would result from various scenarios and alternatives are a subject of scientific and political
13 controversy in and of themselves, and should not be taken as absolute in this Draft EIS, but
14 rather as relative measures.
15 It is important that a plan be implemented immediately to retrieve the tank wastes. Oh,
16 and on behalf of a number of individuals here, we'd also like to know what your going to do
17 with these comments, and what the response mechanisms will be. How will you be
18 responding to our comments?
19 They are responding through a comment response document when the Final EIS is
20 published.
21 In writing?

1 In writing.

2 Great. Thank you.

3 Every comment that went on the microphone tonight will responded to in writing. And

4 every written comment submitted will be responded to in writing. We'll make an effort to

5 capture the dialog from the discussions also.

6 Thank you very much.

7 I believe Paige Knight has already made her presentation, is that correct? Okay. This

8 is Mr. ...

9 I could say more, but I won't.

10 Okay, this is Mr. Ross Tewksbury here?

11 My name is Ross Tewksbury, and it's P.O. Box 25594 Portland. And I, first I want to

12 say that it's good that your having a meeting here in Portland, and I want to encourage you to

13 keep having them here regarding each issue as it comes up, and not just in Seattle and Tri-

14 Cities. And I also want to say I hope you don't have any more video meetings. And as I was

15 saying earlier, if you want more people here there's lots of things that you can do, as opposed

16 to doing just the legal bare minimum. You can try and have an article in the paper, rather

17 than just ads. You can have an ad in the paper every day for two weeks in a row, you know,

18 prior to the meeting. You can have announcements on the radio stations and TV, especially

19 OPB and KBOL. And send letters to everybody on the mailing list to arrive just a few days

20 before the meeting. And there's other stuff too, but that's.

1 Now, one of the problem that Hanford has had over the years, which seems to be
2 setting back in here with the problems with the budget and the Congress, is that it's doing
3 things on the cheap, or only taking halfway measures, and it winds up being far more
4 expensive in the long run. And the whole history of Hanford is one of the worst examples of
5 this type of thing.
6 Now, many of the assumptions and the estimates are faulty or erroneous because of the
7 facts that you know nobody knows just exactly what's in the tanks, and nobody knows just
8 how much the tanks have leaked, and nobody knows where the leaks have gone, or how far,
9 and nobody knows where to put the high-level waste once it even comes to some final
10 condition, and where it can be put permanently. And there's apparently there's so much stuff
11 that's leaking, with the tanks, and the cribs, and the power plants, everything, that you don't
12 even know where it's coming from, as you have said tonight. So with all the things that
13 nobody really knows, then it's really hard to come up with exact costs and estimates and
14 assumptions.
15 So as some of the previous speakers were saying, I really, it really upsets me if you
16 come up with some of these standard things that you know the costs and things are really low,
17 that the danger from them is really low or nonexistent when nobody really knows anyway.
18 And I think that they should do the extensive waste retrieval and vitrify all, or nearly all of it,
19 and whether it's stored on the site, or off the site is not really the major thing. The major
20 thing is to get it in a form where it's not able to leak out into the groundwater and soil and the
21 river, and everything else, and to do that as fast and as safely as possible. And I think that

1 you should not really be concentrating on this waste separation idea that you were going over
2 tonight, except what's absolutely necessary for the technical, chemical, and safety purposes.
3 Because all of it has to be taken care of for hundreds, if not thousands of years. Thank you.
4 Thank you very much Mr. Tewksbury. That completes the pre-signup speakers that
5 we had. Is there anyone in the audience that would like to make a comment for the record?
6 Yes sir, if you'd come forward to the microphone and give us your name and mailing address.
7 Make your statement for the record.
8 I'm Lynn Porter, I'm a member of Hanford Watch. I live in Portland, 5625 SE
9 Gladstone #2, 97206. I guess I support the preferred alternative because it sounds better than
10 the others. I have a lot of questions that I wish we could have gotten into tonight, I felt like
11 there wasn't enough time for discussion. There's an article in the Oregonian Sunday March
12 17th, that raised a whole lot of questions. This was a large article beginning on the front page
13 quoting a panel of scientists from the National Research Council, whoever that is, I probably
14 should know, but I don't. And they're saying just leave the stuff in the tanks. They quote
15 some DOE engineers saying yes we can do it. And one of the points that puzzled me was
16 they're saying in this article, the National Research Council says that before you can sluice out
17 these tanks you have to seal the ground underneath them. I didn't find anything about that in
18 the summary of the Draft EIS, except for the in situ vitrification option. So I don't know
19 where this comes from, but their point seems to be that if your going to have to seal the
20 ground anyway, you might as well leave the stuff in the tanks. That's something I would have
21 like to of heard discussed.

1 I think the problem is that this kind of thing keeps coming up. And so of course we
2 wonder where's it coming from. There seems to be a lot of energy behind this idea we'll just
3 leave the stuff in the tanks and put it cap on it and walk away. I'm glad to hear that isn't the
4 feeling at the top. But since it keeps coming up in such volume, we wonder what's going on,
5 like is this a trial balloon. If it is, I'd like to shoot it down. I just think leaving the stuff in
6 the tanks is a completely unacceptable alternative. And I wish someone would take this idea
7 out and bury it and drive a stake through it's heart.
8 Okay, I would like to see Casey Ruud's research into the waste migrating through the
9 soil towards the groundwater, I'd like to see that fully funded. As I said earlier, I would be
10 really upset and angry if DOE fires Casey Ruud, because I think we really need him out there.
11 One of my concerns about the preferred alternative and privatization is who decides
12 when it's a success or not. Is this strictly going to be the DOE deciding, or will the Tri-
13 Parties together decide on this? And there need to be enough milestones in this, spaced
14 closely enough together that the public interest groups can track this and know whether it's
15 succeeding or failing, whether it's on track where it should be. Because otherwise this could
16 go on for years, and all of a sudden, as it has before, all of a sudden we find out hey it's not
17 working and we have to start over.
18 Okay, let's see. I guess that pretty much covers it. Thank you.
19 Thank you very much for those comments. Is there anyone else in the audience that
20 would like to make comments on the Draft Environmental Impact Statement? Okay, then at
21 this time like to indicate for the record that I have received a copy of a letter from Phillip

1 Schwartz Jr. M.D. with the Dallas Clinic to Miss Mary Lou Blazac of the Oregon Department
2 of Energy to be included as written comment received at this public hearing. The Dallas
3 clinic. Yes.
4 And I have received from Mr. Pollet three pages to be inserted for the record. Their
5 double-sided, okay six pages, you're correct. Thank you very much.
6 Question <inaudible>
7 It will be included because you referenced 18, 24, and 32. Also, Mary Lou has
8 already inputted it as well.
9 And I have just received a three-page letter from Hanford Watch which will be
10 included for the record. I previously had received a copy of the Oregon Testimony on the
11 Draft Environmental Impact Statement for the Tank Waste Remediation System by Mary Lou
12 Blazac.
13 And if there are no further public comments, or parties interested in making public
14 comment on the Draft EIS at this point in time, I will formally close the public comment
15 portion of this meeting. I want to thank all of you for attending. I hope that this has been an
16 opportunity for you to participate in more informal manner than we might have done
17 otherwise. I want to remind everyone, of course, that the public comment process on the
18 Draft Environmental Impact Statement continues, and that's literature out at the desk in the
19 lobby, providing the names and addresses to which you can send additional comments. Those
20 comments should be post-marked by May 28, 1996, to be fully considered.
21 Thank you very much for attending, and this public hearing is now adjourned.